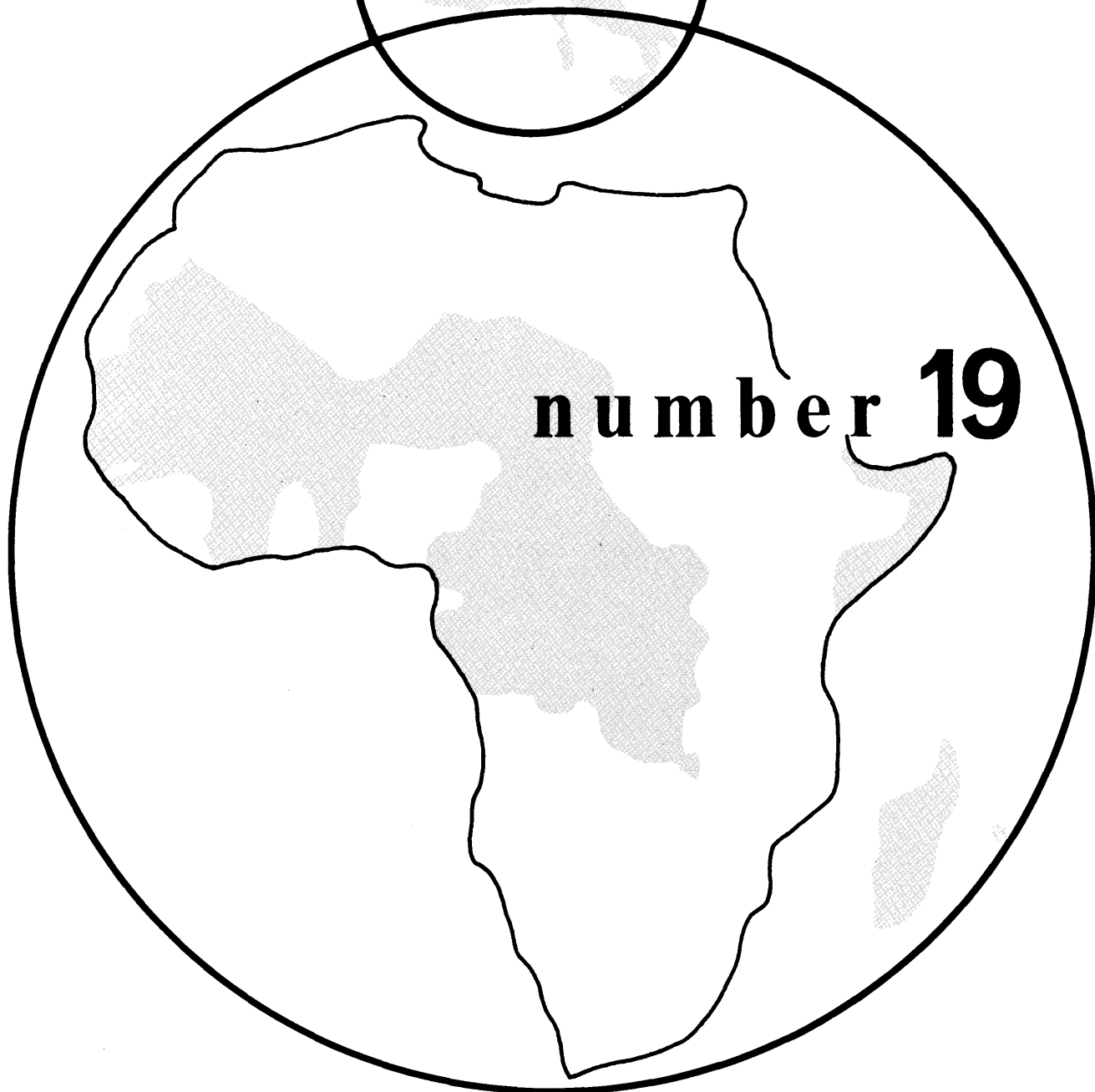


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ASSOCIATION NEWS

May-June 1973







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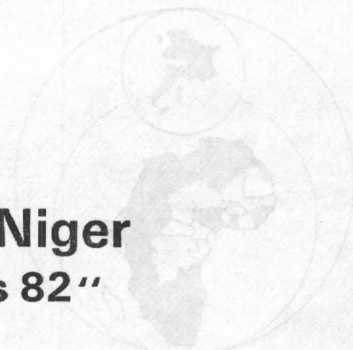
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Speech of His Exc. Hamani Diori, President of the Republic of Niger on the presentation of "orientations 82"



Your Excellencies,
Ladies,
and Gentlemen,

In 1964 we worked out and put forward the Ten Year Prospect to cover the period 1965-74. I would now invite you, as we foreshadowed at that time, to pause for a moments reflection before we launch the Niger nation into the second stage of its development.

Twelve years ago our country became independent; and independence, as you know, is exacting in the responsibilities it brings. It is exacting, because it means that the nation belongs to the people who belong to it. It is they who must seek deeply for the ways and means by which the institutions of the State shall be established, create and consolidate the nation, promote its development and ensure the prosperity of its population.

Thus it was that, on the morrow of our independence we had to draw up a list of our potentialities and start work on setting up the first instalment of our economic and social infrastructure. This was the object of the interim three year plan; and this plan enabled us to secure a picture of Niger, seen in the light of long-term action.

In 1964 this action was given concrete form in the document Ten Year Prospect 1965-74. This was a projection of the picture of the State, the nation and the citizen of Niger in the background of 1974, seen in the light of three great beacons:

- National Unity;
- Rising standards of living for the great mass of the people;
- Economic independence through inter-dependence.

The three beacons are still burning. We are confirmed, too, in giving priority to satisfying the primary needs, individual and collective, of human beings:

- to be **fed** ;
- to be decently **housed and clothed** ;
- to be **in good health** ;
- to have access to **culture and education** ;
- to have a **steady job**.

These indications were contained in the speech I made on February 5, 1964. They are still as valid as ever.



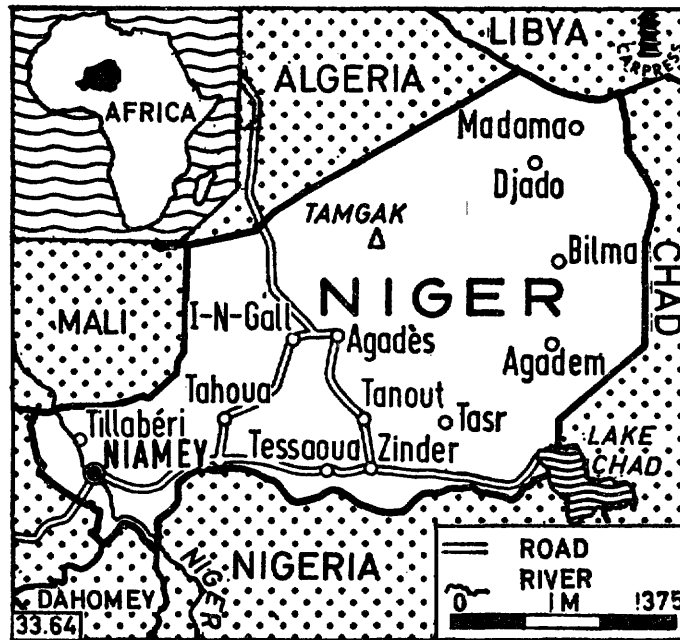
Since 1964 the State of Niger has acquired its structure. The nation of Niger is taking shape, the citizen of Niger has undergone a change. The Niger citizen is you, is all of us; but above all, it is the peasant, the cattle-farmer, the craftsman. In short, the Niger citizen is the dweller in the countryside and the bush, who constitutes the great majority of our population.

This population is now with us; but is hat come to put forward its demands, and it is right to do so. The action which we are going to undertake in this new decade of our development, must make use of the availability of this population by democratic teaching and education, by producing more and distributing it better, and thus responding to these demands.

Our ten year's experience in planning and programming must now be submitted to an objective assessment of our techniques in the matter; and the lessons we can learn from it should give us the greater assurance in our future action.

This future action will be determined by the orientations for the 1982 horizon, which it is for you to propose to the government.

As I said in my message to the nation on the occasion of the twelfth anniversary of our independence on August 2 last, we must no treat our orientation as a project for Utopia; for the modest scale of our means and our resources precludes any waste, and it is an expensive matter to mistake our direction, or to change our programme. Moreover, our choices cannot be inconsequential, for they commit the future.



The task is to define the broad lines of policy in the different sectors, and to work out special policies. When this is done, choices must be made; but these choices must be well thought out, on the basis of an analysis of the characteristics of our country and of our economic system.

The essential features of the long-term orientations are to be found in my speech of February 5, 1964 as amended in my message to the nation on August 2 last.

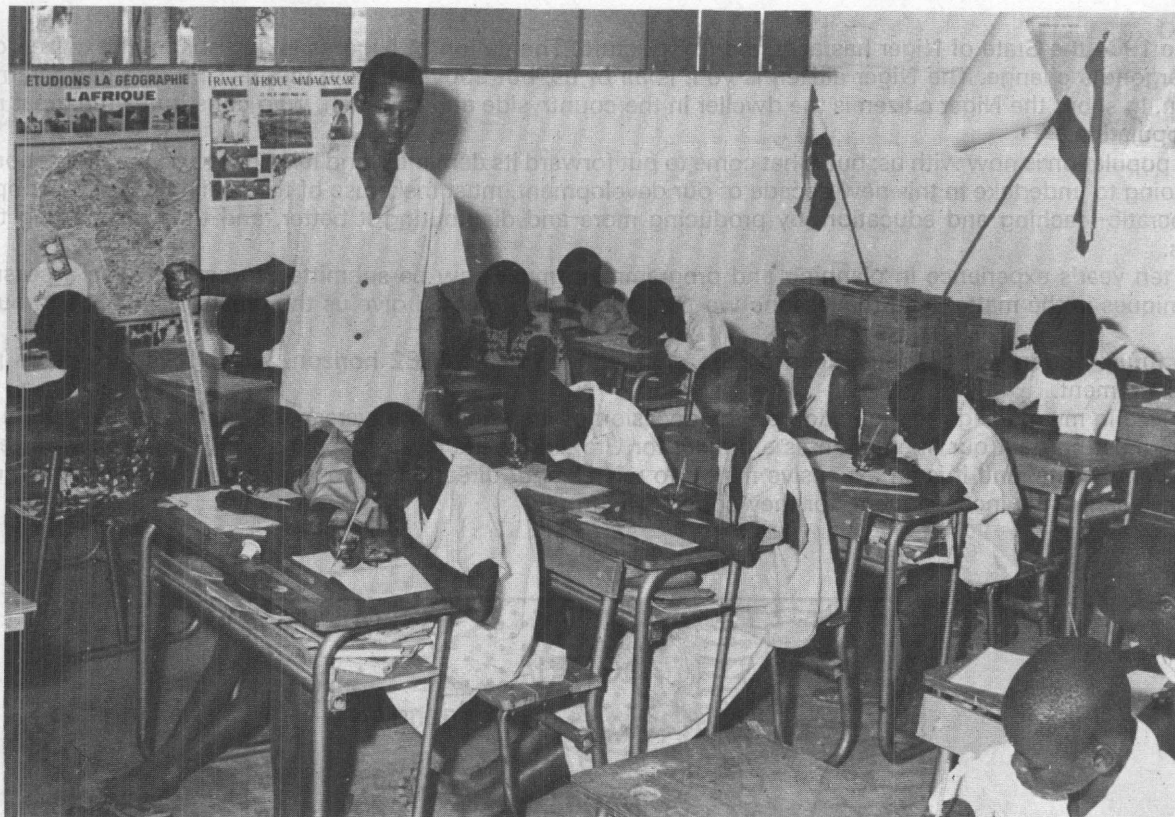
The first priority in Orientations 1982 must be the development of the rural world, and especially the means and methods for bringing it into full bloom.

In agriculture, the accent will have to be put on food production.

There are two new facts which dictate that a very high priority be given to the development of this production:

1. For the past four years Niger has had a deficit in food production;
2. Millet has become an industrial material, from which exportable food products can be manufactured.

The deficit in food production in recent years has, as you know, grown persistently worse. It is easy enough in such circumstances to look for a scapegoat, and blame the arid climate. This is just burying our head in the sand; for often indeed, we gloss over the deeper causes which are less easy to face. These causes lie in a lack of imagination, in exploring and exploiting rationally what can be done with our existing tools, with traditional irrigation systems, with natural fertilizers and with reforestation; and they lie, also, in a certain outworn conception of providence.



The Niger Republic attaches great importance to primary education.

You must, indeed we all must, break away from this untoward way of looking at things. The state, of course, must help all those for whom it is responsible, and more especially the peasantry. But in no case can the State take over entirely from the individual. Its task rather, is to serve as an efficient catalyst, stimulating the powers and liberating the creative capacities of our people. These capacities must be turned to account throughout the year, twelve months in every twelve, in every area capable of producing—in the dunelands by intensifying large-scale productivity operations; in the Dollols and the Goulbis, Maggia and Koramas, on the banks of the Niger, the Komadougou and Lake Chad, by the development of rice cultivation, market gardening and citrus-growing.

The priority given to subsistence crops, of course, does not mean that the export crops must be abandoned. Those which already exist must be maintained in proportions adjusted to the growth of internal and external markets. At the same time there must be continued work on diversifying the crops, wherever this may be necessary, as in Irhazer, Talak and Kaouar. The accent which is being put on subsistence crops makes it possible for this diversification to go ahead at a minimum cost in men and material.

It is a good thing to produce; it is better to produce and sell. Production is in itself a token of growth; but growth is not development. The latter implies not only growth, but transformation of structures and a desirable minimum of fair redistribution of income. In a development which is avowedly democratic, this redistribution is a matter of capital importance. Its tendency must be to reduce the gaps between the living standards of city life and rural life, between the development of the cities and that of the countryside, to set up a system of equalisation between the naturally prosperous and the naturally poor areas, and so to secure a minimum of regional equilibrium.

It must be one of your continuing tasks to seek out the machinery for this redistribution. My survey would be incomplete if, in my references to the rural world, I said nothing about stock-farming. Our herds suffered from the drought of 1968, and must be built up and made larger. To this end you will have to seek methods for their reconstitution and rational operation. The government, meantime, will be doing all it can to find new markets outside the country.

All this action on behalf of the rural world must have its institutional framework. The basic element of the frame is the village, which must again be assigned its part as the fundamental cell. This means that the village must not be considered as a simple group of people, but as a living body well organised and well informed. This is a new idea which I put forward in my most recent message to the nation on August 2 last: "Our desire is to take such action that, within the shortest possible time, each village community will have permanently at its disposal the services of a literate person whose functions will be simple but manifold—written communications, keeping the population register and the records of the local cooperative, and similar tasks. Such an agent will in some sort, embody the reality of

the village and should contribute to its prosperity and its self-realisation. The village, indeed, is the earliest expression of that greater reality which is the nation itself. For Niger consists not only of Niamey, Tahoua, Maradi, Zinder, Agadez, but also of nine thousand villages where men struggle and suffer in the bush.

These nine thousand villages are claiming their right to a better life, to recognition, to an open door towards the modern world; and they are right. Their children claim they should no longer be forgotten elements in the depths of the bush, and they are right. It is for this reason that, in this new decade which lies ahead, our effort will be directed towards a completely democratic system of education.

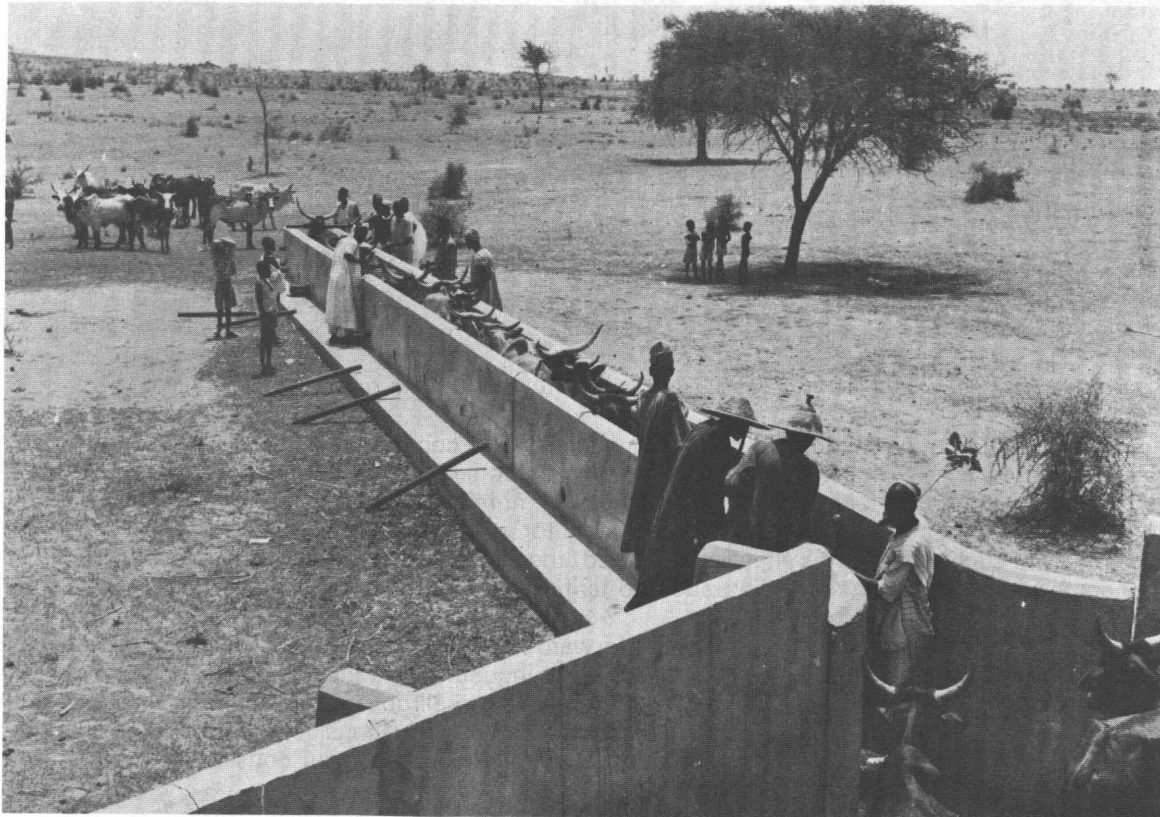
It is our firm hope that, within three years, by using modern techniques, every child throughout the territory of the nation, and far away into the most remote part of the bush, will be able to learn to read, write and count in his or her own language. They will thus have a doorway into the modern world, while they will also be taught the essential elements which will enable them to improve their condition in pastoral or peasant life.

On the industrial side, the accent during the past decade has been put mainly on infrastructure projects. Most of these, admittedly, are not directly productive, but they condition the viability of the activities which are. Today this infrastructure is expanding. Some factories are beginning to cross over their profitability threshold. Most of the industries, however, produce only for the purpose of replacing imported goods; and we are well aware that the scope of import-substitution is only limited. We must now seek to develop industries linked with our agriculture, stock-raising and mines, with a view to exports primarily to African countries and, as the opportunity arises, to other continents. In this field, however, we need to be cautious; for, if we rely unduly on external markets, over which we have no control, we run the risk of perpetuating the extroversion of our economy, which has been the source of the deterioration in our terms of trade.

There is one activity which may be mentioned here. This is the development of the tourist industry. In this second decade of development, the tourist trade, combined with the development of our craft industries, may be a source of foreign currency. This is the more true for the fact that, just at the time when the Europeans have reached the final point in polluting their environment, Africa, according to the recent dictum of a European statesman, has the privilege of possessing two rare resources—space and tranquility. We must make the best of them.

Another factor is the so-called tertiary sector, by which I mean services and commerce, the importance of which as an aspect of development is appreciated by everybody.

Unfortunately, even though this is a sector which does not need much in the way of special arrangements, we must admit that the citizens of Niger are nowhere. Now, at a time when almost all the newly independent countries are talking of the promotion of the national business community, our compatriots must be in a position to find their



*Vaccination
centre at
Sansanné-
Haoussa.*

place in the system on the same footing as the foreigners, and set in motion a process of accumulation, without which none of the development can be more than artificial. I shall ask you to make a serious analysis of this paradox, and put forward pertinent suggestions to guide the government. The latter will make it its duty to help our traders and our small and medium undertakings as required. I want it to be clear to everybody, however, that this is not a matter of falsifying the run of the market in favour of our compatriots, nor yet of acting to the detriment of those from other countries who are already installed. It is simply a question of using this sector to nurture the growth of our economy.

I should like to end with a brief survey of the relationships we should have during the next ten years, on the one hand with our sister countries in Africa, and on the other, with the rest of the world.

One of the three great beacons in the ten-year prospect for 1965-74, was economic independence in inter-dependence. At the present moment Europe is bent on following economic union with monetary and political union; the developed countries are setting up multi-national companies to operate across the inter-continental barriers; and the inter-dependence of national economies has become a necessity, even if it be between countries with different social-economic systems. At such a time it is the imperative duty of our country to be among the leaders in seeking effective means of cooperation between African countries, initially on a sub-regional basis, but later at the level of the entire continent.

One aspect of this cooperation might be Niger's participation in redressing the food balance of the coastal countries which are structurally short of animal and vegetable proteins. It is this which makes it necessary to have surpluses of subsistence crops.



Hydro-agricultural scheme in the Niger valley: transplanting the rice.

Just as the rational organisation of our national economy must needs be a condition sine qua non for cooperation with the other African countries, so also must this close intra-African cooperation prepare us for entry into a new phase of cooperation with the more developed countries. I would say nothing to detract from the aid given us by countries which are our friends, and upon which we must still depend for an appreciable time; but, in the last analysis, it is our belief that the future of such a country as Niger and, indeed, the future of the African States, can only lie in Africa itself. The monetary and fiscal aspects and the trade and tariff aspects of this co-operation will have to be carefully examined.

I have given you a brief survey of the matters I would pass forward for your consideration. It is for your capacity for reflection, for your wealth of imagination and for the scope of your ingenuity to translate them into action.

It is your privilege to propose to the government the orientations which shall govern the future of our 4 500 000 inhabitants for the coming decade. The counterpart of the privilege must be your well-considered action, your assiduity throughout the work in committee which will lead you to put forward the results of your consideration within the required time. This is work to which I attach a very high price.

Long live Niger!

Reflections on a conference

Representatives of twenty developing countries which are exporters of cotton, met in Brussels September 18-27, 1972. In these ten days they took part in a conference on sales promotion for cotton.

They were brought together by the U.N.C.T.A.D./G.A.T.T. Center for International Trade (C.I.T.) with the support of the International Cotton Institute and the Belgian National Cotton Institute. The conference was the first of its kind to be organised by C.I.T. It was in line with the intention of helping developing countries which produce and export cotton to gain a better knowledge of the cotton market and the cotton marketing techniques, and thus to increase their exports. For these countries the value of their cotton exports is one of the principal items in their export trade.



Opening session of the conference in Brussels

European News

Well known specialists in every aspect of the cotton trade contributed to the talks and discussion groups. This enabled those attending the conference to make a study of many aspects, including the present trends in the cotton market; the main factors in competition between different fibres; the development of consumers' tastes, and the

consequences for cotton producers and the cotton industry. Other aspects also came under discussion, including the current research work on quality improvement for cotton; marketing techniques at all levels; how to set on foot a marketing policy; and plans for promotion campaigns.

The countries represented at the conference were: Brazil, Colombia, El Salvador, Greece, Guatemala, India, Iran, Mexico, Nicaragua, **Nigeria**, **Uganda**, Pakistan, Peru, the Arab Republic of Egypt, Sudan, Syria, **Tanzania**, **Chad**, Turkey and **Zaire**.

Also represented at the conference were other United Nations organisations, the assignments of which include helping developing countries which are producers and exporters of cotton to make it a more competitive product in world markets. Others taking part in the work were national and international experts in the cotton industry and the cotton trade, textile research organisations, the international Federation of the cotton and connected textile industries and the international consultative Committee for cotton.

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From the very beginning of the conference the specific problem of cotton production came into prominence: — owing to the considerable manpower required for cotton production (about 50% by value of the product), the industry is of first importance in the fight against unemployment in the developing countries. — competition from synthetic and artificial fibres has set up an entirely new situation, with which the existing cotton industry, old-established and very disperse, is finding it very difficult to deal.

Mr. Julian Rodriguez Adams, President of the International Cotton Institute, strongly underlined the importance of cotton-growing:

"Cotton is grown in more than 70 countries", he said, "of which, all except the United States are developing countries. This season's crop covers about 81.5 million acres of the earth's surface, from which it is estimated there will be a record crop of 56 million bales of cotton. This contributes to the reduction of the massive scale of unemployment, for it requires more labour than most of the other crops. It is estimated that, in cotton production, the **manpower accounts for about 50% of the value of the product**, which compares with about 10% for most of the cereal crops. Though there are no statistics on this point, the total number of people whose livelihood depends on the growing and processing of cotton, **may well be more than 100 million**."

It is often thought that cotton, which is grown as a source of foreign currency, is cultivated only for the sake of the fibre; but this belief does not allow for the increased importance of cotton by-products as a source of food production. Cotton contains a chemical known as gossypol, which is injurious both to animals and to human beings; and the elimination of this from the flour of cotton-seed gives cotton new potentialities as a cheap source of concentrated protein. Other products of cotton-seed, such as cooking and salad oil, flours, cattle feed and fertilizers, substantially enhance the value of the crop. In 1970, the total value of cotton fibre produced in developing countries was estimated at \$4.3 billion, and that of the cotton-seed at \$1.3 billion.

