

Rural Organizations

Agricultural Services



Job Opportunities in Agriculture

UNITED NATIONS
ECONOMIC COMMISSION FOR AFRICA

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RURAL ORGANIZATIONS

Often, by force of circumstances, workers sharing the same activity, mine, form associations to protect their interests. This is also true for farmers and other rural workers.

IN UNITY LIES STRENGTH



In all traditional societies, men and women, aware that in unity lies strength, have worked in groups to carry out certain tasks in the fields, mainly those which required considerable effort (clearing the land for cultivation), or those which had to be finished within a short time (ploughing, harvesting). These customs still prevail, mainly where food crops and house building are concerned. But this mutual aid is not generally found where cultivation is on a commercial scale, for export, introduced during the colonial era. Moreover, the young farmers, favouring modern methods of agriculture, are hardly willing to perpetuate these traditions.

The co-operatives, which were introduced by the colonial powers, might have taken over from the traditional groups, had they been introduced, from the outset, not only as a means of

developing the market for export goods, but also as an instrument of economic and social development, and accepted as such by the people. If no effort were spared to correct past errors, and to forget the numerous failures, they could still play the role of the traditional groups, by providing self-help.

Nevertheless, there are other associations besides the co-operatives. In the rural areas too, associations take different forms.

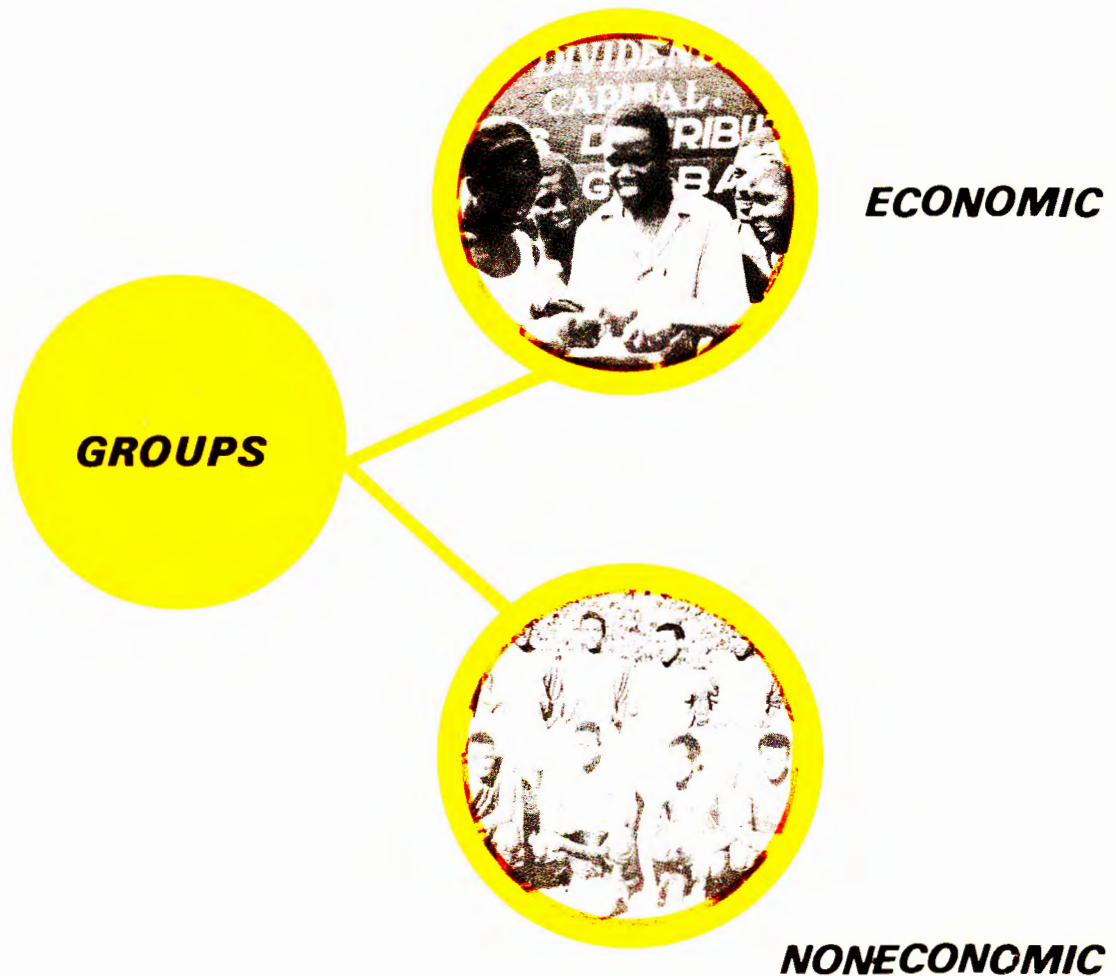
AGRICULTURAL ASSOCIATIONS

Long before the first co-operative made its appearance, farmers in the more advanced countries, often formed agricultural associations. The perfection of agricultural techniques, the introduction of higher-yielding varieties, and the training of their members, had a prominent place among the aims of these associations.



Between the types of association found in all legal systems (share companies, joint-stock companies, limited liability companies, etc., i.e., companies with capitalized assets) and co-operative societies, there is room for a wide variety of associations.

IN ALL DEVELOPING COUNTRIES EVERY EFFORT SHOULD BE MADE TO DEVELOP NEW FORMS OF ASSOCIATION, BETTER SUITED TO LOCAL CONDITIONS AND TO THE ACHIEVEMENT OF THEIR SET AIMS



Knowledge of local conditions is a prerequisite to any attempt to create a new association. The aspirations of the people must be given primary consideration.

Moreover, it is important to make a clear distinction between non-economic and economic groups. Legislation cannot be the same for both. Among the aims of non-economic groups, are to be found: the educational and professional interests of its members, protection of the profession.

Economic groups play a more important role in development. It is in this sector, especially, that imagination is vital, to create new dynamic institutions, well-suited to the conditions of the varying ecological zones of Africa.

These different groups, whether economic or non-economic must start from scratch. The majority of African farmers have passed the subsistence stage. In each ecological zone, production is to some extent market oriented, both in farming and stock-raising.

Traditional groups find their roots in the local community. Their membership is therefore limited, all the more so, since their aims are limited to local needs - more or less mutual aid.

The groups which the new nations need, must extend beyond the boundaries of the local community: they must be created on a wider basis, at national level. However, in order that these organizations might have a greater hold on the rural population, the traditional groups must form their nuclei, and must first be adapted to the new conditions.

TYPES OF GROUPS TO BE PLANNED

1. Non-economic groups

For example: in farming and animal husbandry, whatever the specialization, size of farm, herd, or unit, there should exist:

- agricultural associations or unions (e.g., Kenya);
- agricultural bodies (e.g., Chamber of Agriculture, stock-farming and Forestry - Cameroons);
- agricultural sections within political parties;
- young farmers' clubs (Young men and women);
- peasants' clubs (e.g., West Cameroon);
- plantation workers' unions.



Other similar groups may be formed among fishermen, lumberjacks and other workers in the primary sector.

Craftsmen, industrialists, tradesmen of all kinds, businessmen and members of the liberal professions, would also profit from forming associations, to discuss common problems, protect their interests, further their education, do research and studies in order to improve their health, their living conditions, as well as the nation as a whole.

Another desirable factor, is the existence of rural community groups, whose membership would embrace people engaged in every type of activity.

Such groups are necessary, in the interest of strengthening the common bond, and making rural life more attractive. For example:

- folklore groups;
- theatrical groups;
- sports clubs;
- scout groups;
- reading, sewing, and do-it-yourself groups as well as many others.



These groups may be made up of people of all ages, of both sexes, unless the women, or youth want to form their own groups.

In many of the economically advanced countries, among those cited for their harmonious development, in the social as well as the economic and political spheres, such groups still play a vital role.

2. *Economic groups*

It is the consensus of opinion that **co-operatives constitute the ideal economic group** for, as pointed out by G. Fauquet in "The Co-operative Sector", ... **"the goal of a co-operative is to create a sense of individual and joint responsibility in all men. So that they may rise individually to a full personal life and collectively to a full social life"**.

One of the great advantages of co-operatives is their adaptability. Size, area of activity, or aims pose no problem.

But, conditions must be exceptional for the Rochdale type of co-operative to develop spontaneously. The majority of bodies, called co-operatives, in the developing countries, are in reality, no more than associations which handle business for their members, and offer them their services, on a non-profit making basis. The example of "members of co-operatives" who actually participate in the management of the affairs of their "co-operatives" is rare.

The INTERNATIONAL COOPERATIVE ALLIANCE (ICA) includes affiliated organizations in 59 countries. The summary of statistics (1971) relates to 51 countries with 553,467 societies and 254,917,534 members. Total annual turnover of trade amounts to US\$124,315,600,000.

ICA membership includes 6 countries of **AFRICA** : Algeria, Ghana, Kenya, Mauritius, Uganda and Zambia, with a total of 1,067,581 members.

However, cooperatives are making progress in all countries of Africa.

