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AGRICULTURE IN THE SERVICE OF THE NATION

— More production with
more efforts

↳ Somalia.

PUBLISHED BY:
THE MINISTRY OF INFORMATION
AND NATIONAL GUIDANCE



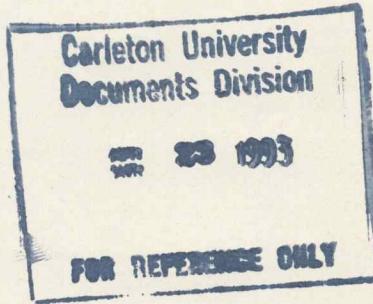
AGRICULTURE IN THE SERVICE OF THE NATION

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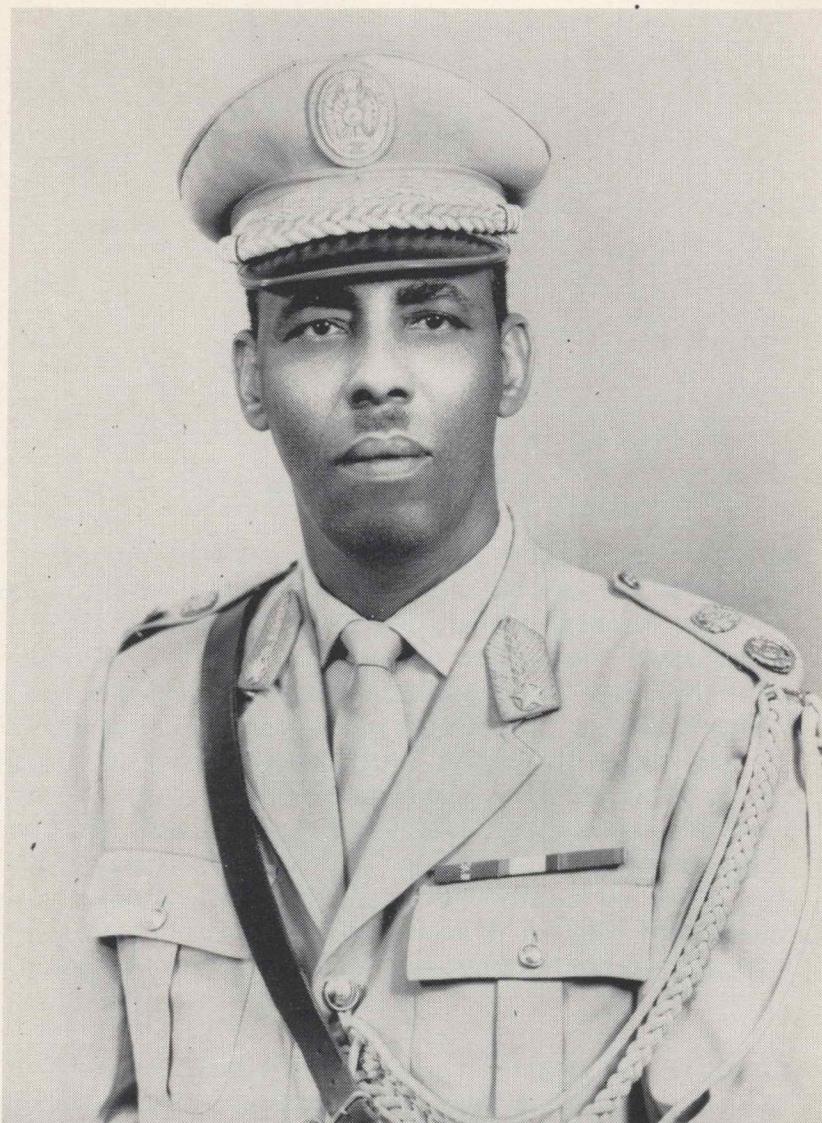
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Somalia.

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Jaalle Major-General MOHAMED SIYAD BARRE
President of the Supreme
Revolutionary Council

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INTRODUCTION

The colonial imperialists who ruled us propagated that Somalia is an arid country where agriculture cannot thrive. But, any body who visits Somalia will immediately disagree with such a malicious propaganda. In fact, an Egyptian maize breeder, who was a member of a visiting technical team to Somalia was so impressed by the great agricultural potentialities of our country, to say that Somalia could feed the rest of the world. Studies carried out on the agricultural situation of the country showed that, out of eight million hectares of arable land, less than one million hectares are presently under cultivation. Thus, it is clear that the agricultural potentialities of the country has barely been scratched.

The objective of this book is, firstly, to acquaint the reader with the lamentable past histories of the Somali agriculture, and secondly to uncover the agricultural potentialities of our land while in the process describing the bold measures taken by the Revolutionary government in her dedication to the rapid improvement of the social and economic status of our people as a whole. Hunger, ignorance and disease have been spe-

cifically identified as the number one enemies of the nation. In all its developmental plans, the Revolutionary government gave top priority to the genuine development of agriculture and in order to transform this solemn declaration into action, a number of positive measures were taken since the inception of our glorious 21 October Revolution in 1969. A Somali agriculturist who has been, for a long time following the country's agricultural trends stated that «the 21 October Revolution brought an agricultural renaissance».

Prior to the October Revolution, agriculture has suffered a severe set-back and thousands of farmers lost interest in farming, owing to the lack of any incentive generating measures from the past regimes. Somalia, today, is one of the very few nations in the world who opted for judicious returns to the workers, tilling the land. It is anticipated that the efforts made towards the development of agriculture will soon reverberate positive results, not only in Somalia, but also in the rest of the world.

**Jaalle Col. ISMAIL ALI ABOKOR,
Vice-President of the S.R.C. and
Secretary of State for Information
and National Guidance.**

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I. AGRICULTURE — PRE-INDEPENDENCE PERIOD

Somalia was ruled, before 1960, by two colonial administrations with two different motives behind their development outlook. Whereas in the southern part of the country commercial banana plantations, geared to the demand of metropolitan markets emerged in 1925, the northern part was treated as a supplier of meat to the colonial military garrisons in another colonial territories with no regard to agriculture.

Agriculture was a thriving occupation for the Somali people even in the ancient times. Somalia was known as the Land of Punt to the Pharaohs because of its precious aromatic products. Traders in the Far East were also attracted to Somali cotton and sesame. The commendable skill and workmanship, possessed by the Somali farmers in the making of traditional implements and construction of storage pits, are remnants of ancient agriculture.

It was lamentable, however, that Somali agriculture should suffer a severe setback during the era of foreign domination. The development of banana and sugar-cane plantations in the southern part of Somalia led the way to the virtual disappearance of major cash crops like cotton, and peanuts. A large number of peasant farmers was drawn to serve the plantations as wage-earning labourers. Equally, in the northern part of the country, farming became an enclave in a small part of the N. W. Region in the face of low remunerative returns and absence of physical and technical assistance.

Though agriculture, together with livestock, was the main economic sector offering great prospects for an immediate development, no tangible attempt was made in any part of the country to exploit its potentialities. Important technical services like research, extension, and irrigation were never organized in a way designed to meet the felt-needs of the farmers. The establishment of the ill-fated Ber Irrigation Scheme, near Burao and the opening up of a number of irrigation canals with no proper alignment along the banks of the Shabelle River just prior to independence were nothing but a political manoeuvre to white-wash the rising expectations of the people for political, social and economic change.

II. AGRICULTURE — POST-INDEPENDENCE PERIOD

Although agriculture, together with livestock, was recognized as the most important economic sector following the birth of the Republic in 1960 nevertheless, the development strategy adopted by the successive civilian governments was a perpetuation of speculative farming with no attention to the fundamental problems facing the farmers.

As a result of the acute shortage of food grains in the country there was an upsurge of commercial farms wrongly organized as «cooperatives» in the most favourable areas of the country. These farms were owned by people with adequate capital and political influence but with very little aptitude for proper farming. The crops grown were largely maize, sesame and pulses. While their output contributions to the nation's food supply were minimal, the ex-

tent of the physical and technical assistance siphoned to the owners of these farms by the government was very high.

Position of Small Farmers and Country's Agriculture.

Under the circumstance, the role of the small farmers in growing surplus agricultural produce took a diminishing turn. Because of the absence of incentive prices brought by a monopolistic market system, the farmers became less market-oriented and more self-centered. Cultivation of important cash crops like cotton which was a major foreign currency earning agricultural crop prior to the introduction of bananas, was virtually wiped out. In addition to the low producer's price for cotton other reasons responsible for its disappearance were also shortage of viable cotton seeds in the country to replace the degenerated ones and inadequate plant protection service.

A close look at the cotton production figures of the country, beginning from 1947 to 1968, can very well illustrate the extent that the cultivation of this crop diminished:

| Years | Average production in qts. (lint) |
|--------------|--|
| 1947 - 1951 | 6,432 |
| 1952 - 1956 | 4,606 |
| 1957 - 1961 | 12,374 |
| 1962 - 1966 | 1,000 |
| 1967 | 1,000 |
| 1968 | 1,400 |

With regard to oil crops and while cultivation of sesame continued at a low pace, there was a complete halt to the cultivation of peanuts, as a result of which local processing mills became inoperational.

Banana, the only foreign currency earning crop, was characterized by inefficient methods of production and marketing. This important crop which was responsible for procurement of 40 - 50 % of the country's foreign earnings

and which provided an employment of 200,000 people, was entirely left in the hands of two private companies (SAG and SACA) who were following unscrupulous methods of profit making with the least interest in developmental programmes.