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* *

Moreover, this is not all. In our estimate of the importance of cotton for the less developed countries, we must allow, also, for the added value resulting from the increased investment in the production of cotton textiles. Bringing all these items into account, cotton is second only to petroleum oil as a **source of foreign currency for the Third World**. It is estimated that the volume of foreign currency, accruing to these countries in 1970 from the sale of cotton, amounted to about \$3.2 billion".

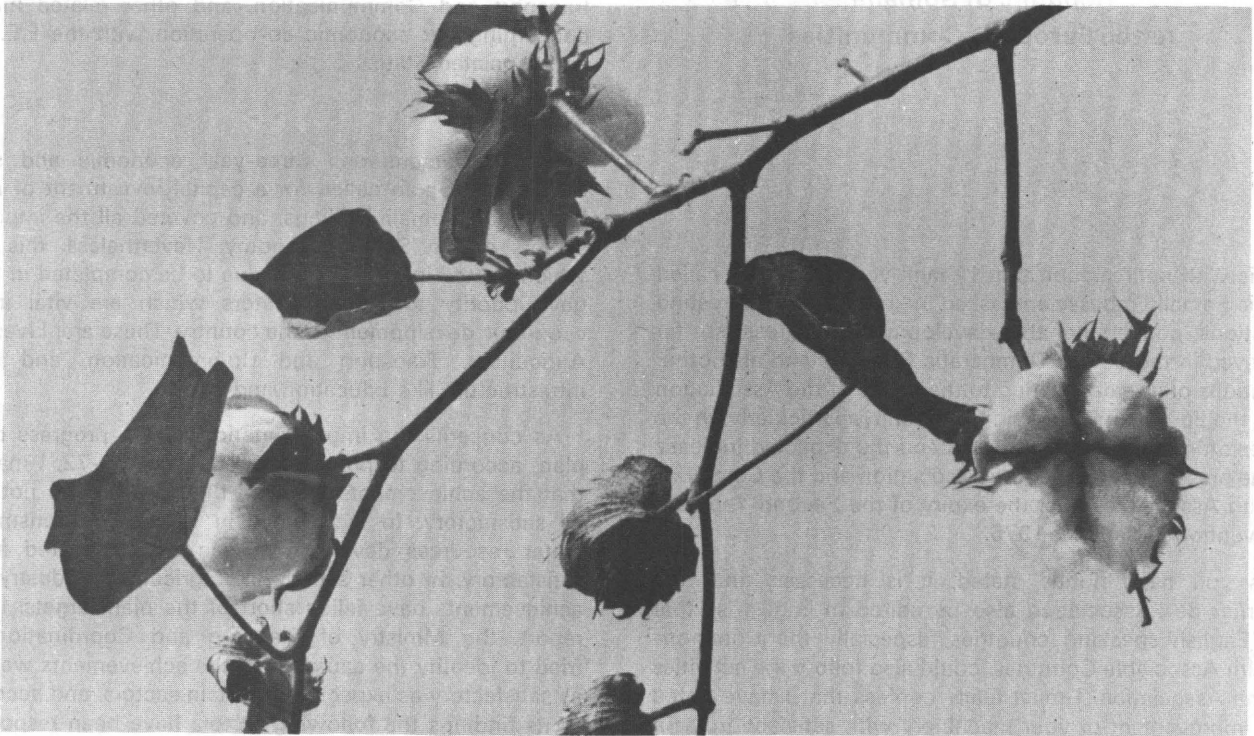
It is nevertheless a fact that, for the past twenty years, the importance of cotton in the world textile markets has been gradually declining. Though the world demand for textiles has doubled in 20 years, the share of the cotton market has consistently declined from 58% in 1950 to 50% in 1970; and in the more developed countries this proportion is now around 40%. This declining share of cotton is due to the expanding demand for synthetic fibres, largely because their prices are becoming lower and lower as the effects of competition, and the economies of scale, are increasingly felt. In addition, as was pointed out by Mr. J.C. Santley, executive director of the International Cotton Consultative Committee, there is only one cotton crop each year, and the production depends in the last resort on many factors, including some which are outside human control. The synthetic fibre industries, on the other hand, can go on turning out their uniform product day after day, and they are not worried by any need to hold big stocks.

"Chemical fibres have made big inroads into the traditional markets for cotton, either replacing it completely (as for certain industrial uses) or partially (as in the mixtures used for the clothing industry and other domestic uses). It is no longer true to say, as people once thought, that materials made with synthetic fibre could never replace cotton in hot climates; nor is it true to argue that there is no danger of chemical fibre industries being set up in a developing country, because the expansion of that country's economy is based essentially on cotton. It is, in fact, in the developing countries that the biggest proportionate profits have been made from synthetic products in the most recent period. It is also true that, once a market in whatever country has been lost to the chemical fibres, it is found very difficult to get it back. At the present time, synthetic fibres are to be found everywhere; but the strength of cotton lies in the fact that it is always thought to be necessary, that it is desired, and even preferred, by millions of people the world over."

The fact, nevertheless, remains that there are many people who fear that the use of cotton will one day be limited to the markets in the countries which produce it. This would rob them of an important source of foreign currency. For example, the export of cotton fibres represents about 80% of the exports from Chad and 60% of those from the Sudan. There is, in the last resort, a risk that further progress in synthetic fibres may cut off some of the developing countries from international trade.

President Adams argues that cotton should cope with these difficulties by putting up a fight against synthetic fibres, based on the special qualities of cotton itself, the progress already made in research and the improvement in promotion and marketing, especially since the International Cotton Institute was formed in 1966. Various improvements have been proposed relating, particularly, to new methods of cultivation and processing to improve the productivity of the labour used, coupled with continued promotion campaigns and a guarantee certificate.

Ultimately all the measures taken will be effective only if they result in the satisfaction of a number of conditions which were fully summarised at the conference in September 1972. On the one hand there must be more forceful campaigns in research and in promotion; and on the other supplies must be adequate and certain, alike in quality and variety and in the different lengths of fibre required. Finally, and most important of all, prices must be such as to compete with those of synthetic fibres. Subject, but only subject, to these conditions, the future of cotton—which is a major economic and social problem for many developing countries—will be assured.



Naud

The E. D. F.:

**one of the most reliable
and stable sources
of financemnt
of foreign origin**

interview with

H. E. Mohamed Omar GIAMA,

**Ambassador to Benelux
of democratic Republic of Somalia,**

**Representative of democratic
Republic of Somalia
to the European Communities**



It is with appreciation that I thank you for having called at this Somali Embassy and asked me once again interesting questions concerning the development progress so far achieved in the Somali Democratic Republic and also other questions of interest relating to the future of the Association with the European Economic Community, particularly on the adhesion of new Member States and the expected increase of the present strength of the Association and the Commonwealth Associates after the expiry of the Second Yaoundé Convention in January 1975.

As you have rightly stated, it is necessary that the *Courrier de l'Association* also be edited in English so that the English speaking countries, especially the Commonwealth Associate Countries, could also follow the activities of the Association. I must really confess that I have noted this improvement of your machinery with satisfaction, as it is a token of the progress of the Association Mail.

I recall that in my previous article which was published in no 5 of your review, I pointed out that a new development program for 1971-73 was being elaborated. It is therefore, with appreciation that your readers be informed of the developments made in the Somali Democratic Republic, particularly in the field of livestock, agriculture, industry and transport and Communication, and other related matters concerning our economic co-operation with the E.E.C. as an Associated State.

..

The abovementioned three-year economic and social development plan called for a capital investment of about one billion Somali Shillings, and covered all the important sectors of the Somali economy. Nevertheless, this plan, which started in 1971, and is due to be completed in 1973, gave priority to certain sectors which are vital in the economic development of the country. These are: Livestock, Agriculture, Transport and Communication, and social infrastructure like Education and Health.

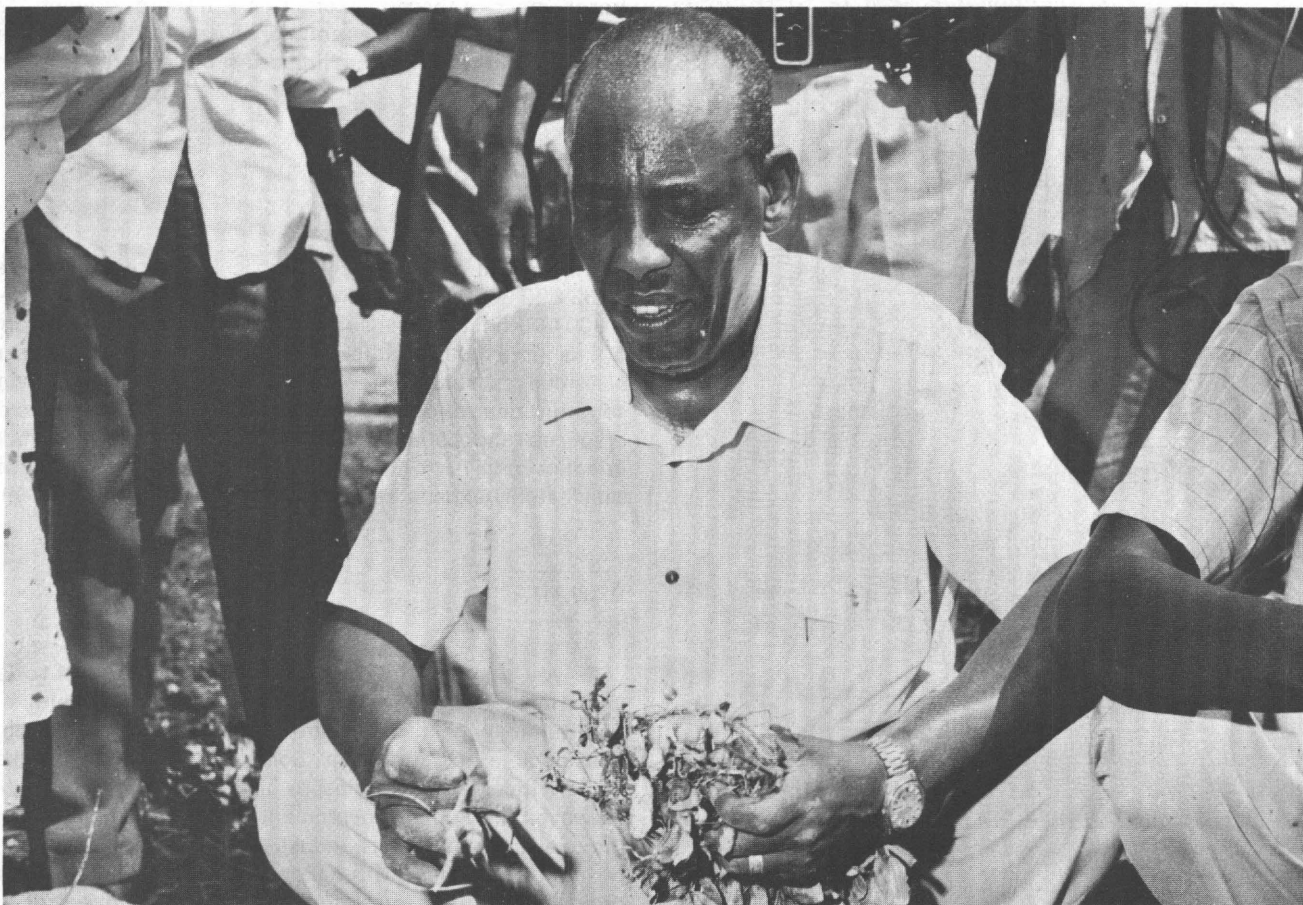
As concerns the implementation of the progress of the plan, according to progress reports of 1971-72, I may say that the achievements made in this regard have not been all satisfactory. In fact, while in Livestock, tourism, and water resources development can be considered almost satisfactory, in other sectors like agriculture, industry, etc., achievements have fallen short of the plan targets. In this report, the Ministry of Planning and Coordination had tried to identify the causes why the achievements were not as satisfactory as expected in certain sectors, and according to its findings the following factors have been responsible for the short fall:

1. At the time when the plan was launched, a number of undertakings were in the form of project ideas, and were still not transformed into concrete projects. This factor is considered very important, because there is a tremendous time lag between the time when the project is conceived, and the execution stage. Therefore, the final feasibility studies of some of the major projects included in the plan are still to be completed. This represented the major cause of the short falls of the achievements in some sectors.
2. The financing of the three year Development plan was to come to a great extent from foreign sources, and since

3. Like most of the under-developed countries, Somalia suffers shortage of qualified personnel to handle economic projects of certain magnitude in their various phases.

These can be considered the three major causes of the abovementioned short-falls of the achievements in the first two of the three year Development Program.

However, the Government has gained experience from the abovementioned factors that caused shortcomings in certain projects, and presently, corrections have been made in project study preparation, definition of physical targets



President Saalle Mohammed Barre takes personally a great interest to agricultural production

at the time the plan was launched, the required financing was not secured, it took quite a long time to complete the necessary process required to obtain the needed financial means either through bilateral or multilateral sources, where delays are un-avoidable due to lengthy negotiations.

at the stage of project formulation and availability of qualified personnel for the implementation and management of projects. Furthermore, the required funds for the execution of the Development Plan have been secured, both from internal and external sources, and accordingly, the allocation in the development budget for 1973, is expected to reach

the anticipated planned outlay during the period of the program.

As you may be aware, the President of the Somali Democratic Republic, Major General Mohamed Siad Barre, has declared the intention of establishing a socialist state, and accordingly, the government has set the task of adopting new trends in economic organisation and function. The significantly major ones among these which are expected to re-inforce the capacity of the country for planned economic development are the following:



LIVESTOCK

As you know, the livestock sector is the most important one in the economy of Somalia, as it accounts for 80% of the country's foreign earnings, and occupies about that number of the population in employment. The livestock population of the Somali Democratic Republic has been estimated at about 22 million heads, comprising cattle, camels, sheep and goats. It is therefore obvious that any development plan in Somalia should give highest priority to this vital sector of the country's economy, and therefore, about 28.5% of the total three-year development investment

has been allocated to this sector. Among the major capital investments envisaged, by the plan, are the European Development Fund contribution of about U.A. 6.5 million, the I.B.R.D. amounting to about U.S. \$12.5 million, and a considerable amount of investment through mobilisation of national resources. Presently, the major portion of Somalia export in this field consists of live animals, and to a lesser extent, canned meat processed by the Kismayu meat factory, and the Mogadishu meat factory, both of which have a processing capacity of 60 000 heads per year. In addition to this, the country has recently started to enter into the field of exporting frozen meat, and is planning to establish the necessary basic facilities to permit it to export frozen meat even to European markets, where are still enforced out-dated regulations which put restrictions on the import of African frozen meat to these markets. Lastly, it must be mentioned that Somalia exports hides and skins for which the processing facilities to transform it into finished products are still at the initial stage.

AGRICULTURE

The Somali Democratic Republic has a total land area of 63 800 000 hectares, and of this vast area, one-eighth—8 000 000 hectares—is suitable for cultivation. Of this, only 5% is under cultivation. The amount of land at present classified as suitable for cultivation is used for growing sorghum, maize, cotton and vegetables, under rained crop practices, and banana, sugar cane and other crops under irrigation, while tobacco and rice growing have been satisfactorily experimented with under an irrigation scheme.

BANANA

As you rightly pointed out, banana represents today the major export item in the agricultural field, but unfortunately this important product has been facing considerable difficulties in Somalia's traditional market, namely Italy, since the closure of the Suez Canal in 1967. However, the Somali Government has been trying to correct the weaknesses of this industry, in order to put it in a position to compete with bananas of other origin. This was done in two ways, namely, to improve all phases of the product from the production, until it reaches the consumer market. This process includes modernization of production methods, in-land transport system, and loading methods, and finally the sea-transport means, for which the establishment of Somalia's shipping line has been decided upon already. In fact, for this, and for livestock export, and for Somalia's general export-import needs, a shipping line agency was created last year, and is about to start the purchase of the ships required to satisfy the above-mentioned needs of the country.

However, we feel that the Community in a way adopted in the past, steps which proved to be detrimental to banana

trade with the Associated States in general, and with Somalia in particular, when the Community asked officially and with insistence, the Italian Government to abolish whatever preferential treatment Italy was according to Somali banana, without, at the same time, envisaging corrective measures to off-set the negative consequences which were to drive undoubtedly to Somalia's main agricultural export from its decision. Nevertheless, we are confident that the Community has already realised the mistakes and damages caused to Somali banana industry, and we hope that the necessary remedies should be taken by the Community in the near future.

In conclusion, and as far as banana industry is concerned, all Somalia is requesting and expecting to be achieved is that the problems connected with the commercialisation of this product which represents the second in importance in our balance of trade and the first in our trade with the Community, will find within the Association satisfactory solutions to meet the country's needs in this field till the opening of the Suez Canal.

SUGAR

Another major agricultural product which represents today **the most important agro-industrial activity** in the Somali Democratic Republic is sugar cane. In fact, Somalia has a sugar factory which produces about 50 000 tons per annum, and was expected, when its capacity was increased, from 12 000 tons to 50 000 tons per year, to satisfy the domestic sugar requirements of the country. But the country has experienced un-expected rate of increase in sugar consumption, which forced the government to import additional 30 000 tons in 1972, to meet the needs of the population. This exceptional increase in sugar consumption requirements which is expected to continue in the coming years, has convinced the Revolutionary Government to consider the possibility of establishing another sugar factory within annual production capacity of at least 100 000 tons and the feasibility study of this project is in an advanced stage. Besides, the present sugar factory has already started to produce a number of by-products, i.e. Liquor, Rum, Gin, Whisky and perfumes.

COTTON

As concerns cotton production, in the past, and up to 1954-55, Somalia used to be one of the producers of cotton, but unfortunately, since then this valuable agricultural product has been losing importance in the agricultural production of the country. Actually, it was only after the establishment of the Balad textile factory, that the Government had decided to re-encourage the production of cotton to at least satisfy the raw material requirements of the factory, which was established as a joint venture between Somalia and the Federal Republic of Germany. Domestic cotton production is still below the requirement of this factory,

but all the necessary steps are being taken by the Government to reach a self-sufficient stage and later to devote additional substantial efforts to the production of long stable cotton for export mainly.

GRAPE-FRUIT

Another agricultural product for export which is expected to replace or at least to assume the same importance as banana, is grape fruit. Up to now, this product has never received the necessary encouragement, although it has been under active study for some years. However, with the intervention of the European Development Fund, the Somali Government has planned to set up at least three grape fruit farms of about 500 hectares each. The first phase of this plant has already been put into execution with the creation of a nursery which will supply two year old plants to the above-mentioned farms. The second phase, that of setting up the actual farms, is in the process of finalisation, and it is hoped that the three farms will go into operation in a few years time. This product is considered to be potentially the most important of Somalia's export products, because of the fact that Somali's grape fruit is termed to be qualitatively the best in the world.

MINERALS

Since you asked me to make a statement on the present stage of mineral resources exploration, I must state that from the date of my previous article on the matter, to the present, the competent Ministry has increased considerably its efforts to evaluate, qualitatively and quantitatively, the mineral resources of the country. While all explorations are conducted by foreign private companies from France, the Federal Republic of Germany, and the United States of America, and they are very hopeful about the availability of oil in Somalia, the exploration of minerals, i.e.: uranium, bigmatite-quartz veins and other minerals, black sands, tin and a host of other minerals are being carried out through U.N.D.P./Somalia Government joint project under the supervision of the Ministry of Mineral and Underground Water Resources. Among the findings of this project, a mention should be made of the uranium deposits which have been found in Upper Juba and Mudug regions, and both deposits are considered to be in commercial quantity, although the final evaluation of the deposits in the Mudug area, and their exploitation are still under process.

WATER

There is a water shortage problem, and the Revolutionary Government, being aware of this, made an effort to solve it, so that the people and the animals could have enough water, and the fact that the Government has allocated 12 % of the three year development budget is a proof that the item has been given utmost priority. According to the progress report issued by the Ministry of Planning and Coordination, on the

1971-72 plan outlay, over 80% of the targets have been reached. In addition, the Government expects to increase the country's efforts to further develop this field.

TRANSPORT AND COMMUNICATION

One of the major obstacles to the economic and social development of Somalia, has been, and still remains, the lack of efficient transport and communication systems. In order to tackle this problem, the Government has allocated about 35.3% of the total development budget for 1971-73. Achievements in this field during the period of 1971-72, have been estimated very low due to the intrinsic difficult nature of the projects involved, like roads, harbour, airports, and telecommunication, coupled with the length of the process of negotiations between Somalia and potential financiers. However, all the major projects envisaged in the plan, which have not been so far initiated, are expected to enter into the execution in this current year. These projects include Baladwein-Buroa road, Mogadiscio Harbour, Arara-Giamama road, while the execution of telecommunication, Kisimayo Airport, Hargeisa-Berbera road started in 1972. Besides, there are several other operations in this field which the Government has undertaken through the well-known Crash Program, by which the country through mobilisation of its resources, human and material, have made considerable achievements.

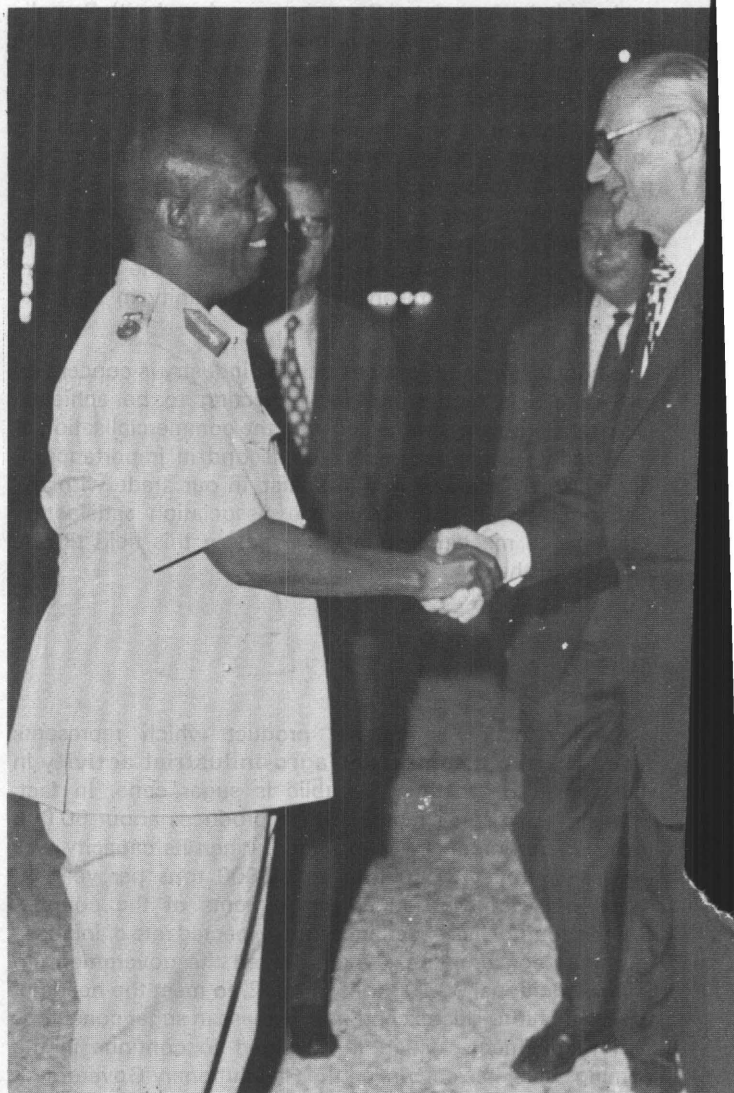
INDUSTRY

The Somali Government is aware that its industrialisation capacity is limited, due to lack of external economy, and limited domestic market, and it is because of this, the authorities do not intend to initiate wrong steps. In this sector, industrialization policy is based on the promotion of agro-industries, for which the raw materials are available locally. This is followed by the establishment of export oriented and import substitute industries. Here, the Somali Government has devoted 8.8% of the total plan development outlay for 1971-73. It is expected that the percentage of development allocated to this sector will increase substantially.

The growth of industries in the country is considered to have not been repaid since independence, for obvious reasons, and the main objective of the short-term development program of 1971-73 is based on the assumption of the state's central role in the industrialisation of the country, the consolidating of existing public sector industry, the establishment of import substituting industry, and of industries possessing products to facilitate the expansion of the private sector. This has been partially realised since the revolution.

SOMALI/EUROPEAN ECONOMIC COMMUNITY CO-OPERATION

The Somali/E.E.C. cooperation has been found instrumental as the **European Development Fund** played an



Mr. Hans-Broder Krohn, Director general for development and cooperation, speaking with the S.R.C's President, Mr. Saalle Mohamed Barre, April the 9th 1972, in Mogadiscio.

important role in the socio-economic development of the country. In the field of infrastructure, the E.D.F. financed a number of important projects such as the Mogadiscio port, roads, telecommunication network system, and contributed significantly to the development of economically viable and productive projects mostly in the field of livestock and agriculture. Similarly, it is hoped that quite a number of other important projects will also be executed before the expiry of the Third Fund.

In the light of the cooperation existing between the S.D.R. and the Community, it is obvious that the E.D.F. is one of the most reliable and stable sources of financment of foreign origin. However, I must state that cooperation and understanding between Somalia and the E.E.C. has

proved to be more of a friendship, than mere cooperation. In fact, this mutual understanding has been already manifested in the visits paid by some key authorities of the Community to the Somali Democratic Republic for the last three years, and with the consolidation of the friendly relations presently existing, it is hoped that these bonds will further strengthen in the future. By this exchange of ideas through personal contacts, we are aiming to make known Somalia to the Community on one hand, and the Community to the Somali public opinion on the other.