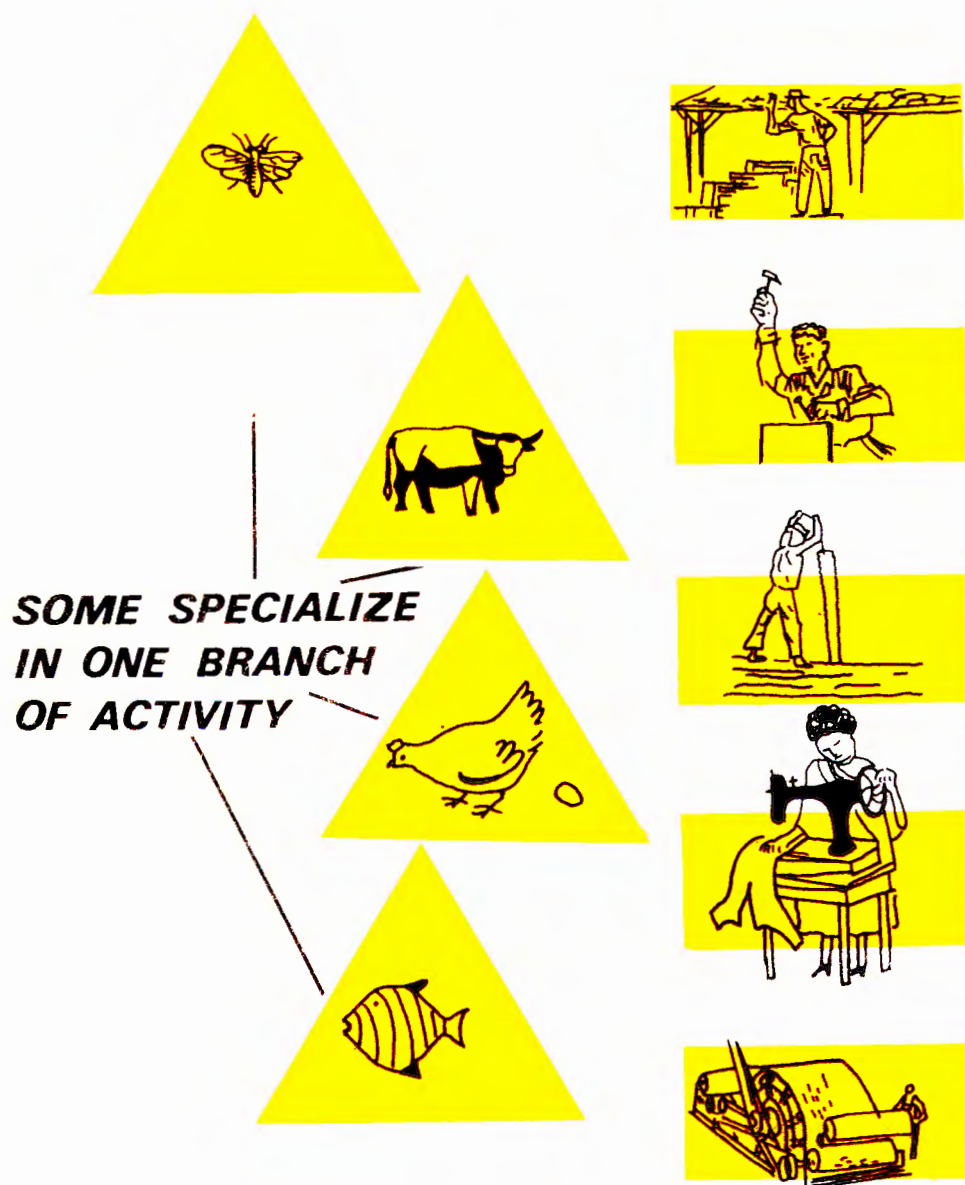
Distribution of ICA affiliated organizations, according to the type of society:

TYPE OF SOCIETY	NUMBER OF SOCIETIES	NUMBER OF MEMBERSHIPS
CONSUMER - - -	50,999	112,699,118
CREDIT - - -	263,573	76,723,039
AGRICULTURAL - -	123,626	35,623,887
MISCELLANEOUS - -	7,200	15,942,744
BUILDING AND HOUSING -	36,659	7,003,172
PRODUCTIVE AND ARTISANAL	63,110	5,443,903
FISHERY - - -	8,300	1,481,671
Total	553,467	254,917,534

To be realistic, one must admit that in the present circumstances, it is the non-profit making society which is more suitable to the developing country. What is important is that these societies be managed properly.

The State could encourage the creation of this type of society, much simpler than the co-operative, and even the so-called "preco-operative". They could be run as the State wished, without contravening the co-operative principles.

The preceding proposal has been formulated mainly in order to correct past mistakes, and to give the term "co-operative" its



original sense. Of course, steps should be taken, so that the non-profit making societies develop to the pre-co-operative and co-operative stage, in keeping with the development of its members know-how, and co-operative spirit.

Profit-making groups may have many aims, culminating in the satisfaction of all the needs of the rural population whether production or consumption oriented. Some specialize in one branch of activity: farmers, stock-raisers, poultry farmers, bee-keepers, fishermen, craftsmen of different kinds, etc. **Some groups may also include producers and workers in different spheres of activity,** for the distribution of consumer goods, for insurance, for supply of electricity, transport and other common services.



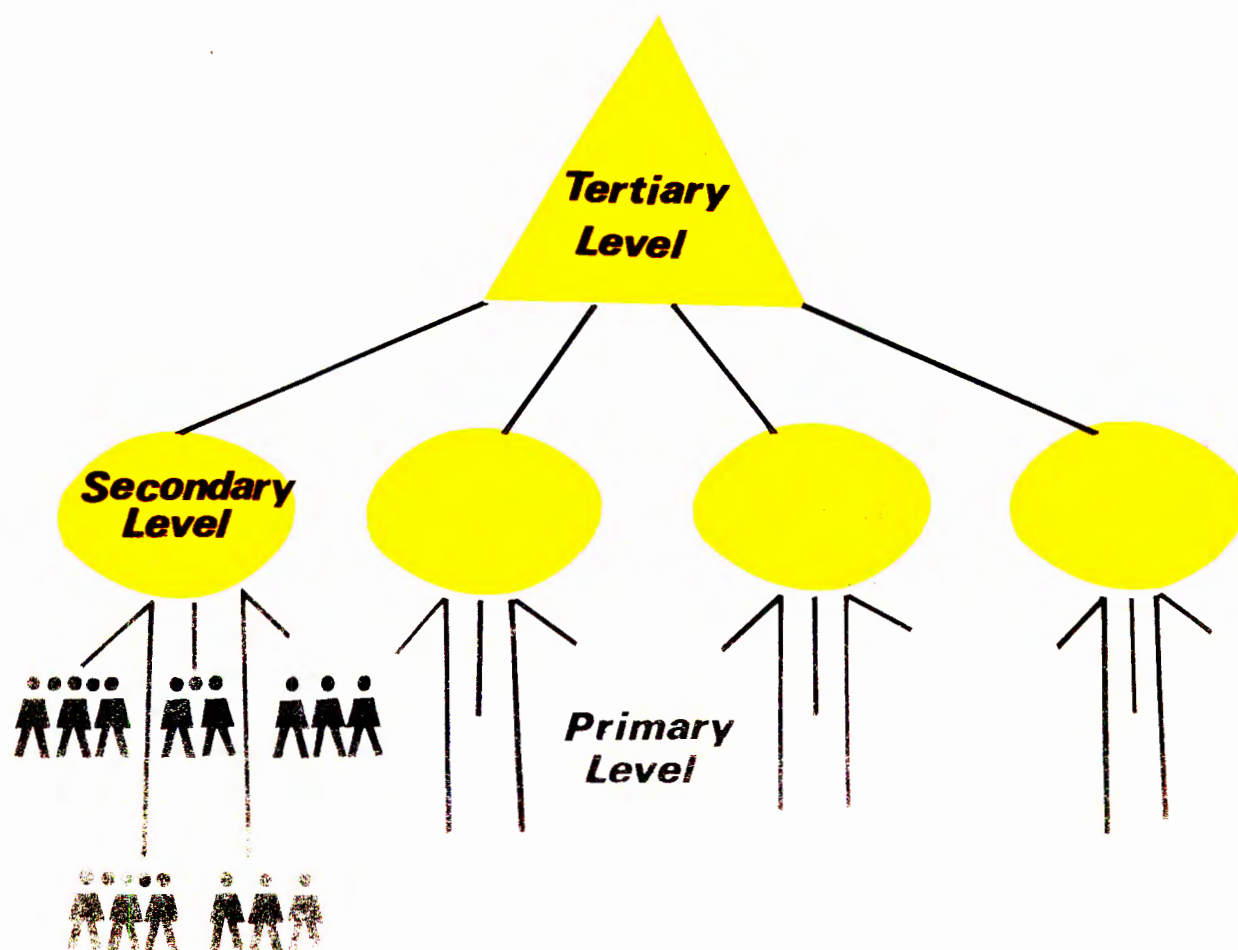
It is indispensable, in order to benefit from economies of scale, that these groups have well-defined structures, i.e., the basic societies (whether called: primary societies, in the co-operative movement), should be integrated at the secondary level, or district level, usually ward or county level (called either unions or federations, according to the country), then at the tertiary level, usually national level (called national associations or unions).