Exports of banana from 1960 to 1968 showed static figures with a downward trend:

| Year | Exports in (000 tons) |
|------|-----------------------|
| 1960 | 77.0 |
| 1961 | 78.0 |
| 1962 | 75.6 |
| 1963 | 94.5 |
| 1964 | 104.8 |
| 1965 | 99.3 |
| 1966 | 91.0 |
| 1967 | 84.5 |
| 1968 | 84.2 |

Major Agricultural Studies.

Since it was known that development of agriculture was a crucial factor needed for the economic growth of the country, agreements were made on bilateral and multilateral basis for comprehensive studies about the country's agricultural situation. Major studies carried out were:

1. Inter-River Economic Exploration 1959 - 1960
2. Agricultural and Water Survey 1962 - 1966
3. The Juba River Scheme 1963 - 1964
4. Water Control and Management of the Shabelle River 1968 - 1969

These studies revealed encouraging results in-so-far as the prospects for the agricultural development of the country were concerned. In this regard the outcome of these subsequent studies showed the following facts about the agricultural potential of the country:

| | in (000) of hectares |
|-----------------|----------------------|
| Total Land Area | 63,800.0 |

Estimated Potential

| | |
|-------------------------------|----------|
| Suitable for cultivation | 8,000.0 |
| Suitable for stock production | 35,000.0 |
| Other area | 20,000.0 |

Estimated Utilization (1963)

| | |
|---------------------------------|---------|
| Under dry cultivation | 450.0 |
| Under inundation and irrigation | 175.0 |
| Under forests and bush | 8,800.0 |

The Ill-fated State Farms.

As a follow-up of one of these studies, three State Farms, two in Gelib for cotton and oil crops, and the third at Tug-Wajaleh; for wheat, were started in 1964. Soon, the failure of these farms became noticeable to the eyes of the Somali people who were cherishing a faster rate of agricultural growth in the country. Amongst the major reasons attributable to the failure of these farms were: lack of sincerity on the part of the government to execute the work of the farms in an efficient manner, free from maladministration, and improper planning. The enormous capital goods brought for the proposed State Farms became «monumental wastes» which created repugnant psychological shock in the minds of the people.

Agricultural Research.

From the colonial period until 1966, there were no agricultural research activities in the country. However, in the beginning of 1966 a contract was awarded to the University of Wyoming, by USAID, to execute agricultural research programmes in the country. Following this contract the University dispatched a team of research specialists to begin work at Afgoi. In the absence of a national research policy outlining priorities and objectives in the field of agricultural research, the team laid down research programmes largely based on their individual professional inclinations but not on the prevailing needs of the country.

Though the team strived to introduce new crops, like rice, new varieties of peanuts, and fruit trees such as avocado and cashewnuts, no major attempt was made to ameliorate the agronomic problems retarding outputs of major food grains, maize and sorghum. The services of the team came to an end following the suspension of U.S. economic assistance in early 1970.

In addition to the Central Agricultural Research Station at Afgoi, a second Research Station was established at Jowhar with the help of the technical assistance of People's Republic of China. The work of this Station was centered on adoptability trials of paddy rice and tobacco. A preliminary report, given by the Chinese research team to the Ministry of Agriculture in 1970, showed that amongst the various paddy rice strains introduced two: **shindo** and **kindo**, showed promising results while in the case of tobacco further experimentation was reported to be needed.

III. AGRICULTURE — AFTER THE OCTOBER 21ST REVOLUTION.

From the above analysis one can deduce that the 21st October Revolution was born at a time when the social and economic lot of the Somali peasant farmers was down and, when they neither possessed tools to work with, nor aptitude to contribute to the pressing food demand of the country, and above all when there was an upsurge of colonial agriculture.

The Revolution, in its first declaration to the nation, vowed that it would pursue social and economic betterment of the Somali farmers. In the attainment of this goal the course of action taken, during the four years of the Revolution in the development of agriculture in general and the improvement of the socio-economic welfare of the man till-

ing the land in particular, is quite noticeable to the eyes of the people.

To put that in practical terms, the capital outlays allocated to agriculture in the Development Programme of 1971-1973 amounted to So. Shs. 148,620,000.0, and was only surpassed by transport and communications. In the following 1974-1978 Development Programme, the agricultural sector took a sum of So. Shs. 1,124,000,000 representing the biggest share (29%) of the total development funds.

3. THE AGRICULTURAL CRASH PROGRAMME

The objectives and strategy of the agricultural development as outlined in both Development Programmes aimed at the elimination of the problems already discussed in this booklet. The primary objectives of the agricultural development of the country are stated below:

1. Attainment of sustained self-sufficiency in food production such as cereals, edible oils, fruits and vegetables.
2. Promotion of exportable crops.
3. Encouragement of the establishment of agro-industries.

In order to realise these objectives the following strategies are adopted:

1. To transform the traditional agriculture into a wider market economy by the introduction of modern technology. In this connection, efforts will be made to raise the occupational talents of the farmers with the view of raising their farm outputs both in quantity and quality.
2. To establish agricultural cooperatives and State Farms so as to utilize the vast agricultural lands of the country. The establishment of the agricultural

cooperatives will enable the farmers to acquire economic units of holdings as well as sufficient capital and man-power to work with.

3. To strengthen the technical services responsible for agriculture in order to combat, more efficiently all constraints bedeviling Somali agriculture.
4. To develop, as fast as possible, areas of high potential by the judicious combination of men and machinery.

IV. IMPORTANT MEASURES SO FAR TAKEN TO DEVELOP AGRICULTURE

The measures, so far taken by the Revolutionary Government to accelerate the tempo of agricultural development of the country, have had far-reaching impacts. In order to judge the results of such measures nation-wide, it is necessary that one should understand the characteristics peculiar to agriculture. First of all, progress of agriculture depends more on the influence of the numerous people engaged in it since they are responsible for the implementation or non-implementation of any change introduced from outside. Secondly, the search for a better yielding seed and its subsequent spread amongst the cultivators is a biological build-up which requires longer sequences of growth time. Last but not least, there are inevitable natural havoces which bring negative impacts on the development of agriculture.

This being the case of agriculture, the Revolutionary Government in its four years of administration took the measures enumerated below:

1. NATIONAL ORIENTATION TOWARDS FARMING.

In order to dispel the bias that developed against the farming occupation in the periods preceding the October 21st Revolution it became imperative to re-awaken the enthusiasm of the people in agriculture. In this connection, massive orientation programmes were executed in all agricultural areas informing the people that farming was a sacred duty in the face of the fight against hunger and malnutrition. As a way of demonstrating the importance of farming to the people the President of S.R.C. Jaalle Major General Mohamed Siyad Barre took the lead in participating in a number of field work activities, side by side with the peasant farmers. At the time of harvests, national campaign programmes were launched in agricultural districts and villages with the aim of mobilizing the people to assist farmers in their harvests. Such orientation programmes coupled with action have generated positive results on the behaviour of the people towards agriculture.

2. A GUARANTEED MARKET SYSTEM BASED ON INCENTIVE PRICES.

The introduction of guaranteed incentive prices for food grains, fibres, and oil seeds was a great turning point in the history of Somali agriculture. The system has safe-guarded the economic welfare of both the producers and consumers against ruthless speculators. The results obtained were that farming which was lowly rated as an income-earning source, received top priority amongst those who have made it a life-time occupation as well as other

newcomers. Moreover, as a result of the positive response to the price incentives the country's food grain production sky-rocketed by 25% in 1972 compared to the preceding years.

Cultivation of cotton which was on the verge of disappearance was again reactivated and thus a total area of 2000 hectares was put under cultivation in the country in 1972. The harvest obtained enabled the Agricultural Development Corporation to supply, for the first time, 340 tons of lint to the textile factory (Somaltex). The effect of the incentive pricing system on oil seeds has also shown favourable results. While great flexibility governs the setting of prices, however, new prices are fixed before the cropping season so that farmers will have firm knowledge about the price of every crop.

The producers and consumers' prices fixed for 1974 are shown below:

| No. C R O P S | Producers' price | Sale price in production area | Sale price in non production area |
|-----------------------|------------------|-------------------------------|-----------------------------------|
| 1 SORGHUM | | | |
| (i) White Sorghum | 46/— | 72/— | 92/— |
| (ii) Red Sorghum | 42/— | 67/— | 87/— |
| (iii) Moordi Sorghum | 36/— | 62/— | 87/— |
| (iv) Elmi Jaama | 80/— | 107/— | 107/— |
| 2 M A I Z E | | | |
| 3 S E S A M E | 160/— | 240/— | to the oil millers |
| 4 GROUND-NUTS | 100/— | 140/— | to the oil millers |
| 5 C O T T O N | | | |
| (i) 1st Grade | 200/— | 700/— | a quintal of lint to Somaltex |
| (ii) 2nd Grade | 160/— | | |
| (iii) 3rd Grade | 130/— | | |
| (iv) 4th Grade | 70/— | | |

Farmer's View on the Guaranteed Marketing System.