With regard to the enlargement of the Community, the Somali Democratic Republic's Government has noted with satisfaction, the agreements reached between the Community and the new Member States on the policy to be adopted by the enlarged Community towards the Associated States and the Commonwealth Associate countries when the Second Yaoundé Convention expires. The Somali Government is of the expressed opinion that, on the enlargement of the Association, the present level of the European Development Fund be substantially increased for the old partners of the Associated States in an effort to keep up an equilibrium of balanced development between the Associate countries and the present Association. On one hand, we have noted with appreciation the Community policy to safeguard the achievements and interests of the present Associated States,

and on the other, to take into account, the interests of the new Associates—Commonwealth developing countries.

With regard to the future of the Association, Somalia believes that the Association and its machinery for cooperation must in future, drive their "raison d'être" from a body of mutual commitments extending beyond the sole area of financial and tariff preferences, so as to create a broad community of interests between the European and African partners on the basis of mutual development and equality. In this sphere of cooperation, new funds should be added to the European Development Fund, so that the assistance hitherto given to the A.A.M.S. will not only be maintained, but also augmented and that the new Associated States will also benefit from the appropriate effort by the enlarged Community. On many occasions, the Community promised to safeguard the interests of the original Associated States on the entry of the new Associate States and therefore, Somalia highly welcomes the idea of enlarging the Association for policy reasons, as this will also be considered as an asset to inter-African economic cooperation as well as consolidating relations between Africa and Europe.

As regards the working machinery and provisions of the present Convention, Somalia feels that there are many improvements and therefore, amendments, to be made to it when negotiations for its renewal start.



Cotton

Three thousand years before the Christian era, cotton was already being grown in China; and more than ten centuries before the birth of Christ, it was being produced spun and woven in India. It is thus one of the oldest foundations of the clothing of mankind, and it is still one of the most widely used, whether we go east or west, south or north.

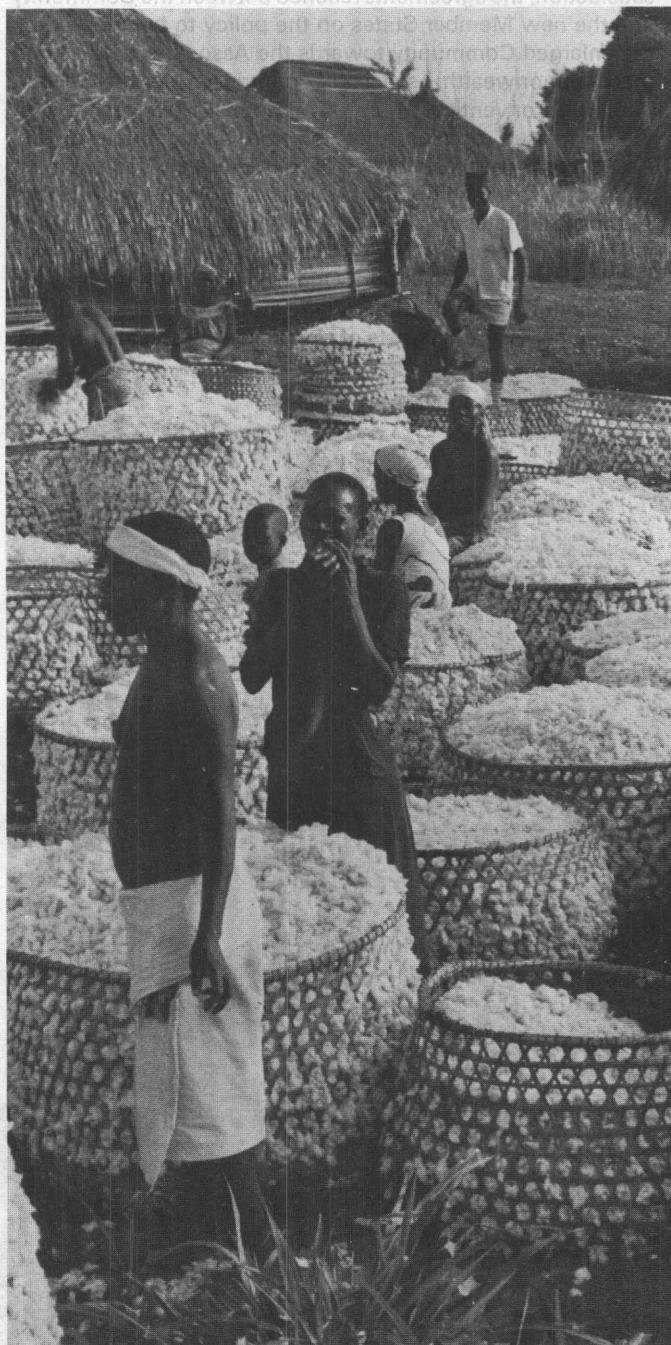
Early in the 18th century the cotton plant was cultivated in Virginia, and not long afterwards in the Antilles. With the mechanisation of spinning, the growing of cotton spread irresistibly and became a must in all those parts of the world where the climate is hot.

At present the growing of cotton is largely concentrated in four countries — U.S.A.: 19% of world production; U.S.S.R.: 19%; mainland China: 12%; India: 10%. Since cotton is a pluriannual plant which is cultivated annually, production of the fibre is directly influenced by weather conditions for the crop and the state of prices; and its general growth tendency is marked by a certain alternation of seasonal rises and falls.

Recent tendencies

In the years 1968 and 1969, though there was an increase in the planted area, a sudden decrease in the yield occurred in several of the chief producing countries. In the United States the growing area was up by 9%, but production was down by 9%; and in the U.S.S.R. the area was unchanged, but production fell by 4%. In these countries, however, there was a marked recovery in the following year's crop. The renewed expansion, however, was more than offset by smaller production in developing countries, especially those in Latin-America; and it therefore did not prevent a fall in world production in 1969-70 and again in 1970-71.

In 1971-72, however, production rose to a new record. Further increases in U.S.S.R. and U.S.A. were supplemented with bigger crops in most of the developing countries, where an increase in the cultivated area was induced by the higher prices.



I. — A product which is always topical

by M. Grumbach and S. Macchia

The A.A.M.S. account for about 2% of the world's production. The chief exporter is Chad, where production has varied considerably from year to year. The record crop was in 1968-69; but it was 22% below this in 1969-70; 31% below it in 1970-71 and 26% in 1971-72. The latest figures of the total production in the A.A.M.S. are 5% higher than in 1968-69, largely because more cotton has been produced in Dahomey, Mali, Zaïre, Senegal and Upper Volta.

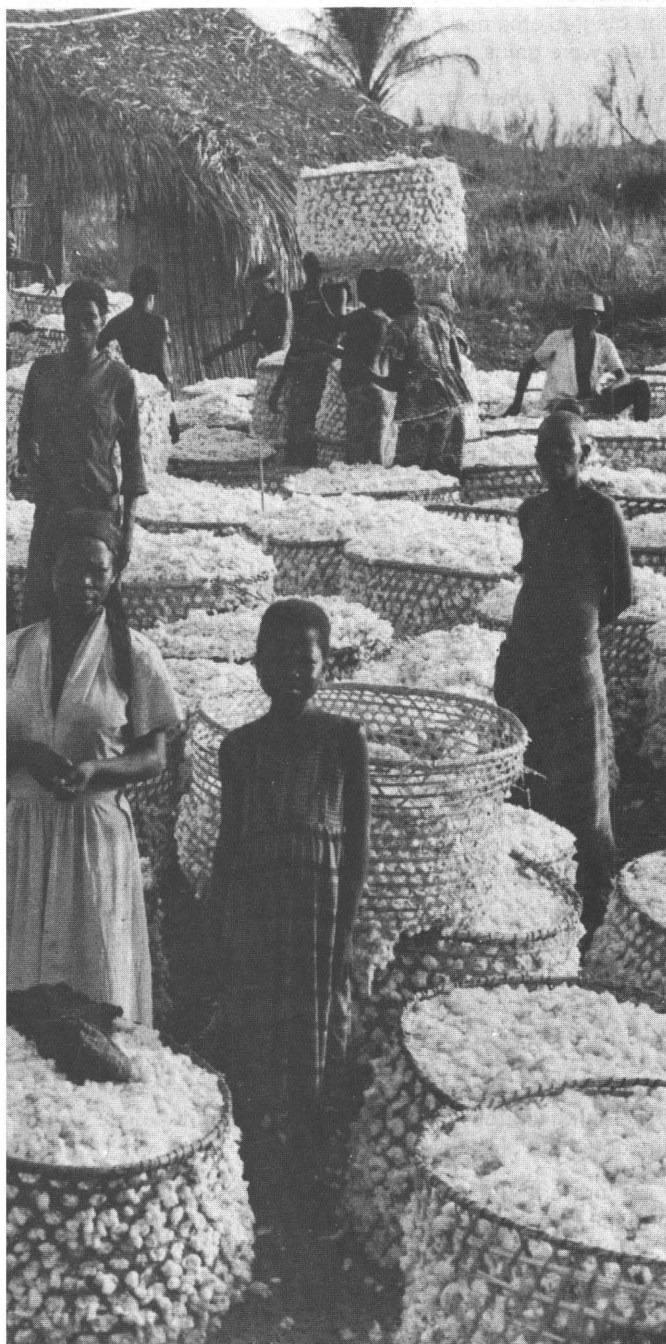
In the metropolitan countries of the E.E.C. a very limited quantity of cotton is grown in Southern Italy. The product is not listed in Annexe 2 of the Treaty of Rome, so that there is no provision for an organised market; but support has been given to producers of cotton-seed, which ranks as one of the oil-bearing materials.

The world's consumption of cotton is growing only slowly, at a rate of 2% per annum. In 1972 a growth in consumption in socialist countries more than offset the decline in Western Europe, so that world production did not fall, but grew by 2% compared with 1% in 1971, and 1% also in 1970. Consumption has now run ahead of production for two consecutive years, and the balance has been covered from the world's stocks.

The cotton stocks in the United States are, for practical purposes, a regulating factor in the whole of the world's cotton economy. It should be emphasized that the total world stocks were reduced by 6% between 1969 and 1970, and again by 12% between 1970 and 1971. It is estimated, however, that they increased by 5% between 1971 and 1972.

The foe most to be feared in the marketing of cotton production is always the artificial fibre. Producers of rayon, acetate and non-cellulose fibres have been in a position to raise quantities available to a level more or less equal to that of cotton. There is still a great deal to be done in the way of research and propaganda if this growing menace is to be successfully countered. It is most important for cotton that its prices should be competitive, and that buyers should be able to find the grades they want and the lengths of fibre they may specify.

The poor supply of cotton in 1971 sent the prices up, thus reducing the profits of the cotton textile industries, more especially in the first stage of the processing. This is one of the reasons which led to the closing down of several mills, though these, it may be noted, are in the process of a change in their localisation from the industrial countries to the less developed regions of the world. Their welcome there is the warmer for the fact that this beginning of industrialisation contributes to the supply of local markets.



Naud

Though the higher prices led, on the short term, to bigger export receipts both for the raw product and for cotton textiles, these conditions have led to accelerated substitution of artificial fibres the prices of which have fallen, under the influence of competition and the considerable excess capacity of petrochemical and artificial fibre producers.

In this sector, too, the ill-considered expansion outran the demand, so that capacity has been under-utilised, projected expansion programmes have been slowed down and the prices of important synthetic fibres, such as the polyesters, have fallen below the price of cotton.

On the other hand, the cause of cotton is being promoted by research and propaganda campaigns, and also by the trends of fashion. There are many countries in which cotton fabrics have definitely widened their scope, cotton twills and velvets are still extremely popular, and so are the traditional cotton fabrics, because consumers cling to the looks of the natural product and prefer the touch of it, so that it enjoys a high prestige in top-grade tailoring.

If there is an increase in the demand for fibres in general—resulting from a recovery in the rate of economic expansion in most industrial countries (U.S.A. and, more recently, Europe and Japan) coupled with somewhat brisker activity in the developing countries—this may have an appreciable influence on cotton, but only provided its competitive position is maintained.

This fresh growth in the production of the natural fibre may imply, on the medium term, a certain decline in prices and a worthwhile increase in the trade.

The combined effect of all these elements suggests that, in present conditions, cotton could take advantage of satisfactory opportunities for securing wider markets.

The chief factors operating

PRODUCTION

In 1970-71 the world cotton crop was slightly below that of the previous year, with a vigorous growth in production in U.S.S.R. and a slight increase in U.S.A., which did not offset the considerable decline in developing countries (among which Latin-American production fell 18%) and in the other more developed countries. The price subsidies paid in the U.S.S.R. were raised at the beginning of the 1969 season, but the extension in the growing area, which resulted from this, did not have its full effect on production until 1970. It resulted in the U.S.S.R. becoming the biggest cotton producer in the world, and this is still the case. Moreover, the 2% increase in the United States was largely due to a higher yield compared with the abnormally low yield in the two previous seasons. Production in mainland China, which is the world's third largest producer, was maintained at the high level which had been reached in 1969-70.

It was thus after two years of decline that the world cotton crop for 1971-72 reached the unprecedented level of 12 million tons, or some 10% more than in 1970-71. A large part of this increase comes from the developing countries, which had had poor crops in the previous year. In the U.S.S.R. too, all the cotton plantations are now irrigated, and in the U.S.A. the growing area expanded under the influence of the higher cost prices, so that the 1971-72 crop also showed an increase in the world's two largest producing countries.

The 13% increase in cotton production in developing countries resulted mainly from the bigger area under this crop as a result of the rise in prices. In Latin America, there was a considerable expansion, as also in Mexico and Brazil, where the planted area had been reduced considerably in 1970-71. There were gains, too, in the production in India.

In Africa, where the 1970-71 production had been 11% lower than in the previous year, it is estimated that 1971-72 showed a 5% improvement on the lower figure, despite the fact that the fall in Cameroon, Nigeria and Uganda had not been made good.

The production of long-staple cotton (between 1,1/8" and 1,3/8") which had shown a 16% fall in 1960-70, recovered in 1970-71 and continued the improvement in 1971-72 through an increase in the United States. The production of extra-long staple (over 1,3/8") shows a regular increase. Over the whole field it looks as though, despite the excess of world production over consumption in 1971-72, it would take only a small increase in world consumption to absorb a large part of the increased supply.

EXPORTS

World exports of cotton represent 33% of world production. It is to be noted, too, that the world's four biggest producers contribute only a small part of the world trade in cotton.

1971-72 season (1 000 t)		
	Production	Exports
U.S.A.	2 279	737.1
State-trading countries	3 926	628.8
of which: U.S.S.R.	2 385	628.8
Mainland China	1 518	—
India	1 214	39.0

The world market for cotton is mainly supplied by developing countries, more especially Latin-America, and the countries of the Near East.

At present the prospects for the export trade depend basically on changes in production.

The present increase in production can result in only a small addition to stocks which (except for the socialist countries) had shown a marked fall in the previous season.



Bringing in the cotton crop to the cooperative (Chad).

Fiévet

IMPORTS

Japan and the Six-nation European Community are the chief importers of cotton, each taking about the same quantity. The European Community of Nine, of course, is the biggest of the world's importers. Japan and the Nine-nation E.E.C. together, absorb a little less than half the world imports of cotton. The total imports are growing at a rate which seems to be flattening out, with a 6% growth in 1969-70 by comparison with the previous year, a 2% increase in 1970-71 and only 0.4% in 1971-72.

CUSTOMS DUTIES

Under the Common External Tariff of the European Community, the import duty on raw cotton is zero, as it also is on imports into Great Britain.

In the A.A.M.S. the respective governments provide producers with a price guarantee through their stabilisation funds. Exports are subject to duties which, in some countries, are an important source of government revenue.

CONSUMPTION

The total consumption of fibres showed an increase of about 3% in 1971, so that cotton's share in the market for fibres showed a further decrease from 52% to 51%. The growth in consumption was limited almost entirely to the United States (where the textile industry was enjoying a recovery), the socialist countries and some of the developing countries in Asia, particularly Taiwan and South Korea. This more than offset the decline in the textile industries of Western Europe, Japan and other countries.

In the United States the consumption of cotton did not increase as much as that of artificial fibres; but there was

nevertheless a small increase, mainly due to bigger demand from consumers for cotton twills and corduroys.

A setback in the textile industries of Western Europe continued until 1971 and had a bad effect on cotton consumption, more especially in Great Britain, Italy, Federal Germany and France. There were, however, increases in Spain, Greece and Portugal, resulting from the recent modernisation of the textile industry's equipment.

The temporary fall in Japanese consumption in 1971 was due to slacker conditions in the textile industry, the rise in prices and currency uncertainty.

There was again an increase in cotton consumption in the countries subject to central planning.

In developing countries the 1971 figures show a 1% fall, which was, however, due entirely to India, which accounts by itself for a third of the total cotton consumption in this group of countries.

In African countries which, however, process no more than 1% of the cotton supplies of the world, there was an increase of 8% by comparison with the previous year (394 000 tons in the 1969-70 season against 424 000 tons for 1970-71). For 1971-72 the consumption is estimated at 429 000 tons.

PRICE FLUCTUATIONS

Taking the year 1963 = 100, the index of international prices for cotton (U.S. Memphis 1,1/16", C.I.F. British ports) has fluctuated as follows:

62/63	: 100	67/68	: 110
63/64	: 97	68/69	: 99
64/65	: 98	69/70	: 95
65/66	: 96	70/71	: 104
66/67	: 94	71/72	: 120

The table shows that prices for cotton had fully recovered their levels in 1970-71, and continued their upward movement in 1971-72. The firmness of the market should continue, though becoming more selective to take account of estimated availabilities of cotton of certain specific origins.

In the latter half of the 1971-72 season, however, the supply position showed something of an improvement, because the increase in cultivated area was reflected by a further growth in world production, and prices showed a certain downward tendency.

In 1971, the higher prices for cotton brought a more marked increase, both in the value and in the volume of cotton exports. It is estimated that for the more developed countries the increase in currency receipts was as much as 46%, the whole benefit from which accrued to the United States; but that for the developing countries (which exported less cotton in 1971 than in 1970) the rise was, apparently, no more than 5%. It is believed the biggest gains were in Egypt, the Sudan and Nicaragua, whereas in Turkey, Syria and Brazil, there was probably a setback.

INCREASE IN DEVELOPING COUNTRIES' EXPORT RECEIPTS FOR COTTON MANUFACTURES

It should be remembered that an important factor in the world cotton market, its the increase in exports of cotton manufactures from developing countries. The product of the exports from these countries of manufactured cotton goods continued its increase in 1971, reaching a level of 15% higher than in 1970 (\$151 million). The most marked increase was shown by Taiwan, the Republic of Korea and Hong Kong. India is the only one of the bigger developing countries for which the export receipts for cotton textiles showed a decline, which was due to smaller production on account of a shortage of raw cotton.

Conclusions

1. The average price of cotton in the 1971-72 season was 36.61 U.S. cents per lb, which compares with 31.77 cents in the previous year and 29.17 cents in 1969-70 (American cotton 1,1/16" staple C.I.F. Liverpool). This firmness in the price is likely to result in world production showing an increase in the 1972-73 season, and exceeding the 12.2 million tons of 1971-72. In the United States, under the 1970 law on agriculture, which extends the agricultural programmes for the 3-year period ending in December 1973, the total land allocation for cotton in 1972-73 is the same as for the previous year at 11,5 million acres (4.70 million ha). If the farmers are to have the benefit of loans and subsidies, 20% of the area is set aside for soil conservation; but over-production is not now penalised. The guaranteed price is 35 cents per pound for 1" Middling, and this should be high

enough to encourage production. The American crop in 1971-72 was 2.28 million tons. In Greece, Mexico and Egypt there has been an extension of the area under cotton.

2. The increase in world **consumption** in 1972 was only moderate. In the United States there were no great changes by comparison with 1971 levels. In Japan the industrial consumption was higher than the low figures recorded for 1971, partly because the recent revaluation of the yen had made imported cotton attractive; but the industrial expansion may perhaps be limited by the restrictions on exports of cotton textiles to the United States under a bi-lateral agreement made between the two countries in January 1972. In the socialist countries there was a 3% increase compared with the previous season. Among the developing countries India has entered into an agreement with the U.S.S.R., by which she will import raw cotton for processing and reexport as cotton textiles; and since the local supply also showed an improvement in 1972, it is to be expected that there will be some expansion in the Indian textile industry.

3. So far as concerns **competition from artificial fibres**, it is in the more developed countries that the most considerable production increases are expected. The developing countries now produce no more than 7% of the world total production of these fibres; but plans are in course of realisation providing for a substantial increase in their production capacity. Among the chief countries where new production units are under construction, are Mexico, Argentina, Brazil, Colombia, India, Korea and Taiwan, all of which are big cotton consumers.

Competition from artificial fibres, based on 1 100 separate factories and with capacity in excess of requirements, may well set limits on the increase in the consumption of the natural fibre. On the longer-term, however, the expansion in the production capacity for artificial fibres in the developed countries is likely to grow slower; for the producers have been obliged to review their plans after the 1971 recession and the competitiveness of cotton may also be partly reestablished.

4. There should, however, be better provision for regularity in the supplies of cotton. The working off of these stocks was not so big a scale in 1972, because production was more closely in line with the volume of consumption; but the stocks were partly reconstituted in the importing countries (1967: 5 896 000 t; 1971: 4 118 000 t; 1972: 4 332 000 t), owing to the 4% increase in the volume of world trade resulting from a material increase in the crop.

Nevertheless, the stocks had not yet been built up to a reasonable level, which would cover about 6 month's consumption. It seems probable, therefore, that the market will ease only gradually. It may thus be hoped that prices will be maintained in the next few years at levels which are reasonably satisfactory to producers for the qualities which are most in request.

M. GRUMBACH
S. MACCHIA

II. — The International Institute for Cotton and the defence of the cotton markets

by Peter PEREIRA

Deputy Executive and Programme Director,
International Institute for Cotton, (I.I.C.)

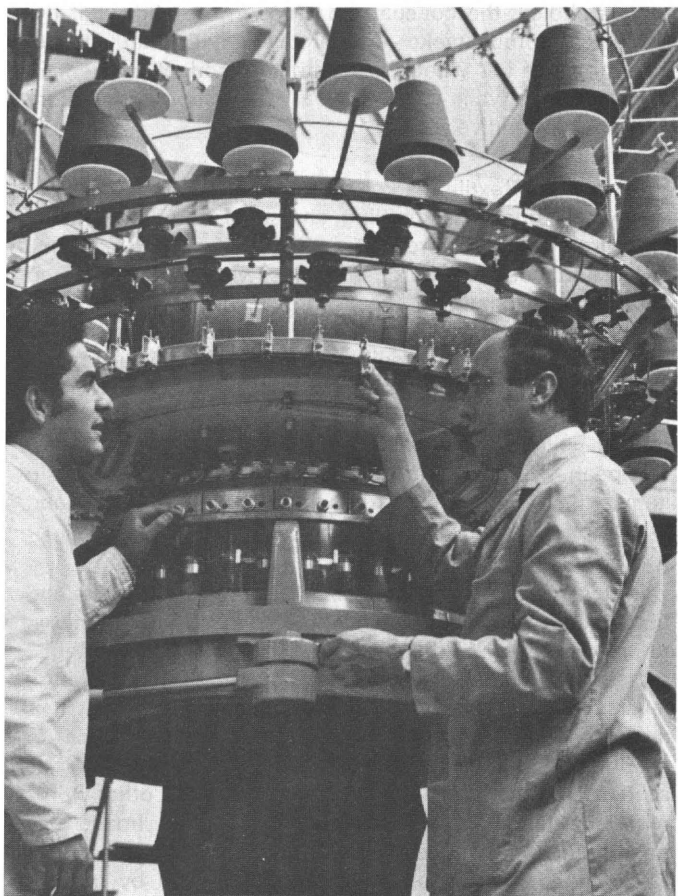
The healthy development of cotton production in Africa, upon which so much depends in terms of foreign exchange and large-scale employment is itself dependent on a good demand for cotton—at a fair price to the producer—in world markets. In this article, an attempt is made to demonstrate how cotton's markets have been defended and with what success, and also to point the need for an increasing activity level in both promotion and research to counteract the growing menace to cotton from synthetic fibres.

Throughout the world cotton growing and processing employs upwards of 100 million people. After oil it has become the leading source of foreign exchange for the developing world. But as recently as five years ago the future of this vast economic and agro-industrial complex was in jeopardy.

Synthetics first provided an alternative to cotton as a textile fibre more than 20 years ago. Until that time cotton's majority share of world fibre consumption had remained unchallenged since the industrial revolution.

In the decade which followed, it quickly became clear that a revolution was under way. The new fibres offered the mushrooming chemical industries of the developed world a huge potential in diversification, good profit margins, and secure markets. They offered the consumer new standards of easy-care and durability, and what looked like a limitless variety of qualities, textures and fabric innovations. They promised to penetrate world textile markets at the expense of cotton in a very short period and in fact achieved staggering penetration in some end-uses in some countries. The future of the world cotton growing and processing industry looked ominous.

Early in-roads by synthetics began in the fashion market and for a time synthetic utilisation was limited to the outer-wear area while new industrial techniques for spinning, weaving and finishing the fibres were developed. Fortunately cotton received a bonus from the fact that time was needed to set up the mighty fibre production facilities which would eventually bring synthetic fibres into the same relative price bracket as cotton in world markets. When this was accomplished, however, the tempo quickened and synthetics production soared. Manufacturers found the new fibres simpler and quicker to weave. Their consumer appeal—helped along by the experienced marketing machinery and technical expertise of the chemical industry of the U.S., Japan



Shirley Institute

Part of the knitting department laboratory at I.I.C.'s research headquarters in Manchester, England. Knitting is becoming an increasingly important method of production of world textiles. The I.I.C. programme aims at improving existing yarns and methods of knitting pure cotton.

and Europe—promised limitless diversification in all end-uses of the textile industry. The synthetics boom had begun and it looked like resulting in ruin for the vast traditional cotton empire and the millions whose livelihood depended upon it.