The activities at each level should be well-defined. In order to further the development of individuals and increase their awareness as citizens, the primary societies at village or borough level, in the rural areas, should form the basis of the various groups; the primary societies should not be mere branches under the control of associations at district, ward, or country level.

As far as possible, membership ought to be optional. However, in certain cases, it may be made obligatory on land-owners, if

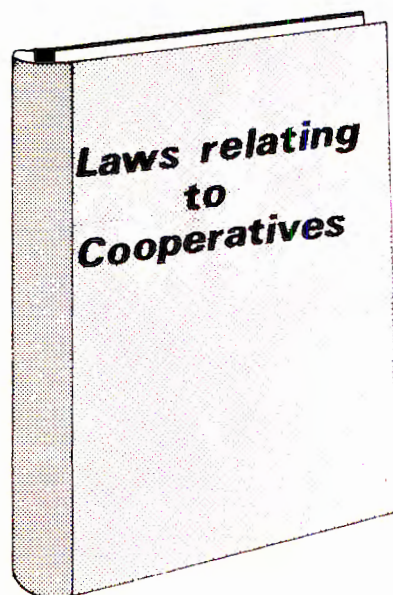
projects are in the common interest, such as, irrigation, development of a given zone, water supply, etc.

Up to a certain point, multi-purpose groups are to be preferred to those exercising a single function. Nevertheless, the common needs of all the members of a group must be taken into consideration, in order to avoid confusion and simplify control.





**HOW ARE THESE
NEW ASSOCIATIONS
TO BE DEVELOPPED ?**



1. First, Government action is necessary

The groups in question, cannot be established, be organized, or developed without government approval. That's why it is up to the authorities to study the problem of associations, existing groups and groups to be created, in depth. When needs have been identified in agreement with those concerned, in order to avoid the infringement of any rights, appropriate legislation is necessary. Laws, by-laws and rules, should be simple, clear, so as to be understood by those concerned.

The procedure for recognition and registration should as far as possible facilitate speed and simplicity.

2. Equal participation is indispensable

In all the countries, numerous services have been created to deal with:

- the co-operative movement;
- youth movements and sports;
- rural development;
- young farmers' clubs, etc.

The main role of the officials of these services is that of motivating the people, especially in the rural areas, which in comparison with urban areas are still so neglected.

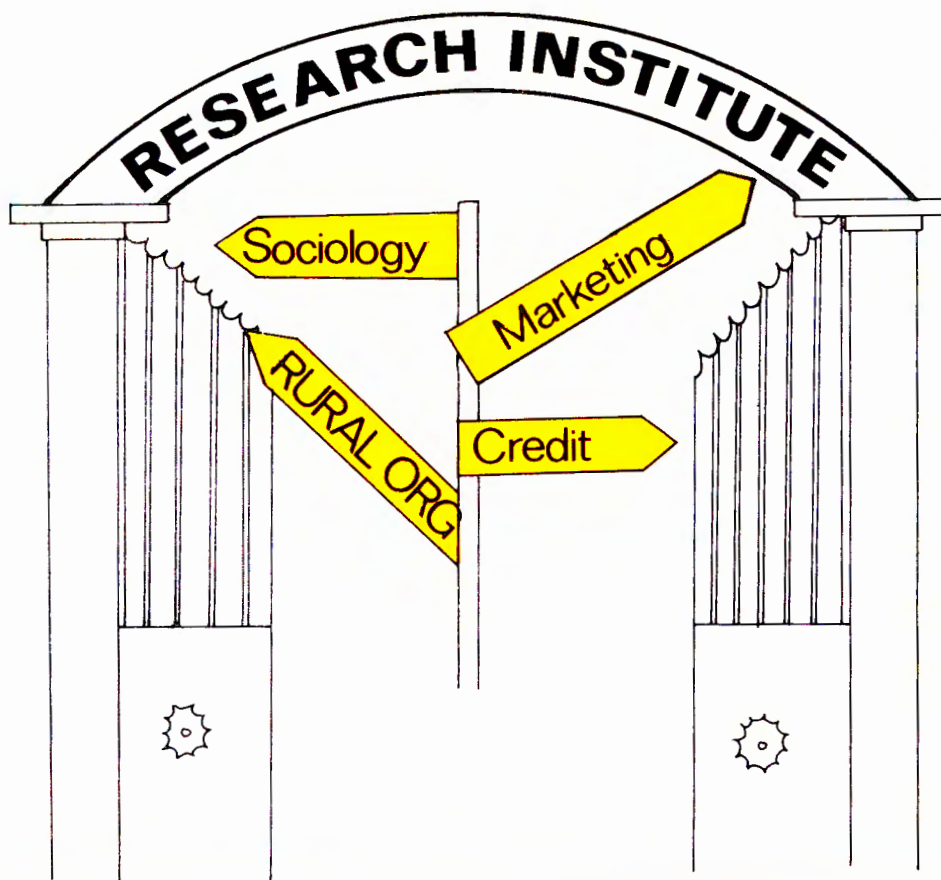


Some countries (Madagascar and Niger, for example) have realized that the motivation of rural populations should find expression in rural community-centres: they encourage the establishment of socio-economic groups, for economic development. (Local associations to further economic aims, with objectives, such as structural organization and self-staffing).

But a community spirit must be fostered, at family, school factory and workshop level, among groups in literacy classes, in short, wherever people gather together. The educated, and the more active among them are under a civic duty to take the lead in those groups which are most useful. Government officials in the respective services should advise them, and help in the organization of the groups in accordance with the law.



3. Research and national campaigns



Research is the first step. The individual, his environment, his aspirations, his needs, and existing institutions must be known better.

Research must be oriented towards the role played by existing institutions, in order to establish what modifications or improvements are to be made, so as to adapt them to present conditions and future needs, keeping in mind the harmonious social and economic development of the rural areas.

Once aims have been defined, national campaigns should be launched, with voluntary help from teachers, officials in rural development services, and local leaders, using mass education media.



CONCLUSIONS AND RECOMMENDATIONS

The role of associations and groups, for the mobilization of rural populations, in order to carry out development plans, has been underestimated, with the exception of a few modest references to co-operatives in some development plans.

But, co-operatives are not all. Simpler forms of associations should be studied and propagated.

THE ECONOMIC COMMISSION FOR AFRICA REMAINS
AT THE DISPOSAL OF ALL MEMBER STATES WHICH
REQUIRE ITS AID.

AGRICULTURAL SERVICES

With relatively few exceptions, even in the most developed countries, agricultural services are essentially official services. During the period of colonization in Africa, these services were comparatively static. Their chief objectives were to ensure the enforcement of laws and regulations relating to the production of export commodities, the distribution of hungry season loans, notably for cereals, to provide for the subsistence of the popula-

MINISTRY OF AGRICULTURE

tions, and of seed loans, for the following season's sowing. Agricultural research centres were oriented towards improving the quantity and quality of export commodities.

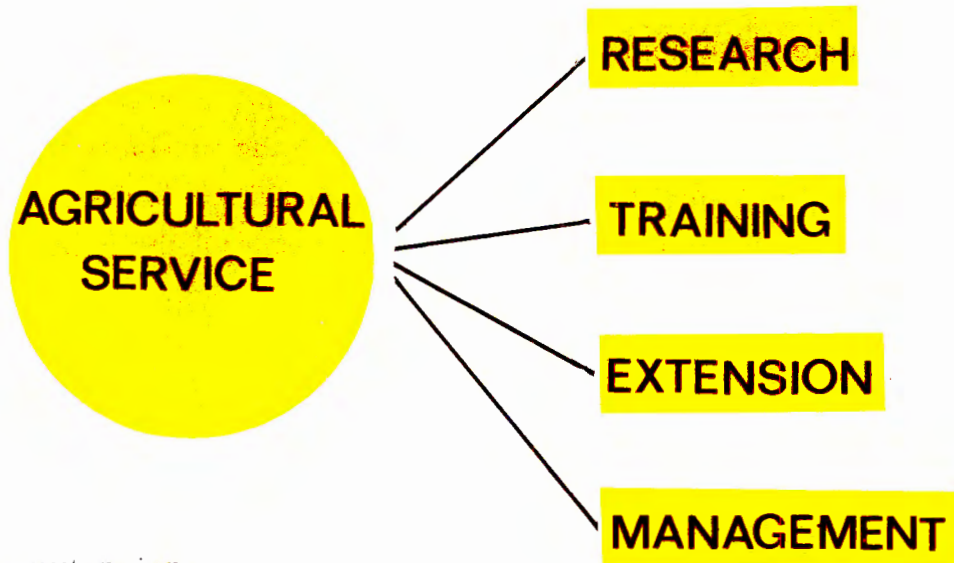
The direct or subsidiary services, such as distribution and sale of fertilizers, implements, pest control vaccination, training of plough-oxen, marketing, etc., were also often provided for farmers by the agricultural services.

After gaining independence, all countries wanted the agricultural sector to participate more fully in development, but the majority found that the numbers and qualifications of managerial staff at all levels were far from adequate to carry out the task of mobilizing the rural population. In addition, the officials responsible for agricultural services at the time of independence were unwilling to depart from their normal routine: they were prepared to administer, but not to manage. It was at this point that some of the Governments of the newly-formed States established new services (small farmer's assistance services, community development services, rural development services, etc.) or entrusted development companies with specific tasks in well-defined areas.

