

PROBLEMS OF AGRICULTURE PRODUCTION IN  
NIGERIA AND HOW TO SOLVE THEM

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by

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## PROBLEMS OF AGRICULTURE PRODUCTION IN NIGERIA AND HOW TO SOLVE THEM

AGRICULTURE has been described by many people in many lands, Nigeria not excepted, as the pillar upon which the economy of a country rests. The uneven-spread or distribution of wealth in the world today is historically linked with disparity in the development of agriculture. The earliest civilizations of which we have read so much were established around agricultural development which was encouraged by natural factors, that is, innate fertility of the land. Such civilizations were those which sprang up around the fertile valleys of the rivers Tigris and Euphrates, the Indus river, the river Nile and the flood plains of river Hwang Ho, the Yellow river in China, the basins of the Mediterranean Sea, the Northern, and the Western shores of the Black Sea, the Danube basins and the Southern Mexico.

In the days of the Israelites in the Old Palestine, Egypt had a better developed agriculture, using improved farm tools and employing irrigation to produce high crop yields and able to feed its people, to provide surplus for trade and to enjoy improved standard of living. History tells us, the Israelites because of the backwardness of their agriculture, had to go to Egypt during famines to purchase grains to keep life's burners burning.

I am sure the people of the present day Israel will laugh at the level of agricultural development in Egypt as it then was when compared to their recent vast agricultural development projects in the country, where deserts have been turned into fertile lands and huge sophisticated irrigation schemes are used to produce an array of crops from grains to fruits and tubers.

The division of the World into the camps of the "developed" and "developing" countries has its foundation in the relative levels of agricultural development in various parts of the globe. While about two-thirds of the world's population, a sizeable percentage



of which live in the developing countries of Africa where agriculture is hardly developed have an annual average earning of *ninety naira*, (₦90.00) the people in the developed countries like America where agriculture has metamorphosed from a primitive one-man-one-acre enterprise into a big business, enjoy an average annual earning of twelve hundred naira (₦1,200.00). In these countries, agriculture is indeed the prop of their economy providing gainful employment for the farm families and for millions of other people through industries which utilize raw materials from agriculture.

With this picture in the background, when we in Nigeria assert that agriculture is the backbone of our economy, we mean that whatever we can boast of in this twentieth century, though very little, was contributed in large measure by our peasant farmers who produce the bulk of the cocoa, oil palm products, rubber, groundnut, cotton and benniseed which we export for foreign exchange earning. But what sort of agriculture is ours? Is it the type of agriculture in America, where science and technology have been wedded together to form the basic tool for a farmer to operate a 500-acre plot of land which he calls a small farm because his neighbours are operating 1,000 to 1,500-acres of land? Or is it the kind of agriculture practised in Israel of the present age, not the old Palestinean, where high level technology has enabled the farmers to turn deserts into oases? The answer is neither. Our own agriculture which has hitherto provided us with all that we need to make two ends meet, to subsist, is Peasant agriculture.

What then is Peasant agriculture? Peasant agriculture is that level of agriculture which is dominated by farmers who operate fractionated holdings with primitive farm tools for subsistence living. The definition of peasant farmers therefore is that cadre of farmers who because of lack of or insufficient education, lack of incentives from the government, which imposes heavy tax burden on agricultural products in the form of taxation on export crops, and because of high profits made by the marketing boards, and of high import duties on the goods that they purchase from the market are operating one to five-acre farms, using the crudest of farm implements, namely, cutlasses and spades of all sorts and shapes to eke out a living.

With these few observations, I will now identify six different problems which accost our agricultural development in Nigeria and which we must solve before we can have a well developed agricultural industry.

The problems are:

1. Lack of education of the farmers.
2. Lack of improved planting materials.
3. Fractionated farm holdings.
4. Primitive husbandry methods and tools.
5. Mixed cropping system and
6. Lack of incentives.