An effective defence for cotton

The first concrete move to remedy this situation on a world basis came in 1966 with the formation of the International Institute for Cotton (I.I.C.). Founder members were the governments of five important producer countries—India, Mexico, Spain, Greece and the U.S.A. During the lifetime of the Institute four other governments have joined—two from East Africa, Tanzania and Uganda, along with mighty producer Brazil and Greece. Peru joined the Institute two months before publication of this article.

I.I.C.'s brief was to defend cotton's world markets from the synthetics. To do this it chose two parallel lines of action — a promotion programme in the most important cotton consumer countries (the 13 Western European countries and Japan) and a product improvement drive, based on technical research.

The situation faced by the executive of I.I.C. arose from the dynamism and momentum of the market as it was then. Both trade and industry in the U.S. as well as in Europe and Japan (where I.I.C. was to be most active) had become convinced that the future of textiles lay with the synthetics. The reason was simple enough. The shoppers—men, women and teenagers—of the developed countries as a whole believed that synthetics were new, exciting and easy-care while the so called "image" of cotton that they saw was something cheap, second-rate and devoid of interest.

Also, the chemical industries of the developed countries looked like solving one of the problems which has always faced cotton — that of rising and falling world production. Many reasoned that a fibre which could be produced at the turn of a swith in a few minutes would offer a much steadier market than an agricultural product which had to be grown over a period of as many months and which had to be transported over thousands of miles from field to factory. To take just one example of the sort of thing I.I.C. was facing, the then Chairman of one of the U.K.'s leading fabric manufacturers forecast that cotton would be out of the sheet market by the end of 1970. He was wrong, but it was a view at that time shared by many.

Where to start in this rock-bottom situation? I.I.C. chose the transformation of the cotton "image" as its number one promotion priority.

The cotton image

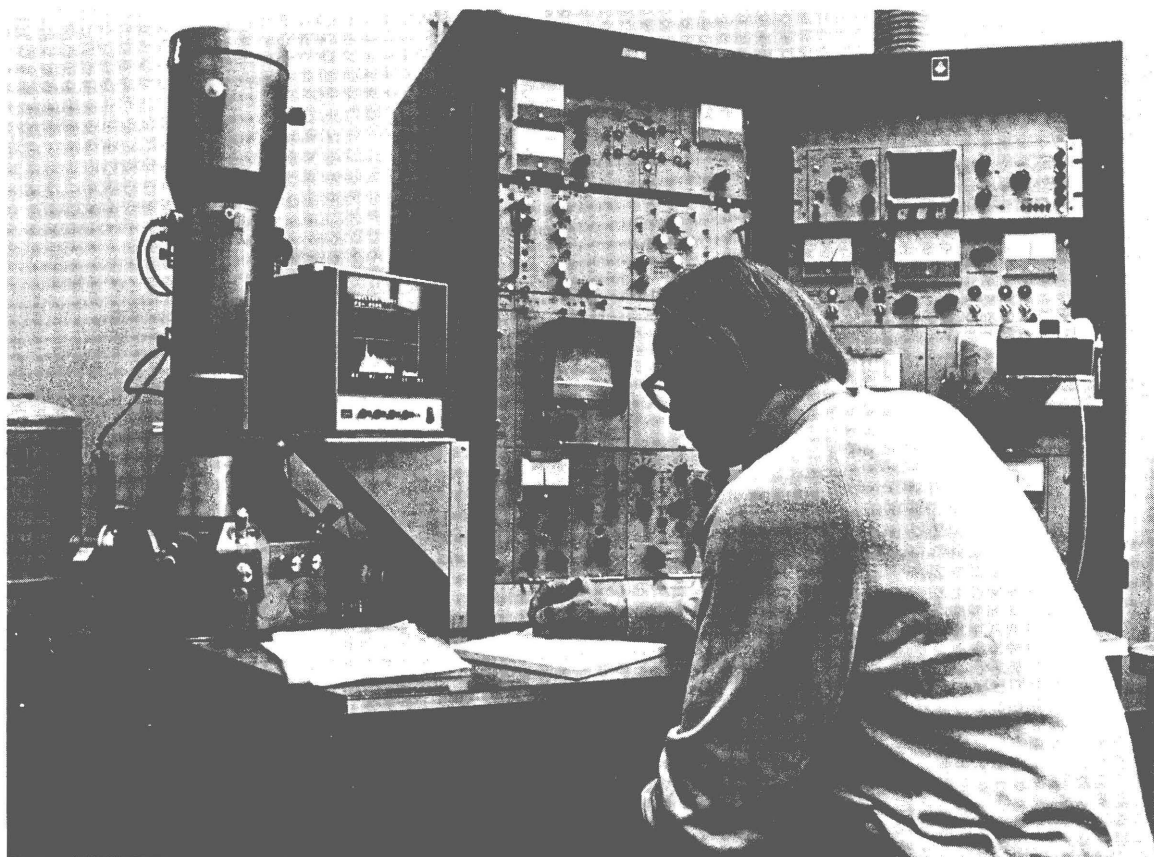
It is sometimes difficult for people who do not live in a high-economy area to realise just what this concept of image means to the success of a product in the consumer and trade market places. In the developing countries, the choice of textiles available, as of other commodities, is small. The choice, if there is one, is very often made by the shopper in terms of simple priorities, such as price and durability of the purchase. And so the manufacturer decides what she shall buy and use. She has not the money power to influence him.

In a developed country on the other hand, the housewife has much more money to spend and so a large number of manufacturers find it worth their investment and time to compete with each other to produce articles that she will buy. The shopper is thus offered a huge choice and will take time to "shop around" for the product she likes best. Given such a choice, the consumer decides in the end what the manufacturer must make — and if any individual industrialist does not give her what she wants, his product will remain on the shelves while she walks out of the shop with a more desirable alternative.

Perhaps the textile market above all offers the housewife the widest and most baffling choice of competing items made from different fibres in a multitude of colours, patterns, styles and qualities. European housewives are concerned with the ever-changing spectrum of fashion. The length of their skirts, the shapes of their clothing and the fabrics used in them show quite incredible variations from year to year and even from season to season. A garment may be worn as few as 20 or 30 times and then thrown away. However, when buying shirts, sheets and everyday dresses and skirts, European women are becoming increasingly interested in items which will save them time and money in ironing and washing.

In this fast moving market climate, different products and fibres begin to assume a distinct personality. This is known to marketing men in the developed countries as the "image" of a fibre. A good image sells a product, a bad image the reverse. It is axiomatic to the concept of image that it is rarely dependent upon the real value, performance or advantages offered by the product. **Image means the attitude of the shopper to the product.** In other words what she thinks about it, whether true or false. Image may be influenced by a whole host of things — what her friends are thinking, what the queen is wearing and by modern marketing techniques, such as advertising, PR and point-of-sale motivation.

When I.I.C. came into being in 1966, cotton was then considered as a cheap and inferior fibre compared to wool, silk and particularly to the new synthetics. It was considered



International publicity service

Scanning electron microscope with x-ray probe analyser studies cotton fibre structure and distribution of easy-care chemicals on cotton fabrics at T.N.O. Delft. The long-term welfare of cotton in world markets must depend on improving the performance of cotton in consumer terms. The above project is just part of the I.I.C. research programme aimed at this.

outmoded and unfashionable. It was thought to shrink, and its wear performance was not considered as good as that of its competitors. Needless to say, the mighty chemical industries of Europe played up the fashionability, good wear performance and supposed good easy-care performance as well as the novelty of fabrics made from their products. They did not attack cotton, they did not have to—before I.I.C. was formed, it could not speak for itself.

What this meant to cotton was that by 1967 it was losing its market in outerwear because its image was bad. It was also menaced in the sheet market, in the workwear market and in household furnishings—all on account of its poor image—an image which on the whole related to the housewife's ideas about cotton textiles used in the dresses, blouses and skirts which they wore. In other words a bad image in clothing was threatening the sheet market—and the latter represents 10% of the cotton coming into Europe and Japan.

Planned five-year remedy

Early in 1966, I.I.C. set about taking a long, cool, hard look at the cotton fibre, to examine not only what the housewife thought about it, but also to discover what she should be thinking about it and what advantages, if any, it had in real terms to offer.

A number of interesting facts came to light. Cotton was holding its place with surprising ease in the underwear market, because it was very much more comfortable than any of its competitors. No one had played up the comfort angle to the consumer but fortunately for cotton at that period there appeared to be a growing demand for the comfortable and less formal for every age and both sexes.

It was noted also that synthetics in fact were without exception a good deal less comfortable than cotton and other natural fibres because of their inherent inability to absorb moisture quickly from the skin into the fabric. They had other disadvantages too. Polyesters felt "hot" and greyed and set in permanent creases if washed hot.

It was clear that the appearance of the synthetics would only remain new for a short period. If they offered rather regular, shiny and highly coloured fabrics, they could not offer what cotton could in terms of variety of colour, texture, individuality and weave. Further cotton can be washed hot or bleached white without ill effect.

And so I.I.C. had a platform upon which to promote cotton. It was, and is, a real rather than an artificial platform. Cotton is a good product with distinct comfort advantages, naturalness and variety potential. It has never been matched in these terms then or now, by any of the synthetics.

The promotion of cotton

Three basic approaches were used by I.I.C. in improving the cotton image—advertising in journals and newspapers, obtaining favourable mentions and pictures in editorials of the programme country press; pushing cotton at the place where housewives decide to buy—in the shops.

Advertising connected cotton with top designers and top manufacturers in each of the countries of the programme area. It emphasized the luxury of cotton comfort in all weathers, and the aesthetic effect that could only be achieved using cotton fabrics.

Furnished with a budget almost ten times smaller than that available to its competitors, I.I.C. extended the effect of its advertising by encouraging interested manufacturers to join them in the advertising effort. Cotton thus benefitted by having many more ads than would otherwise have been possible. At the same time, it benefitted by connection with the best brand names in the business.

It is a measure of success that, whereas at first co-operation was only grudgingly given, after just six years the Institute can select its advertising partners from the very best.

Commercial promotion men measure their efforts by speaking of "messages delivered". This means the number of people who read and digest an advertisement. In 1971 I.I.C. delivered something in excess of half a billion advertising messages in full-page, colour-magazine form.

Public relations extended this high impact to the tune of another 2 billion messages, 75 % illustrated.

Promotion of cotton on the Counter

Cotton Weeks, Fortnights and special displays in leading department stores and textile chains also had their effect, and I.I.C. is proud of its achievements at "point-of-sale". Just a few examples — Marks & Spencer (U.K.), one of the world's top retail chains for textiles, pulls in more than 12 million shoppers every week. During the peak buying season for Summer clothes in 1972, all their 250 stores in the U.K. carried out cotton promotions throughout the store. Estimates by the London Director of I.I.C. show overall commitment to cotton in the major stores of the U.K. including Marks and Spencer, went up by 30 % in 1972, over 1971. 1973 is likely to be an even bigger year for cotton in big stores there.

In Japan, where 30 % of textile sales are made in the major department stores, in 1972 75 % of these cotton outlets ran coordinated cotton promotion throughout their departments at a time when the Japanese are kitting-out for Summer.

Achievement

At the beginning of 1973, the cotton image had been turned about. Cotton is now the prestige fabric of the textile markets of the European area. Cotton has in the last two Winter seasons become a cold-weather as well as a Summer fibre. It is second to none in the new and fast-growing leisure-wear market for men, women and children. It has "come again" for rainwear—the "Sunday Times", London, remarked last Autumn that the resurgence of cotton had more than a little to do with the embarrassment of polyester manufacturers in that market.

A leading vertical manufacturing group in Europe increased pure cotton fabric production by 30 % in 1972 in the teeth of healthy rising cotton prices. Furthermore, cotton is now invading end-uses never before its province—carpets, for example. The sensitive sounding board of the press has never amplified the praises of cotton as it is doing at this moment—the trade press, the fashion press, woman's magazines and daily newspapers. The press in a developed country reflects the opinions of its informed readers—and also forms the opinions of all as to what will soon be in fashion. It would be a foolish manufacturer or store buyer who ignored the trend set by the consumer or trade papers.

But what does all this mean to the cotton farmer?—this talk of messages, store visitors and editorials. What has happened in the programme area in the five years of I.I.C. promotion activity that relates to bulk sales of cotton?

A hard look at the consumption figures is much more indicative perhaps of cotton's real performance as far as it affects the farmer.

Availability returns show total gains in Western Europe and Japan of about 2 million tons of cotton between 1967 and 1971. Early trading returns for 1972 show a further upward trend for cotton in the I.I.C. area of promotion (Western Europe and Japan). **The extra cotton sold between 1967 and 1971 in this area meant an additional income to world cotton producers of about \$500 million.**

Trade servicing

With the market improvement, I.I.C. has been able to re-direct some money into the servicing of the trade with fabric and fashion centers—I.I.C. will have eight of these by the end of the year in Brussels, Paris, London, Amsterdam, Milan, Frankfurt, Tokyo and Osaka—aimed at capitalising the trend to cotton in a direct commercial service.

The importance of these fabric centers in influencing the various levels of trade towards the production of cotton fabrics and their utilisation in garments and other goods, cannot be over-estimated. Visitors are the very people that make decisions amongst top weavers, knitters and makers-up.

With their exhaustive directory of between 3000 and 4000 up-to-minute cotton fabric samples they serve as an immediate proof to people selecting fabrics for manufacturers of every type and quality of clothing that cotton has a lead in the fashion market. Nowhere else can such a diversity of creative fashion ideas be found.

The concept of this industrial service arose out of the single I.I.C. Cotton Service Centre at the world's largest fabric fair, the Frankfurt Interstoff. The rising score of visitors to this cotton directory for European fabrics now well exceeds 2000 buying teams a time.

Utilisation Research The medium and long-term problem

Cotton then is now showing a healthy performance again in the market as the recent price increases paid for the raw product have shown. But its success so far has been achieved

by promotion alone—by making the shopper, the industry and the trade aware of its existing advantages and aesthetic appeal.

When I.I.C. was founded in 1966 it was foreseen that cotton promotion could only succeed in the long-run if cotton could keep abreast of the development of science and technology resulting from research into competitive and blended fibres—particularly in terms of easy-care and strength.



Lambertin

German television at a major I.I.C. fashion/fabric presentation. The TV show will bring the story of cotton in men's fashion into hundreds of thousands of German homes.

Although the Research and Development Division of I.I.C. looked forward to a much longer haul than the Promotion Division before the effects of their work could show commercial results, they were not starting from scratch.

In fact, a number of textile institutes, weavers and industrial firms had already completed independent investigation into methods of improving cotton products. The primary task of the Division was to collate this and to co-ordinate what was already done into a long-term programme aimed at meeting the requirements of the industry, and suiting cotton to the many new industrial techniques appearing on the textile scene. On its inception, I.I.C. set out to recruit the best technical scientists and technicians of the programme countries to cotton's cause. Now, I.I.C. research takes place in more than 20 scientific institutes and universities in 11 countries.

Certainly one of the biggest drawbacks to cotton fabrics five years ago was the absence of good easy-care properties allied with the sort of strength that people expected from untreated cotton. As a result of I.I.C. research and associated industrial development, **cotton fibres now exist which show 100% strength increases over conventional cotton, and which are much stronger than spun polyesters.** Perhaps it is the potential of these new high-strength cottons which offers the fibre its greatest opportunities for the future.

World textile production is moving towards high speed knitting processes. Already more than 40% of the world's apparel fabrics are knitted, and this makes knitting capability important for cotton yarns. Cotton yarns have suffered hitherto because they have not been strong enough or even enough for utilisation in high speed knitting. Newer, stronger cottons already available in limited quantities to industry, bode well for cotton's future.

To the defence of the conventional bulk markets for cotton, like sheets and shirts, easy-care is particularly important.

Development in cooperation with industry has done a great deal in recent years to improve the existing easy-care processes—and to ensure the use of better easy-care methods by the textile industry. I.I.C. research promises to turn the existing optimal easy-care treatment from a relatively long-winded batch process into an automated continuous process.

Already the biggest sheet manufacturer in the U.K. along with the biggest sheet manufacturer in Holland, are succeeding in the market with 100% cotton, 100% easy-care sheets. Easy-care 100% cotton sheets had by the beginning of 1973 penetrated the sheet market in Holland to the extent of 10%.

The Institute's primary efforts have shown the way to the defence and enlargement of cotton markets; promotion must now serve to maintain and yet improve this image. I.I.C.

trade services will give the cotton interest representation at every stage of textile manufacture. But in the long run the real opportunities open to cotton can only be realised in conjunction with a strong research and development programme.

Linking Production and Utilisation Research

I.I.C. offers unreserved support to those who argue the need for research into every method of improved cotton production. The Institute is in close liaison with cotton field research stations, plant breeding establishments and ginning machinery manufacturers throughout the world. However, the point must be made that production research should be aimed not only at increasing the volume and efficiency of raw cotton growing and marketing. It must also seek to improve the types of cotton produced firstly in terms of today's industrial and consumer needs and secondly in terms of the market's needs of the future. Those, thus responsible for streamlining cotton production in a developing country must for example be thinking in terms of the type of fibre that will be most suitable for easy-care finishing and perhaps about fibres which will produce high performance knitting yarns.

I.I.C. has a number of research projects aimed at streamlining the evaluation of new and existing cotton strains which are and will continue to be sent to their Manchester headquarters from the world's cotton fields.

Current and Future Dangers to Cotton Markets

It may seem from this necessarily superficial review of I.I.C. activity over a period of six years that the battle for cotton has been won. It may seem that I.I.C. has merely to continue its current level of promotional activity allied with its promising research programme to ensure cotton's strong leadership in all the textile markets. However, if cotton is to maintain its success I.I.C. must be able to extend its activities into a number of end-use textile areas—both in promotion and research—which it has not, as yet, the major resources to support.

Penetration of the synthetics into outerwear areas—men and women's clothing—has not in the main met with the

success that the chemical industries had hoped. Furthermore a large number of individual chemical companies in the world, over-estimated the possible share of the polyester market which they could achieve when planning their plant and production installations. There are considerable areas in the world where man-made fibres are over-produced to an alarming degree. While it is easy to turn off the switch, to reduce production, the chemical industry as a whole has committed a vast amount of capital in their original production installations.

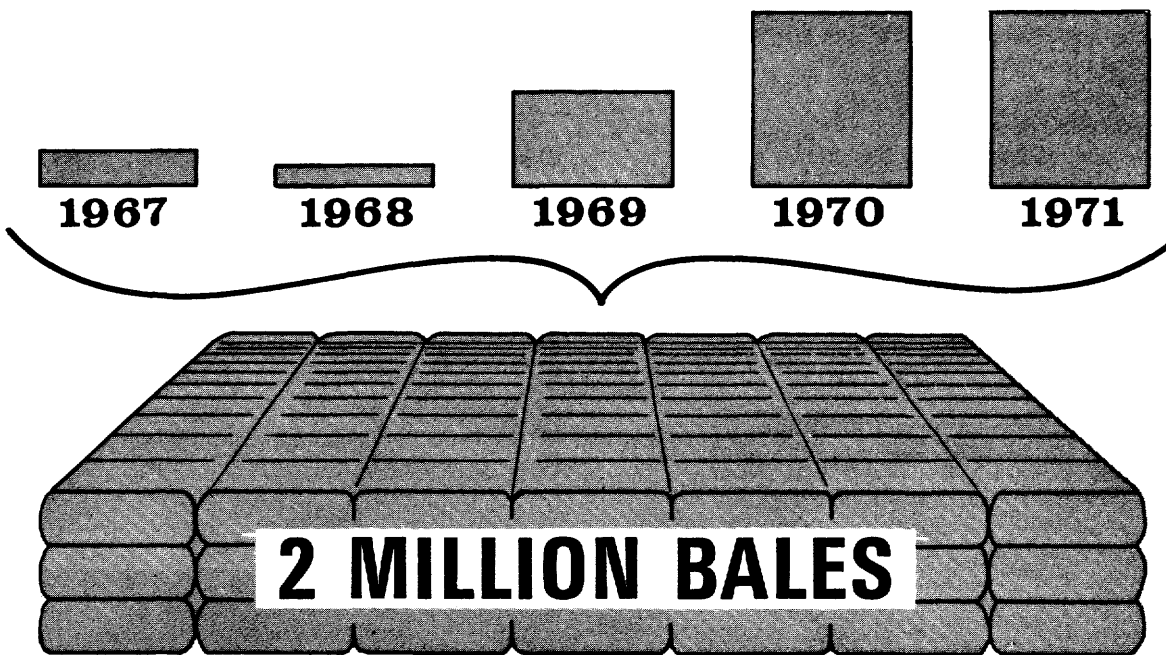
volume terms these constitute the main market for cotton. I.I.C. must have bigger resources to defend these bulk markets.

I.I.C. Membership

As has already been stated, the activity areas of the International Institute for Cotton are at present the **13 countries of Western Europe and Japan**—known as the I.I.C. programme area. A brief glance at table I will show just how important these markets are to the producer countries of Africa.

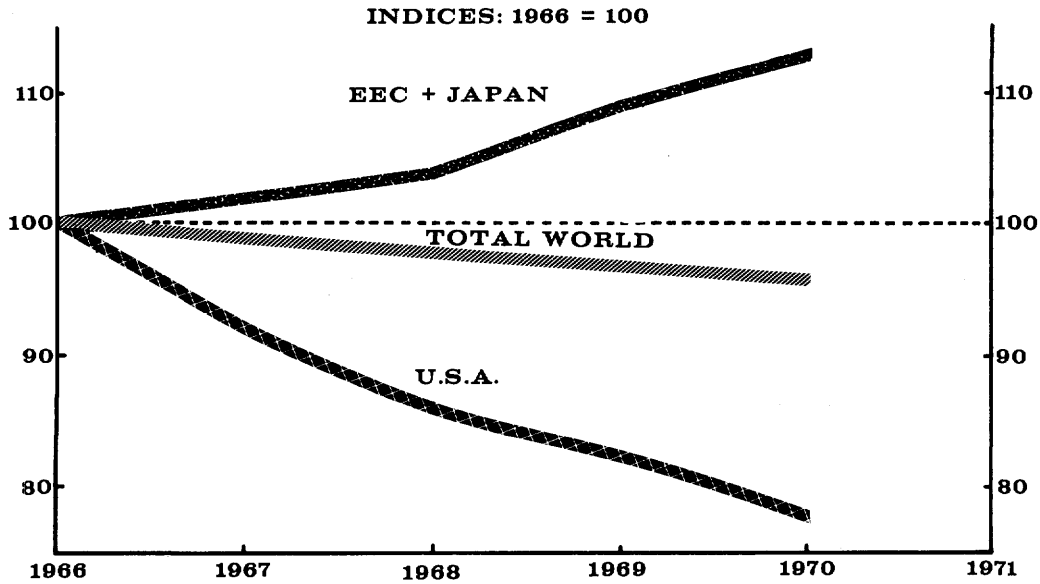
INCREASE IN COTTON CONSUMPTION IN IIC PROGRAM COUNTRIES

1967 - 1971



Increases in cotton consumption in I.I.C. programme countries between 1967 and 1971 amounted to 3 million bales or bale equivalents. This extra cotton sold in the I.I.C. area meant an additional income to world cotton producers of about \$500 million.

Per Capita Availability Of Cotton



Graph showing the increases in per capita availability of cotton since I.I.C.'s inception in 1966 in the programme area "E.E.C. and Japan, and the falls in per capita availability of cotton in world terms and in the U.S. during the same period.

To take a few examples: it can be noted that cotton is the most important agricultural foreign exchange earner for Chad and Mali. It is a close second for foreign exchange earnings in Uganda, Tanzania, Central African Republic and the Cameroon—third for Ivory Coast export earnings. In Chad, it actually accounts for something like 80% of the overseas earnings of that country.

The international Institute for Cotton has grown to be an influential international body with consultative status to a number of United Nations agencies, and its present members represent a powerful cross-section of world producer nations. It has the organisation and expertise to protect cotton—but in the new situation—that of the threat to bulk markets—ever-growing support is needed from the cotton-producing countries, particularly those whose economic progress and stability is so tied to the success of cotton.

The Institute urgently invites the support of the governments of all cotton producing countries of Africa.

Table I
Percentage of total exports imported into I.I.C. activity area (Western Europe and Japan)* (3 year average)

Country	%
Chad	87
Cameroon	92
Central African Republic	82
Ivory Coast	100
Nigeria	70
Tanzania	22
Uganda	44
Zaire	62

* As available.

P. PEREIRA

III. — Cotton-growing in the A.A.M.S. and aid from the European Development Fund

by S. PIVETTA

Cotton-growing (1), which is regarded as the chief diversification crop in a number of the Associated countries, is in fact an essential development factor for the agriculture and the industry in some of these countries.

M. de Carbon Ferrière believed, with good reason, that in these countries (2) where more than 80 % of the population is rural, cotton-growing had contributed to giving them means of increasingly active participation in their own development.

Increase in cotton production

The figures tell their own story. They give an idea of the impact of cotton growing on the economy of countries which are finding this branch of agricultural production an increasingly important source of income. The secondary effects, and the contribution of the different sectors of the economy are also worthy of emphasis.

