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GOVERNMENT MEASURES TO PROMOTE THE TRANSITION FROM SUBSISTENCE TO MARKET AGRICULTURE

1. The FAO/ECA Expert Meeting on Government Measures to Promote the Transition from Subsistence to Market Agriculture in Africa was held at Addis Ababa from 27 April to 7 May 1964. The attached paper summarizing the main findings and recommendations of the meeting was prepared as a working document for the Third FAO Regional Conference for Africa, held at Addis Ababa from 3 to 15 September 1964.
2. Three members of the original expert group were present at the FAO Regional Conference as ECA consultants and participated in its discussions. The Regional Conference paid tribute to the valuable report of the expert group and commended it to the attention of the governments of the region and to the Director-General of FAO for follow-up action.

Item C. 7 of the
Provisional Agenda

THIRD FAO REGIONAL CONFERENCE FOR AFRICA

GOVERNMENT MEASURES TO PROMOTE THE TRANSITION FROM
SUBSISTENCE TO MARKET AGRICULTURE

The transition from subsistence to market agriculture was singled out for special attention by Resolution No. 2 of the First FAO Regional Conference for Africa, held at Lagos in November 1960. It was also given high priority in Resolution 18 (II) of the Economic Commission for Africa, adopted at its Second Session, and was the subject of Resolution 112 (VI) adopted at its Sixth Session at Addis Ababa in February 1964, which noted with approval "the proposal of the Executive Secretary to intensify the work of the secretariat relevant to the transition from subsistence to market agriculture", and requested him to collaborate with FAO and other appropriate agencies "in analyzing the economic and technical factors involved in the modernization of agriculture and in exploring policy measures which governments may use to promote and regulate the development of agriculture to meet the growing and changing demands of the African economy."

As a first step in this intensified programme the FAO/ECA Expert Meeting on Government Measures to Promote the Transition from Subsistence to Market Agriculture in Africa was held at Addis Ababa from 27 April to 7 May 1964. Its purpose was to provide guidance to governments in their choice of policy measures and to recommend follow-up action by African governments, by aid-giving governments and agencies, and by international agencies such as ECA and FAO.

The present paper summarizes the main findings and recommendations of the meeting. It is aimed mainly at presenting the broad overall picture, for it is impossible in a brief paper to do justice to the very numerous detailed suggestions made by the experts. Many of these more detailed questions may also merit discussion at the Regional Conference, and reference should therefore be made to the report of the Expert Meeting, copies of which will be available at the Regional Conference.

GENERAL CONSIDERATIONS

For government measures to take account of the fact that producers are at different stages in the transition from subsistence to market agriculture, it is necessary to make some classification of these stages. The meeting

agreed on the following classification, based on the value of sales in relation to the imputed value of subsistence production:

- (i) Producers whose entire production is for their own consumption;
- (ii) Emergent producers, who have made a little headway in the market economy but whose sales are still less than their own consumption;
- (iii) Commercial farmers, whose sales regularly exceed their own consumption.

The majority of African farmers are at present in stage (ii) of the transition, and it is not implied that all or even the majority of them are expected to go right through to the top of stage (iii). The basic need is to increase productivity, so as to make more available both for sale and for consumption by the producers themselves.

One of the major issues considered by the meeting was the relative desirability of concentrating limited resources on selected producers or areas, or spreading them more widely. Where there is a shortage of trained manpower and of finance it is clearly not possible to do everything. Some concentration is therefore advisable, although in most cases it is economically sound policy to ensure that an adequate share is also devoted to the broad mass of producers. The meeting stressed, however, that there is no clear-cut answer, and that each government has to determine its policy in the light of local circumstances.

Farmers at different stages in the transition to market agriculture need different kinds of government assistance, and this in itself implies some concentration of particular resources. Similarly, in the case of particularly scarce resources, such as agricultural credit, economic considerations dictate their concentration on the relatively few more advanced producers. Among the more advanced producers, however, most improvements are "substitutive" in nature, such as the adoption of new crops and farming systems, and their introduction is relatively costly. In stage (ii) of the transition to market agriculture, on the other hand, much can be achieved through "additive" improvements aimed at increasing the efficiency

of the abundant resources of land and labour already committed to agricultural production, by raising the yields of the existing crops, which are generally so low that big increases can be obtained at small cost.

In its general discussions the meeting emphasized the need to avoid treating the development of market agriculture as an end in itself, without reference to present and future demand. It should be considered as a part of general economic development, and in particular in relation to the requirements of industrialization.