#### *Lack of education*

In Nigeria, about 99% of the farming population are illiterate. They are sold on the ideas of farming system handed over to them by their forefathers. They cannot understand the basis of any innovation in crop husbandry methods. This cadre of farmers practise agriculture as an art. They depend on the traditions passed on to them by the preceding generation. They accept farming as a career and hardly any one can move them out of it. They initiate and integrate their family into the art of farming to perpetuate it. The artiste hardly changes his or her style which he or she uses as a stamp on his or her products. The work of Michelangelo as depicted by the "statue of victory" during the 15th and the 16th centuries is still recognized today as Michelangelo. Fakeye's style of carving is distinguished from those of other wood sculptors in the country today and in the future.

We need to educate Nigerian farmers to recognize agriculture as a science rather than an art. It is then that we can change the social system, human attitudes, and inculcate in the farmers the knowledge and skills necessary for the improvement of husbandry methods. To accomplish this, the governments of the Federation will need to mount a gigantic programme of agrarian improvement involving an assembly of packages of technology, a massive distribution of scientific and technical personnel and an array of

improved, hand-operated, animal drawn and motor-driven agricultural implements. There should be this intermediate technology which is necessary before embarking on full-scale mechanized agriculture.

The education of the present class of farmers in Nigeria, however, can be achieved only through a widespread rural education to create a literate peasantry. The Department of Adult Education could be provided with funds and personnel who are graduates in Agricultural Education, Agronomy, Agricultural Economics and Extension Education to organize adult education classes to teach the three Rs (reading, writing and arithmetic) and Agricultural Science. Except this method is adopted, the country will have to wait, and wait very long until we have graduates in agriculture rich enough to establish themselves on the farms. I shall come to this point later. But suffice it to say, that we should embark on a mass education programme for our present cadre of farmers in order to extend the scientific agricultural information already available in the archives of agricultural institutes, research stations and universities.

#### *Lack of improved planting materials*

The Nigerian farmer plants any kind of crop seed. He uses unimproved strains and varieties of crops and he harvests poor yields in return. Until very lately, nobody cares about what seeds the food growers plant on their farms. We are interested in the food they produce; we are worried when we do not get enough of the staple food crops like yams, maize, beans or "gari", to buy in the market. When there is real scarcity of these commodities in the markets, the government shouts on the radio and on Television appealing to farmers to produce more food, advising against exodus of youths from the farms into the cities. The concern is like the outcry about changes in weather conditions which everybody talks about but about which nobody does anything. What plans have we for solving the problem of low yield of crops on the farms? of the crude husbandry methods of the conditions of living of the farmers? of the emigration of youths from the farms? and of the abject poverty of the farmer? NOTHING. These are problems we need to solve immediately.



if we want more food in the markets. In 1970, Sir Gaitskell in his talk on "Some problems of development today" said "poverty in a large mass of population is a tremendous economic constraint". Our economy can hardly make much progress without improving the lot of the rural families who constitute about 80% of our working population and who earn their living on the farms. We need to intensify our research efforts and produce the hybrids of crops for increased production. Although hybrid production is a tedious and expensive programme, it pays a country to embark upon it. Hybrid maize production coupled with improved husbandry methods revolutionized agriculture in the United States of America. Hardly is there any crop in America today without a hybrid variety. The ideal therefore, is for us to produce hybrids of the various economic field crops for distribution to farmers and then teach and equip them to use these hybrid seeds with improved methods of production. This calls for a substantial investment on the part of the governments in agricultural research. It is pertinent to mention at this juncture that the National Council for Science and Technology, through the Agricultural Research Council, is taking steps to achieve these objectives in the near future.

### *Small Farm Holdings*

It is a universal knowledge that farmers in tropical Africa operate small acreages of farms which are scattered all about the area. The scattered nature of their holdings is however not unconnected with land tenure system in the country. The size of the farm, one-half acre to five-acres, is dictated more specifically by the type of farm tools available to them. What can a man do on the farm in a day with a primitive tool like a cutlass or a spade? Let us call a spade, a spade. He can do very little.