During the introduction of the guaranteed marketing system in 1971, a number of farmers in Coriole, a leading maize producing district, were interviewed about the new pricing system. The response given by almost all the farmers interviewed was that the new pricing system had given them a fair return from their farm produce. Some went on to uphold the fact that they were able to sell their produce at the farm gates, unlike previous times when they had to spend time and effort in distant markets to dispose of their produce. The farmers, moreover, welcomed the fact that they were free from middlemen's exploitation. The middlemen, having paid consumption credit to the farmers at the time of farm preparation, used to collect repayments, in kind during harvest in the form of grains or oil seeds, normally priced 50% less than the prevailing market prices. Whereas such an unscrupulous method of bartering enriched the middlemen, the farmers were succumbed to a virtual poverty. The farmers are now fully convinced that whatever crop they produce they can be able to get a ready market with fair prices.

3. THE AGRICULTURAL CRASH PROGRAMME

The establishment of the Agricultural Crash Programme represents a new venture in the agricultural development of the country. The urgent need for higher food production and surplus availability of active labour force in the country necessitated execution of the Programme under an autonomous agency. The Programme has the following primary objectives:

1. To increase national food production toward the attainment of sustained self-sufficiency with emphasis on import substituting crops.

2. To offer active employment to young people with nomadic back-ground.
3. To raise the occupational skills of the people engaged in agriculture to promote the spirit of cooperation among them.

The Programme, since its inception by the October Revolution in 1970, has employed 5,755 people and brought a total of 7,650 hectares under cultivation in 10 different localities of the country.

During the Development Programme of 1974 - 1978, the Agricultural Crash Programme will raise the total number of people employed and the hectareage cultivated to 12,000 and 15,000 respectively. The Programme will further endeavour to overcome the problems of administrative and technical nature which were encountered during its initial period of operation.

The Crash Programme farms established and the manpower involved in 1973 are shown in the following table:

| | Total area (Ha) | Cultivated area (Ha) | Workers | Technicians |
|-------------|--------------------|-------------------------|---------|-------------|
| Jowhar | 500 | 130 | 136 | 6 |
| Mordile | 600 | 160 | 169 | 5 |
| Janale | 500 | 350 | 350 | 9 |
| Shalambot | 1500 | 1500 | 1900 | 64 |
| Havai | 1000 | 150 | 500 | 5 |
| Gelib | 500 | 450 | 500 | 25 |
| B/Salam | 1000 | 250 | 350 | 24 |
| Malearey | 250 | 160 | 250 | 7 |
| Belet Wein | 2000 | 1000 | 1000 | 8 |
| Tug-Wajaleh | 5000 | 3500 | 600 | 67 |
| — | 12850 | 7650 | 5755 | 220 |

Achievements of the Crash Programme

- 1) Of course, the implementation of a programme of this magnitude in the agricultural sector implied huge efforts. We had to absorb a large unemployed manpower, most of them young nomads, channelling them into the agricultural activity, giving them specialization not only in the agrarian field but also in the mechanization aspects of farming. We had to offer them food and houses, education and health assistance, and political orientation so as in order to place them in the vanguard of the new Somali society that applies the principles of scientific socialism.
- 2) We had to clear hundreds of hectares of bushes, to create the necessary canalization and find out, through experiments and studies the seeds and fertilizers suitable to the soil of the various farms. We had to use at the right moment and in the suitable combination of disinfectants to protect the trees from insects. It was not therefore an easy job to create a crash programme farm.
- 3) The statistics concerning the activities of crash programme cannot show with only simple figures all effort made by the workers of the Crash Programme and those of the revolutionary leaders to realize the project of Crash Programme and to promote and develop the agricultural production of our country. Figures do not tell the tiring but enthusiastic work of the workers of the Programme, but that can be deduced from the data indicating that the production is increasing and the crash programme is expanding.
- 4) In 1970 when the Crash Programme began its activity, a total of one thousand hectares of land were put to cultivation, divided into six farms. There were altogether 2,500 workers. In 1971 the cultivated area went up to 5,000 hectares and the workers augmented to 4,500 units. Having seen the success of these two

years, the Government increased its investments in the Crash Programme, in order to expand its activity and decrease the number of unemployed people. In 1973, in fact the cultivated area went up to 7,650 hectares and the number of workers to 5,755. By 1978 a further increase of cultivated land is scheduled so as to bring it to 15,000 hectares and the workers to 12,000.

- 5) These figures speak for themselves and give a concrete idea of the efforts made by the revolutionary regime to implement the three important targets of the crash programme: to provide more foodstuff for the population, reduce unemployment, and create a specialized manpower able to run the farms in a collectivized form in the near future.
- 6) According to data relevant to 1973, the cultivated surface of 7,650 ha, is divided into ten farms situated in five regions. Three new Crash Programme farms will be established in the near future, in other zones.
- 7) The ever-growing use of agricultural machinery will increase the productivity of the pioneers, i.e. each of them will be able to work on more land; this will make the expansion of the surface now under cultivation possible.

In order to speed up the work and avoid wasting of ripe products, during the harvest seasons, the civil servants and the inhabitants of the area work voluntarily with the Crash Programme workers. Many times, Jaalle Siyad, President of S.R.C., went to the Crash Programme farms, thus giving a good example of voluntary work.

- 8) The increase in the cultivated area and in the number of workers have obviously implied the emergence of problems such as the construction of more houses, dispensaries, wells, schools and new schemes new irrigation canals. Such problems were solved by the workers themselves in self-help schemes thus proving their will of becoming an autonomous and self-supporting

community, able to better their standard of living through the fruits of their work derived from the augmented agricultural production. The target they aim at is that every farm should be self-sufficient, without turning to the Government for financial assistance. That such a target will be reached with the increase in agricultural productivity is noted in the comparison between the 1971 production and that of 1972.

- 9) In fact the harvest of sorghum and maize, the main stable foods of our population, has gone up from 6.185 quintals in 1971 to 31,244 quintals in 1972. Another thing also to be noted is the increase of oil seeds from which edible oil is derived, thus reducing the importation of similar products from abroad. In fact from 1,870 quintals of sesame, groundnut, and cotton seeds in 1971 we have produced 2,075 quintals in 1972.
- 10) Cotton in particular, is the raw material of the Balad textile factory. Another thing to be noted is the cultivation of rice in 1972 with a harvest of 200 quintals. From the maize and sorghum cultivated in 1970, that is in the year of the institution of the Crash Programme, we gradually shifted to other types of products, thus materializing another target of the Crash Programme, that of the diversification of the agriculture. The following table gives a comparison between 1971 and 1972 production:

| Description | 1971 Qtls. | 1972 Qtls. |
|----------------------|---------------|---------------|
| Sorghum | 308 | 15.678 |
| Maize | 5.977 | 15.566 |
| Sesame | 309 | 611 |
| Cotton | 771 | 750 |
| Groundnuts | 790 | 714 |
| Vegetable | 341 | 1.000 |
| Wheat | — | 2.500 |
| Rice | — | 200 |
| Total | 8.396 | 37.019 |

- 11) From these figures one can note that, in the span of one year there has been a considerable jump forward in the total production; from 8,396 quintals in 1971 to 37,019 quintals in 1972.
- 12) The above illustrations are significant in evidencing the importance of Crash Programme for the consolidation of the national economy.
- 13) By this we do not mean that all agricultural problems have been resolved but we can surely affirm, without fear of any contradictions, that positive steps were taken to resolve them, and that many of these steps concern the activities of the Crash Programme.
- 14) We are fully aware of the fact that agriculture is the back-bone of our economy. This is why the Revolutionary government has given top priority to the agricultural development including the Crash Programme which represents one of the most concrete and constructive plans to procure the essential foodstuff for our people, to consolidate the national economy and to promote and develop the agriculture, so that it can play an appropriate role in the process of the industrialization of the country.
- 15) The data we have illustrated speaks for itself. Our agriculture which was in a deplorable situation of backwardness during the reactionary regimes has today been channelled in the path that ensures not only the raising of the material condition of the peasants, but also their social progress. It is also worthwhile to underline the fact that the Crash Programme has its importance in solving the nomadic problem, as its expansion in the country will facilitate the formation of stable settlements.

4. DEVELOPMENT OF BANANA.

Banana is an important sub-sector in agriculture which deserves great importance. The take-over of the market-

ing organization in May 1970 by the Government and the formation of the National Banana Board was a great leap-forward for the Somali banana. Since its formation, the Board has made strenuous efforts to ameliorate the problems facing the banana industry.

On the production side, considerable improvements were made in the yield per hectare due to the adoption of better irrigation application and drainage practices, fertilizer application and intensive spraying methods. In 1973, the Board began establishment of two model farms, each 250 hectares, in Lower Shabelle and Lower Juba Regions. The farms are intended for the demonstration of the modern techniques of banana production and packing to the banana growers.

As far as marketing is concerned while the Board remained in a strong position to maintain the supply of banana to Italy (Somalia's traditional market), has made a new thrust into new markets in the Middle East and the German Democratic Republic. Moreover, a vigorous publicity campaign has been waged by the Board in both West and East European countries in order to familiarize the consumers with Somali banana which has gained a good reputation in international markets.