The growth of export demand is a crucial factor, since in most African countries agricultural products provide so high a proportion of the foreign exchange earnings needed for industrialization and general economic development. In most cases the main impetus for the transition to market agriculture has so far come from the development of production for export. In recent years, however, over-all export demand for agricultural products has been increasing rather slowly, and for many commodities has tended to be outrun by the growth of exportable supplies. Many individual countries, of course, have particular advantages that make their own position somewhat more favourable than the outlook for world trade in general, but FAO's commodity projections, discussed under Item C-10 of the Provisional Agenda, indicate that, with the principal exception of some forest products, the growth of export demand is likely to remain slow.

The smallness of the non-agricultural sector imposes severe limitations on the size of domestic demand in countries at an early stage of economic development. Even so, in contrast to export production, food production for domestic consumption seems in many cases to have fallen behind demand. Moreover, there are likely to be rapid increases in domestic demand in the future, and the meeting stressed that steps should be taken now to lay the foundations for meeting them. Population growth is accelerating and urbanization is rapid. The income elasticity of demand for food appears to be very high at present levels of consumption, so that as per caput incomes increase a large part is likely to be devoted to increased demand for food.

At the present time, however, an increasing part of the domestic demand for food and agricultural products is met by imports. Although much of the increase has been in imports of wheat and flour, which cannot be produced in most of tropical Africa, it has also concerned many products which could be produced locally, especially livestock products, rice, and sugar. The meeting was generally agreed that, in order to conserve scarce foreign exchange, attempts should be made to replace these imports by domestic production, though it was emphasized that this should not be carried too far if local production were much more expensive, since substantial increases in the cost of living could jeopardize economic development, and in particular the development of industries.

MEASURES AIMED AT INDIVIDUAL PRODUCERS

Government measures to promote the development of market agriculture may be broadly divided into those aimed primarily at individual producers and intended to secure increases in production and productivity within a largely traditional framework, and those to promote projects for modernized agricultural production on a comparatively large scale. The former type of measure is considered first.

Provision of transport and marketing facilities

Inadequate and costly transport is largely responsible for the persistence of predominantly subsistence production in many areas, and the provision of improved transport facilities is one of the principal requisites for the development of market agriculture. While major communications such as main roads and railways must obviously be multi-purpose, their planning should take special account of the needs of agricultural development. For the development of market agriculture, however, feeder and village roads, to link producing areas with the main transport network, are of particular importance. Community and local authority initiative in the construction of such roads can be an important means of mobilizing under-employed manpower, but the meeting emphasized that this should be carefully planned in order to ensure the optimum use of resources.

The meeting stressed the need for a sound marketing infrastructure to be laid without delay, in view of the substantial increase to be expected in the demand for agricultural produce. Not only does it take time to build up the necessary marketing institutions, but experience also shows that producers take time to make full use of them.

Adequate market information is of particular importance in connection with the transition from subsistence to market agriculture. However, the basic prerequisites to orderly marketing are a uniform system of weights and measures for agricultural produce, the definition of grades and standards, and often the provision of sacks and other standard containers.

Special attention is often needed to the provision of marketing facilities for livestock, including weight and grade sales for livestock on the hoof, and the development of adequately watered and controlled stock-routes or other forms of transport to move live animals to market.

Government-sponsored on-the-hoof sales can provide a valuable incentive to increased commercial use of livestock.

The processing of agricultural products also requires attention. Apart from widening the domestic market and in many cases lowering transport costs, processing can increase returns to producers. The meeting emphasized, however, that if the benefits of government support in the field of processing are to reach producers to the fullest possible extent, their participation on a co-operative basis is desirable.

Assisting the adoption of improved practices

With population increase and pressure on land resources the problem is to devise technically feasible alternatives to shifting cultivation which are at the same time economically sound and socially acceptable. Even where agriculture has been stable for a long period, it is by no means certain in many cases that scientific answers have been found to the problem of developing permanent agricultural systems which will maintain soil fertility and the delicate ecological balance and at the same time provide for increased productivity.

Concerning the mechanics of obtaining the adoption of improved practices, a central problem is to secure the participation of the people, since it is the farmer and his family, and not the advocate of change, who has to put it into effect. A thorough understanding is necessary of the social institutions and motivation of the people. The support of traditional and other local leaders must be enlisted. These and other aspects of securing the participation of the people are discussed in more detail under Item C 8 of the Provisional Agenda.

The shortage of qualified extension staff in Africa necessitates careful consideration of both the organization and orientation of extension programmes. In the early stages of the development of market agriculture, low-level, low-cost extension workers, trained in a few basic practices, are necessary over a wide field at the rate of one to every three or four hundred producers. They can be trained in a short time, enabling the maximum use to be made of local training institutions, and can be given further in-service training during the off-season in order to keep them one or two steps ahead of the needs of the farmers. With the further development of market agriculture, subject-matter specialists are essential, though in relatively small numbers, and for farmers in the upper part of stage (ii) and in stage (iii) of the transition farm management advice is needed.