TO CARRY OUT DEVELOPMENT PLANS, AGRICULTURAL SERVICES MUST BE WELL - ORGANIZED

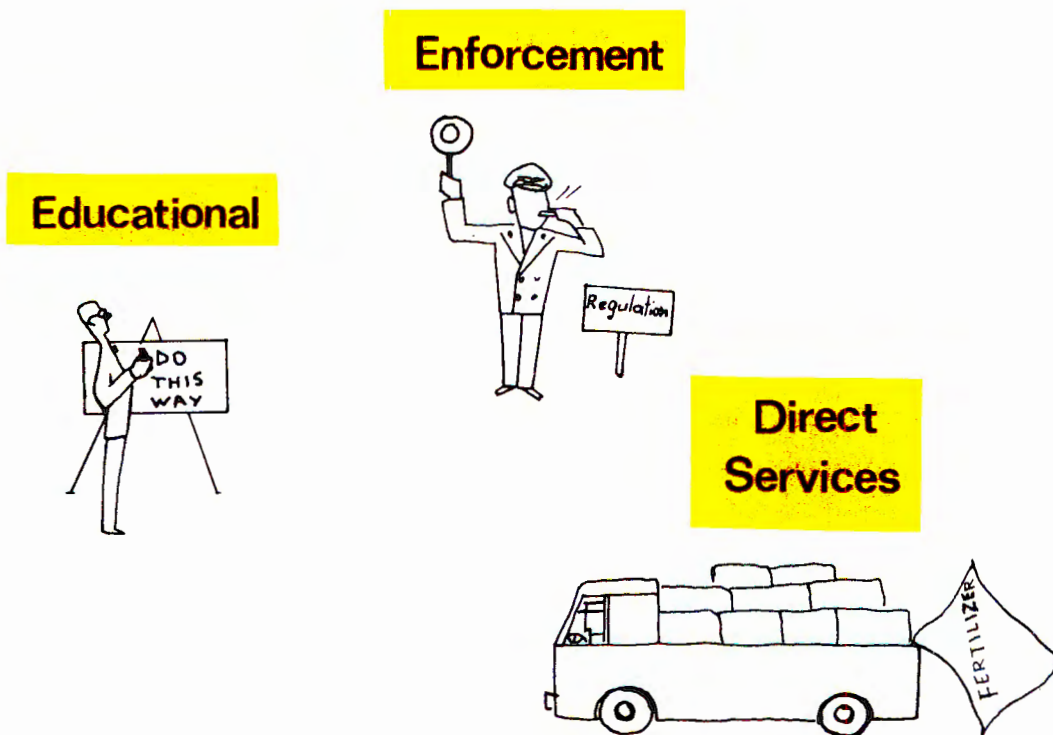
What are the responsibilities of these services?

- research;
- training;



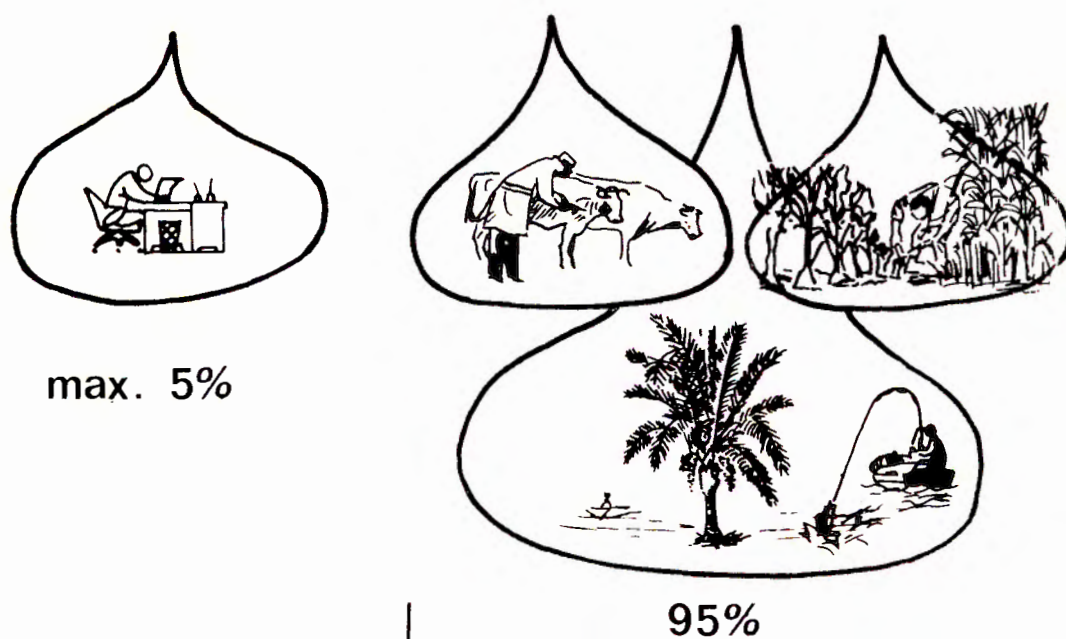
- extension;
- management staffing.

They must conduct activities of an educational nature; they must ensure the enforcement of the laws and regulations, and also provide direct services to farmers.



All activities of the services should be concentrated on **work in the field.** Headquarters staffs at the Ministerial and Departmental levels, should be reduced to the essential minimum (Planning level).

The main role of the agricultural services is to develop the most suitable production techniques (this is the role of research, not forgetting the economic and social aspects), and to disseminate these techniques at the producer level (extension).



Agricultural services are responsible for **advising Governments** on the policy which should be followed to ensure a harmonized and diversified production in all areas of the country, **in regard to:**

- supplying the population with foodstuffs, including protein requirements;
- providing industries with raw materials;
- export possibilities;
- reducing imports.

This is a heavy responsibility, for it is well known that any change in the orientation of production in the agricultural field

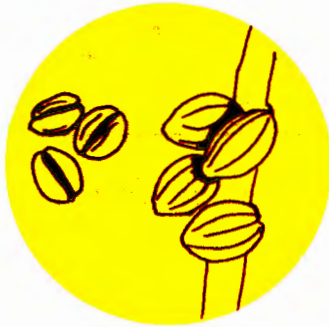
requires several years. Agricultural services must be capable of providing for new orientations within the shortest possible time.



MARKET



INDUSTRY



EXPORT



REDUCING IMPORTS

RESEARCH ORIENTATION

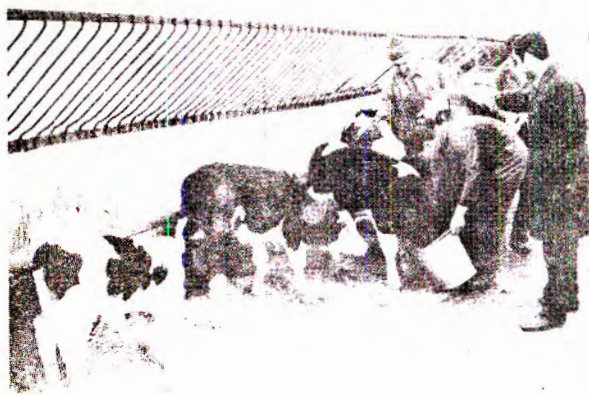
In the field of export commodities, research in Africa is well organized and well equipped, and research centres and institutes work closely together, especially within a group with a common working language.

On the other hand, there is an apparent falling behind in regard to foodcrops which provide the basic foodstuffs for the local populations - and in regard to fruitcrops. In the majority of African countries, this sector has been by-passed by research.

The green revolution has, until now, involved only limited range of cereal crops. It must be extended to other crops with a high nutritional yield.



Apart from animal health, there has been little research into the animal production field. The number of zootechnic research stations should be increased, to create more highly productive breeds and to develop more rational methods of stock-rearing, better suited to the wide variety of conditions in Africa. Cattle feeding is a subject which should receive special attention, as should hydraulic engineering and the protection of pasture lands against fire.



TRAINING OF MANAGERIAL STAFF AND OFFICERS

The maximum resources should be devoted to this essential task, since without managerial staff, no agricultural development programme can be put into effect.

Instructors must be trained to communicate to the mass of the rural population the basic knowledge required for development. All those with an educational mission must be selected on the basis of their teaching ability and their psychological qualities.

Training, both within and outside the classroom situation, must be of a directly practical nature. **Farmers' training centres**, as they exist in a number of countries, might be mentioned as an example. Their only weakness is that they are too few. Even in those countries where they are the most numerous, scarcely 2 per cent of farmers have the opportunity to spend even one or two days in them each year.



The programmes must provide practical courses for all classes of individuals engaged in agriculture - men, women, young people.

Extension must be based on actual social, economic and technical conditions. The initial task - that of instilling the desire for progress in as large a number as possible - is immense. Programmes must at first be simple and precise and their success must be assured by proper research. Farmers and stock-breeders will be drawn out of their routine through well-chosen extension themes, on which the maximum have been brought to bear.