As a step towards making the Somali banana competitive in international markets, the construction of package making factory is to be completed in early 1974 and a plan is underway for changing the feeder roads into all weather roads. The completion of the new Mogadishu port will greatly enhance the flow of the banana trade. The export of banana has shown a tremendous rise from 1970 onward as is indicated below:

| Year | Net export |
|------|---|
| 1970 | 1,002,444 quintals |
| 1971 | 1,033,148 » |
| 1972 | 1,333,345 » |
| 1973 | 1,119,513 » (Reduction due to unfavourable weather) |

5. AGRICULTURAL COOPERATIVES.

Agricultural cooperatives developed on a laissez-faire basis before the October 21st Revolution. The nature of the so-called agricultural cooperatives formed at that time was more of a «corporations» than true cooperatives working for the social and economic betterment of their members. Most of the so-called agricultural cooperatives had closed membership rights framed by them. The majority of the small farmers were outside these organizations while, on the other hand, some were drawn as wage earners but not as members.

The growth of true agricultural cooperatives in the country was hindered because of the absence of appropriate legal frame-work and because of lack of orientation programmes designed to make the farmers understand the social and economic benefits of agricultural cooperatives. In order to foster the establishment of true agricultural cooperatives in the country an Agricultural Cooperative Law was promulgated in 1973. The Law governs the organization, management and supervision of agricultural cooperatives and is based on democratic principles. There are three types of agricultural cooperatives stipulated in the Law. These are:

1. Multi-purpose Cooperative — deals with joint marketing of agricultural produce and purchase of supplies.
2. Group Farming — deals with common use of farm machinery, animal power, tools and implements, irrigation network etc.
3. Production Cooperative — this is the last stage whereby farmers will consolidate their holdings into economic units or acquire new land to be cultivated collectively.

Since agricultural cooperative organisations are expected to be a dynamic instrument in shaping the political,

social and economic consciousness of the farmers, the Government, through the Ministry of Agriculture, will provide physical as well as technical assistance to the cooperatives until they can be able to stand by themselves.

In the Development Programme of 1974 - 1978 the formation of 150 multi-purpose cooperatives, 1050 group farming and 75 production cooperatives is envisaged.

SOME PROMINENT CLAUSES ON AGRICULTURAL COOPERATIVES IN THE COOPERATIVE LAW

CHAPTER II

The Cooperative in Agriculture

Article 6

In agriculture, the State promotes at first the establishment of production-oriented multi-purpose cooperatives (Farmers Cooperative) and the development of group farms of semi-collective types.

The establishment of cooperative farms shall be the final stage of cooperative development in agriculture.

Article 7

The production-oriented multipurpose cooperative shall supply production credits and agricultural inputs to the farmers; it shall participate in agricultural marketing, provision of services, farmers' orientation and training and shall establish and assist the group farms of their members.

Within the Cooperative Farms, the farmers pool their labour and all other resources for collective large-scale production by the employment of modern techniques.

Article 8

The Secretary of State for Agriculture shall issue special decrees and model by-laws for the foundation, development, management and assistance of agricultural cooperatives.

ANNEX TO THE LAW ON COOPERATIVE DEVELOPMENT

Article 2

Rights and Duties of Cooperative Members

All members of a Cooperative are entitled:

- to use all services provided by the cooperative;
- to take part in the discussions and the decisions of the general meeting by equal rights (one member-one vote);
- to stand for election for all cooperative bodies as described in this Annex.

In addition to these rights, members of production cooperatives as mentioned in Part IV, V and VII of this Annex, are entitled:

- to work in the cooperative enterprise against payment according to the rules provided in this Annex and in the by-laws;

- to get compensation for the means of production contributed into the cooperative pool according to the rules outlined in this Annex and the by-laws;
- to keep a homestead plot or a small herd as personal property, according to the provisions of this Annex and the by-laws;
- to get assistance out of the mutual help funds in case of need.

All members of a Cooperative are bound to:

- act according to the aims and tasks of the Somali Cooperative Movement as described in this Annex and to observe the rules of the by-laws as well as the decisions of the general meeting, the managing board, the chairman of supreme cooperative bodies;
- fulfil their duties as elected members of any cooperative body strictly and in accordance with this Annex and to the rules of the by-laws;
- participate in managing the affairs of the Cooperative, to strengthen, to protect and guard cooperative property.

In the case of the production cooperatives, all members are bound to take an active part in cooperative work as long as they are physically able to do so, to observe working discipline and to master progressive methods of production.

Article 3

Procedure of Foundation

The minimum number of members for the foundation of a primary cooperative shall be:

| | |
|----------------------------------|-------------|
| Farmers Multipurpose Cooperative | 100 members |
| Consumer Cooperative | 100 members |
| Cooperative Farms | 30 members |
| Group Farms | 20 members |
| Fishery Production Cooperative | 20 members |

Small Industries and Handicrafts:

Cooperative for Cooperated Production
(Stage I)

30 members

Cooperative for Collective Production
(Stage II)

20 members

To prepare for the foundation of a cooperative, an Organizational Committee which is to make the necessary arrangements for organizational general meeting in cooperation with the competent Government offices shall be formed.

The organizational general meeting shall elect the chairman, the managing board and the auditing committee and shall adopt the by-laws of the Cooperatives. A representative of the competent government office shall attend the organizational general meeting.

Immediately after the foundation of a cooperative, the chairman has to apply for registration by the competent Secretary of State as stated under Article 12 of the Law on Cooperative Development.

For registration, the chairman has to submit to the cooperative office of the competent Ministry:

- the application for registration;
- the by-laws of the cooperative adopted by the general meeting;
- the proposed name and address of the cooperative;
- a list of the elected members of the managing board and the auditing committee.

6. SEED MULTIPLICATION CENTRES:

Two seed multiplication centres, one for cotton at Afgoi, and a second for grape-fruits at Janale were established in 1970 and 1972 respectively.

One of the major reasons which inhibited the cultivation of cotton was the absence of viable cotton seeds in the

country. Since the establishment of the Cotton Seed Multiplication Centre at Afgoi the problem of seed shortage was no longer pertinent. The Centre is able to produce a high quality cotton seed of Acala 4-42, medium-stable variety, for distribution to the farmers. With an optimum yield of 15-20 quintals per hectare the Centre cultivates 60 hectares with cotton during the autumn- **Der** season.

The Grape-fruits Multiplication Centre at Janale has got an area of 70 hectares irrigated by a plastic lined canal. The objective of the Centre is to grow sufficient quantity of seedlings for the proposed 1500 hectare grape-fruits farm in the Golwein area. In the varietal trials carried out, the Centre has found that Sower Orange, Rough Lemon, and Citranger showed good performance.

7. SPONTANEOUS PRIVATE DEVELOPMENT. COMMUNITY FARMING SCHEMES.

As a result of national emphasis placed on agriculture there has been an upsurge of farming activities in the country. While a significant increase in the size of individual holdings has been noticed a number of organized co-operatives have attracted a large number of members. These are mainly composed of traditional farmers as well as nomads with no previous back-ground in farming. Two of the most successfull schemes are El-Bardale and Ghel-Ghel. Whereas the former has pioneered, in the development of a mountainous area in the N.W. Region, the latter has carried out a large farming operation in the plain area in the Bay Region. Both have demonstrated the extent of work that can be accomplished by group action. Some of the commendable physical tasks done by these schemes include the construction of community dwelling houses, religious centres, feeder roads, digging wells and **wars** and the establishment of common shopping centres.

It is anticipated that the new Cooperative Law will be of great assistance to the present community farming schemes in the adoption of better technical and administrative practices.

Marketing Cooperatives.

The necessity for forming marketing cooperatives has been realized by farmers growing cash crops like fruits and vegetables. In the last few years there has been a big spread of fruit and vegetable gardens in the country particularly in Lower Shabelle Region, Bardere, and in North West Region. In order that the growers may get reasonable primes for their fruits and vegetable products and thus eliminate the role of the middlemen there was a badly felt-need for the formation of marketing cooperatives.

At present, two marketing cooperatives, one for fruits and vegetables at Afgoi and the second for onions at Bardere are successfully in operation. Both cooperatives have strongly established themselves in the Mogadishu markets for the sale of quality produce.

V. DIRECTION OF FUTURE AGRICULTURAL DEVELOPMENT.

It is a recognized fact that Somalia has an immense agricultural potential. The future agricultural development is one which aims at maximum utilization of all favourable conditions endowed by nature. Various technical studies carried out in the past revealed that the country could be in the rank of the surplus producing areas of the world in most of the major agricultural crops. In the years to come it is the solemn determination of the Revolutionary Government to transform this into a reality.

The efforts to be waged in the direction of surplus production call for the development of irrigation and rain water potential of the country. Equally, the creative capacity of the human resource engaged in agriculture will be more tuned to the new scientific applications that made the discovery of the Green-Revolution possible.

A. IRRIGATED AGRICULTURE.

Development of irrigated agriculture has a major priority in Somalia's agricultural development plan. Towards this end, the irrigation potential of Juba and Shabelle rivers will be fully developed. By instituting better water control and management system, the vast areas which come under the irrigation regions of the two rivers will be brought under the plough. Study surveys carried out showed that under controlled irrigation system the Juba River can irrigate up to 148,000 hectares while the second River, Shabelle, can raise also its irrigation capacity to 76,000 hectares (gross area). Moreover, intensive agronomic and pedagogical studies revealed that the areas commanded by the two rivers are suitable for the cultivation of diversified crops like maize, rice, sesame, sunflower, peanuts, castor-beans, cotton, banana, sugar-cane, grape-fruits, coconuts, and various vegetable crops.