Data on many fundamental aspects of crops, pastures and livestock are in many cases inadequate to form the basis of sound advice to farmers. At the same time, however, the best use is not being made of available information. Research needs to be more closely oriented towards the solution of clearly defined practical problems, and should be geared to the development plan and to extension programmes. While the fullest use should be made of external training facilities and expatriate staff, greater attention is needed to the training of local research personnel with an intimate knowledge and understanding of African conditions.

Careful consideration must be given to the credit requirements of farmers at different stages of the transition to market agriculture. In the case of producers in the predominantly subsistence stage, short-term credit for improved seeds and small amounts of fertilizer often involves

considerable administrative costs, and an alternative might be to subsidize the prices of these requisites. Within stage (ii) of the transition to market agriculture there will be a change in emphasis from short-term or seasonal credit to medium and long-term credit for implements, livestock and semi-permanent improvements. Credit at the top of stage (ii) and in stage (iii) must be supervised in accordance with a clearly defined farm plan.

In the implementation of improved practices a crucial part can be played by a wide range of rural institutions, some traditional and others of recent origin. However, much depends upon government measures to adapt them to present-day needs and to foster their activities. The meeting emphasized that in many areas in Africa the scope for the expansion of co-operative activities is particularly great. Government encouragement of co-operatives should not be interpreted necessarily as government control, but in some cases it has been necessary for governments to intervene directly to promote co-operative or quasi-co-operative institutions. Generally a greater degree of intervention is necessary with producers at an early stage in the transition to market agriculture than with more advanced producers.

Every effort should be made to make government staff available for extension work in the co-operative field, and training for co-operative managers, staff and committee members should be intensified, including training in management and accounting aspects. The development of cash consciousness and experience of commercial transactions are essential features of the transition from subsistence to market agriculture.

Provision of incentives

Even if the necessary transport and marketing facilities, production requisites, credit and extension advice are all available, the producer is hardly likely to make use of them and increase his production for the market unless he is convinced that it is to his advantage to do so. He is unlikely to take the additional risks involved or make the necessary extra effort unless he can be sure that their fruits will accrue to him and not be taken away by the government in taxation, by landlords or moneylenders, or by sudden drops in prices. The meeting therefore considered that the provision

of incentives (and the removal of disincentives) is one of the most basic aspects of the promotion of market agriculture in Africa, as in developing countries all over the world.

Guaranteed forward prices provide a very important incentive, especially if combined with the payment of premiums for quality based on market realization. The marketing boards that have been established in many African countries have had many valuable results. The meeting emphasized, however, that the incentive effects of guaranteed forward prices can also be achieved without the establishment of one channel marketing and direct physical intervention by governments in the marketing process, if the government operates as residual buyer.

Taxation policies can have a powerful effect on the incentive to expand agricultural production for the market, and the meeting urged governments to examine such policies thoroughly in order to maximize their incentive effect and remove disincentive elements. Production to meet taxation and other limited objectives, often social in character, rather than to produce a regular flow of income, is a dominant motive for producers beginning the transition to market agriculture, who are largely unaccustomed to the freedom of choice conferred by a regular cash income. In many cases a land tax would stimulate the more productive use of land, while governments should also consider the imposition of grazing fees, weighted so as to fall mainly on aged and other relatively unproductive livestock.

The extended family system can be an incentive to increased activity in some circumstances and a definite disincentive in others, and the meeting discussed a number of examples of both types. Another social factor often regarded as a deterrent to the development of market agriculture in Africa is the non-economic attitude to livestock, though this appears to be becoming less important as a cause of the low output of livestock products, and more attention is coming to be focussed on the very low productivity of the herds and the inadequacy of marketing facilities. Apart from the development of education and the encouragement of initiative in the national interest, governments can do little to influence social factors and institutions such as the extended family, but reference was also made to the effect of improved

communications on the spread of information and new ideas by reducing the social and economic isolation of individuals and communities.

Land tenure systems have a substantial effect on the incentive to expand agricultural production for the market. Under communal systems of land tenure, or those based on usufruct without title and clearly defined security of occupation, land tends to remain undervalued, access to it is in no way related to capacity to use it productively, and individual investment in it is discouraged. There is no need, however, to advocate freehold tenure as a general measure, since virtually the same advantages can be conferred by a system of leasehold, though if the state is to retain the immediate ownership of land it may well have to consider acting in the capacity of landlord and providing certain basic land improvements, perhaps through the medium of a local authority.