TRAINING QUALIFIED FARMERS

When Schools of Agriculture are not used solely for training staff for the agricultural services, but devote a large part of their efforts to training and preparing farmers to work their own land, the agricultural services will have taken a great step forward. Efforts must be directed towards establishing a middle, well to do and qualified class of farmers. There is unfortunately, an excessive tendency to consider only two solutions to the problem of increasing agricultural production :

- firstly, the **improvement of traditional** peasant-style farming, which does not always offer the basic economic conditions for rational, profitable operation;

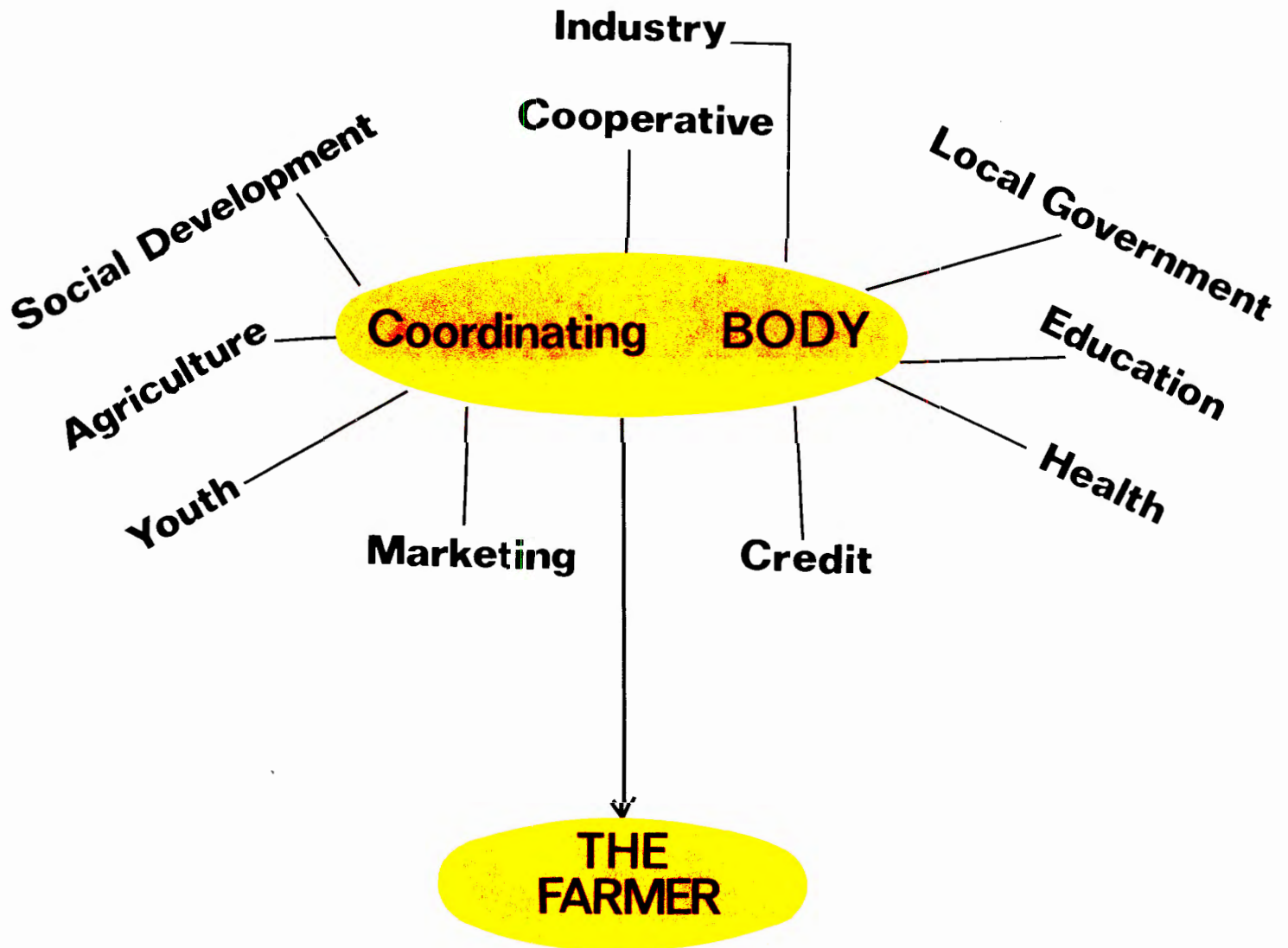


- secondly, **the creation** of large-scale, industrial-type agricultural enterprises.

Between these two extremes, however, there is room for the family-type of farm as viable economic unit, able to utilize modern methods of agricultural production.



CO - ORDINATION - INTEGRATION



The greater the complexity of the organization of the services, the more fundamental the problem of co-ordination. In general, progress demands an increasing degree of specialization. To offset the effects of fragmentation resulting from this specialization, however, very specific rules for co-ordination are required, particularly in the field, where services must be comprehensive and integrated.

Each specialist, or head of a specialized section, must first be conscious that he is part of a team. Heads of sections must hold frequent working sessions to develop a common policy. The same applies to heads of services or departments involved in a joint programme such as rural development, or industry.

In a number of countries, agricultural services include **planning sections to co-ordinate activities and projects.** These sections should really be study and programming units, and subsequently responsible for the implementation of the decisions taken at the working sessions of section heads; they should also act as liaison units with the ministry or department responsible for national planning, and with the other ministries, departments, and institutions concerned with rural areas.

At the regional level, all specialists must constitute a team with a common development programme and wide-ranging executive powers.

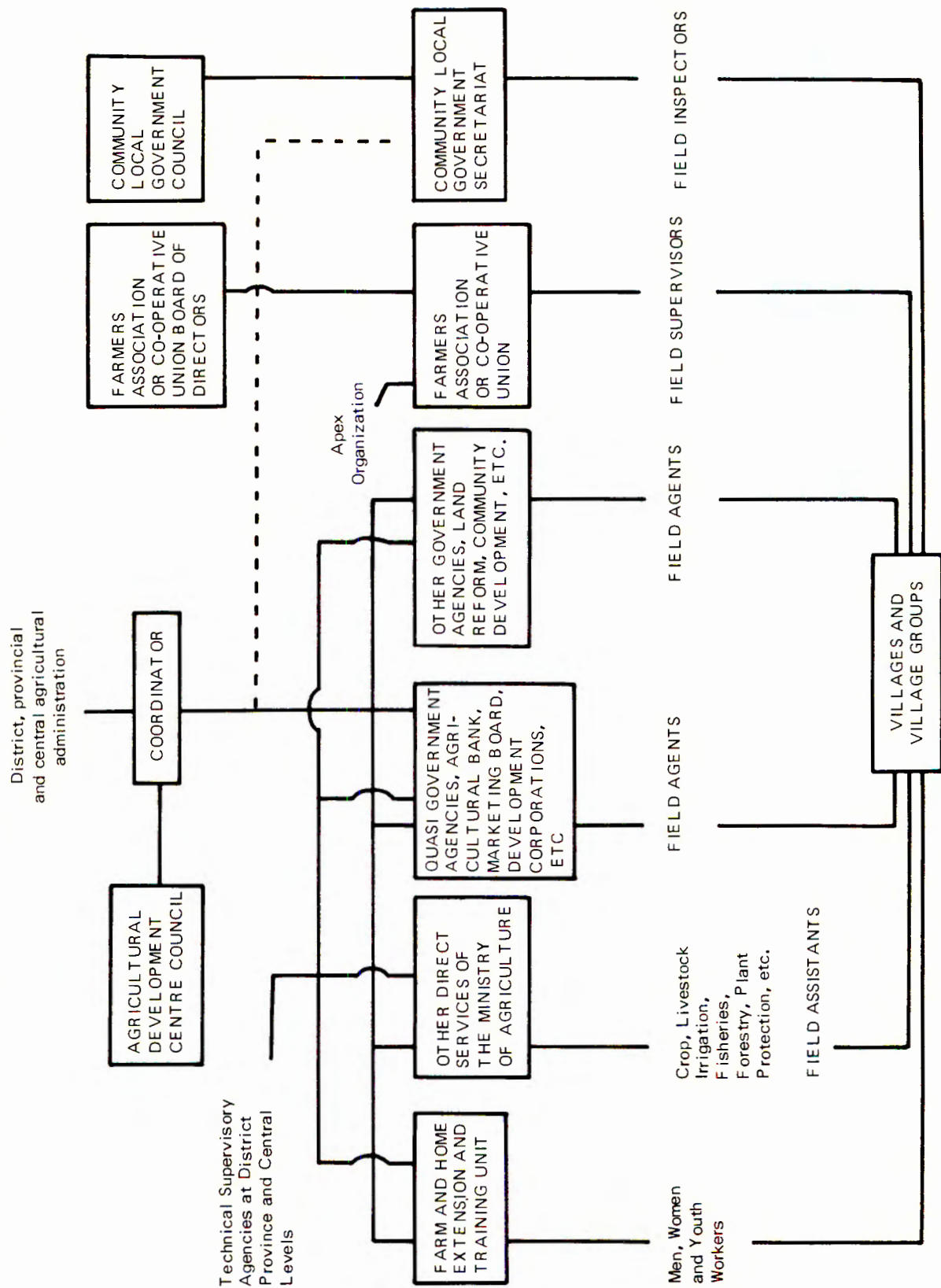
INTERNAL ORGANIZATION

(at the level of the Head of Agricultural Services and below)

When necessary, the Head of Agricultural Services may attach to his Department specialists and advisers for special activities. Care should be taken, however, that there is no duplication with the heads of specialized sections.