The major irrigation projects planned during the development programme of 1974-1978 are listed below:

1. Jowhar Off-stream Storage Project.

In most years the flow of the Shabelle river is insufficient to satisfy the water requirement of the perennial crops (sugar cane, banana and citrus) during the three or four months from January to April. The river flow becomes too meager especially in the last two months to allow sufficient water for irrigation in the lower Shabelle basin. Even the sugar cane plantation of Jowhar suffers from low watering ratio. Farmers, therefore, resort to deep well pumping which is very expensive in order to maintain their plantations in survival condition.

The project for the water control and management of the Shabelle river in 1969 mentioned the possibility of on-stream storage but the first estimated costs showed that capital investment could be too high.

It was suggested, therefore, that an off-stream storage of about 190 million cubic meters' capacity should be built in a depression south of SNAI to store water during the

high flow of the river; between September and December. Water could subsequently be released during the period of drought. Investigations revealed that such a scheme would meet the water requirements of about 16,000 hectares of perennial plantation in the down-stream area and would also reduce the threats of flood damages to downstream area of the proposed off-take.

The off-stream storage will permit the diversion of any flow over 50 cubic meters per second to fill the reservoir with a maximum of 50 cumecs extracted anytime. A minimum of 50 cumecs would always be allowed to pass the off-take site and flow into the river bed.

During the priod of low flow pumping into the reservoir would take place to provide a supply of water to SNAI, a gravity outlet at the southern end of the reservoir would allow to escape to the Shabelle river for use down-stream.

The estimated cost prepared in 1968 was So. Shs. 27,700,000, however, in 1973 the project cost was re-estimated at So. Shs. 35,000,000. The engineering services of the project has been underway since the latter part of 1972.

2. Bardere Reservoir.

The flood detention reservoir of Bardere will regulate the flood flow and consequently increase the irrigation capacity of the river. The reservoir will allow the river to irrigate 148.6 thousands hectares including 15,000 hectares under perennial crops and 85,600 hectares under seasonal crops. Thus the river flows will provide irrigation for the following areas:

| | ha. |
|--|----------------|
| a. Perennial crops | 15,000 |
| b. Seasonal crops sown twice a year | 84,000 |
| c. Crops included in rice sown once a year | 49,000 |
| Total | 148,000 |

3. Fanole Irrigation Project.

The Juba River with its most reliable water supply has great irrigation potentiality. With its natural flow the river can irrigate 106,000 hectares; under regulated conditions its irrigation possibility can command up to 150,000 hectares.

The Fanole Irrigation Project is the first stage of the Juba Development Scheme whose studies were carried out in 1963-64 with subsequent updating in 1972-73. The project consists of:

1. Construction of a diversion dam;
2. Installation of hydro-electricity of 5000 kwt;
3. Opening up of a 52 km. canal;
4. Establishment of a State Farm of 8,300 hectares.

Fanole Land Development and the Phasing Pattern.

The net total land to be commanded by the irrigation network is 8,199 hectares whose development will be carried out in 7 years from 1974. The lands of classes I & II will be developed in the first stage and until the head-work construction is completed, irrigation water will be supplied with the help of a mobile diesel pumping station. Upon the completion of the headwork, class III land development will begin. During the first stage of development 1,054 hectares of cotton farm will be established with a supply of water from temporary water intake structures, at the north of Kalalio.

The second stage of land development will be on the area of oil crop farms totalling 1,656. Irrigation water for these farms will be supplied from temporary water intake on the Juba river near Bender Salam.

At the third stage of land development all the rest of the lands will be put into crop rotation while irrigation water will be supplied from temporary intakes near Gelib with 3 mobile pumping stations.

The fourth stage of land development comprises Class III land of the cotton and oil crops farms. This will begin when gravity water supply through the main canal is completed in the second quarter of 1978.

4. Balad Irrigation Development Project.

Following the studies conducted by the Agricultural and Water Survey and subsequent feasibility studies undertaken by a project entitled «Water Control and Management of the Shabelle River, Somalia» in 1968-69, the Revolutionary Government, fully committed to the development of agriculture, concluded an agreement with the People's Democratic Republic of Korea in order to execute jointly the work of the Balad Irrigation Development Project.

The project aims at the development of 10,000 hectares under permanent irrigation with the objectives of contributing to the national agricultural production. The project will mainly grow rice, cotton, groundnuts, sesame, sunflower and fodder crops. The irrigation infrastructure will consist of a barrage intended to raise the river water level and irrigation network commanding the 10,000 hectares.

The total cost of the project is estimated at So. Shs. 160,000,000 out of which So. Shs. 48,000,000 will be the Somali Government contribution and the remaining So. Shs. 112,000,000 that of the People's Democratic Republic of Korea. Upon the finalization of project survey work there may be an alteration in this estimate.

Production

This project when fully implemented will no doubt contribute a lot to the envisaged plan toward realizing effective import-substitution so as to improve the national trade balance. The anticipated production by the crops is as shown below:

| Crop | Area (ha) | Production |
|-------------|------------------|-------------------|
| Rice | 2000 | 6000 tons |
| Cotton | 5000 | 5000 tons |
| Oil Seeds | 2500 | 2500 tons |
| Fodder | 500 | 1500 tons |

5. Afgoi-Mordile Irrigation Project.

Following the study carried out by the United Nations Development Programme (Special Fund) concerning a controlled irrigation pump scheme of an area of 3000 hectares at Mordile in the Afgoi District, the Government decided to implement this project together with the financial participation of the African Development Bank.

The objectives of the project are:

- 1) To contribute to the declared policy of self-sufficiency in food grains and edible oil.
- 2) Import substitution.
- 3) And establishment of agricultural processing industries.

Major crops to be grown will be cotton, groundnuts, sesame, sunflower, maize and rice.

Total capital expenditure will be So. Shs. 20,640,000 of which the capital expenditure for the 5 year plan period is estimated at So. Shs. 15,240,000. In the course of preparing the project design, a further re-evaluation of the project report showed that the expected capital expenditure would reach So. Shs. 19,633,600 of which the foreign cost is So. Shs. 12,917,000. But because of the expected delay of implementation which may extend upto 12 months, there will be a 5% increase thus bringing it up to So. Shs. 20,640,000 of which So. Shs. 14,000,000 would be the foreign cost.

With good production management, the project can turn over an out-put amounting to So. Shs. 6,039,000. Annual operating and maintenance cost of So. Shs. 1,091,240 excluding the loan servicing charge and replacement cost by the twentieth year of operation. While the African Development Bank has agreed to finance So. Shs. 10,000,000 disbursement an additional So. Shs. 2,917,200 is being negotiated.

Implementation of the initial phase of the project work started in August 1972. Bush clearance has been completed and 40% of the area was ripped. Following the completion of the design for canalization network, the execution of the plan of work commenced in the latter part of 1973.

6. Pilot Farm for Irrigated Agricultural Development.

Following the 1968-69 feasibility study financed by United Nations Development Fund (Special Fund), it was recommended that a pilot farm for irrigated agricultural development of 108 hectares adjacent to Afgoi-Mordile Irrigation Project be established. The total cost of the pilot farm during 2 years and 10 months would be So. Shs. 3,510,960 out of which So. Shs. 2,887,960 is UNDP contribution and the remaining So. Shs. 623,000 Somali Government contribution.

The primary objectives of the farm would be to determine the best irrigation and drainage systems for the cultivation of important food and cash crops, like rice, peanuts, sunflower, sesame, cotton, etc.; to lay down and finally to study and supply information on labour inputs, timing of field operations and farm economy. The findings of these studies would act as guidelines for the work implementation of the Afgoi-Mordile project as well as other projects whose work is related to the pilot farm studies.

The first field trials were started in the spring season, **Gu**, 1973 by growing 8 hectares of upland rice, 36 hectares of groundnuts and 24 hectares of sunflower. Cotton among other crops were grown during the autumn **Der** season of 1973.

As the project has encountered delay of implementation of field operations during its first year of existence, it is discernable that the remaining period would not be enough for the completion of the task assigned to it. In view of this, a request has been made to UNDP to extend the project duration till the end of April 1976 in order to have four full years of agricultural seasons.

7. Grape-Fruit Development Project.

In order to break away from the mono-culture crop, it is the policy of the government to diversify agricultural production so as to obtain other exportable crops, necessary for the improvement of the national balance of trade. This being the case, the cultivation of grape-fruits has been proven to have a promising avenue in the search for obtaining another dependable export crop.

The project consists of 3000 hectares, between Golwein and Sahingani, half of which will be planted with grape-fruits and the other half with seasonal crops. It is expected to obtain yields of 30 tons of grape-fruits per hectare, 50% of which would be destined for export after undergoing suitable processing to enable the fruit to withstand shipment to oversea markets.

Feasibility studies and the preliminary design of the project started in 1972. Studies, evaluation and preparation of engineering services of the following technical, economic and social matters were conducted in 1973:

- a) Topographic and Cartographic studies;
- b) Pedalogic studies;
- c) Hydrologic studies;
- d) Eco-Sociologic studies;
- e) Agronomic studies;
- f) Marketing possibilities;
- g) Design of irrigation and drainage canal-network.

The total cost of the project will be So. Shs. 91,142,532 out of which So. Shs. 1,640,532 will be the cost of the feasibility study and engineering services.