In the world economic context, **production in the A.A.M.S. is about 2% of the world total of cotton fibre**, which amounts to about 11 million tons of fibre. Of this, two-thirds are consumed in the producing countries, and the remaining third goes into international trade. The cotton produced in the A.A.M.S. comes into the latter class,

except that a small but growing proportion is used in their own textile industries.

The crop yields from dry cultivation in the A.A.M.S. are still low by comparison with countries such as the United States (the world's biggest producer); but a country such as Senegal is able, other things being equal, to challenge comparison with the ton per hectare average which, incidentally, is higher than the average yield in Texas, the biggest producing State in the American union. The average yields in the Ivory Coast, Mali and Dahomey are effectively higher than those obtained in countries such as Brazil, India and Pakistan, where production is showing a very definite increase.

Despite the vicissitudes of weather and climate, production in the A.A.M.S. has been increasing year by year. This is shown in the following figures: 1961: 129 425 t; 1965: 229 500 t; 1967: 322 000 t; 1970: 373 000 t; 1971: 448 400 t; 1972: 477 000 (estimate) (1).

During the past ten years **cotton production in the producing countries of the A.A.M.S. has risen almost four-fold**. In the Associated States of West Africa and in Madagascar, it has risen ten-fold; and in the countries of Central Africa (2) which were already producing 100 000 tons of unginned cotton in 1961, it reached 222 000 tons in 1972, after a peak of 275 000 tons in 1968.

Though this very significant increase is partly due to the increase in the planted area, which rose from 640 000 ha in 1961 to 895 000 ha in 1972, it is nevertheless true that it is essentially the very considerable growth in the yield per hectare which has made it possible for such a production level to be reached.

(1) This article, with the earlier ones on palm oil and tea, constitutes a series selected to illustrate the agro-industrial interventions of the E.D.F. to promote cultivation for export (see *Association News*, No. 15).

(2) Director General of the C.F.D.T., who died in 1971 and whose name is still identified with the development of cotton-growing.

(1) Production in Zaïre and Burundi is not included in the figures quoted.
(2) Chad, Central African Republic and Cameroon.

The average yield for all the A.A.M.S. countries is now around 535 kg of unginning cotton per hectare, whereas it was only 205 kg ten years ago. Even these figures give only an imperfect picture of the results obtained. In some of the countries in which the cultivation is still extensive, the yield has shown only a small improvement. In Niger, for example, it has remained steady around 450 kg/ha; and in Upper Volta, where it has indeed doubled within ten years, it is still comparatively low (380 kg in 1971 against 183 kg in 1962); and in Chad and the Central African Republic it is only 350 kg/ha. On the other hand in countries where intensive cultivation techniques are in use, and especially in the working of the soil and the use of mineral fertilizers and insecticide treatment, the increase in yields is particularly significant. In Dahomey, the Ivory Coast and Mali they are over 900 kg/ha, whereas in 1962 the respective figures were only 370 kg, 550 kg and 240 kg. In Senegal they are over a ton, and in Madagascar, where part of the cultivation is irrigated, they are over two tons.

The developing in the productivity action during the past ten years is shown in the following figures.

In ten years the tilled area increased from 5 400 ha to 235 000 ha, and the area for which mineral fertilizers were used rose from 7 300 ha to over 310 000 ha. The insecticide

treatment (3 treatments) was carried out on 270 000 ha in 1972 against only 9 600 ha in 1962.

Since all the countries which grow cotton have programmes either of intensified productivity action, or of general improvement in cultivation techniques, it can be expected that there will be a further considerable increase in cotton production during the next few years.

Cotton growing and rural modernisation

Cotton growing is a direct or indirect concern for a rural population of around 15 million. In the regions where it is practised, especially the Sudan-Sahelian area, it is one of the cash crops, through which money resources have been brought to a population which was formerly condemned to a strictly subsistence economy, and itinerant agriculture on extensive lines with all the risks which this implies. In the corresponding region in the Ivory Coast, it has enabled the populations concerned to reduce the gap between their incomes and those of the population in the forest areas.

**Artisan cotton
ginning
(C.A.R.).**



Fiévet

It must, however, be emphasised that the development of cotton growing is not an end in itself. **Its interest lies in the effects it induces** in improving the productivity (which still has room for improvement) of the operation of cultivators in general. Examples are:

- the integration of subsistence crops into blocks taken in for cotton;
- rearrangement of crops and more intensive methods of cultivation for other crops (especially subsistence crops);
- rational rotation programmes;
- modernised methods of cultivation, development and improvement of transport and increased activity for local craft production;
- development of cooperatives.

If, therefore, the growing of cotton has made it possible to introduce a more rational system of rotation, may it not be the approach to a solution, so necessary and so important, to the problem of food growing, which must ultimately cease to be regarded as subsistence agriculture? It is well known that the F.A.O. has forecast that, in West Africa alone, the urban population will rise between 1965 and 1985 from 17 to 52 million. With this prospect ahead, it is certain that the action to be taken to deal with the prospective food problems can only be progressive in character, since the formation and organisation of an African market for food products is still particularly difficult.

Cotton growing can thus be considered as a "locomotive" culture, and a technical-economic support for many types of regional development action. It is undoubtedly the starting point for a specially dynamic process of developing food growing by the use of more advanced techniques which it introduces into the rural world, and by the profitable effect it cannot fail to induce in all branches of cultivation through the new systems of rotation. Such a process has certainly attracted the more progressive peasantry and seems destined for further development.

Cotton growing and industrialisation

In parallel with this agricultural production, there has grown up an industrial infrastructure which can generate a considerable number of jobs. The setting up of ginning plant is the logical consequence of the increase in production; but the extension or building of spinning mills, which is desired and encouraged by the national governments, is a noteworthy step towards the industrialisation of these countries, even though the investment required is small compared with heavier industries. Before 1960 there were indeed a few textile industries in Senegal (four), the Ivory Coast (one), the Central African Republic (one) and Madagascar (one), but in the last decade the textile industry has shown unprecedented expansion. No less than 17 new companies have been formed to work the cotton on the spot,

and thus add value to the nation's production. About **20% of the African production is processed locally**; and since the production is easily sold in the national market, the spinning-weaving-finishing complexes have made the countries concerned much less dependent on fabric imports. Another interesting point is the large participation of private capital in this development. Industrialisation has thus begun; and of course some of the investment codes have helped towards this. The following table shows the distribution of the ginning, cotton-seed oil and textile plants in the different countries:

	Shelling works	Oil-works	Textile works
Cameroon	5	2	3
Ivory Coast	5	—	6
Dahomey	5	—	1
Upper-Volta	3	—	1
Mali	6	1	1
Niger	2	—	1
Senegal	2	1	5
Madagascar	6	2	3
C. A. R.	18	2	2
Chad	22	1	1
Togo	3	—	—
Zaire	112	11	10
Total	189	20	34

To these figures must be added the textile industries which have been set up in Gaboon and the Congo, which are not cotton-producing countries. **At present**, therefore there are 14 A.A.M.S. with a stake in the cotton industry.

Technical cooperation and cotton development

This brief survey would be incomplete without a mention of the work done by two organisations for technical cooperation, which have been the prime movers in the development of cotton growing. These are the I.R.C.T. and the C.F.D.T.

The former has been at the root of the agronomic progress which, despite the great diversity of objectives, has done so much for cotton growing. The former varieties were unduly liable to crop sicknesses and parasites, so that productivity

*Couple bringing
in its cotton
crop to the
buying centre
(Chad).*



was insufficient and the yield from ginning was low and the fibres inadequate. The I.R.C.T. made a thorough job of variety selection, which made it possible to raise the yield, other things being equal, by a margin which varied in the different countries between 30 and 50% and, by introducing new varieties, raised the ginning yield very considerably. Ten years ago the cotton grown in Chad showed a ginning yield of 28%, that in the Central African Republic 33% and Cameroon 30%; but now the yields are often as high as 37-38%, and in some cases, and for some varieties, they reach 39 or even 40%. This increase, without there being any change in the price paid for the seed, results in a considerable reduction in the production cost of the fibre, and has made it possible to maintain through the years the cost at which the product is bought from the growers, despite the fall in world prices and the increase in outgoings connected with the higher prices for industrial goods, production equipment and labour. Twenty years ago, commercial fibres with a staple length between an inch and 1,1/32" was considered satisfactory, but the changes in the cotton market led I.R.C.T. to work on securing an improvement in the technological characteristics of the fibre, and on the creation of new varieties which normally satisfy the trend in demand. I.R.C.T. also carried out a number of experiments which have contributed to improving the techniques of cultivation,

including the use of fertilizers, crop protection, irrigation and the improvement and structural conservation of the soil.

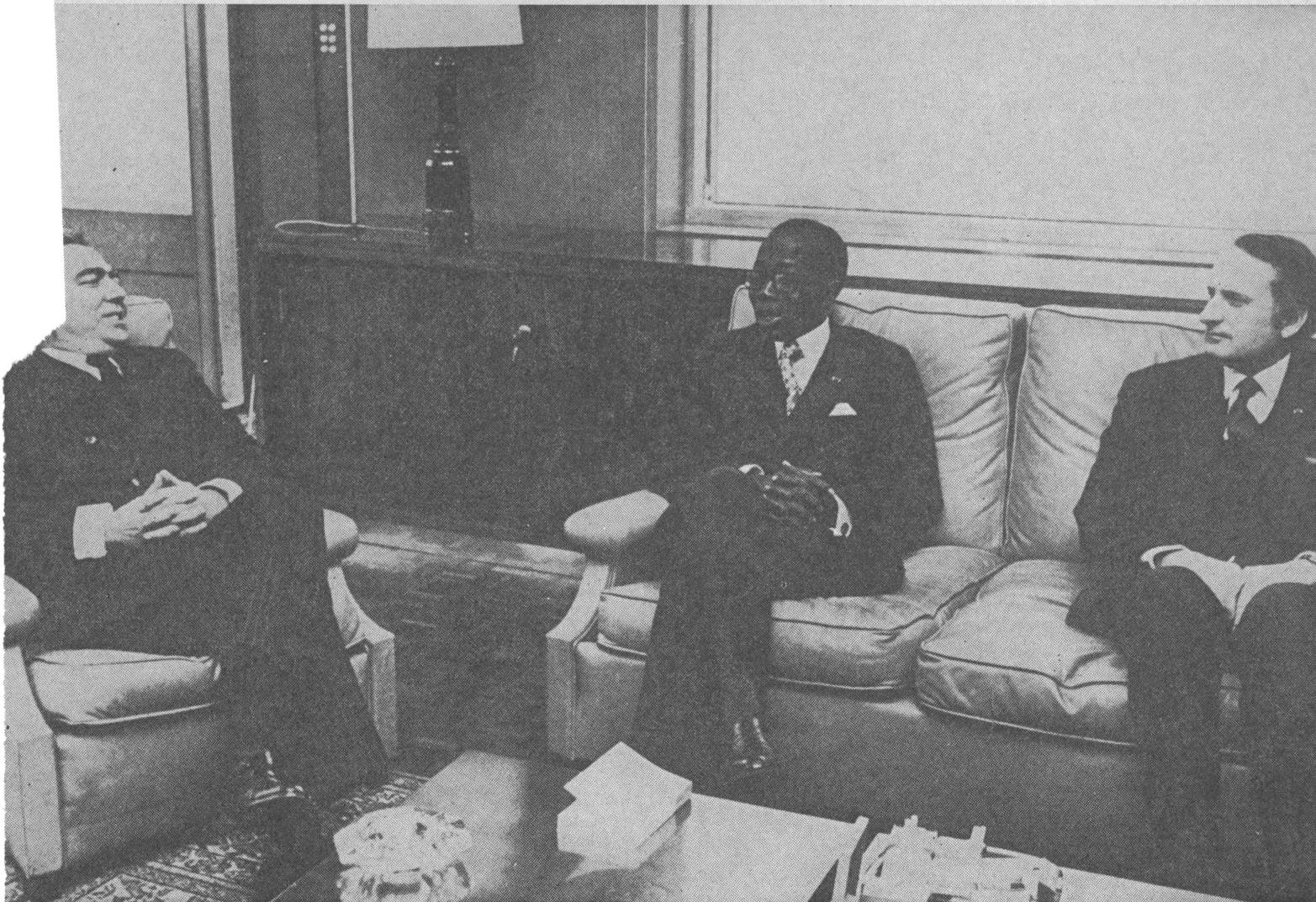
The C.F.D.T. is a framework organisation for production and marketing, intervening at the request, and under the supervision, of national governments. It sees to the functioning of the popularisation campaigns and is specially concerned with making available the varieties selected by I.R.C.T., and advising growers through the crop period on how they can improve their yields and bring their working methods up-to-date. An increase in peasant incomes is the objective it seeks and usually attains.

A number of the governments, too, have extended the part played by C.F.D.T. outside its agricultural tasks, to include the industrial and commercial activities of purchasing, transporting, ginning and selling their cotton production and taking charge of the processing of by-products. The technical advisory and marketing activities of C.F.D.T., though they are different in kind, are closely related in fact. Improvements in productivity cannot bear effective fruit unless they are accompanied by a rational marketing organisation, one effect of which is, that it enables the profits resulting from this rationalisation to be reflected in the prices paid to the growers.

Visit of President Senghor

M. Léopold Sedar Senghor, President of the Republic of Senegal, was in Brussels on March 20 and 21, 1973. He had a number of talks during his visit, especially with the Commission of the European Communities.

"We hope the greatest possible number of English-speaking African countries will join the Yaoundé Eurafrikan Convention", said President Senghor after his talks with members of the Commission.



Debaize

President Senghor chatting with M. François-Xavier Ortoli, President of the Commission and M. Jean François Deniau, the member of the Commission in charge of development and cooperation policy at this time.

President Senghor's Press conference

More than a hundred members of the international press came to the press conference on March 21, 1973, given by the head of the Senegalese State. President Senghor had come to Brussels on behalf of the 18 African and Malagasy States associated with the E.E.C., to prepare the ground for the negotiations for renewing the Association which may begin after August 1973.

We hope, said M. Senghor, that the Association Agreement will be improved in such a way as to allow for the deterioration in the terms of trade; for the prices of basic products exported by the Africans are now hanging fire, while the industrial goods they buy are constantly rising in price. The subsidies and loans which the European Community grants to its African associates are a valuable support for us; but the commercial problems are also extremely important.

Something has got to be done to stabilise our export receipts.

M. Senghor also discussed with his European questioners the offer of association, or agreements *sui generis*, made by the E.E.C. on the occasion of its enlargement to 20 Commonwealth countries in Africa, the Caribbean and the Pacific.

In answer to questions, the President of Senegal agreed that, to the best of his information, Nigeria (the biggest of the African countries concerned) would prefer to have a trade agreement with the E.E.C.; but that the Lagos government would not attempt to dissuade its neighbours from making other kinds of arrangement.

Speaking of the reserves expressed by some of the E.E.C. member States about extending the Eurafrican Association, President Senghor said his talks had enabled him "to understand

the difficulties much better"; and he had done his best to convince those with whom he talked that it would be in the interest of both parties to "strengthen Eurafrica".

The Senegalese President set out to justify the reciprocal aid preferences, which some of the Europeans would like to abolish. "I don't want people to say, as they are apt to say each time we go to Paris "there go the Elysée beggars"". The free trade area, and the reciprocal preferences which are part of it, is the legal and moral basis of an Association to which everybody makes his own contribution. The English-speaking African countries know scarcely anything about this aspect, President Senghor continued. This is why we are going to continue our campaign of informing them, and tell them of our experience of 10 years of life in common with the E.E.C.

Commission

VISITS TO AFRICA AND EUROPE

— **M. J.F. Deniau**, the member of the Commission specially in charge of development cooperation policy, went to Zambia on February 25, Tanzania on March 2, 1973 and to the Peoples' Republic of the Congo on March 23-26, on each occasion at the invitation of the government of the State concerned. M. Deniau was also present at the E.E.C.-A.A.M.S. Parliamentary Conference held in Kinshasa on March 29-31.

— **M. E. Wirsing**, Director of E.D.F. programmes and projects, went to Madagascar in March to study the project programming in the southern part of the Great Island, with the Malagasy authorities. M. Wirsing also went on a programming mission to the island of Mauritius, to consider projects to be financed by the European Development Fund.

— On the occasion of his passage through Brussels, **M. Ouedraogo**, President of the Upper Volta National Assembly, was received by M. Krohn, Director General for Development and Cooperation, and M. Ferrandi, assistant Director General in charge of the coordination of E.D.F. services.

E.D.F.

EXCEPTIONAL AID OF ABOUT U.A. 19 MILLION FOR SIX ASSOCIATED STATES

On March 5, 1973 the Commission of the European Communities approved an **emergency intervention**, by way of non-repayable aid from the third E.D.F., amounting to U.A. 19.01 million (one U.A. = about \$ 1.20 U.S.A. at the new parity). The aid is to relieve the most serious effects of the Associated countries in the sahelian and sudanese areas of Africa during the winter season (July-October) of 1972. The amount is distributed as follows:

	in million	in million
Mauritania	730 F-CFA	(2.629 U.A.)
Senegal	587 F-CFA	(2.114 U.A.)
Mali	3,958 F-Mali	(7.126 U.A.)
Upper Volta	310 F-CFA	(1.116 U.A.)
Niger	780 F-CFA	(2.809 U.A.)
Chad	893 F-CFA	(3.216 U.A.)

The drought in 1972, which extended as far as India, had particularly damaging effects everywhere on the traditional subsistence crops, such as millet, sorgo, groundnuts and maize. The shortage of water and lack of pasture also resulted in serious damage to the herds. The necessity for finding

food resulted in growers getting further into debt, and having to make inroads into their stock of seed and thus compromising the yield of the next growing season. The very considerable cattle mortality reduced, in some cases to the extreme limit, the cash income of the stock-raisers which, even in normal times is small.

The Six Associated States affected by the disaster were each given emergency food aid by the European Community, consisting of about 32 000 tons of cereals, which was additional to the 12 500 tons in the Community 1971-72 programme. The delivery of these tonnages is imminent, or actually in progress. This aid is distinct from the aid which will be decided upon at the end of March or the beginning of April by the Council of the Communities under the Community programme 1972-73.

At the same time some of the individual member States of the Community (Germany, France and Belgium) have delivered, or are preparing to deliver, 52 000 tons of cereals and other foodstuffs to the Six Associated States concerned.

The present intervention, which is added to this aid, is made under Article 20 of the second Yaoundé Convention. It was approved by the E.D.F. Committee at its 77th meeting.

The aid is adapted to the most pressing requirements which have

come to the surface in each individual country, and is organised in relation to situations which show various differences.

For all six of the Associated countries, it consists of:

- defraying, so far as necessary, the cost of transport and rapid distribution of the food aid supplied by the Community and its member States;
- supplying agricultural by-products to combat the malnutrition of cattle, which have suffered from the drought (U.A. 2.9 million);
- strengthening the health protection for the herds (which are in a state of diminished resistance).

For some countries this action is supplemented by others. These are:

- exceptional arrangements to use Community aid to meet the taxes on livestock in the affected areas, which the stockraisers are not in a position to pay. In Niger, a payment equivalent to the abandonment of collection of these taxes by the government has been made to the Niger investment fund, to be used for the quick execution of hydraulic schemes for nomadic stockraisers;
- supply of seed, or payment of sowing bonuses, to enable the family farms affected to reestablish their production potential for the next growing season;
- urgent development of existing drillings, so as to increase their capacity and thus open various pastures which have hitherto not been used through lack of adequate water supplies.

Because of the urgency, and to make these interventions fully effective, the operation will, where necessary, be carried out by government agencies or under privately placed contracts without a public call for tenders.

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Following approval given by the Committee of the European Development Fund (E.D.F.) at its 76th meeting, the Commission of the European Communities has made six further decisions for financing non-repayable aid from the second and third E.D.F., amounting to U.A. 3.3 million. Three further projects concern financing in the form of loans on special terms under the second and third E.D.F. to a total amount of U.A. 9.7 million, but including for two of the projects a section subsidised from the third E.D.F. of U.A. 3.5 million.

..

SECOND AND THIRD E.D.F.

1. **Department of Reunion: Improvement of the coast road:** U.A. 3 546 793, of which U.A. 1 424 000 is in the form of non-repayable aid from the Third E.D.F. and U.A. 2 122 793 in loans on special terms (of which U.A. 326 798 is from the remaining balance of the second E.D.F., and U.A. 1 795 995 from the third E.D.F.).

THIRD E.D.F.

2. **Republic of Togo: Rebuilding and extension of the palm oil plant at Alokoeqbé:** F-CFA 203 million, equivalent to about U.A. 731 000.
3. **Republic of Dahomey: Extension of the National Medico-Social Institute at Cotonou:** F-CFA 97 million, or about U.A. 349 000.
4. **Republic of Dahomey: Super-structure extension in the fishing port at Cotonou:** F-CFA 150 million, or about U.A. 540 000.
5. **Republic of the Ivory Coast: Industrial rubber plantation (1st phase):** U.A. 6 928 million, equivalent to about F-CFA 1 924 billion in the form of a loan on special terms. This loan, which will be managed by the European Investment Bank, is for a period of 30 years, with a grace-period of 10 years, subject to interest at 0.5% p.a. during the first 14 years and 3% p.a. from the 15th to the 30th year.
6. **Republic of the Ivory Coast: Planning of the regional hospital centre at Korhogo:** F-CFA 66.7 million, or about U.A. 240 000.
7. **Republic of the Ivory Coast: Appointment of an expert as technical Director of the Société des Caoutchoucs de la Côte-d'Ivoire (S.C.C.I.):** F-CFA 69.4 million, or about U.A. 250 000.

8. **Department of Martinique: Improvement of Route Nationale No. 2:** FF 15 million, or about U.A. 2 701 000, of which U.A. 2 071 000 in the form of non-repayable aid and the remaining U.A. 630 154 as a loan on special terms. The loan is for a 25-year period subject to 5 year's grace, and subject to interest at 3% p.a.

9. **Central African Republic: Vocational training centre for public works:** F-CFA 345 million, or about U.S. 1 241 000.

Following approval given by the European Development Fund (E.D.F.) at its 77th meeting, the Commission of the European Communities has taken five further financing decisions for non-repayable aid from the second and third E.D.F. to a total of U.A. 27.6 million.

SECOND AND THIRD E.D.F.

1. **The Republic of Togo - Improvement and surfacing of the Lama Kara-Kandé road section (56 km) on the Ouagadougou-Lomé arterial road:** F-CFA 150 million, or about U.A. 540 000 from the remaining balance of the second E.D.F. and F-CFA 1,130 million, or about U.A. 4 068 000 from the third E.D.F.

THIRD E.D.F.

2. **Republic of Burundi - Extension of the tea plant at TEZA:** F-Bu. 143.4 million, or about U.A. 1.51 million.
3. **Republic of Burundi - Extension of tea-growing and assistance to the Tea Office:** F-Bu. 864.1 million, or about U.A. 9 089 000.
4. **Republic of Rwanda - Electrical infrastructure; high-tension line (110 kV) Kigoma-Mururu:** F-Rw. 660 million, or about U.A. 6.6 million.
5. **Republic of Senegal - Cattle-raising development in the wood-and-pasture and water-and-pasture zone (approach phase):** F-CFA 1 606 billion or about U.A. 5 783 000.

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Following the financing decisions now taken, the total commitments of the third E.D.F. amount to U.A. 515 673 000, covering 191 financing decisions since the operations of this fund opened. (on January 1, 1971).

The European Parliament

The Standing committee for development and cooperation of the European Parliament met in Brussels on March 19 under the chairmanship of Herr Ernst Achenbach (lib. Germany).

This is the former Committee for relations with the A.A.M.S., and has now been increased from 18 to 35 members.

The Chairman greeted the new members of the Committee and welcomed the presence of Mr. Maurice Foley, assistant Director General, who had accompanied Commissioner Jean François Deniau and Director General Hans Broder Krohn.

The parliamentarians had a wide exchange of views on the current problems of the E.E.C.-A.A.M.S. association, and preparations for the new negotiations. The discussion can be summarised in a single phrase: What has been achieved in the Association must be maintained, renewed and amplified. In order to get rid of reserves and suspicions on all sides, concrete proposals must be framed as quickly as possible; and M. Deniau undertook to present such proposals to the Council and the Parliament in April next. As an example, Commissioner Deniau mentioned various suggestions he considered including in this document.

- tariffs: the Community might state that though it still adheres to the principle of a free trade area, it would not insist on specially favoured treatment. It would go further than this, and might undertake to help in their negotiations those of the Associates who might wish to extend the benefit of any inverse preferences to other industrial countries.
- trade: the E.E.C. might propose the formation, quite apart from the E.D.F., of a kind of "insurance fund" to guarantee a suitable level of annual receipts for various basic products.
- financial and technical aid: the E.D.F. would warmly welcome any suggestion from the A.A.M.S. on the system of granting aid to the less advanced countries.

The Association Parliamentary Conference

The Parliamentary Conference of the E.E.C./A.A.M.S. Association met in Kinshasa on March 29-31 in the Palace of the National Legislative Council. The conference is attended each year by 108 delegates, three from each of the Associated States and 54 members of the European Parliament. Previous sittings were in Dakar 1964, Rome 1965, Abidjan 1966, Strasbourg 1967, Tananarive 1969, Hamburg 1970, Yaoundé 1971, the Hague 1972.

The Agenda included:

- appointment of officers and committees;
- discussion of the reports of:
 - Mr. François Bouda (Upper Volta) on the internal accounts of the conference;
 - Mr. François Perret (Niger) on the 8th annual Report of the activities of the Association Council;
 - Mr. Ernest Glinne (socialist, Belgium) on cooperation between the 24 partner States in the Association;
 - Herr Heinrich Aigner (christian democratic, Germany) on Community policy in development aid.
- discussion of the working document of Mr. Louis Briot (U.D.E., France) on the development of the tourist trade in Africa.