The administrative and financial sections should be designed so as to assist the technical sections, to make them more effective, and not to harass and paralyse them. Techniques developed by organization and management specialists must be used.

POSSIBLE ORGANIZATION OF AN AGRICULTURAL DEVELOPMENT CENTRE



Modern planning requires that the dissemination of knowledge acquired through research be undertaken by a single section - the extension section - to avoid confusion and contradiction among the farming community. With the exception of very special branches, the same holds true for training and agricultural education.

Alongside the specialized technical sections (crop production, animal production, water resources, forestry, agricultural engineering, soils, etc.), the rural economy section has an important role to play in the development of efficient methods of farm management in productivity and profitability studies, in the analysis of credit and marketing operations, in census taking and statistical analyses, and in co-operatives and other farmers' associations.

Each section's field of activity must be clearly defined and the area of responsibility of each official and employee should be specified in writing, as should the chain of command.

To ensure closer working relations, provision must be made for the secondment of certain officials to other services (co-operatives, community development, land reform, etc.), or from these other services to the agricultural services.

The necessary steps must be taken to provide field staff with acceptable living conditions: housing, water supply, sanitary facilities, etc., which could serve as models for the local population.

DIRECT SERVICES TO FARMERS



In the past, direct services such as :

- Distribution and sale of production requisites
- Fertilizers
- Seed
- Implements
- Marketing of produce
- Pest control
- Credit programme management, etc.



occupied the bulk of agricultural services' time and resources.

Today, a large part of these activities is still performed by the agricultural services. However, the tendency is to consider these activities as temporary, until private enterprises or, preferably, planters' or livestock breeders' associations begin to participate in them. The ideal solution would be for co-operatives to handle these activities, but it will be necessary to wait until farmers and stockbreeders are able to manage associations of this type, so that they may develop on a solid foundation.



IMPLEMENTATION OF LAWS AND REGULATIONS

~~Expert giving advice
and
enforcing law
at the same time~~

But

ONE
expert
giving
advice

ANOTHER
person responsible
for law
enforcement

Agricultural services are often responsible for enforcing laws and regulations intended to prevent abuses which might adversely affect soil fertility and forested areas, or might jeopardize human and animal health.

This role is of the utmost importance. Nevertheless, two observations are called for:

Firstly, these laws and regulations must be supplemented by educational measures. They must not be merely repressive. It is pointless to prohibit "burn baiting", unless at the same time measures are introduced for pest control and the use of fertilizers. Tree-felling cannot be prohibited unless households are supplied with fuel for cooking. Indiscriminate grazing cannot be controlled until adequate pasture lands and animal feed are made available.

Secondly, educational and repressive functions cannot be performed by the same officers in the field; such a plurality of offices would compromise the relations which the educator, the extension officer must maintain with farmers.

CONCLUSIONS

Agricultural services have a heavy burden of responsibility in all developing countries, since agriculture and stockbreeding are of overriding importance in these areas. It is foreseeable that some of their tasks - research and extension in particular - may be partially taken over in stages by farmers' associations or by the industrial and commercial enterprises directly concerned. This situation already exists in the case of a number of products such as cotton, tobacco and sugar cane.

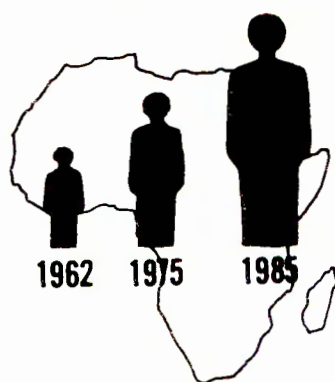
At the initial stage, however, and until producers are in a position to provide direct financing for the activities of agricultural services, it is essential that public authorities provide official agricultural services with the manpower and equipment which they need. Sums included in the budget for agricultural services, far from being wasteful forms of expenditure, can be considered as investments, like fertilizers spread over the land to increase its yield, especially if these services are organized in a rational manner and operate efficiently.

JOB OPPORTUNITIES IN AGRICULTURE



Creating jobs for the rising generations is one of the priority concerns of all Governments. This task is fraught with special difficulties in the developing countries due, of course, to many historical factors, but probably also to the present disproportion between the age groups. Among the significant historical factors are the traditional, almost self-sufficient, society in which each family unit with a few exceptions, provided for its own needs, and colonization which, together with the trading economy, were mainly concerned with the outflow of European manufactured goods, but not with the development of industry in Africa.

The estimates of increase in the total agricultural population in Africa are as follows: (according to the Indicative World Plan, FAO, Provisional Regional Study No.3., Africa South of the Sahara, vol. 2.):



Population (millions)

1962	1975	1985
164.7	208.5	250.2

Representing an annual growth rate of 1.8 per cent

By way of comparison, it should be pointed out that the annual growth rate of the non-agricultural population will reach approximately 4.7 between 1962 and 1975, and 4.9 between 1975 and 1985.

It is estimated that the annual growth rate of agricultural production will be 3.1 per cent between 1962 and 1975, and 3.3 per cent between 1965 and 1985.

It may be concluded from these data that, for one or two generations to come, agriculture will remain the main source of employment in Africa. Over the longer term, that is to say when industrialization is well on the way, as has been observed in the already more developed countries, the agricultural population will decrease even in absolute terms, to the point where it represents less than 10 per cent of the total population.

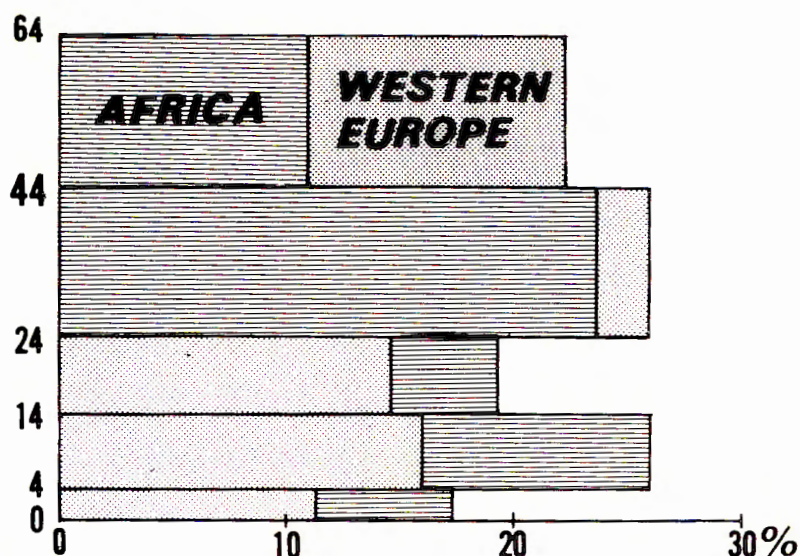
According to the most recent statistics ^{1/}, population distribution by age groups in Africa is as follows (the figures in brackets are those for Western Europe):

0 - 4 years	17.2% (7.8)
5 - 14 years	26.0% (15.8)
15 - 24 years	19.3% (14.5)
25 - 44 years	23.9% (26.2)
45 - 64 years	10.9% (22.3)

"The age distribution of a population affects economic activity and progress in a number of ways. Among the more evident and important of these is that contained in the relationship between the economically active and non-active age groups"

^{1/} "World Population Prospects" United Nations, 1966.

Population Distribution, by Age Group :



"In a sense, youthfulness is also a characteristic of the labour force; and persons in the 15 to 44 age group frequently outnumber those in the 45 to 59 age group by ratios of 4 or 5 to 1 in African countries in 1967. In the developed countries senior managerial and executive positions are largely filled by people who are over 45.

The chart makes it clear that - apart from questions of education and training - the proportion of African population comprised of persons old enough and still active enough to supply much accumulated experience is relatively small". ^{2/}

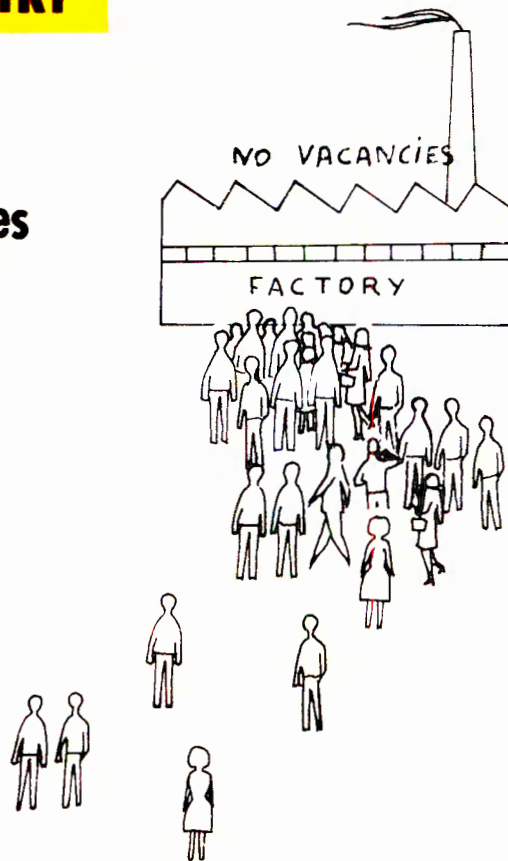
^{2/} "African Economic Indicators" (1960, ECA: pp. 27 to 30).