Mr Vice-Chancellor, this is one of the fundamental reasons why agricultural training in Agricultural Schools and Universities has had no visible and measurable impact on food crop production in the country except on the export crops which require no farm implements. In these institutions, students are trained to handle and manipulate improved farm implements and machinery which are suitable for improved husbandry methods and large scale production but not adaptable to one-acre or 2-acre farms.

Farm holdings should be expanded to make them workable with improved farm implements suitable for new agricultural technology.

In Croatia, Yugoslavia the consolidation of such fractionated holdings as we have in Nigeria have been pooled to permit the use of improved farm implements and machinery to cope with increased demand for agricultural products.

#### *Lack of Improved Husbandry Methods and Tools*

The traditional method of farming employs archaic tools like cutlass, hoe and spade to clear the land, make heaps, mounds or ridges and dig holes for planting the seeds. This kind of agricultural tools is not efficient for preparing seedbeds for good crop growth and development and maximum yields. Furthermore, when the crop is growing, the farmer does nothing to protect it from insect pests, disease infection, and other predators. He weeds for his crop only when he is less busy and he does it perfunctorily. This attitude towards plant protection is not unrelated to the type of tools at his disposal to execute these farm duties. Owing to his poor financial position, he employs no measures to improve the nutritional environment of the crop. The consequence of all of these inadequate farm operations is very low yield of crops. The yield, of course, continues to drop every season until it is so low that the farmer will have to shift to another farm in order to make a living. This is the biggest problem facing agricultural development in most African countries. But what do the governments do about these drawbacks to agricultural production?

From the time of the colonial governments to the present day independent nations, the tendency in agricultural planning in African countries has been to promote scientific and technological change from the top and assume that the advanced techniques in the limited areas of the economy, such as in export crops, will gradually pervade the other areas. We have seen over the years in Nigeria that this does not work. Our agricultural system has remained virtually the same for food crop production since 1912 when the first Department of Agriculture was established. "Agricultural stagnation" says Arthur Lewis in 1966 "is the main constraint on the rate of growth" of any nation. Why do we not then borrow a leaf from other countries like China? China aims



first to equip the labour force with new technical skills and achieved a tremendous boost in her economy.

To expand our farm output, we need to go the way of Japan in her early period of development. The "Japanese model" of agricultural development calls for provision of improved agricultural implements useful for breaking seasonal bottlenecks such as clearing and stumping of new lands, seedbed preparation, seed planting, weeding and harvesting and processing.

Our farms can never be larger until we are able to provide improved farm implements, no matter how simple, that can relieve the farmer of some of the drudgery of farming. Such simple implements are available today in America, Japan, Russia and Europe.

To employ these simple implements which are ten to twenty times more efficient than cutlasses, the government should undertake as a matter of first priority to clear, fell and stump a large area of land for a group of farmers in a given area to operate. Clearing, felling and stumping are the most tedious of all farm operations facing any Nigerian farmer. Quite often for this reason, he does not fell and stump his field because he has no suitable machinery and no funds to employ a large labour crew necessary for this type of operation. Hand labour is the only recommended method of clearing and stumping virgin lands because the use of machinery like a bull-dozer to open up land for agricultural purposes will ruin the soil. But hand labour is terribly expensive and no farmer can embark upon it unless he is a wealthy farmer, the type we do not have as yet in the country, and if there are, they can be counted on the fingers of one of my hands.

Therefore, if the governments would like agricultural expansion and increased agricultural production to feed our ever increasing population which is now estimated at 70 million, they would have to finance agricultural operation which is beyond the financial ability of the ordinary farmers.

I suggested in one of the preceding paragraphs, the employment of graduates in agriculture to educate the farmers in agricultural technologies. In the past few years, many people in our society, politicians especially, but including lawyers, businessmen and women, and not excluding some university professionals, not in

agriculture though, have pointed accusing fingers at Schools of Agriculture and Faculties of Agriculture in this country for producing graduates who cannot influence farming system in the country, let alone to go back to the farm on their own and employ their knowledge to improve food production. This is an unfair accusation of the agricultural institutions, and an unfair demand on our agricultural graduates.