Measures concerned with producers' own food supplies

While most of the meeting's discussions concerned the development of marketed production, primarily for urban and overseas markets, it was recognized that it is essential not to neglect the food supplies of the producers themselves and the measures that can be taken to improve them.

However rapidly it is possible to develop production for the market, it is clear that most of the rural population of Africa will continue to produce the greater part of its own food supplies for a long time to come. It is therefore imperative to take measures for the improvement of subsistence production. Considerable improvements in diets can be obtained through increased productivity in subsistence production and through its diversification, including the greater integration of livestock with crop production. Extension work should therefore be directed to the part of production that is for subsistence, as well as to that intended for the market. Home economic work and nutrition education can be of value even among primarily subsistence producers.

In this connection the question arises as to how far producers should be encouraged to seek the economic advantages of specialization in one or a few crops if this involves relying primarily on purchased food. The

meeting felt that extension workers should always examine the situation very carefully before advocating any substantial reduction in subsistence production, and should generally ensure that increases in production for the market are not achieved at the expense of basic food supplies. Because of the spread between farm and retail prices, subsistence production has a considerable natural comparative advantage. Furthermore, if a producer grows at least the bulk of his own food supplies, his position is more secure in the event of a sudden drop in prices for the products, particularly export products, on which he relies for his cash income.

Even though subsistence will continue to provide the main part of the food supplies of the rural population, purchases are likely to play an increasing part as market agriculture develops further. Home economics work and nutrition education are particularly necessary when producers are making the transition to market agriculture, so that these purchases are directed as far as possible to the more nutritionally valuable foods.

MEASURES TO PROMOTE LARGE-SCALE PRODUCTION

Side by side with the measures aimed primarily at individual producers discussed above, most governments are also promoting various projects for modernized agricultural production on a comparatively large scale, including plantations, state farms, irrigation projects, settlement and resettlement schemes, and different types of co-operative and group farming project.

Such projects have particular attractions for governments, who see in them a ready means of making a breakthrough to modern methods of agricultural production and of achieving rapid increases in export earnings and domestic food supplies. It is also generally easier to attract foreign aid for a large project than for a number of smaller ones. However, the large capital investment required for such projects makes it imperative for governments to examine the situation very carefully before embarking on them. Because of the relatively slow growth of demand for food and agricultural products, it is probable that in most countries production can be increased sufficiently rapidly to meet it, at least for some time to come, by raising the productivity of the existing small-scale agriculture, which, as indicated

above, can be done at relatively small capital cost by measures to increase the efficiency of the abundant resources of land and labour already committed to agricultural production. In these circumstances the best use of scarce capital may be for the development of the non-agricultural sectors, which in any case would help to widen the domestic market for food and agricultural products, rather than for large-scale agricultural projects.

There are, however, special factors that affect the situation, and the meeting stressed that there is no easy answer to the basic question of the role and contribution of large-scale agricultural projects. For certain crops such as sugar, oil palm, coffee and rubber, for which production and processing have to be closely integrated, there are advantages in large-scale production and mechanization, especially because of economies of scale in processing. Settlement schemes have been undertaken for a variety of reasons, including the need to move populations from areas inundated because of hydroelectric schemes, and to relieve population pressure and unemployment. Large-scale projects can bring benefits to local communities by providing additional employment, and can assist small-scale producers by helping to cover the overhead costs of marketing and transport and providing centralized processing facilities, farm requisites, and advice.

The "spread" effect of large-scale agricultural projects, by which the techniques used on them are imitated by producers in the vicinity, is often cited as one of their major advantages. The meeting discussed the evidence for this at some length, but felt that no conclusive answer is possible. It appears that much depends on whether or not special arrangements are made to spread the effects of such projects to people in the vicinity, as for example by means of nucleus estate and outgrower schemes.

In many cases scarce capital resources have been completely wasted on ill-conceived projects for large-scale agricultural production. Careful planning of such projects is essential. Basic research data on soils, crops and climatic factors are of fundamental importance, while with schemes involving individual farmers and their families in the production process a wide range of human factors have also to be considered at the planning stage.

The meeting held the view that there are few if any instances where governments would be justified in embarking on large-scale schemes without pilot studies, preferably carried out for two or three years or longer. Even where pilot schemes have been satisfactorily proved, it is generally safer to establish a large-scale project on a phased basis.

All such projects require highly efficient management and administration. Government departments are not used to handling commercial undertakings and have therefore often set up special bodies for the purpose.