These reports had been discussed in 1972 at meetings held by the Joint Committee, a permanent organ of the conference, in Luxembourg and Ouagadougou. The Joint Committee held another meeting at Kinshasa on March 26-28. The next issue of Association News will contain detailed information about these important meetings.

These deliberations have resulted in final adoption of the annual report on the activities of the Council of Association presented by the Nigerian delegate, François Perret. They dealt with examination of the concluding topics of this document concerning commercial exchanges, technical and financial cooperation, and future association in the light of the enlarged Community.

In the matter of commercial exchanges, the Members of Parliament have unanimously endorsed the establishment of free trade in fruits and vegetables produced by the A.A.M.S. to be considered at the next meeting of the Council of Ministers of the EEC. With regard to technical and financial cooperation, they expressed satisfaction with the "fruitful" activity of the 3rd European Development Fund and urged that particular treatment be reserved for the less advanced countries. As to future association, they emphasized that it would be in the nature of a partnership based on the principle of a free trade zone.

Mr. Deogratias Kasthonga, acting president of the Council of Association, particularly reminded the equal-member commission of the agreement made by the enlarged Community to maintain without flinching the three aspects of association, namely: equal member institutions, commercial ex-

changes, and financial and technical cooperation.

Our readers will find detailed information on these important meetings in the next issue.

Fairs and Exhibitions

This year, thirteen African states associated with the European Economic Community will together participate in the 46th Brussels Commercial Fair in the "Palais du Centenaire" from April 28 to May 13.

They are: Burundi, Cameroun, Central African Republic, Dahomey, Upper Volta, Mali, Mauretania, Nigeria, Ruanda, Senegal, Somalia, Togo, and Zaire. Ivory Coast will be represented by individual exhibitors.

Their participation is organized through the agencies of the Commission of the European Communities in the framework of action aimed to promote the sale of products originating in the A.A.M.S. on the European markets.

On the occasion of the participation of the A.A.M.S. in the Brussels fair, a meeting of experts concerned with the production and commercialization of tropical fruits and out-of-season vegetables originating in the associated states is planned.

Memorandum

The enlarged European Community could offer some forty developing countries an original system for stabilization of their receipts from exports. This "insurance fund" against fluctuations in the prices of basic products is one of the measures proposed by the Commission of the European Communities for renewal and extension of the Yaoundé Convention for eurafrican Association.

On April 4, 1973, the European Commission definitively adopted a memorandum containing its propositions which will be submitted to the Community's Council of Ministers and the main points of which were outlined on April 5, 1973, to the press by Mr. Jean-François Deniau, member of the Commission responsible for development aid at this time. In effect, the Nine must prepare themselves to negotiate, from August 1973 on, not only with the Yaoundé Convention but also with the 19 Commonwealth countries situated in Africa, the Caribbean, and the Pacific, to whom they have proposed various forms of association.

The contribution of Community aid

The European Community has made its contribution from the resources of the European Development Fund to the growth of this expanding agricultural industrial sector.

In the first instance the availability of the means of production was facilitated by price support and subsidies for fertilizers, pesticides and other treatment materials. Subsequent intervention has included structural aid; the financing of popularisation campaigns, research programmes and training schemes for operations in rural areas; the financing of ginning and oil plants; and participation on the industrial side in providing finance for the textile complexes. The scale of the financing which has been, and is being, provided runs into tens of millions of units of account. This is shown in the following table, in which the figures are in thousands of u.a. (1)

The aim of the price support was to enable the countries which enjoyed it to align their selling prices for cotton fibre on the prices in the world market. The effect was to absorb the gap between production costs for cotton fibre in the individual countries and the prices ruling in the world market when the first Yaoundé Convention came into force.

In view of the uncertainties about world prices, a degressive intervention programme has been worked out, so as to enable the objective to be reached without shocks to the economies of the exporting countries. Without this a sudden price alignment would have had undesirable effects in countries, such as Chad, in which the economy is largely dependent on cotton growing.

The amount set aside for supporting cotton prices, and which was made available to five of the A.A.M.S. countries, was nearly 29% of the total appropriation for price support, which extended also, to ground nuts, rice, grated coconut, palm oil and other products.

The structural aid given during the period covered by the first Yaoundé Convention was paid out in respect of various precise actions, the scale and nature of which was determined individually for the different countries and their cotton production.

The results obtained can, in general, be regarded as excellent, for there has been an increase in production, a considerable growth in productivity and the merchant fibre produced has been of very good quality. It can thus be claimed that most of the objectives have been reached.

The degressive subsidies which have been paid were more especially for **fertilizers and pesticides**. For the 64 000

(1) 1 u.a. = 277 F-CFA.



Textile mill (Ivory Coast).

tons or more of fertilizers used, the average subsidy was of the order of 30%. The amount paid out for these subsidies was more than 600 millions F-CFA.

Before the promotion policy was put in hand, chemical fertilizers were only very sparingly used. Since the subsidies were granted, there has been a considerable increase in their use and this is still going on and has led to a general increase in production. Moreover, the use of the fertilizers has a very good effect on the rotation crops, which are, for the most part, food crops.

For pesticides and phyto-sanitary products the subsidies granted cover 33 % of the total value of products consumed, and have amounted to nearly 760 million F-CFA.

Insecticide treatment and fertilizers were the instruments of production needed for increasing the unit yield of cotton. The programme which has been financed for this purpose has been a success; and it is therefore natural that there has been an increase in the use of pesticides.

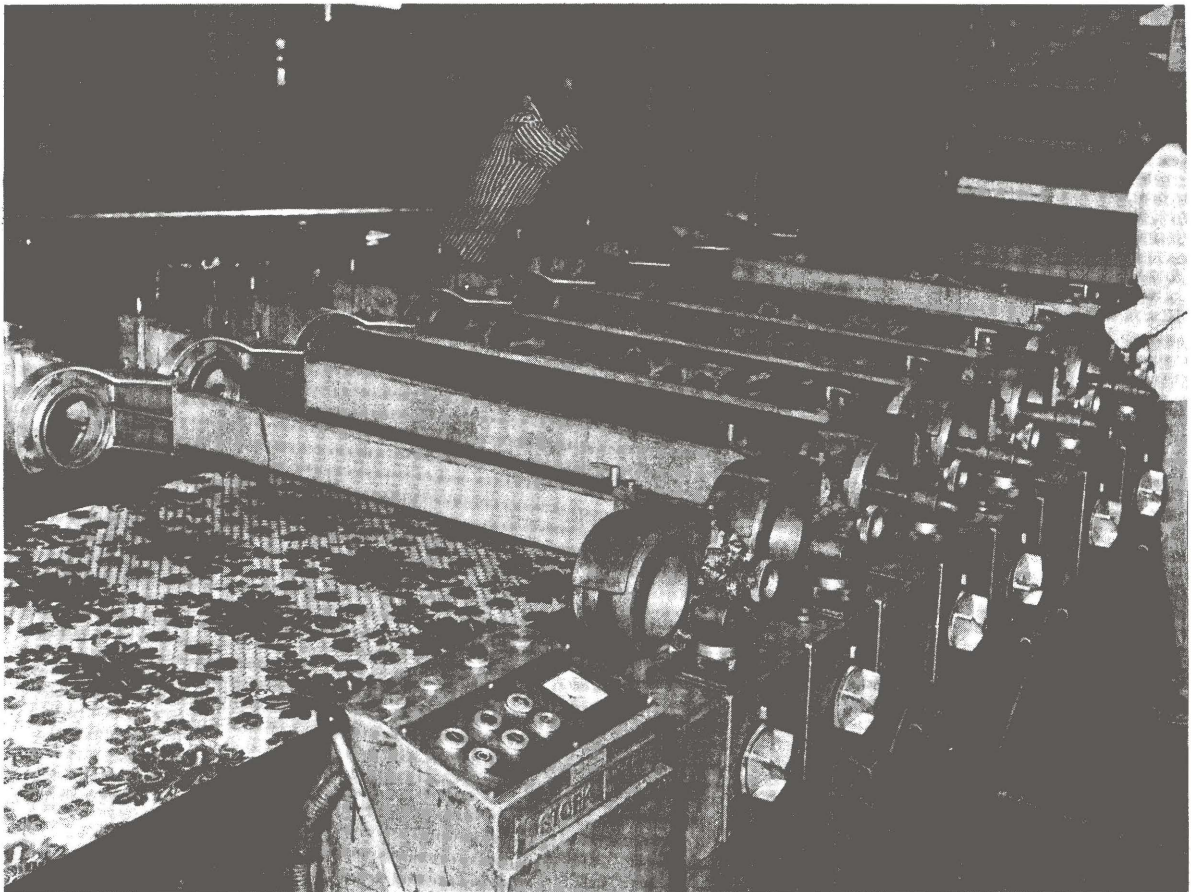
Apart from these aids to production, the A.A.M.S. have had the benefit of finance for a variety of purposes, and on a scale determined by their specific problems. These have included the acquisition of much **agricultural equipment**, more especially material intended to popularise the practice of animal-drawn or motorised cultivation which is still one of the more important productivity factors; the provision of managerial personnel, not only for technical cooperation, but also for training their own nationals who are eventually to take over; the payment of **cultivation bonuses** which are given to cotton producers in Cameroon and the Central African Republic as a means of encouraging up-to-date methods of cultivation; the **accelerated development of**

limited areas, an example of which is the Fana area in Mali, where a very competent supervisory team made it possible for peasant undertakings to be set on foot on lines which had their influence in all the village communities; the distribution of **selected seed**; and the provision of storage infrastructure, for example Niger and Dahomey.

On the question of diversification aids, **Association News** (1) has already given a summary of what has been done for cotton in this connection in Senegal and Chad. It should be remembered that the E.E.C. contribution made it possible for Senegal to begin cotton growing, raising the production from only 54 tons in 1964 to 24 000 tons in 1972. The target in Senegal is a plantation area of 35 000 ha to produce 40 000 tons in or about 1975.

In Chad the government authorities decided to undertake a thorough re-organisation of their cotton structure. They drew up a 5-year plan, to which the Community contributed

(1) See numbers 12 and 15.



Printing of loin cloths (Upper Volta).

Thousand u.a. (1)

Countries	1st Yaounde Convention		1st and 2nd Yaounde Convention	
	Support of prices	Structural improvements	Diversification	Aids to be repaid
Burundi	—	—	7 240	—
Cameroon	—	1 735	385	4 028
C. A. R.	2 652	1 640	5 714	—
Ivory Coast	—	—	4 965	2 698
Dahomey	395	1 056	—	—
Madagascar	—	670	5 400	—
Mali	—	2 299	3 277	—
Niger	289	627	—	—
Senegal	—	—	8 845	975
Chad	4 174	—	16 300	1 280
Togo	333	828	3 434	—
Zaire	—	—	6 175	—
Total	7 843	8 855	61 735	8 981

(1) 1 u.a. = 277 F-CFA.

financial support to the extent of 3 156 million F-CFA (u.a. 11.4 m) from the resources of the E.D.F. This finance covers the outlay for supervisory personnel, storage infrastructure, transport material and partial finance for the means of production.

In Madagascar the E.D.F. intervention was on different lines from what has been usual for cotton growing in Africa. It is concerned with hydro-agricultural development, in which part of the area made available is reversed for cotton growing. The basic hydraulic infrastructure so far completed should make it possible to plant 10 000 hectares. At present 3 000 hectares have been planted and another area of the same extent is being made ready. Half the total area is to kept for cotton planting, which has already been done on the first 1 500 ha section with very promising results. The average yield is 2 800 kg per ha of unginned cotton.

The E.D.F. also helped finance the peasant development schemes at Gandajika and Kalenda Kashile in Zaire. Cotton production, which was only 1 100 tons (unginned) in 1962 has risen to 7 500 tons; and the production of maize, which is used for rotation with cotton has doubled, from 10 000 to 20 000 tons.

In Burundi, the scheme financed by the E.D.F. in the Imbo valley was for an integrated operation, in which cotton growing is associated with rice.

In general, the finance provided from the E.D.F. resources to the different A.A.M.S. producers has covered supervision of peasant activities; help in fertilizer and insecticide purchases; the supply of processing material, logistic material, the building of sheds and storage facilities and the construction of ginning plant.

Items of repayable aid, which should be recorded, include the Community capital contributed in setting up the spinning facilities in the Ivory Coast and Chad, the ginning plants in Senegal and the extension and improvement of existing plant and storage facilities in the Ivory Coast.

The total amount of finance provided amounts up to the present, for all the A.A.M.S. countries, to U.A. 83 386 000, or nearly 23 100 million F-CFA. This indicates that the action taken in this sector has been of particular interest to the European Economic Community; and the resulting economic effect provides an assured basis of development in the areas concerned in the different Associated countries.

S. PIVETTA

IV. — Problems of cotton production

in East Africa

by Dr. ARNOLD

Dr. Arnold has worked on many aspects of cotton production research in East Africa for the past twenty years. Leaving Cambridge in 1952 with a first class honours degree in natural sciences and a subsequent Ph.D., he started work in Tanzania's Western Regional Research Station. Later transferring to Uganda he became Director of the famous Cotton Research Station at Namulonge in 1966. He held this post until the beginning of 1972. He was awarded the O.B.E. last year. During his time in Uganda Dr. Arnold served for a number of years on that country's National Research Council.

In many developing countries in Africa cotton has become a key factor in economic development, accounting for a substantial part of the earned foreign exchange and providing productive employment for large sections of the community. Of the three countries comprising the East African community, cotton is vital to the economies of Uganda and Tanzania while in Kenya, although the contribution of cotton is much smaller there is an urgent need for alternative cash crops in certain areas and cotton might well be able to fill this gap.

Cotton production is limited primarily by the environment. Derived from wild species adapted to desert conditions, the cultivated cottons thrive under hot sunny conditions but require a reliable supply of water to produce a worthwhile crop. Drought during the period of boll formation causes a severe set-back to the crop from which it may never recover. Successful cotton growing areas are therefore those with plenty of sunshine and where an adequate water supply can be ensured at the critical times.

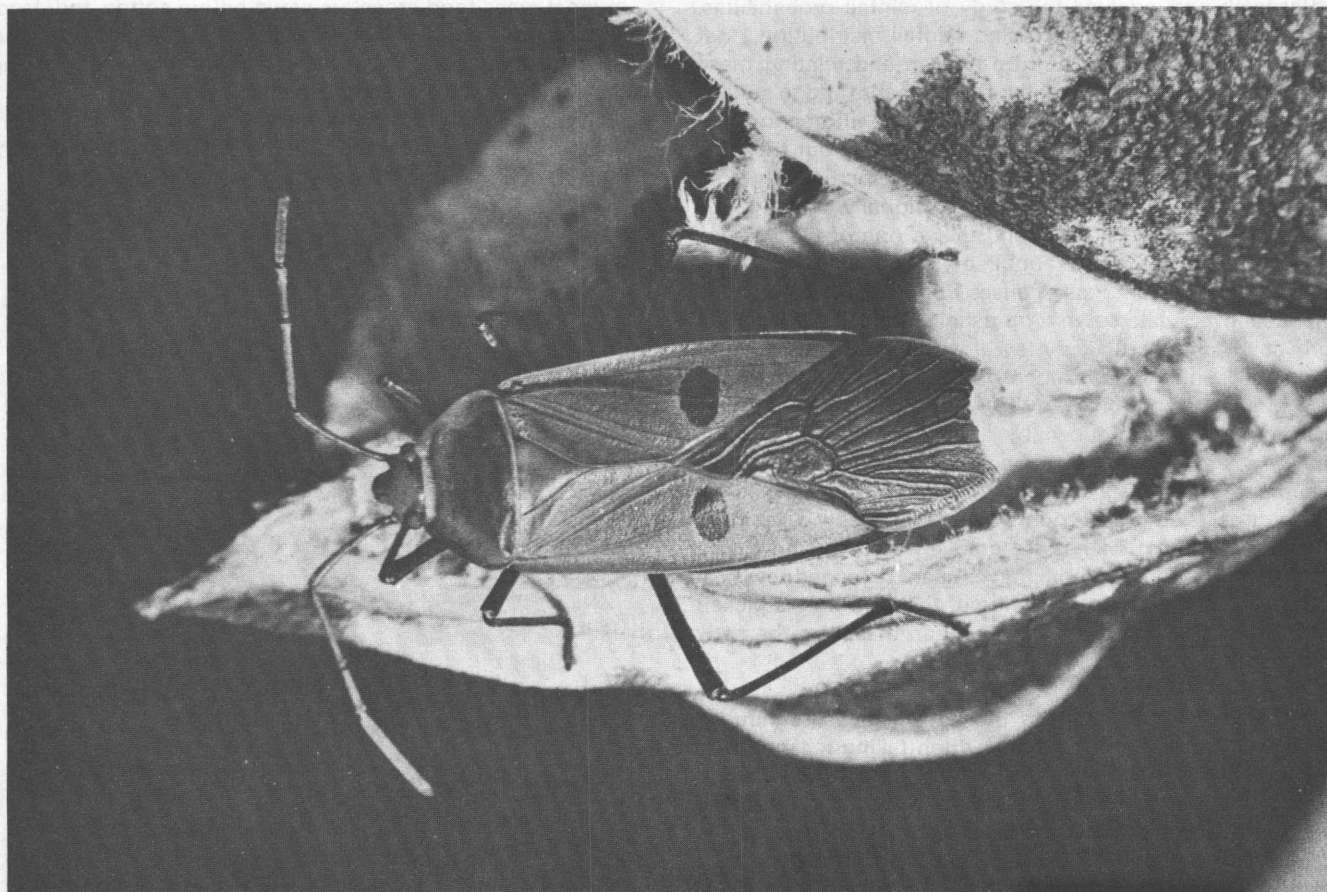
Many of the world's most successful cotton crops are grown under desert conditions in the sub-tropics with long hours of sunshine, where the water supply is ensured by irrigation. In the countries of East Africa, which span the equator, day lengths are shorter, there is little irrigation and crops must be grown on a somewhat uncertain rainfall distribution. Consequently yield potential is limited and yield levels of 750-1000 kg of lint per ha that can be obtained fairly reliably in certain parts of the world, such as with irrigated cotton in the U.S.A., are seldom realised in com-

mercial production in East Africa. Indeed, over much of the area, yields of only 100 kg of lint per ha are common place.

Many factors, in addition to the climate, contribute to these poor yields and even though results of research have shown how many of the agricultural problems can be overcome, progress in putting them into practice has been slow. Two questions therefore arise: should we expect progress to be more rapid, and what are the effective constraints to rapid increases in production?

On a world basis cotton is produced in a wide variety of agricultural systems, both raingrown and under irrigation. In some of the developed countries, it is produced in highly mechanised farming systems, on large blocks of land perhaps extending for hundreds of hectares. In the developing countries of Africa, however, the crop is mainly produced on small patches of land, often of less than one hectare. Sometimes it is planted in the gaps between perennial crops, such as young coffee trees, bananas or cassava bushes, or it may be sown in mixed stands with beans or other annual food crops. To imagine that the system used by the small farmers in East Africa should rapidly evolve into the intensive systems seen in such countries as the U.S.A., is to be unrealistic.

Profits from the crop are inadequate to generate rapid investment in improved technologies, and governments cannot afford to give the financial stimulus to production that has proved so successful in some of the developed



A cotton stainer

Reed

countries of the world, such as by the introduction of the **cotton bounty** in Australia, for example. Even if such finance were available in East Africa, it is doubtful if this single measure would have an immediate or spectacular effect on production, unless other constraints could be dealt with simultaneously.

Increased production can result from increases in yields per unit area or from increases in the total area under cultivation. These two aspects of production are economically inter-related, but it is convenient to consider them separately.

Factors limiting yields

1° SOWING DATES

Results of research have shown conclusively that yields per unit area could be substantially increased if the farmer

could sow his crop during the period that is officially recommended. Farmers almost invariably sow their cotton too late to obtain maximum yields. There are three main reasons for this procrastination: a lack of conviction that the recommended sowing dates are the best that could be chosen, a lack of resources for land preparation and a reluctance to alter the system in order to devote more resources to cotton at the critical time.

Recommended sowing dates have been devised so that the growing season of the crop will best fit the expected pattern of rainfall distribution. The best period for sowing is easier to determine in some circumstances than in others. In western Uganda, for example, and in parts of western Tanzania, the total period of rainfall is only just adequate to mature a cotton crop. Consequently cotton must be sown as soon as possible after the rains break. In other areas, the season of rainfall extends over a longer period and may be more or less clearly divided into two peaks, giving the bimodal distribution which is characteristic of many localities, and reflects the northward and southward passage of the inter-tropical convergence zone.

Research has involved the study of rainfall probabilities, finding methods of characterising rainfall distributions that are meaningful in terms of crop growth and relating these both to the results of sowing date experiments and to studies of crop physiology. From such work the sowing period that will, on average, give rise to the best return from the crop can be determined. Nevertheless, in any one particularly year, sowing outside this period can occasionally prove to be better than sowing within it and this is one of the reasons for the farmers' scepticism about sowing dates. Another and perhaps more cogent reason arises from the fact that, to the uncritical eye, a late sown crop usually looks better than an early sown one, particularly towards the end of the season, when the plants appear much greener and are often taller and more vigorous in growth. Usually, however, these effects have been induced by a build-up of insect pests which destroy the fruiting bodies and induce excessive vegetative growth. The earlier sown crop avoids this build-up of insect pests, and boll counts almost invariably reveal that the later sown cotton has matured fewer bolls and that a greater proportion of them have been damaged by pest attack. In consequence, the value of the crop that is picked from the late sown crop is far less than that from the early sown crop.

Even if the farmer accepts the advice given to him on sowing dates, however, there are often telling reasons why he cannot comply with them. In areas where cotton sowing is preceded by a severe dry season, land cannot be prepared until after the rains break and the soil is softened. This immediately imposes a limit on the amount of land that can be prepared in time, particularly where all cultivations are done by hand.

Mechanisation, either using tractors or oxen, can help greatly with this problem. More land can be prepared in a given time, and land that is too hard to be cultivated by hand can sometimes be prepared by machine although, if discretion is not used, the wear and tear of machinery can be excessive. In both Tanzania and Uganda it has been shown on research stations that on certain soil types land can be ploughed at the end of one season and left fallow through the ensuing dry season. Very little further cultivation is then required when the new rainy season begins and large areas can be sown in a short time. The system is analogous to the practice of autumn ploughing for spring-sown crops in temperate regions. The wide application of such a system in East Africa, however, must await a greater degree of mechanisation, because the hard crust that forms on the surface of many soil types towards the end of the season is difficult to penetrate with hand implements. The share of a mould-board plough slides easily beneath the crust, however, and mechanical ploughing of the soil at this time presents no problems. Nevertheless, even where a tractor hire service is available, the farmer is unlikely to want to invest money in a future crop, particularly at a time when there are other, more urgent calls on his financial resources.

At cotton sowing time the farmer is also faced with the problem of conflicting demands upon his limited manpower.

In most areas food crops are sown before cotton and, faced with the choice of risking the success of his food crops or risking a reduction in this cotton yields through late sowing, there is little doubt as to which he will choose. In many cases he has little room for manoeuvre unless he can command the resources either to intensify his methods or to buy his food instead of growing it. In most cases he can do neither.



Reed

Correct spraying programmes are fundamental to insect damage control.

2° SPACING

Some of the considerations that apply to sowing dates apply also to spacing. The effects on yield of different plant densities differ widely, and are related to such factors as soil fertility, pest attack, water supply and variety. Moreover, the problem of weed control is likely to be more severe in wide spaced than in closely spaced plants where the leaf canopy closes more rapidly, inhibiting the rapid growth of weeds.

Research to determine those plant densities that are likely to maximise yields over a range of conditions has given rise to recommendations for optimum spacings. There is considerable latitude and, for many conditions, maximum yields are obtained for population densities between 50 000 and 150 000 plants per ha. Recommendations fall mainly on densities near the middle of this range, depending upon conditions, and small deviations from the recommended density are unimportant. Nevertheless, a large proportion of the crop continues to be planted at far too wide a spacing, populations of less than 25 000 plants per ha being commonplace.

The wider the plants are spaced, the greater the crop that is borne on a single plant. It is this that catches the farmer's eye and causes him to argue that the wider spaced plants produce the greater yields, an assertion that takes no account of the concept of yield per unit area. The sowing of closer stands is somewhat more laborious, but the work can be reduced considerably by the use of simple mechanical seeders. Several different designs are available, usually based on a wheel that is pushed by hand, but relatively few growers possess them.

3° INSECT PESTS

The ravages of insect pests of cotton limit both yields per unit area and, if uncontrolled, set severe limits to the regions where cotton can be produced. Insects can attack the plant at any time during its growth, damaging leaves, stems, flower buds and mature bolls. The wide range of cotton pests that occur in East Africa include small sucking insects such as jassids, *lygus* bugs and aphids which feed on the leaves, a number of important lepidopterous larvae or bollworms that feed on the flower buds and bolls and other sucking pests that pierce the walls of the mature bolls and give rise to boll rotting. The control measures that have been developed for many of them have been applied to varying extents in commercial production.

The pink bollworm (*Pectinophora gossypiella*), for example, is confined almost exclusively to cotton, having few alternative host plants. In consequence the enforcement of a strict close-season can give almost complete control of this pest, and in all three countries uprooting and burning of cotton at the end of the season is enforced by law. Even so, there are remote areas where in practice some of the cotton

is not uprooted, providing reservoirs of infestation from which the pest can multiply in the following season.