The expansion of the Government departments in all fields leads to the establishment of new posts for civil servants and state employees. Nevertheless, the basic solution to the problem lies in the creation of productive jobs in the private sector. Partly, for the demographic reasons mentioned above, **the proportion of persons in executive positions with enterprises likely to offer jobs of interest to young people completing their training is comparatively small.**

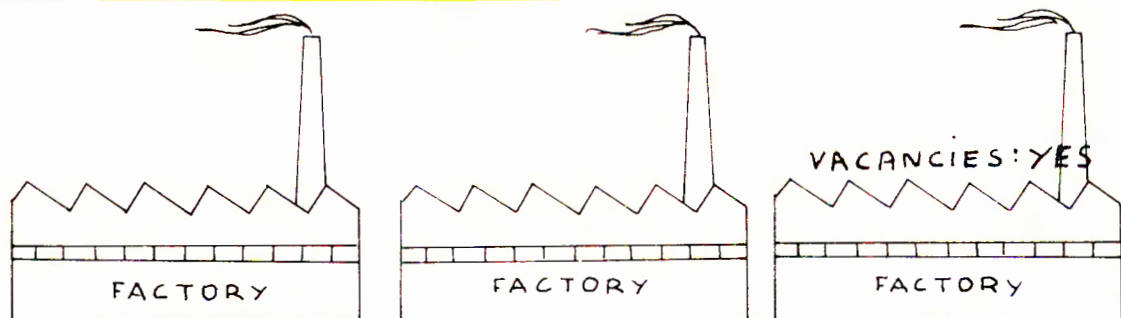
It is therefore all the more vital that those who have the necessary means should show a spirit of enterprise and have the desire to contribute to their country's development.

DEVELOPING COUNTRY

**Job offer small
Many candidates**



DEVELOPED COUNTRY



**Job offer great
Few candidates**

In rural development, the role of agriculture is a vital one. It would be ludicrous to attempt to encourage craftsmanship (masons, carpenters, joiners, blacksmiths, etc.), in a rural area, unless some serious effort had been made beforehand to intensify agricultural production and thus provide farmers with the means of buying equipment, and obtaining better living conditions and communal services for water supply, electricity supply etc.

On-the-spot processing of raw agricultural produce would further increase the purchasing power and raise living standards of



rural populations. This part of the pamphlet will examine, however, only job opportunities in agriculture and in the secondary and tertiary activities in the agricultural sector.

Traditional agriculture will continue for many years to provide employment for a large number of young farmers, however it will not offer any worthwhile new jobs to young people who have had the advantage of receiving a basic and perhaps even a vocational training.

Modern agriculture, on the other hand, geared to the production of a variety of goods for marketing, is in need of qualified, and go-ahead young people. Consequently, just as the new industries offer employment opportunities, so agriculture can provide an outlet for many young people in a booming economy. **What, then, are these jobs?**

First, there are those created by **intensive production**. Large numbers of other jobs however, will result from this intensive production, notably in the processing and marketing of raw commodities



Raising the value of production represents the principal source of increased revenue within a country, as it produces an accumulated increase in consumption. Once the process has begun, it normally becomes self-perpetuating, so offering new outlets not only for essential domestic products, but for others as well.



In international education year, 1970, doc. No. 5 (UNESCO),
the following observations are made:

"Until recently development officials, including these in the education sector, have under-rated the importance of rural transformation in the large context of development strategy. Rural transformation refers to a comprehensive and inter-related set of changes that include not only increases in the productivity and out-put of agriculture and livestock, but also the emergence of differentiated economic activities such as food processing, storage and marketing; the provision of agricultural credit; the

reform of land tenure; the organization of co-operatives; village and community development programmes to improve water supply, roads and sanitation; services for supplying fertilizers, seed, and insecticides; distribution and repair services for implements and farm equipment, and many other changes that mark the shift out of subsistence agriculture." ^{1/}

A. NEW JOBS RESULTING FROM THE INTENSIFICATION OF AGRICULTURAL PRODUCTION

Intensification of production means the concentration of production factors in a given area.

Firstly, there are the land improvements: clearing, drainage, irrigation, provision of feeder roads etc. All of these operations require specialized labour and the services of technicians in the fields of agricultural engineering, hydraulics, mechanics to name but a few.

The "green revolution" is based mainly on **the use of high yield seed varieties.** The production of these seeds requires special attention. Their propagation can be entrusted to a number of experienced farmers who may find that this operation offers them a source of additional income.

The use of fertilizers and **pest control** are essential adjuncts to the use of high yield varieties. The distribution of fertilizers and pest control products and, above all, the maintenance of machinery used in pest control will require specialists assisted by unskilled labourers, although small- and medium-sized farmers should be encouraged to carry out as many of these tasks as possible using their own resources, so as not to lose the benefit of intensification.

Intensification also frequently leads to specialization in a

^{1/} International education year 1970, doc. No. 5: Educating for Development (UNESCO).

number of intensive farming methods which, when employed in comparatively small areas, provide those practising them with higher incomes than those obtained from traditional large-scale cultivation. Among these are arboriculture, market-gardening, then cultivation of essential oil producing plants, flower growing, spice production, tobacco growing.

Intensifying also means practising cultivation techniques designed to increase and regularize yields. Pruning for example, plays an important part in orcharding and in coffee and cocoa production. The practice of modern pruning techniques and the production of high quality plants in nursery require specialized knowledge.



In a number of countries, young people have organized themselves into groups to offer their services to planters in pruning coffee shrubs (in Cameroon, for example). This is an example which should be encouraged and which can lead to specialized, well-paid jobs.

Finally, agricultural intensification is also partly based on mechanization and motorization. It is apparent, however, that mechanization and motorization are generally accompanied by a reduction in the need for unskilled labourers.

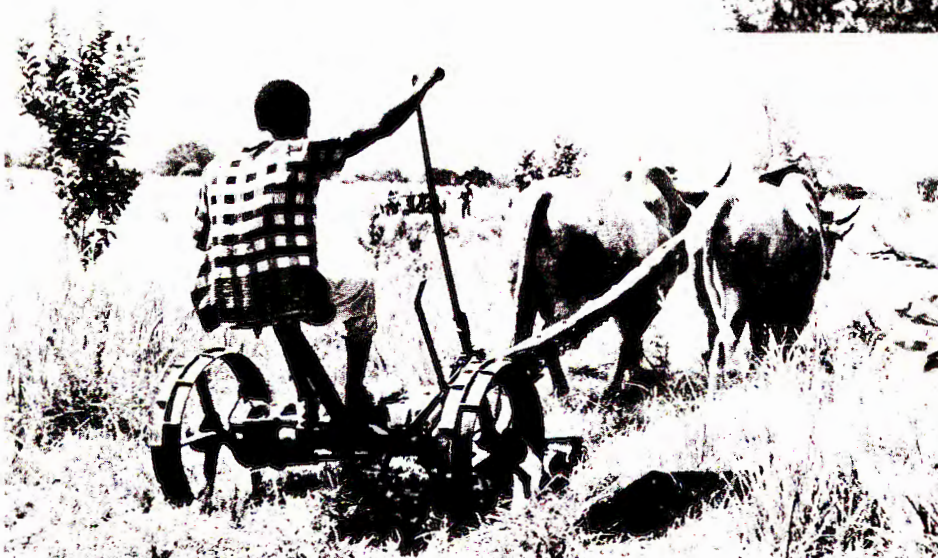
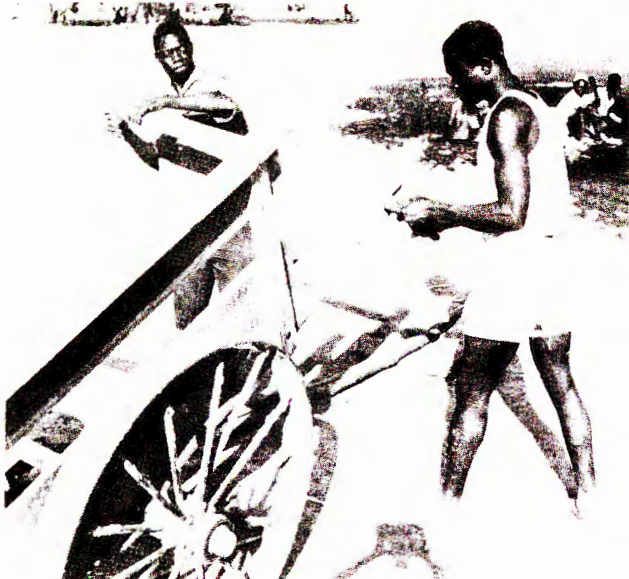


In this field, there are innumerable new job opportunities. From the manufacture and maintenance of improved, well-designed and well-produced hand tools, to the use of tractors and their accessories, and all the equipment for animal draught, there are many opportunities for new jobs, both at the village level, in the production of simple tools and the maintenance of agricultural machinery depots, and on an industrial scale industry in the manufacture of the agricultural equipment itself.