If private investment, and especially foreign investment, in large-scale agricultural projects is desired, whether alone or in partnership with government, encouragement and safeguards are needed in respect of the security of investments, taxation policies, the repatriation of profits, and a minimum of government interference.

A relatively high degree of mechanization is characteristic of most large-scale agricultural projects. This is, of course, capital intensive, and governments should consider very carefully before embarking on schemes that involve the replacement of abundant labour by scarce capital. Furthermore, most agricultural machinery has to be imported and may constitute a heavy drain on the foreign exchange resources that are urgently needed for industrialization.

In favourable circumstances, however, the mechanization of field operations can produce high returns, increase domestic and export supplies, and bring new areas into production. In tse-tse fly areas mechanization is virtually the only form of draught power. Specialized machinery for transport, processing and bulk storage can be of considerable importance in widening the market for agricultural produce. It is therefore a question of carefully weighing the costs and returns of the various alternative uses of capital, including the expansion of the non-agricultural sector.

When it is decided to undertake mechanization, very careful planning is essential and a gradual approach is generally recommendable. In many cases there has been a tendency to encourage the use of tractors without adequate consideration of the part that can be played by draught animals. Because of

the small size of the vast majority of African farms, it is necessary to consider not only the provision of heavy machinery in large-scale centralized production schemes, but also the organization of relatively large numbers of machines under centralized management providing a service to some ten or twenty farmers per tractor.

It is necessary that the progress of large-scale projects involving substantial amounts of capital and the livelihood of many families should be carefully watched. Adequate provision is needed for the recording and analysis of technical data on which to base evaluations and necessary changes. Project appraisal is a highly specialized subject, and it is essential that authorities responsible for large-scale projects have adequate trained staff to undertake pre-investment and feasibility studies and regular project appraisals.

The meeting emphasized that, at what may well prove to be a crucial stage in the development of Africa, no opportunity should be lost to analyze and assimilate the lessons learned from the large-scale application of technology and capital in African conditions. Detailed studies are needed such as those already published on the Gezira Scheme in Sudan and the Niger Agricultural Project in Nigeria, in order that the lessons and experience can be shared as widely as possible.

FOLLOW-UP ACTION

Having discussed the broad field of government measures to promote the transition from subsistence to market agriculture, the meeting considered possible follow-up action by African governments, by aid-giving governments and agencies, and by international agencies such as ECA and FAO.

While it was recognized that it would be neither realistic nor useful to propose a precise scale of priorities for African governments, the meeting laid particular stress on the following broad policy approaches:

- (a) the establishment of as comprehensive a national development plan as available information permits, together with appropriate administrative structures;

- (b) major attention to the government services responsible for research, extension and credit; with particular emphasis on extension;
 - (c) the establishment of a national manpower budget and the necessary recruiting and training programmes for agricultural economists, technicians, research and extension workers;
 - (d) recognition of the fact that (a), (b), and (c) above and many other prerequisites for the successful development of market agriculture are intensive skill and call for current expenditure rather than fixed capital;
 - (e) careful scrutiny of the share of scarce capital and foreign exchange resources to be allocated to large-scale agricultural schemes;
 - (f) measures to raise the status of agricultural employment and improve the conditions of rural life, in order to retain and attract more efficient and progressive types both to the land and to government agricultural services;
- and (g) wide-based programmes of studies and surveys, covering such questions as how taxation and land tenure reforms can be used to direct agriculture into commercial channels; the rate and extent of private capital formation in agriculture; the growth of demand for food and agricultural products; the motivation of farmers at different stages in the transition to market agriculture; pre-investment surveys and pilot schemes; project analysis and formulation; the main problems and factors in raising cultural productivity.

In addition to these major priority approaches, emphasis was also placed on a considerable number of measures of a more specific nature, including the provision of roads and other infrastructure; improved marketing facilities and services; the reform of land tenure and other rural structures; soil conservation and measures to raise fertility; rural industrialization; the supply of fertilizers and other physical inputs to raise

yields; measures to diversify production and introduce mixed farming; the organization and support of co-operatives; rural education, rural welfare and community development; nutrition education services.

A notable feature of the meeting was the presence of experts provided by some governments and agencies with programmes of aid to African countries. In discussing the ways in which outside aid could be improved and better utilized to assist various aspects of the transition from subsistence to market agriculture, considerable emphasis was placed on the need for much better co-ordination to avoid competition and duplication among the wide range of donors. Such questions come up for discussion under Item C 11 of the Provisional Agenda. A strong plea was made for more aid for current expenditure of a development nature.

Time did not permit a full discussion of follow-up action by international agencies such as ECA and FAO, but it was felt that the Regional Conference provides an opportunity for more thorough discussion of the programmes of the two agencies.