For many of the other pests, control depends upon the use of insecticides. Spraying regimes that give profitable returns to the grower have been developed for most areas and the use of insecticides has shown marked increases over the past decade. In Uganda, for example, the government introduced generous subsidies both for insecticides and for the spray pumps needed to apply them. Issued in tins containing enough insecticide to spray one acre the recommended four times, there was an initial free distribution in the 1963-64 season of 477 000 tins. In the following year, when the farmer was required to purchase his insecticide at a heavily subsidised price, sales were only 25 000 but had risen to 250 000 tins by 1968-69.

The use of insecticides has not always met with the success that was hoped, even though growers in general are enthusiastic about their use. Problems of obtaining an adequate supply of clean water, and carrying it to the site, act as deterrents to the use of liquid sprays: difficulties in obtaining, using and servicing spray pumps form another, and sometimes subsidised insecticide, intended for cotton, is used for other crops or other purposes. Moreover, the need for repeated spraying has not always been appreciated by the grower, and the results of surveys in Uganda show conclusively that farmers who use their insecticide to spray a larger area fewer than the recommended four times lose much of the benefit that should be obtained.

Nevertheless, the effective use of insecticides remains a key factor in the development of cotton production in East Africa. There is a continuing need for financial assistance to the farmer to obtain the necessary equipment and chemicals at the beginning of the season, and to train him in their correct use. In this connection, schemes for agricultural credit are of great importance, and may well prove to be a better basis for helping the farmer than by direct subsidy. Other approaches that are being tried consist of the provision of centrally organised spraying teams, providing a service to the farmer that can be financed on credit and recovered from the proceeds of his crop.

4° FERTILIZERS

Yields of cotton can be substantially increased on all types of soil in East Africa by the judicious use of fertilizers, but simple recommendations involving the use of standard dressings can be given only in certain cases. With the hill-sand soils of northwestern Tanzania, for example, a fertilizer dressing that applies approximately 20 kg of P and 20 kg of N per ha almost invariably gives a profitable return. In many cases, heavier dressings would give bigger returns, but the risk of not recovering the cost would be greater should some other factor, such as drought, reduce the potential yield.

If the risk factor is important in circumstances where simple recommendations can be given, it assumes even greater importance where the situation is more complex. With the red ferrallitic soils in Uganda, for example, reliable responses to fertilizer are obtained only when the whole level of inputs can be raised. Liming may be necessary, a carefully balanced fertilizer mixture must be used, the crop must be sown at the right time, at the right spacing and protected from insect attack. In these circumstances, no simple, general recommendation can be given and fertilizers can be used profitably only on farms where expert advice is readily available. It is this inter-dependence of a number of diverse inputs that is one of the major obstacles to rapid improvements in yields in many areas. To implement them requires a degree of innovation for which the farmer is not yet ready, financial resources that he does not command and risks that he is ill prepared to take.

5° SEED

It is through the seed that the greatest increases in yield have been effected. Governments have recognised from the

outset that any improvements in the seed can rapidly and effectively be transferred into production, because of the central control of ginning and seed distribution. In consequence, great emphasis has been placed on cotton breeding in research programmes, and the release of a succession of new varieties in Tanzania and Uganda has contributed substantially both to increased production and to maintaining the position of East African cottons in world markets. Kenya has also benefited from these programmes, and has used Uganda varieties in the west of the country and varieties bred in Tanzania for the central areas.

Control of the most important diseases of cotton has been brought about entirely through improvements to the seed. Seed dressing with cuprous oxide for the control of seedling diseases, particularly bacterial blight, was started in Uganda in 1950 and rapidly became universal throughout East Africa. The 'UK' varieties released from Ukiriguru in Tanzania from 1961 onwards possessed a high degree of genetic resistance to bacterial blight, and Uganda's present varieties BPA and SATU are also highly resistant to this disease. Indeed, the combination of seed dressing together with the production of resistant varieties has virtually elim-



S.J. Brown

Weed control is a big problem. Herbicides are being developed but most cotton is still hand-weeded except where large areas warrant mechanical weeding.

inated bacterial blight as a serious source of crop loss in East Africa.

In Tanzania, a worthwhile degree of resistance to fusarium wilt has been incorporated into those varieties issued for production in areas where the disease is important, while Uganda varieties incorporate some resistance both to *Verticillium* wilt and to *Alternaria* boll rot.

As far as resistance to pests is concerned effective resistance to jassid was achieved in the early years of varietal improvement in both Tanzania and Uganda and has been maintained in the more recent varieties. Uganda varieties also possess some resistance to the cotton *lygus* while current breeding programmes include work on factors that may give some resistance to bollworms.

In all new varieties, attention has been given to maintaining or improving the ginning percentage and to modifying quality factors so that East African cotton can compete more favourably with man-made fibres. An important aspect of this work has been the selection of lines with seeds that are less prone to chalazal damage of the seed coat, a defect that becomes apparent in roller ginned lint and leads to the occurrence of **seed coat nep** in the yarn. Considerable improvements in this respect have been made in the SATU variety in Uganda as compared with the old S47 which it replaced. New varieties released in Uganda are also more mature and have higher micronaire values, rendering them more suitable for processing on modern high speed machinery in the spinning mill.

Cotton breeding has also succeeded in producing types of plants that exploit the various East African environments more efficiently to yield more seed cotton. This, combined with higher ginning percentages, resistance to diseases and to some of the pests has meant that improved varieties have contributed substantially to increased production. It is difficult to quantify this contribution precisely, but when all the evidence from district variety trials is considered, together with the results of experiments designed to measure losses from pest and disease attack, it can confidently be stated that, on an East African basis at least, one quarter of current production can be directly attributed to improvements in the seed. The actual contribution may have been far greater, because improved varieties can of themselves stimulate greater enthusiasm for the crop and so lead to greater production.

Factors limiting the area of production

In many areas of East Africa pressure on the availability of land is not a major factor limiting production. Rather, the limit is set by the ability of the farmer to cultivate more land,

and studies in Uganda suggest that changes in the area under cotton have been directly related to the manpower available for cultivation. In these circumstances, substantial increases in acreage would be dependent either on the immigration of more people into cotton producing areas or upon the development of mechanisation.

1° MECHANISATION

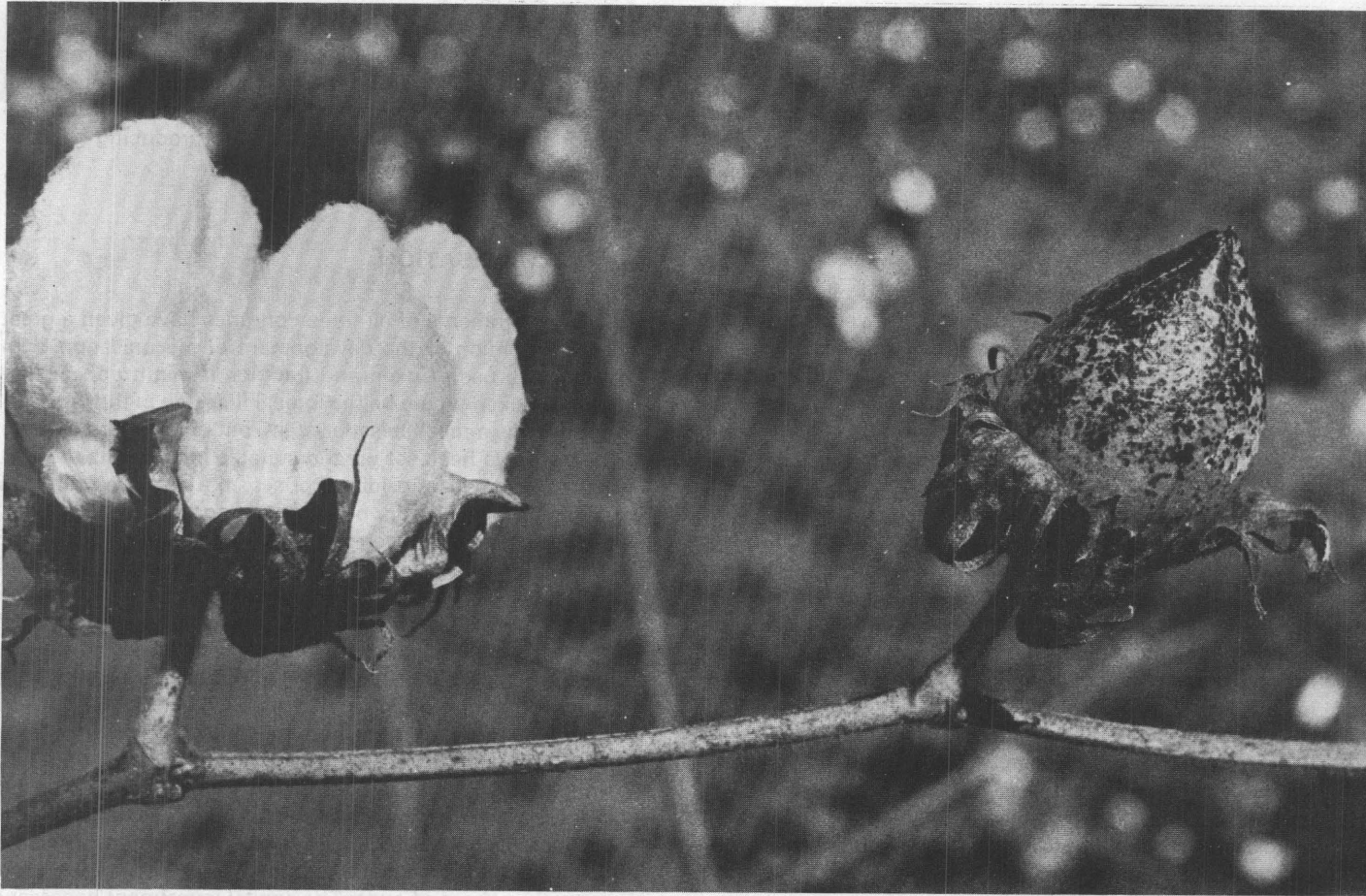
The governments of all three countries have given a great deal of attention to the development of mecanisation both through the use of oxen and tractors. It might appear that the use of oxen would be the logical first step in the progression towards a mechanised system, but even where training schemes have been set up and suitable implements devised and marketed at subsidised prices, the use of oxen has sometimes not proved popular among the local people. In other cases, however, such as in the Teso District of Uganda, ox cultivation has become widespread and has contributed a great deal to agricultural production. The failure of ox cultivation to develop in some areas is partly associated with the traditions and customs of the people and partly with such things as the difficulties of providing adequate animal feed and supplying sufficient water, particularly in areas where there is a harsh dry season.

In general, tractors capture the imagination of the African farmer to a greater extent than oxen, and where tractors have become available they have been used enthusiastically. But the problems of the large scale use of tractors are even greater than those of oxen. The capital investment necessary is beyond the means of the small farmer and hire service schemes, sponsored by governments, have proved difficult to operate profitably. Serious damage is easily done to tractors and implements through lack of experience in their use and as a result of the difficulties of the terrain over which they have been expected to work. Tracts of open land of reasonable size are few and far between and a tractor belonging to a hire service scheme may spend far too much of its working life simply travelling from one small piece of land to another. In consequence hire charges have to be raised to the extent that many small farmers find the use of tractors, even where available, to be worthwhile only for the initial breaking of new land.

Training institutes have been set up for training drivers and mechanics, but this is no substitute for the farmer himself gaining experience in the efficient use of tractors and machinery, a process that is bound to be gradual and dependent upon the whole process of economic and technological development.

2° PRIMARY MARKETING AND GINNING

In the countries of East Africa primary marketing and ginning have traditionally been centralised and have always been, to a greater or lesser extent, under government



S. J. Brown

Well grown cotton, correct sowing, weeding, fertilizer and insect control.

control. Each ginnery serves a cotton zone and the raw cotton is purchased from the grower through a network of buying posts. Prices paid to the grower are fixed each season by the government and, after ginning, fixed prices are paid to the ginners for the lint and seed. Until the mid-1950's, most of the ginneries were owned and operated by commercial companies which were also responsible for primary buying. The next ten years, however, saw the rapid development of the cooperative movement and by the mid-1960's almost all primary marketing and ginning were in the hands of the cooperatives.

In Tanzania the transformation from privately owned to cooperatively owned ginneries took place over a longer period than in Uganda and gave rise to fewer problems. In Uganda the rapid expansion of control by the cooperatives took place at a time when the industry was already in need both of modernisation and of adjustment to the changing pattern of production that was occurring between the south of the country, where cotton was declining, and the

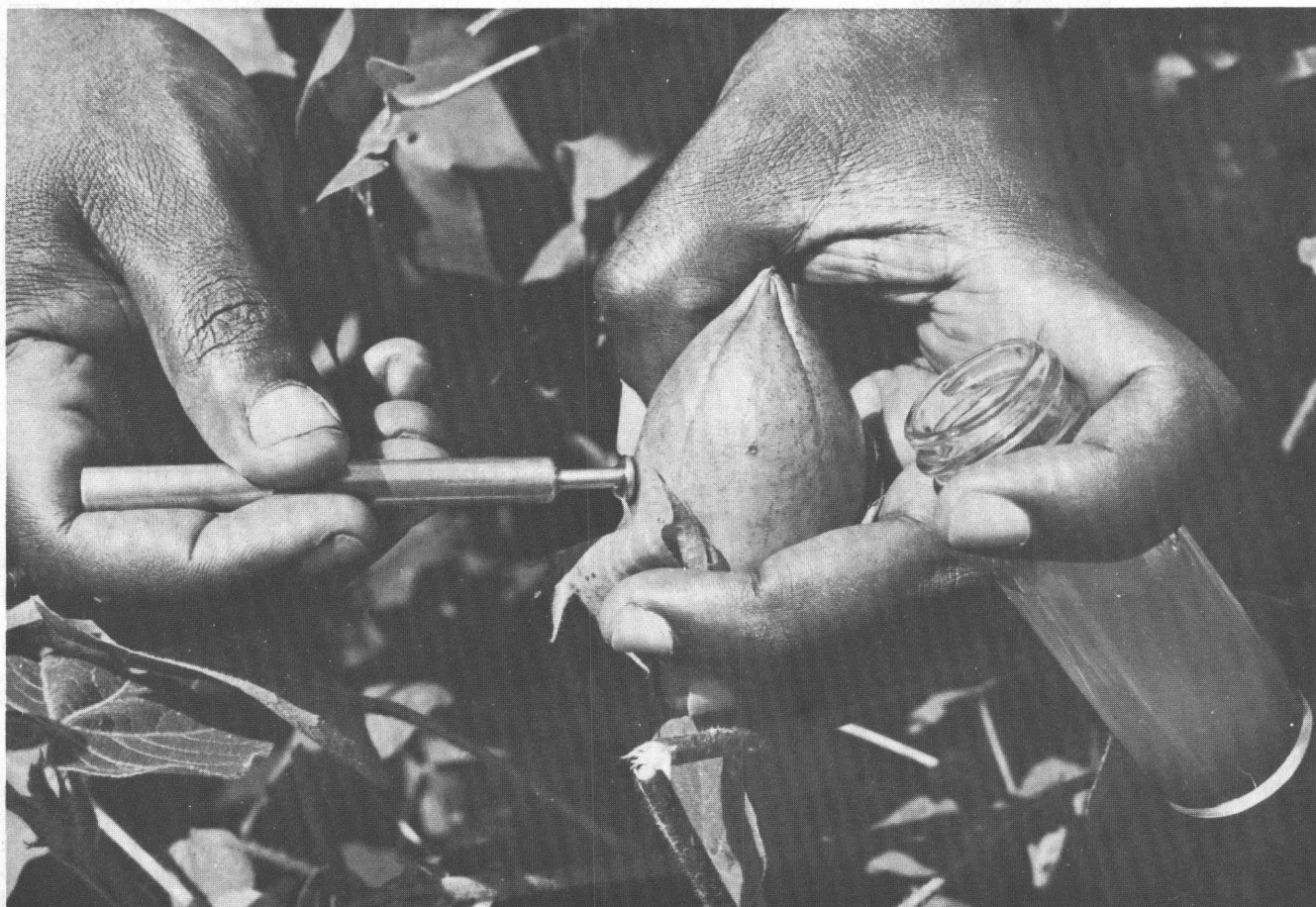
north where it was expanding. New ginneries were needed in the north and those in the south were in urgent need of rationalisation. A combination of these and other factors has meant that cooperatives have not been able to operate efficiently enough to finance from profits all the reorganisation of the ginning industry that is so necessary.

Lack of ginning capacity, transport and storage have been the main causes of bottlenecks in the system of primary marketing which have proved so frustrating for the grower. It is perhaps not surprising that he has failed to respond more enthusiastically to recent campaigns to plant more cotton.

But there are other reasons why some growers have become disenchanted with cotton, which can so easily become regarded as the poor man's crop, requiring a lot of effort for small returns. Throughout East Africa, cotton is picked by hand and is purchased from the grower on the basis of two grades: **safi** (clean) and **fifi** (dirty). To reach

the standards set for **safi** cotton the grower must first pick carefully and then sort by hand before taking his seed cotton to the buying post. The work of picking and sorting is slow and tedious and even though it is frequently done by the whole family, it imposes a limit on the amount of cotton that one grower can prepare for marketing. To employ hired labour for picking and sorting would rob the farmer of the greater part of his profit.

installed at the ginneries. Moreover, where there is a need for new ginneries, there exists the opportunity to change from roller ginning to saw ginning, which for many East African types of cotton would almost certainly prove to be more efficient. Such a change would be neither possible nor desirable to bring about rapidly, but a gradual change to saw ginning would permit an evaluation of the various consequences, both to the primary producer and to the final user.



S. J. Brown

Most cotton is still hand-picked. This is arduous and slow but produces very clean cotton which sells at a premium on world markets.

In consequence of this careful picking and sorting, East African cotton has established a reputation for high grade on world markets, but the maintenance of this high grade, by present methods, is of itself a factor limiting the expansion of production. It might well be that the standard of cleanliness of seed cotton achieved by the grower could be relaxed somewhat if more sophisticated cleaning equipment were

if the combination of greater pre-cleaning and saw ginning were to make it possible for some relaxation in the standards of cleanliness required for primary marketing of **safi** seed cotton, this would act as an incentive to the grower to produce more.

3° INCENTIVES

Of the other incentives for growers to produce more cotton, the most important is the price, and there is considerable evidence to support the view that the small African farmer



responds to increases in price in exactly the same way as any other producer. Usually, however, the grower does not know the price he is to be paid until well after he has sown his cotton. The problem is that, with fluctuations in world prices, the state-controlled marketing boards run the risk of making a loss on their transactions if the price paid to the grower is too high. The decision is therefore left until the likely returns from placing the crop on world markets can be estimated with greater certainty. Consequently, if world prices go up, and the marketing board can pay the grower more, knowledge of this comes too late to stimulate production. In Uganda there is the additional problem that a tax has traditionally been levied on lint that is exported. This serves to reduce the price that can be paid to the primary producer, but the problem of finding alternative sources of revenue if the tax were removed has become almost impossible to solve in the short term.

In Tanzania an interesting attempt to induce the farmer to pick, and hence to sow, his crop earlier has been made by paying a modest differential for cotton delivered to the buying post before a certain date at the beginning of the ginning season. It appears that this scheme has met with considerable success and is something that might well be tried in other regions.

Research and development

There is no doubt that there is considerable potential for increased cotton production in East Africa. Moreover, the quality of the cotton is such that more could be sold on world markets without materially affecting prices. Nevertheless it is unlikely that increases will be brought about easily or rapidly. More funds are needed for schemes aimed at promoting the general adoption of improved practices. In some areas, the ginning industry urgently requires an injection of capital for modernisation and increased capacity. Furthermore, research effort must be maintained at a high level in order to support the general progress in technology that is essential for development.

Dr. ARNOLD

Food aid from the European Community

The international Convention on food aid was concluded in 1967, after the Kennedy Round negotiations. The European Community, and the member States then undertook to supply 1 035 000 tons of cereals annually to the developing countries for a period of three years. At the end of this period a further convention was signed in 1971, by which the undertaking by the Community and the member States was maintained at its previous level for a further three years.

By internal decisions within the Community it was agreed that the total undertaking should be dealt with partly by national action and partly by Community action. The latter increased from 301 000 tons in 1968-69 to 414 000 tons in 1971-72.

With the passage of time the Community food aid has been extended to other products—powdered skim milk, butter-oil, sugar and powdered eggs—but there are two features which distinguish this aid from the cereal aid. In the first place it was

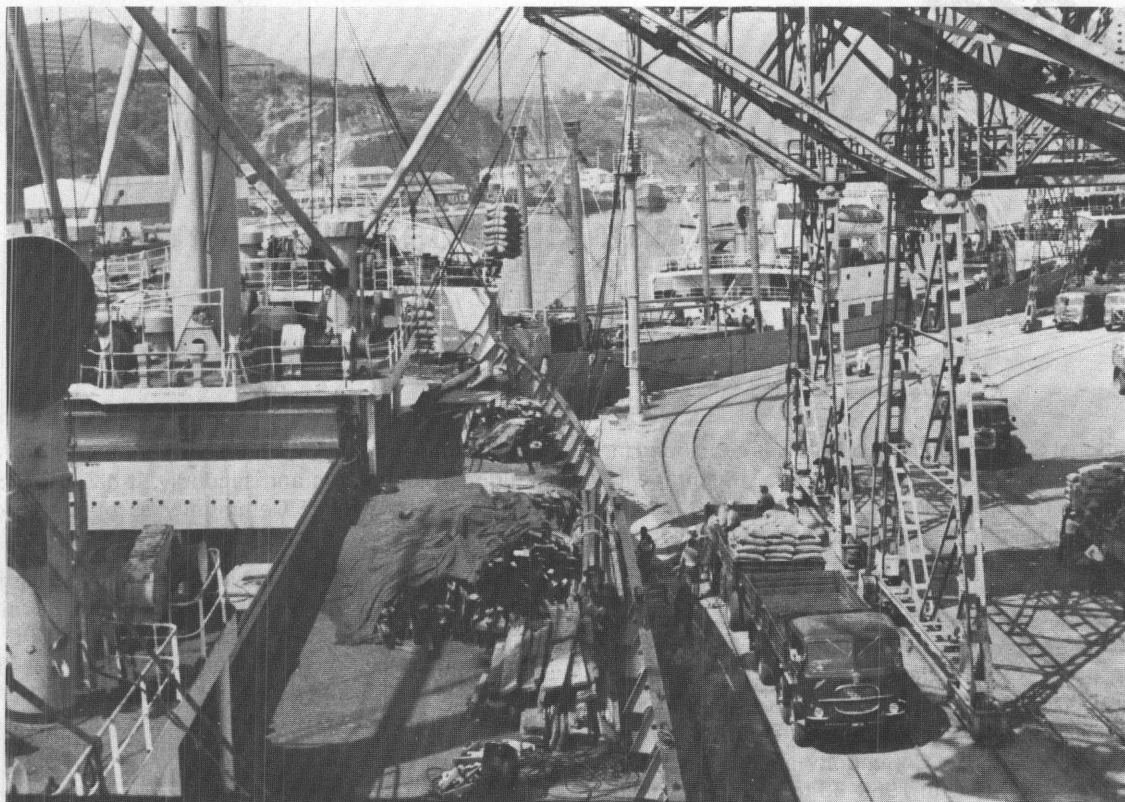
given independently by the Community without any international undertaking; and secondly, it has been carried out exclusively by way of Community as opposed to national action.

The total Community aid has grown progressively since 1969, rising from that year's expenditure of 20 million units of account to U.A. 39 million in 1970, U.A. 66 million in 1971 and over U.A. 80 million in 1972. These figures are based on world prices, but the levels would be materially higher if the aid were valued at the internal Community prices.

There is an important point to be noted about the food aid, distinguishing it from that given by the European Development Fund. The latter spends an average of U.A. 225 million each year for the 19 associated African and Malagasy countries; but the food aid is made available to all developing countries, for which, apart from the generalised preferences, it is the only way in which the Community can intervene.



*Signature covering
E.E.C. food aid to
the Sudan.
This was signed
(R to L) by:
H. E. Salah
Osman Hashim
for the Republic of
the Sudan;
M. van der Meulen
for the E.E.C.
and Herr Hans-
Broder Krohn,
Director General
for Development
and Cooperation
in the E.E.C.
Commission.*



Shipping rice from Savona (Italy) for Bengali refugees in India.

I. FOOD AID IN CEREALS

The cereal aid is given by the Community in the form of gifts to the governments of the recipient countries. As a general rule the aim is not exclusively to provide food, but also to contribute to the development of the countries to which it is sent.

1. The objectives

The food aid in cereals is given in various ways, depending on the objective. The principal methods are as follows:

- a) **normal methods.** These themselves fall into two categories:
 - aa) **normal methods aimed at development**, which are those most often used. The intention is both to contribute to covering the cereal deficit of the countries asking for aid, and to be an instrument of their **economic and social development**. The latter results not only from the fact that the aid comes as a gift; but still more from the products given to the receiving country being sold in the local market, and the counterpart funds thus released being used to finance development projects. For this purpose the projects have to be definite and precise, such as the building of a specific road, the laying out of plantations, water supplies and similar work. The projects

are selected by the government of the recipient country and put forward for approval by the Community.

- bb) **normal methods for nutritional purposes.** These are exceptional. The intention is to offset the food shortages for particularly vulnerable population groups, such as children, the sick and the aged. In these cases the produce supplied by way of aid is distributed free by the recipient government to the population groups concerned.