The development of an area of 3000 hectares grown with grape-fruits and cereal crops will be completed by 1976 as is shown below:

| | 1974 | 1975 | 1976 | Total |
|--------------|---------|---------|---------|----------|
| Grape-fruits | 250 ha. | 550 ha. | 700 ha. | 1500 ha. |
| Cereal Crops | 250 ha. | 550 ha. | 700 ha. | 1500 ha. |

B. RAIN-FED AGRICULTURE.

In the higher rainfall areas (mean rainfall 500 mm.) between the two rivers and in the N. W. Region rain-fed agriculture is predominantly practiced. It is this type of agriculture that has employed the majority of the Somali farmers and presently supplies the bulk of the food grains.

In order to raise the production potential of this area, efforts will be made to introduce new husbandry practices involving use of improved inputs, new seeds; animal manure and fertilizers, and pesticides. In addition, farmers will be encouraged to form village cooperatives to make their holdings into more economic units with the possible cultivation of more than one crop. In areas where erosion has become hazardous soil and water conservation practices will be observed. Details of the project are described below:

Integrated Agricultural Development Project for the North West Region.

1. Land Conservation.

It is estimated that there are 160,000 hectares of arable land in the North West Region out of which 60,000 hectares have been subject to severe erosion. The major factor contributing to this problem is the high rainfall intensity which leads to a high percentage of runoff and severe erosion on arable fields and drainage gullies which show gradual expansion each year. The areas which are hit hard by the erosion damage are mostly confined to the arable land in Borama, Gabile and part of Hargeisa District, where, due to this, growing natural crop production has dwindled.

In order to check the menace emanating from water erosion it is planned to carry out bunding operations on 30,000 hectares in the three districts as a first phase to be followed by the remaining affected areas later on. While 20,000 hectares are to be newly bunded and the rest of

10,000 hectares will be repaired. In addition to the bunding operations, farmers in the project area will be given intensified extension services related to improved husbandry practices, including the use of new seeds, possible use of fertilizers and animal manure; and demonstration of new farming systems involving the production of food grains, oil-seeds and fodder crops integrated with livestock production. The farm communities in the project area will be provided with potable water supplies for human and animal consumption.

2. Pilot Farm in Tug-Wajaleh.

North West of Hargeisa lies the Tug-Wajaleh Plain comprising 24,000 hectares of arable land. The annual mean rainfall is 500 mm with a well established crop cultivation of sorghum and wheat. In order to determine the best possible way of introducing large scale mechanized wheat farming a pilot farm of 1000 hectares of wheat will be set up in the area with supplemental farming of 1,000 hectares to be cultivated by the farmers under cooperative basis. The farmers will be assisted by the project by way of improved seeds, oxen ploughing, and technical advice. In addition, 750 hectares will be devoted to fodder production in rotation with cereals. A small breeding herd would be established to investigate the potential of local stock and fattening trials carried out on native and improved pastures.

3. Small-Scale Farm

Irrigation Development.

In the North West Region there has been spontaneous establishment of fruit and vegetable gardens along the main **tugs**. Places where these gardens have shown encouraging results are Horahadley and Dararweine in Hargeisa District, Arabsiyo and Elbardale in Gabile District, and Amoud valley in Borama District. The major cash crops from these gardens are oranges, lemon, papaya, guava, kat, cabbages, lettuce, leek and onion. Amongst the crops which have obtained good market outlets, internally and externally, is orange. In order, therefore, to raise the quality

of the oranges, irrigation facilities like water pumps and pipes will be provided to the citrus growers in the form of easy credit. An international horticulturist with wide experience in citrus growing techniques will be posted in Hargeisa to reactivate Geddeeble citrus nursery station and to provide extension services to the citrus growers.

In addition to the existing gardens, 50 new schemes would thus be established and would include land clearing, levelling, provision of wells and installation of pumps and pipes. Farmers will also be provided with high quality root stocks for propagation.

4. Feasibility Study for Underground and Surface Water Utilization.

The potential for irrigation development of the North West Region would be evaluated by carrying out a feasibility study on the availability of underground and surface water resources. The study would include:

- Photogeological research and interpretation;
- The establishment of a limited network of hydrogeological stations;
- Test borings in alluvial areas;
- Preparation of development proposals.

As a result of the hydrogeological study irrigation areas would be selected and a number of projects would be recommended for implementation. To this end the feasibility study would include proposals on cropping patterns, estimates of costs and revenue and recommendations on the organization required.

5. Additional Grain Storage Facilities.

It is obvious that the ADC, being the Government organ responsible for the marketing of crop produce will be expected to accomodate the increased marketable sorghum and other cereals from the project area. On top of the alrea-

dy existing storage facilities additional storages of above and under-ground types will be established to enable the ADC to augment its storage capacity in the North West Region.

6. Integrated Dryland Farming Project in the Bay Region.

Feasibility studies for the preparation of the above project will be included in the project costs. The study would focus on an integrated development approach, with the main emphasis on intensified extension services, use of farm inputs, expanded farmers and staff training and improved marketing of crop and livestock. It is expected that as a result of this study investment proposals for financing the development of Bur-Hacaba-Baidoa area which offers great potential for dryland farming would be drawn out.

Project Costs.

The total project costs (including expatriate technical assistance) are estimated at So. Shs. 44,320,000 out of which So. Shs. 38,087,500 will be paid by the World Bank and the remaining So. Shs. 6,232,500 by the Somali Government.

Agricultural Extension.

Package Deal Approach.

The idea of the package deal involves the concentrating of effort in terms of improved farm inputs and technical advice in those areas where human and physical factors are conducive to a faster rate of agricultural development. The approach promotes acceptance of modern technology by the farmers.

In Somalia, the introduction of this approach in a number of agricultural districts with favourable conditions would certainly bring tangible results in a short span of time. The most suitable areas which are ideally located to benefit from this approach are Jowhar, Balad, Afgoi, Dafet, Merca and Coriolei. The location of these districts allows

easy accessibility to irrigation water, improved seeds, fertilizers and pesticides, and technical services while at the same time services to the rest of the agricultural districts of the country will also be strengthened.

Similar programmes will also be carried out in Lower Juba and Hiran Regions. The dry farming area of N.W. Region, Bur-hacaba Baidoa and Dinsor will be served by a separate named integrated agricultural development.

C. DEVELOPMENT OF TUGS.

There are numerous **tugs** of various sizes in the plateau areas of the N.W., Togdeer, Sanag and Bosaso Regions. Others also traverse the plains of Nugal, Mudug and Hiran Regions. These **tugs** bring extensive floods during the rainy seasons and drain to the ocean. In recent years, following the Revolutionary move exerted towards farming, sporadic agricultural activities have taken place along some of the major **tugs**. For example, at Kabri Bahar which has a mean annual flow of 3938 Ha-Metres, active farming by El-Bardale community is in progress. Similarly, at Burao Tug with annual mean flow of 1216 Ha/Metres reactivation of the Ber Scheme is in full swing.

Considering the high potential of these **tugs** both for the development of agriculture and livestock, studies will be carried out to determine the most suitable methods of utilizing their water resources. In the watershed area of the northern regions cultivation of fruits and vegetables as well as cotton, dates and fodder shows bright prospects.

Date Plantation.

Date is an important diet for the Somali people. The country imports about 10,000 tons of dates annually at the cost of So. Shs. 11 million. In order to make the country self-sufficient in date production, the development of 3000 hectares is required. At present there are about 200,000 mature palms, some of which were affected by stormy weather in 1972, in Bosaso Region. On the other hand

there are a number of date nursery stations in the N. W. and Nugal regions.

For the implementation of a large project for date plantation it is planned to grow new areas and at the same time to undertake a re-habilitation programme for the existing date plantation. In this regard the present nursery stations at Bula-Har, Eil Sheikh, Tukushi and Halan in the N. W. and Nugal regions will be strengthened to supply viable date shoots to the farmers, agricultural cooperatives and Government farms. Likewise, nursery stations will be established in Bosaso region to propagate date shoots for distribution to the date growers in the region.

Since it is the policy of the Revolutionary Government to ensure socio-economic balance in the country the promotion of date plantation in the coastal regions will contribute to the improvement of the social and economic standard of the inhabitants in those areas.

D. MAN-POWER DEVELOPMENT AND STRENGTHENING OF TECHNICAL SERVICES.

In the agricultural development efforts there are important catalysts which influence the speed with which the tempo of development takes place. In recognition of this fact, the Revolutionary Government will work towards developing a high level professional cadres responsible for the execution of a nation-wide research programme aimed at solving bottleneck-problems in agriculture. Equal emphasis will also be given to the development of middle level technicians who are competent to transfer application of modern technology to the farm communities. These technicians will be required to become «agents of changes» in promoting the formation of agricultural cooperatives, use of improved inputs, and proper utilization of physical assistance, both in grant and credit, by the farmers.

VI. INSTITUTIONS SERVING THE AGRICULTURAL SECTOR.

The agricultural sector is served by the Ministry of Agriculture together with a number of autonomous agencies, all of which are mentioned below:

1. **The Ministry of Agriculture** — The Ministry of Agriculture is responsible for overall matters concerning agriculture. There are four major departments within the Ministry namely, Agriculture, Cooperative, Plant Protection, Locust Control, and Administration.
2. **The Agricultural Development Corporation (ADC)** — ADC is responsible for purchasing and selling of major

agricultural produce, like sorghum, maize, oil seeds, and cotton. It also handles sale of farm inputs, seeds, fertilizers, pesticides and tools. Renting of farm machinery to the farmers is as well ADC's responsibility.