Some measures along these lines have already been put into effect in a number of African countries such as Senegal and Niger. They must be encouraged and extended.

Intensive animal production also offers new job opportunities, but the low purchasing power of potential buyers constitutes a limiting factor. In this sector of farming, new job opportunities exist particularly in specialization in such fields as:

- Intensive dairy production
- Stock fattening (cattle, sheep and pigs)
- Wool, fur and hide production
- Poultry



- Bee-keeping
- Fish breeding.

These intensive techniques will require special plants: buildings of all kinds (workshops, cattlesheds, silos, living quarters, etc.), water supply, electrical installations etc., which in turn will call for specialized labour and technicians, not to mention irrigation schemes, feeder roads, factories, means of transport, research institutes, etc. which will have to be expended or established.

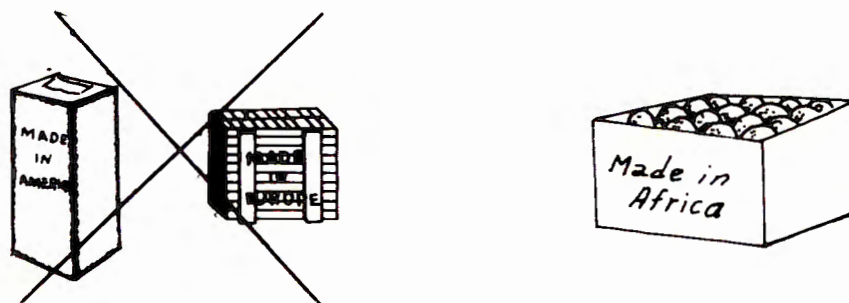
B. NEW JOBS IN AGRICULTURAL INDUSTRIES

The secondary sector will naturally be the first to benefit from the development of the agricultural sector.

One of the first objectives will be to create and develop small rural industries offering work to capable enterprising individuals. The prime objective of these small industries should be to supply the local population with products and articles for every day use. The value added to the value of the raw material should be reasonable, so that the price of the finished product can be kept at a level in line with consumer purchasing power.

Priority must be given to the foodstuffs industries. Too many imported canned goods can still be found in the developing countries. Of course, economies of scale enable a number of international monopolies to distribute the most every day products such as sardines, meat paste, evaporated, condensed, or powdered milk, even to the most remote areas at prices defying any competition. It is still necessary, however, to have enough money to purchase these canned goods.

In the face of this competition, the process of launching agricultural industries to put equivalent or similar goods on the market is difficult and slow. Raw materials, however, are plentiful and



not as yet burdened with the many forms of transit and transportation overheads. The manpower is available. All that remains is to train it.

The first problem to be solved is that of **quality**. Another, equally important, is that of **catering for the tastes of the consumers**, whose habits have been formed under the colonial influence. For



this reason, it is necessary to go back to traditions and to study how ancestral methods may be improved and their profitability increased and how products may be adopted to present needs.

Palm nuts, copra, ground-nuts, the many varieties of bananas, manioc and all cereals provide abundant raw materials for the foodstuffs industries. Emphasis should be placed on producing adequate quantities of protein foods.

There are many foreign manufacturers and businessmen inspecting Africa's beef cattle resources with a view to setting up meat canneries in Africa. This would also be a profitable field of activity for African manufacturers and businessmen.

One might also wonder whether it is still excusable in Africa to consume pineapples and other tinned fruits and fruit juices, not to mention vegetables imported from Europe, America or Asia, when the African continent offers such vast possibilities for the development of similar industries. The numerous small canning enterprises to be found in all African countries suffer from foreign competition. If canned food industries are to reach a scale on which they will be economically viable, it will be essential for African States to pool their resources.

In the dairy sector, aside from tinned milk in powdered, evaporated, or condensed form, most imported products must be considered as luxury goods by virtue of their high prices. Yet, in Africa, there are many areas admirably suited to the development of the dairy industry and to the preparation of foodstuffs with a high nutritional value, at popular prices.

What is needed most of all is imagination, individual initiative and government support, particularly in research and quality control.

A few African countries, Cameroon and Ghana for example, have for several years been engaged in the manufacture of semi-finished and finished products from cocoa and coffee beans. The quality is good, but costs are still too high to enable these products to become generally popular. Furthermore, import duties

levied by certain African States on products from neighbouring countries are exorbitant.

In the field of handicrafts, there is a great abundance and variety of materials available - woods, fibres, skins, leathers etc. The best time to modernize the traditional handicrafts industries would be while craftsmen versed in ancestral practices can still be found.

The manufacture of textiles, furniture, simple utensils, ropes, carpets, and packaging for agricultural commodities are also activities in which new remunerative jobs could be created.



It is by beginning with the manufacture of articles to replace imported products, that a base for industry can be created and developed in the developing countries.



C. NEW JOBS IN THE MARKETING SECTOR

Marketing, in its widest sense, includes all the operation of handling, processing, classification, packing, transportation, preservation and distribution of agricultural products, from the product to the consumer.



At present, trading margins already make up a very significant portion of the price paid by the consumer for agricultural products. Where they offset costs of services contributing to the improvement in the quality or distribution of the product, margins are permissible, as in fact, they partly represent salaries for new jobs. But, all too frequently, excessive margins benefit only a small number of profiteers.

It need scarcely be pointed out that the expansion of agricultural production and the inevitable improvement of the various stages of marketing will create ever-increasing needs for accessories (packing), equipment (machinery for processing, handling and transportation), and services (advertising, communications, insurance etc.), **which will create a need for a large number of new jobs.**



D. OTHER NEW JOBS RESULTING FROM THE EXPANSION OF AGRICULTURAL PRODUCTION

Varying according to the country, the private, public and co-operative sectors will share the responsibility for agricultural expansion. However, auxiliary services such as agricultural credit, insurance, the services of agricultural advisors or consultants and others will develop on a par with agricultural production, thus creating new job opportunities.

CONCLUSIONS

A programme for creating new jobs in the sectors mentioned above must, of course, be based on national, economic and social development plans. Its execution should be very carefully planned. Initially, the Government must make a great effort to ensure that the programme gets under way, particularly in the training of managerial staff and the establishment of institutions designed to mobilize farmers and stock-breeders. Very rapidly, as soon as the first results have been obtained, farmers and stock-breeders will themselves be able to take over the responsibility for and the financing of development programmes at least partially, but progressively, and with the

legal and material support of the State.

It hardly need be added that this increase in job opportunities in agriculture will have repercussions throughout the whole labour market, in so far as the expansion of the secondary sector keeps pace with that of the primary sector. The tertiary sector must be rigidly controlled to prevent it from over-expanding to the detriment of the first two.

AGRICULTURE

**Production of
raw material
and foodstuff**



**Primary
Sector**

INDUSTRY



**Secondary
Sector**

DISTRIBUTION & Services



**Tertiary
Sector**

SUMMARY

Job opportunities resulting from the intensification of agricultural production: Land improvements - agricultural engineering

Surveyors - drivers for earthmoving equipment - mechanics - masons - carpenters - labourers.

Agricultural intensification (crop production)

Firstly: fuller employment of independent farmers, specialization in certain types of intensive farming:

- arboriculture
- other types of fruit farming (strawberries, for example)
- horticulture
- market gardening
- propagation of selected seeds

- essential oil production
- spice production
- tobacco growing, etc.

specialization in providing certain services to farmers:

- pruning
- pest control
- manufacture of simple tools in small workshops
- workshops for the maintenance and repair of equipment

agricultural mechanization automatically involves setting up garages for motor-driven equipment, stations for repairs, spare parts and fuel distribution, etc.

The improvement of crop preservation methods is an important factor in intensification.

Intensification of animal production

- Specialization in dairy production
- Intensive stock fattening (cattle, sheep, pigs)
- Wool, fur and hide production
- Poultry
- Bee-keeping
- Fish-breeding, etc.

But the intensification of animal production automatically involves the development of secondary activities:

- Production and distribution of concentrated feed
- Pest control
- Ranching (fences, watering points, shelters)

all of which are activities offering new jobs.

Agricultural industries

A variety of jobs in the dairy industry, the production of protein food, fruit, vegetable and meat preservation, small local industries for processing:

- Sugar cane
- Palm nuts
- Copra
- Ground-nuts, etc.

Handicrafts

Principally in improving traditional craftsmanship, in producing the articles and equipment required for agricultural development and for the improvement of housing and home economics. But also in producing packaging, as far as possible from local raw materials.

Marketing

The tertiary sector will benefit directly from the intensification of agricultural production and the development of local industries.

The provision of silos, store houses and mechanical-handling equipment will provide work for all local craftsmen.

More managers will be required, together with more accountants, office staff and labourers, either in private or collective enterprises, or in co-operative societies.

In this way, a large proportion of the population will find well-paid jobs and will form a profitable consumer group for agricultural and handicrafts products.

Other jobs

Many auxiliary services will be established in the professional sector:

- Bank employees and agricultural credit agents
- Insurance agents
- Agricultural advisors
- Consultants, etc.