In these cases of normal aid the produce is usually delivered f.o.b. Community ports and the cost of transport and insurance to the final destination is borne by the recipient country.

b) Emergency aid

Aid in the urgent case is given to deal with famine conditions resulting from natural calamities (earthquakes, floods, etc.) or armed conflict, and the produce is distributed free to the population affected. In these cases the aid is usually delivered c.i.f. to the frontier of the recipient country.

2. Procedure

The countries desiring to receive food aid from the E.E.C. send their requests to the Commission, backed by justificatory

particulars from which the Commission can make any informed analysis of the request.

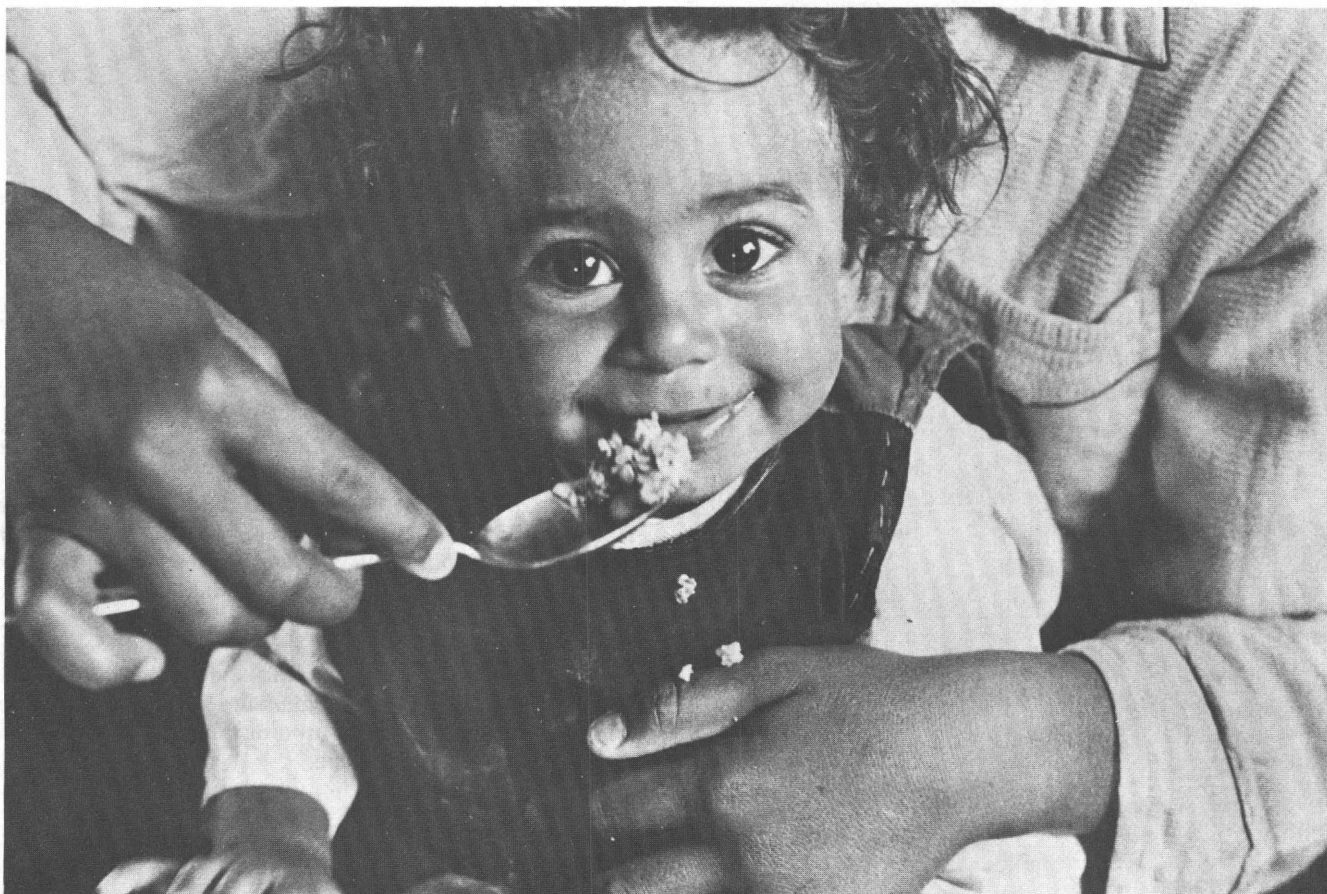
The Commission brings together all the requests made either directly to itself or to the member countries in respect of any crop-year. It then proceeds to an analysis of the cereal supply position for each applicant, covering consumption, requirements, production, commercial imports and aid to be received from other quarters. It then looks into the country's economic and financial situation, more especially the level of incomes, the foreign exchange reserves and the budget position.

When this analysis is completed, it divides the 1 035 000 tons, which is the total Community commitment, among all

3. Countries which have enjoyed food aid in cereals from the Community (see table at end of article)

The table shows the growth in the amount of Community aid, and the consistent parallel growth in the number of countries aided from only 8 in 1968/69 to 24 in 1971/72.

Taking the first and second Conventions (1968/71 and 1971/72) together, the Community food aid has hitherto been sent predominantly to the Far East (Pakistan 165 000 tons, Indonesia 159 800 tons, India 80 000 tons, Bangladesh 78 000 tons—of which 50 000 tons were for Bengal refugees in India). Substantial quantities were also supplied to Turkey (138 000 tons) and Tunisia (107.000 tons).



the applicants; and if necessary it sub-divides the supply to each of them between aid from the Community and aid from the individual countries.

The annual programme thus drawn up is submitted in draft form to the Council of Ministers. Once approval has been given the Commission begins negotiating the Community action with each of the potential recipient countries, with a view to entering into a supply agreement.

II. FOOD AIDS IN OTHER PRODUCTS

Arrangements for this type of aid, having been outside any international undertaking, and depending largely on availabilities in the Community market at any given time, have not had the continuity and regularity which characterise the cereal aid.

The quantities of the different types of produce covered by aid decisions up to the present are as follows:

1. Powdered skim milk

Aid decisions in 1969 and 1970: 127 000 tons, of which:

World Food Programme (W.F.P.)	120 000 tons
International Red Cross Committee (I.R.C.C.)	3 000 tons
Peru	1 000 tons
Turkey	2 000 tons
Rumania	1 000 tons

Aid decisions of December 19, 1972: 60 000 tons, of which:

Bangladesh	19 450 tons
Jordan	1 000 tons
Lebanon	250 tons
Egyptian A.R.	2 000 tons
Rwanda	750 tons
W.F.P.	29 450 tons
I.R.C.C.	6 000 tons
U.N.R.W.A.	1 100 tons

2. Butter-oil

Aid decisions in 1969 and 1970: 36 000 tons, of which:

W.F.P.	35 000 tons
Turkey	1 000 tons

Aid decisions in 1972: 15 000 tons, of which

W.F.P.	13 000 tons
U.N.R.W.A.	2 000 tons

3. Butter

Aid decisions in 1970:

Turkey	1,000 tons
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4. Powdered eggs

Aid decisions in 1971:

W.F.P.	500 tons
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5. Sugar

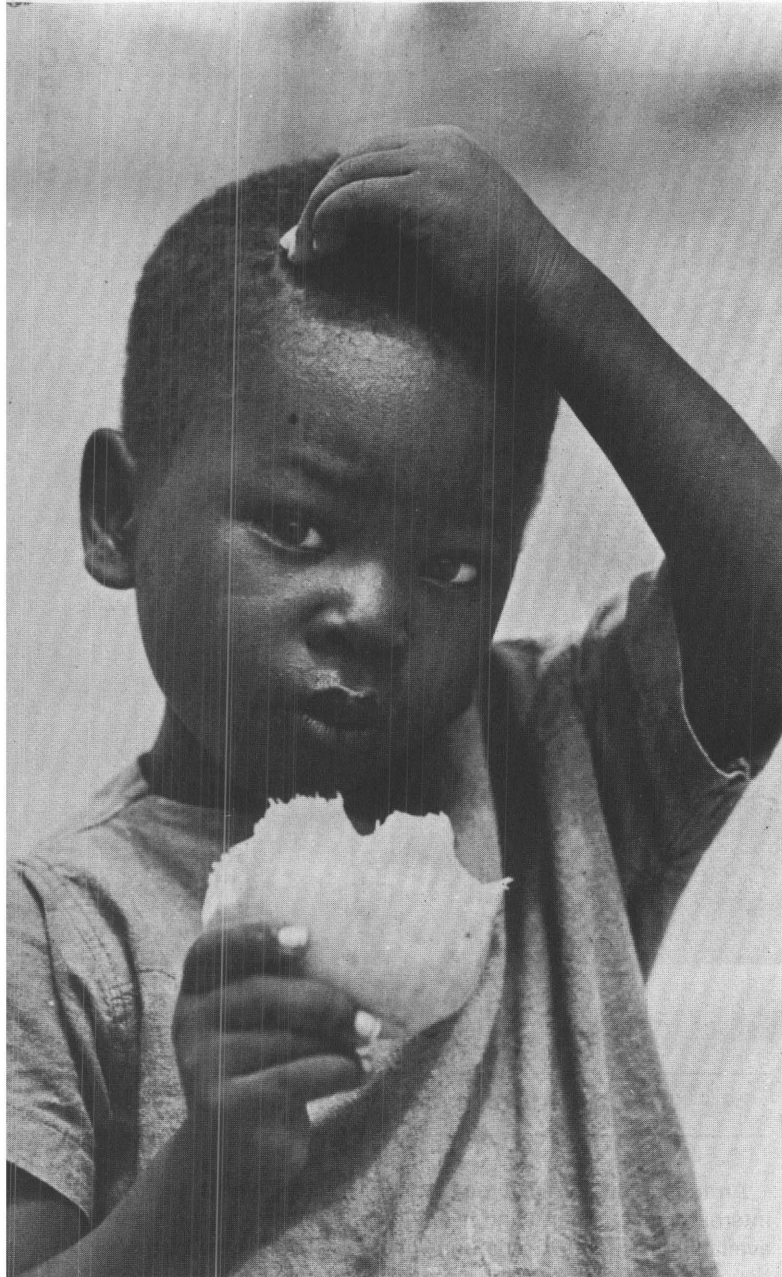
Aid decisions in 1972:

U.N.R.W.A.	6,150 tons
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This aid, unlike the cereal aid, has in the past been given mainly through the international bodies, particularly the World Food Programme. Various requests have, however, been made direct to the Community; and its latest decision, on 19 December 1972, laid down a programme of 60 000 tons of powdered skim milk, in which a considerable part was left open for direct Community aid, as was the case with cereals. This aid, like the normal nutritional aid in the cereal programme, was given for free distribution to populations suffering from food shortage.

CONCLUSION

The Commission is aware that, despite the progress achieved in carrying out a Community food aid problem, and the results which have followed in developing countries, the work undertaken must be carried on, and a general and coherent policy formulated in this field. It has, accordingly, announced its intention of submitting proposals for the Council to cover a continuous and general food aid programme, embracing a diverse range of products. This programme is expected to be on lines which will respond to the hopes which developing countries have in the Community, especially at a time when the latter has just been strengthened by the adhesion of three new member countries.



Naud

Total annual distribution of food aid and aid by the European Community under the first food aid Convention and first year of the second Convention.

(thousand tons)

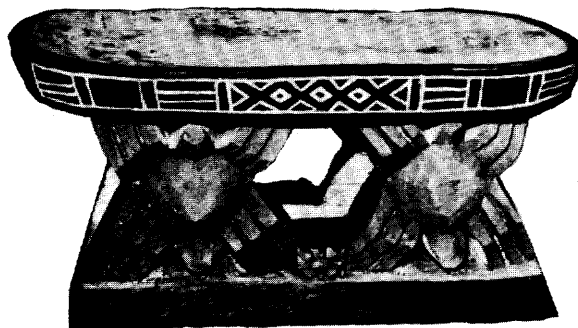
Countries	First Convention						Total First Convention		Second Convention	
	1968/69 Total Community		1969/70 Total Community		1970/71 Total Community		Total Community		1971/72 Total Community	
Maghreb										
Algeria	—	—	—	—	11	11	11	11	30	25
Morocco	—	—	—	—	65	28	65	28	38	25
Tunisia	101.4	20	102	35	103	27	306.4	82	81	25
Africa										
Burundi	2.5	—	—	—	—	—	2.5	—	1.8	—
Cameroon	—	—	—	—	7.5	6.5	7.5	6.5	3	—
Dahomey	2(1)	—	—	—	—	—	2	—	7	7
Gaboon	—	—	—	—	2.5	—	2.5	—	—	—
Upper volta	10	—	18.5	—	16	9.5	44.5	9.5	10	5
Mauritius	2.5	—	6	—	3	—	11.5	—	3	—
Lesotho	—	—	—	—	1	—	1	—	1	—
Madagascar	—	—	7.5	—	7.5	—	15	—	7	—
Mali	18.5	—	31.5	30	7.5	7.5	57.5	37.5	27	17
Mauritania	3	—	5.5	—	7.5	—	16	—	3	—
Niger	—	—	15	15	—	—	15	15	10.5	7
Nigeria	—	—	1.58	—	—	—	1.58	—	—	—
Rwanda	2.5	—	2.5	—	8.5	6	13.5	6	2.5	—
Senegal	7	—	—	—	8	—	15	—	8.555	8.555
Somalia	4	—	14	8	—	—	18	8	30	15
Sudan	22	20	20	10	11	9	53	39	20	—
Chad	—	—	—	—	—	—	—	—	10	7
Zaire	5	—	5	—	5	—	15	—	5	—
Congo	—	—	—	—	—	—	—	—	3	—
Middle East										
Jordan	7	—	7	—	41.27	28	55.27	28	12	5
Lebanon	—	—	29	15	7.5	7.5	36.5	22.5	20	10
A.R. Egypt	172	—	222	—	165.1	15.1	559.1	15.1	165	20
Syria	15	—	10	—	15.5	7.5	40.5	7.5	25	15
North Yemen	15	—	30.27	14	35	7	80.27	21	12	4
South Yemen	4	—	—	—	—	—	4	—	—	—
Far East										
Afghanistan	10	—	—	—	39.64	21.64	49.64	21.64	25	20
Bangladesh	15(1)	—	—	—	3	—	18	—	100	60
South Korea	6	—	—	—	6	—	12	—	—	—
India	144	80	—	—	0.37	—	144.37	80	—	—
Indonesia	116.5	56	108	60	103.46	26.8	327.96	142.8	80	17
Pakistan	81.9	50	155	80	94	35	330.9	165	30.5	—
Sri Lanka	45	—	53.7	14	10	—	108.7	14	35	11

(continued page 50)

(continued from page 49)

Countries	First Convention						Total First Convention		Second Convention 1971/72	
	1968/69 Total Community		1969/70 Total Community		1970/71 Total Community		Total Community		Total Community	
Latin America										
Chile	0.1	—	5	—	1.5	—	6.6	—	2	—
Peru	—	—	—	—	15	15	15	15	25	13.5
Europe										
Malta	—	—	—	—	5	—	5	—	—	—
Turkey	133.1	50	120.5	51.4	60.1	36.6	313.7	138	—	—
International										
IRRC	16.7	16.7	4.5	4.5	7	7	28.2	28.2	10	10
IRRC (Bangladesh)	—	—	—	—	28	28	28	28	—	—
IRRC (ref. Beng.)	—	—	—	—	—	—	—	—	50	50
Joint Church Aid (Nigeria)	10.8	8.3	—	—	—	—	10.8	8.3	—	—
W.F.P	57.5	—	57.5	—	100	9	215	9	88.5	15
U.N.R.W.A	5	—	3.2	—	12.7	4.5	20.9	4.5	30.545	21.945
Others	—	—	0.25	—	20.86	—	21.11	—	23.1	—
TOTAL	1 035	301	1 035	336.9	1 035	353.14	3 105	991,04	1035	414

(1) Decision of February 1973.



P. E. MANDL. — **Preparing children for modernisation.** — United Nations Institute for Social Development, Published by the University of Brussels, 1972.

The adaptation of the adult to the norms of modern life, be it agricultural or industrial, requires that from childhood onwards he should be socially adapted to the system of knowledge from which emerges the pattern of modern production. The adaptation of the child to the world around him begins at birth, and in the pre-school education, whether it be formal or informal. In the Third World the child has to be part of his own traditional culture, allowing for the variables which have an impact on his bio-socio-cultural development and the considerable rôle played by his mother—hence the need for the development of the women-folk. This is the general context for this study, the aim of which is less ambitious. A number of works in various scientific fields are examined from the standpoint of preparation for modernisation. There have also been many descriptions of the human obstacles to social changes in developing countries; but one of the conclusions emerging from this book seems to be the need for seeking the main currents and the specific contribution to development in the resources of the human being himself.

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Marc MANIRAKIZA. — **The causes and the remedies of under-development.** — Editions Remarques Africaines; Collection of African studies.

It is satisfactory to note the growing number of studies written by economists who live close to, or inside, the poverty conditions of the Third World, whether they be Asiatics, Latin-Americans or, more recently, Africans. Among the latter this work, which is of a popular character, is aimed at familiarising a big African public with the exact meaning of economic concepts in current use. It begins with a statement of the causes and criteria of under-development, after which the author studies the population explosion and, in a

more ample third part of the book, proposes various lines of thought on economic reorganisation, which leads him to end up with a note on the possible prospects for a re-grouping of African countries. It is clearly written and deserves its place beside the economic treatises which are difficult matter for the lay reader.

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Nicole DELORME. — **The Association of African countries and Madagascar with the European Economic Community.** — Bibliothèque Africaine et Malgache, Librairie générale de droit et de jurisprudence — Paris 1972.

This is a thesis presented academically in 1970 at a time when there was not yet any general work to cover the subject. It is divided into three separate themes, the first of which relates to the development of the legal framework of association, and the Yaoundé Convention, which uses a conventional technique to create a complex institutional system comprising what amounts to an international organisation. The second theme explains the functioning of the organisation, with a study of the customs, economic and financial systems. The third is headed "Difficulties" by the author, and the arguments are sub-divided between the difficulties which have arisen inside the Association and the external ones. On the institutional side the change made necessary by decolonisation has been carried out without much difficulty; but on the economic side things have been different. The author does not evade these questions, but subjects them to a careful study. This is a serious and well documented book, with a solid bibliography. It contains a combination of legal analysis with a consideration of political-economic data.

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William Edgett SMITH. — **Nyerere of Tanzania.** — Victor Gollancz Ltd. (Publisher), 1973.

Julius Nyerere, President of Tanzania, and architect of his country's independence, is undisputedly one of the outstanding African leaders of

to-day. The author considers that his depth of political wisdom is equalled only by his devotion to his country and to Africa. He has a clear vision of his country's needs, and a deep-rooted human sympathy which touches the heart.

William Edgett Smith has been studying in Tanzania and East Africa for the past ten years. He has met and interviewed President Nyerere many times and has been a witness to the chief events in the history of this young nation.

This enables him to tell the whole story of President Nyerere, from his childhood in the tribal background near the shores of Lake Victoria to his eminent presence as chief spokesman for the unity and development of Africa.

The book traces the growth of political consciousness leading to the independence of Tanzania and examines in detail the complex problems by which the country has been beset. These include the Rhodesian crisis of 1965, when Tanzania broke off its diplomatic relations with the British government; the development of the country's links with Zambia; and the wave of nationalisation in 1967.

The book also speaks of President Nyerere's determination that his country should remain unaligned between the powerful blocs of east and west; and his belief that the Africans must complete their own economic independence.

The important thing so far as Tanzania is concerned, Mr. Smith concludes, is the imaginative and often experimental path by which President Nyerere seeks to lead the Africans to the solution of their problems.

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Edith H. WHETHAM and Jean I. CURRIE. — **The Economics of African countries.** — Cambridge University Press, 1969.

"The Economics of African countries" reads as an initiation into economic theory. It begins with an introductory section, explaining the concepts and methods of economic analysis. It then embarks on theoretical explanations of production to explain

the structure of industry and the constraints by which it is limited, and the types of agriculture now practised in tropical Africa. A third section sets out the elementary theory of supply and demand, in order to show the functioning of local markets and the problems of international markets for agricultural produce. The principles of micro-economics are used as a basis for discussion of macro-economic problems, the banking systems in Africa, credit control, the general level of wages, international trade and the balance of payments, prices, taxation and public finance. In conclusion, the concept of economic growth is used to show the forces at work in the process of raising production and mitigating the poverty of developing countries.

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Reinhold BARTHA. — Forage crops in the Sahelian zone of Africa. — 1972, Institute for Economic Research, München, Federal Germany.

This is the work of a stock-raising expert who has been in Africa since 1961. It gives a general view of the more important forage crops, and those most frequently found in natural pastures, which are the only basis for feeding cattle in the Sahelian zone. A photograph is given of every plant and a very precise botanical description, including the possibility of further supply, the distribution in various kinds of territory and the influence of dry and rainy seasons. There are indications as to the types of animal for the feeding of which each plant is suitable, and the nutritive value during its flowering period. Other subjects covered include the use made of each plant in the daily life of the local population, whether as a vegetable, as a medical herb or for the making of useful articles.

The forage plants are listed both under their scientific names and in their African languages— such as Haoussa, Djerma, Peuhl and Tamachek. The book is published in German, English and French.

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N. R. E. FENDELL. — Auxiliaries in Health Care. — (Programmes in developing countries). — 1972, The Johns Hopkins Press Baltimore, Maryland 21218. — The Johns Hopkins Press Ltd., London.

Despite the medical and economic aid recently contributed, health operations in developing countries are still checked by slender financial resources, lack of skills, in some quarters by tradition-based resistance. Sickness rates and infantile mortality are thus still high.

Professor Fendell writes from his great experience as a doctor and public hygiene specialist in Africa and South-East Asia, and as an adviser in other parts of the world. He demonstrates the usefulness of auxiliary helpers, the need for them and their potential value, the opportunities for teaching and training them and the methods by which they can be most usefully employed. He describes how these auxiliaries can be trained and supervised in such a way as to fill in the gaps in the distribution and administration of medical care, and also in fields such as help to mothers, environmental health, family planning and dentistry.

All this requires, both from the auxiliaries and from the highly-trained professionals, not only a proper degree of organisation, but also enthusiasm, understanding and respect for the part played by each.

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Pierre ERNY. — The child and its environment in Black Africa. — Essays on traditional education. — Paris, Editions Payot, 1972.

Pierre Erny has written a previous work presenting the African beliefs and representations regarding children. In this work he describes the traditional education patterns and brings out the depth of its coherence which is founded on a strongly established vision of the world.

Even though these methods of teaching and training are now less often found in their pure state, the underlying elements are still extremely

important, and produce a type of personality, and sensitivity and knowledge of life, which are very different from what emerges from European education. This is a work of great interest for the better understanding of different mentalities. It is the first full essay on tribal education to be written in French.

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Albert LEY. — The land and property régime and economic development in the Ivory Coast, with preface by Konan Bédié and Henri Dementhon. — Librairie générale de droit et de jurisprudence, Paris, 1972.

The author is an Inspector of Domains in the Ivory Coast, where he has been working for many years. In this work he presents a study of the way the domanial and property problems have been solved. The landed property régime is of great importance in the development of African countries. Depending on its underlying conceptions and the solutions provided for the difficulties arising, these régimes may be a help or an obstacle in economic growth.

This study is of undoubted interest, not only for the special case of the Ivory Coast, but also for other countries dealing with the same problems.

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Baudouin PATERNOSTRE de la MAIRIEU. — Rwanda and its development campaign. — Editions A. de Boeck, Brussels. — Editions Rwandaises Kigali, 1972.

The Rwanda background is a geological structure in which the oldest sedimentation dates back for more than 2,000 million years. Race after race has lived here, reaching a culminating point in the great Bantu expansion in the iron age. Through 2,000 years of history Rwanda society appears, from its origins and up to our own time, as a mobile entity with its own structure and development, its revolts and changes against a background of history, in which the economic, the social and the cultural are indissolubly mingled.

This book is a complete work of

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reference from the pre-colonial past to the days of independence, going through the periods of the Protectorate, the Mandate, the Trusteeship and the Autonomy. In it is a collection of documents and texts, treaties, agreements and commentaries, illustrated with maps and photos and accounting for the story of ten year's independence.

This general conspectus of the life of a people and a country provides a way of understanding the strife for democratic development.

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Gilbert BLARDONE. — **Economic progress in the Third World; the social-political environment of development.** — Librairie Sociale et Economique, Paris, 1972.

The author, an economist, finds that he cannot isolate economic development from the social-political environment which is its background. For this reason he devotes part of his

work to recalling the broad lines of the human context in which development goes on. The first part of this work shows some of the social motivations which have given, and are still giving, coherence to economic activity in some non-western societies. The men in tribal and traditional society are not lacking in rationality, in dynamic qualities or in individual or collective stature. The difference is, that the meaning and purpose assigned to these factors are not the same as they are in industrial society. The problem of the combination of tradition and progress remains intact.

The second part of the book contains analyses of some of the political and social disequilibria which characterise the present transitional position through which the Third World is living. It covers internal contradictions, the attitudes of the new governing classes, the population explosion and increasing urbanisation. These are imbalances which can be surmounted.

The author dwells to a large extent on the external causes for the check in development policy. These exist, of course, but the internal change in structures and behaviours stands out as a factor of great importance, so that the quality of the social-political environment becomes one of the keys to development.

Reflets et perspectives

In answer to readers' requests for further information, we would add that the review "Reflets et perspectives" published a recent issue on U.N.C.T.A.D. and the current problems of development aid. This issue, which is number 1972/5, can be obtained against remittance of 100 Belgian francs to account

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at the Banque de Bruxelles, or to Belgian CCP 576.70 of the ASBL "Recherche et diffusion économiques".