3. **The Agricultural Crash Programme Agency** — This Agency is responsible for the administrative and technical execution of the work of the Crash Programme farms.
4. **The National Banana Board (NBB)** — the Board is responsible for the marketing of banana, sale of fertilizers and pesticides to the banana growers, promotion of banana production and quality improvement.
5. **The Somali Development Bank (SDB)** — SDB promotes public and private investment in productive enterprises. While in the past the Bank assisted largely commercial agriculture, its attention will be drawn form now on the provision of credit to small farmers and agricultural cooperatives.
6. **Agricultural Education.**
 - a) The College of Agriculture — This college was established in 1971 at Afgoi as a full-fledged institution leading towards B. Sc. in plant science.
 - b) The Agricultural School — this is an agricultural school of a secondary level designed to train middle level technicians or extension staff.
 - c) Bonka Farmers Training Centre — This Centre is located near Baidoa and its primary function is to provide training of practical nature to the farmers in such aspects as crop husbandry, oxen ploughing, use of animal manure and fertilizers, seed selection and conservation, etc.
 - d) Farm Machinery Centre — This Centre which is located at Janale sponsors short courses on tractor

driving and maintenance for farmers and Government personnel.

- e) Aburien Farmers Training Centre — This Centre is located at Aborien, near Hargeisa, and provides short training to the farmers in the same manner as Bonka.

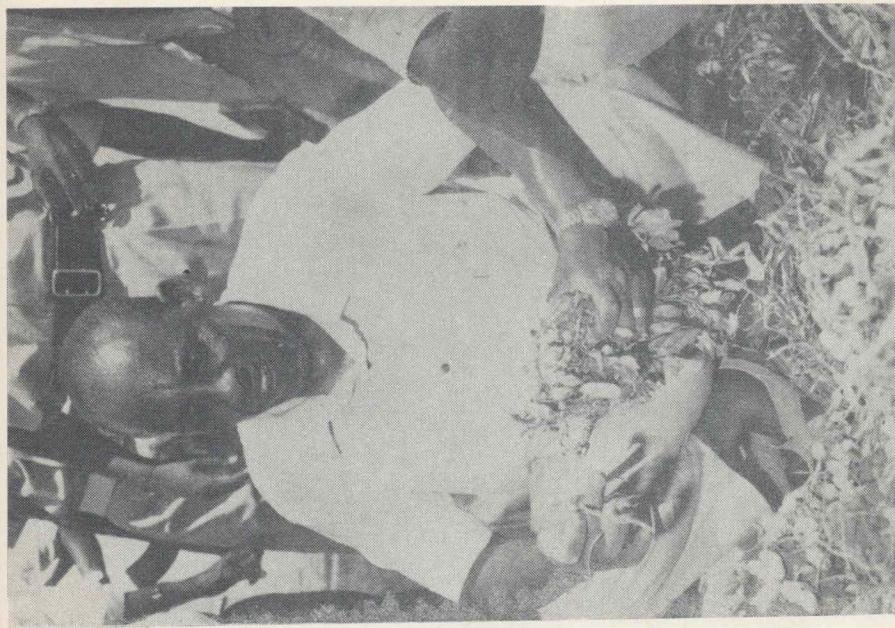
VIII. SOME COMMON AGRICULTURAL CROPS IN SOMALIA.

ENGLISH

| ENGLISH | SOOMAALI |
|----------------------|------------------|
| 1. Sorghum | Masago, Haruur |
| (a) Red Sorghum | (b) Abuur Cas |
| (b) White Sorghum | (t) Abuur Cad |
| (c) Mixed Sorghum | (j) Moordi |
| (d) Elmi Jama | (x) Cilmi Jaamac |
| 2. Maize | Gallay |
| 3. Rice | Bariis |
| 4. Wheat | Bur, Qamadi |
| 5. Barley | Heed |
| 6. Millet | Dukhun |
| 7. Sesame | Sisin |
| 8. Peanuts | Loos |
| 9. Sunflower | Gabaldaye |
| 10. Cotton | Suuf, Cudbi |
| 11. Bean (Phaseolus) | Salbuko |

| | |
|------------------|-------------------|
| 12. Cow peas | Digir, Atar |
| 13. Horsebean | Fuul |
| 14. Chickpea | Shumburo |
| 15. Tobacco | Buuri |
| 16. Sugar-Cane | Qasab, Aala Sokor |
| 17. Banana | Muus |
| 18. Grape-fruit | Lima ugunji |
| 19. Orange | Liin macaan |
| 20. Lime | Liin dhanaan |
| 21. Mandarin | Maandariin |
| 22. Papaya | Mafafay |
| 23. Mango | Camba laf |
| 24. Coffee | Bun |
| 25. Kat | Qaad |
| 26. Guava | Saytuun |
| 27. Date | Timir |
| 28. Coconut | Qumbe |
| 29. Onion | Basal |
| 30. Garlic | Toon |
| 31. Potato | Batate |
| 32. Pepper | Basbaas |
| 33. Cabbage | Kaabaj |
| 34. Lettuce | Saladh |
| 35. Tomato | Tamaandho, Yaanyo |
| 36. Spinach | Raasow |
| 37. Carrot | Kaaroot |
| 38. Sweet Potato | Sokor Qandi |
| 39. Egg Plant | Bedinjaan |
| 40. Watermelon | Qare |
| 41. Cantaloup | Batiikh |
| 42. Cucumber | Qanjaar |

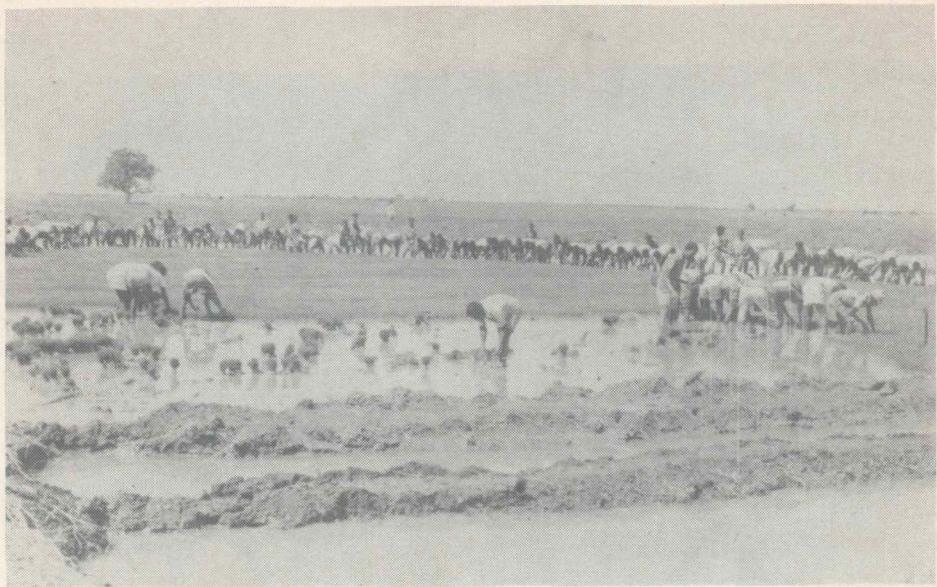
| | |
|------------------|-------------|
| 43. Beet root | Daba Case |
| 44. Lady finger | Baamiye |
| 45. Parsley | Kabsaro |
| 46. Celery | Kabsaro |
| 47. Pumpkin | Bocor Hindi |
| 48. Cassava | Moxog |
| 49. Bottle gourd | Ubbo |
| 50. Pomgranate | Rumaan |
| 51. Peach | Fursug |
| 52. Grapes | Canab |



Jaalle Major General Mohamed Siyad Barre, President of the SRC taking part in voluntary peanuts harvest campaign.



Somalia is the home of Sorghum Vulgare.



Digging more irrigation canals on Self-help basis.



A modern dredger being used in the cleaning of an irrigation canal.



The high quality of Somali banana has won international acclaim.



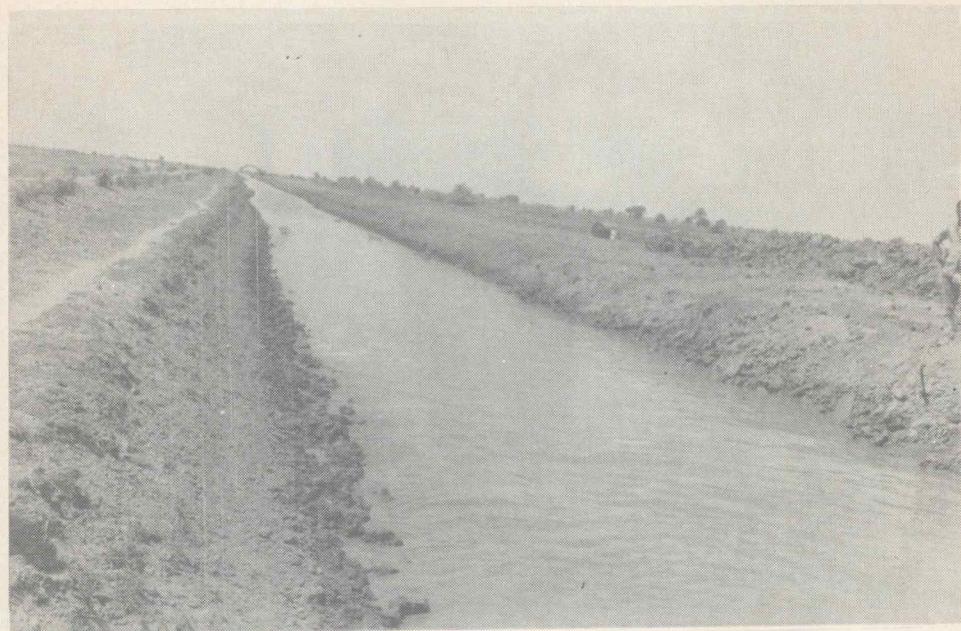
Cotton is a traditional cash crop for the Somali farmer.



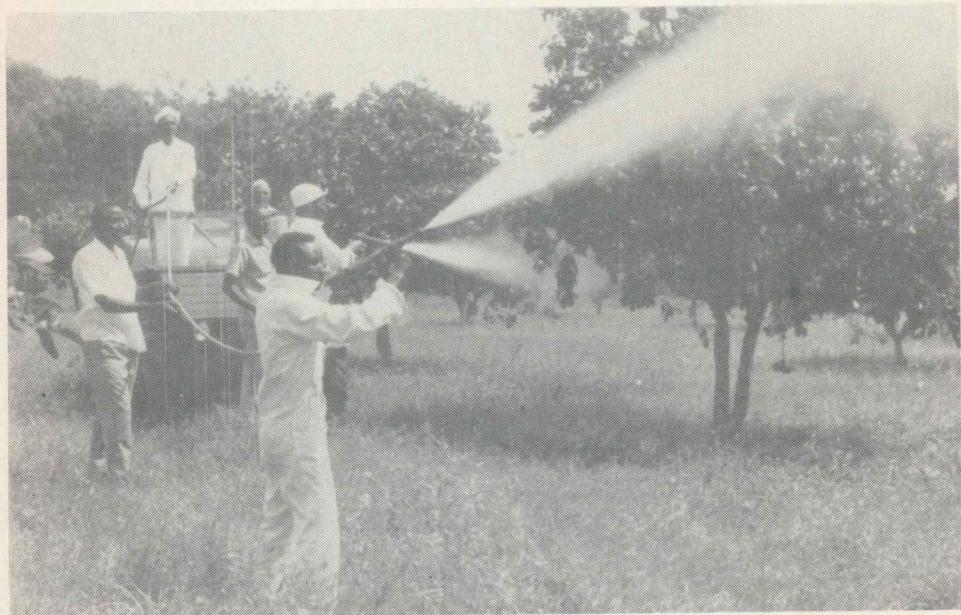
Jaalle Major General Mohamed Siyad Barre, SRC President taking keen interest in sunflower during one of his frequent visits to the Agricultural Crash Programme fields.



Somalia produces high quality grape-fruits.



An irrigation canal opened up on Self-help basis.



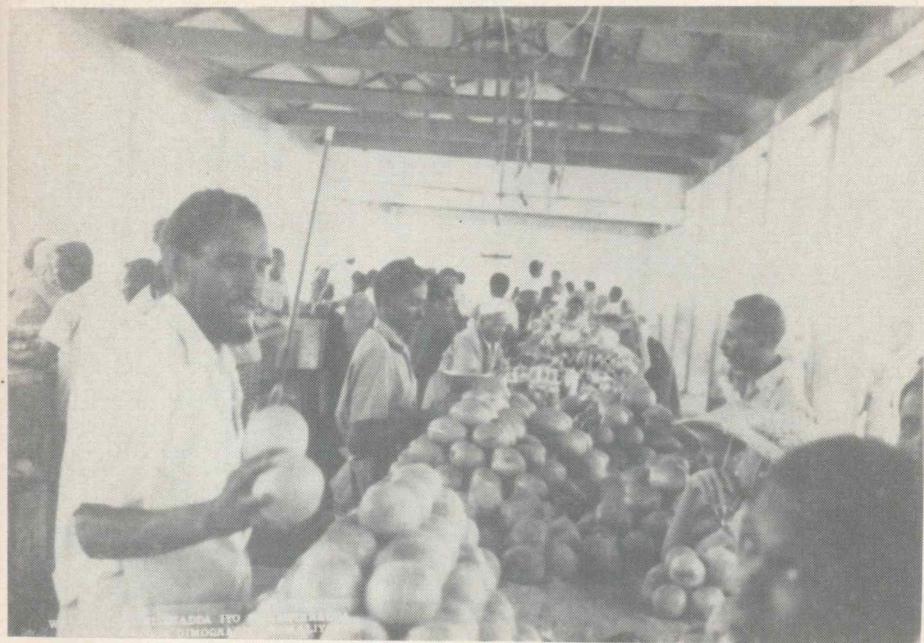
Active spraying on an orchard by the Plant Protection and Locust Control Department.



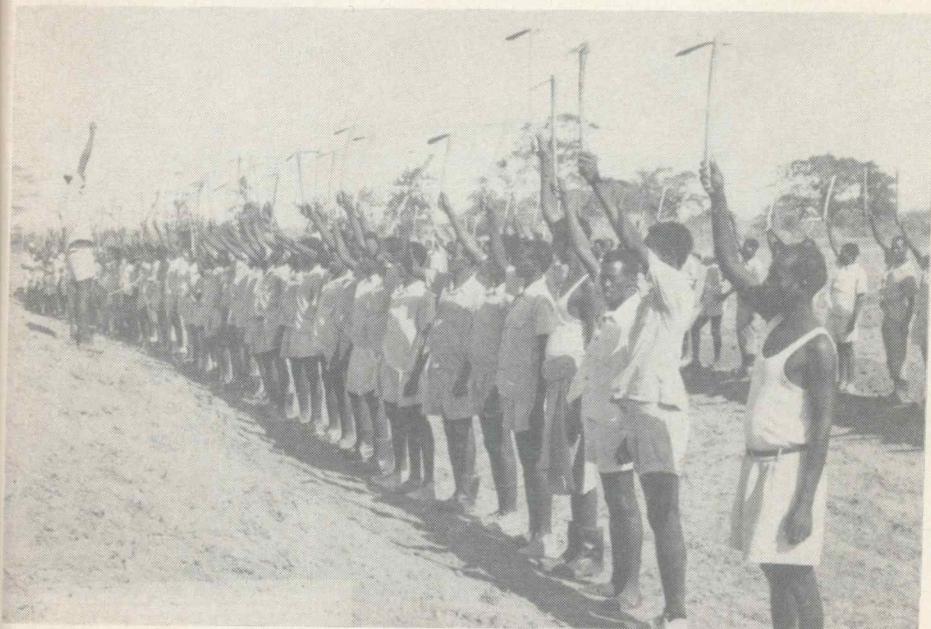
Ploughing by oxen is a traditional skill of the Somali farmer.



Rice-growing marvellously in the rice-paddy of Jowhar
Experimental Farm.



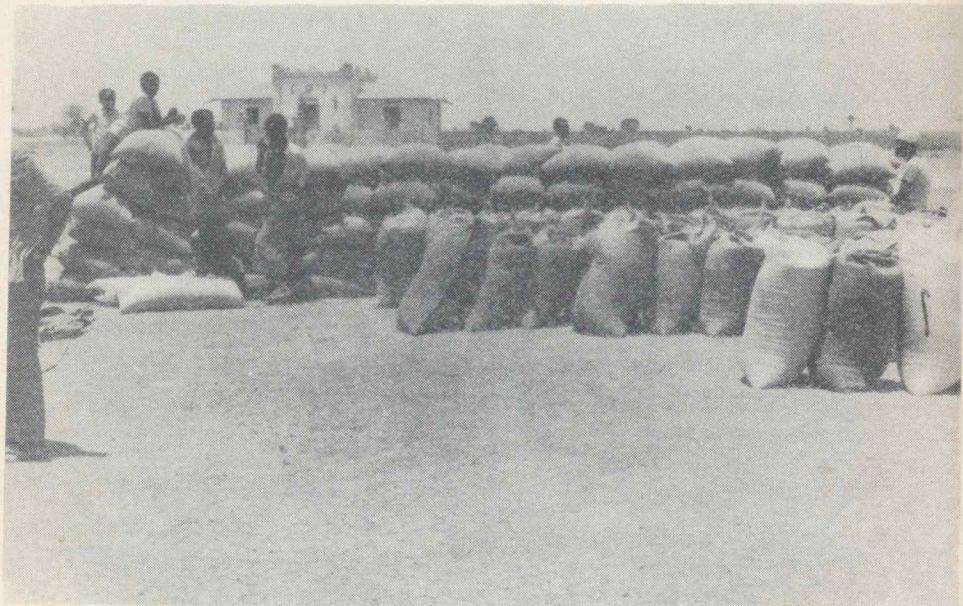
National Agricultural Shows are organised to encourage the farmers and local produce. This is one of the fruit-markets of Mogadishu.



Young Agricultural Crash Programme Pioneers with nomadic background in their early morning orientation.



Vice-President and Secretary of State for the Interior participating
in the voluntary peanuts harvest campaign.



Grain being sold to the Agricultural Development Agency (ADC).



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