It must be realized that the schools of Agriculture and the University Faculties of Agriculture are training their students in improved agricultural technologies capable of improving farm output. We do not and are not paid to teach them how to handle cutlasses or spades which many of them already know; but we are employed to train them on how to use improved farm implements like cultivators, ploughs, harrows and tractors to increase agricultural output as well as lighten the operational burden in farming.

Every profession has its tools. A tailor must have a sewing machine before he can practise what he has learnt; a medical doctor must possess his stethoscope and drugs; and a businessman must have a capital in order to operate. Equally so, an agricultural graduate must be in possession of suitable farm tools and implements which he has been trained to use in order to profess his training and demonstrate his expertise. Furthermore, agriculture is a big business enterprise, let us face it. In addition to acquiring the scientific and technological knowledge, an agricultural graduate requires a lot of capital investment in order to succeed in farming business.

#### *Mixed Cropping System*

This is a farming system in which the farm operator plants on the same plot of land more than one crop and sometimes every conceivable species of crops. The reason for this system is obvious. The farmer would like to provide for the needs of himself and his family. This system militates against high crop yields except the combination of crops is planned with due regard to their complementary effects. The peasant farmer does not take this into consideration when choosing his combination. His choice is dominated by his food requirements. He needs to be helped to identify what

species of crops can grow together on a given plot of land without having any deleterious effect on the yield of each other. The Universities should direct their attention to this problem of mixed cropping to enable them advise the farmers of the right combination of crops. This may be the first step towards the introduction of crop rotation systems to the peasant farmers.

### *Lack of Incentives*

All professions in any part of the globe require some sort of incentives to kindle energies and sustain efforts. Production in any sphere of activity is dependent on the level of demand which is a sort of incentive. In 1966, Mosher, in his lecture on "Getting Agriculture Moving, "Essentials" for Development and Modernisation" mentioned five universal "essentials" for agricultural development in any nation. He identified these "essentials" as "markets, technology, local availability of input supplies, production incentives and transportation". He emphasized further that "without any one of these (essentials) there can be no agricultural development".

What local input supplies in agriculture do we have? Virtually none. To provide the necessary input supplies we must hasten up our plans to establish our fertilizer industry; the iron and steel industry for farm machinery and implements; to improve markets and stabilize prices; to introduce other incentives like subsidy in the early stages of acceptance of an innovation; and to further improve transportation systems.

In his sharp criticism of the status of agriculture in some Latin American countries, Arthus Lewis (1966) laid the blame at the doorstep of the governments, the business enterprises, the banks—both public and private—and the land owners rather than on the farmers themselves. This is true of Nigeria as well today. How many of our wealthy businessmen have offered to encourage food growers in this country? How many banks, public or private, have advanced loans to would-be agricultural graduate farmer to enable him establish on the farm? I know three of the graduates from the Faculty of Agriculture of this University who expressed a strong desire to go back to the land. Only one



succeeded in getting financial aid from his brother, the other two had to accept appointments in the ministry or teaching appointment in schools.

The Federal Military Government has now taken a step in the right direction by establishing an Agricultural bank which can give loans to farm agro-business. Let us hope that this facility however will be available to the practising farmers or would-be farmers who need it and not to the absentee farmers, the city dwellers, or even to the export crop producers alone, but to food crop growers in particular. They are the life-savers of this nation. In our own best interest these peasant farmers need all the support the country can offer. We can help ourselves by helping them. The Federal Military Government and the State Governments would be best advised to reach their aid programmes direct to the farmers and not through any indirect projects or institutions or corporations. The result of such indirect programmes as the Farm Institutes and Farm Settlements is still fresh in our memory to warrant any repetition.

In conclusion, I submit that Nigeria has many agricultural problems which are characteristic of developing nations and which the developed nations faced at the early stages of their development. It is universally acknowledged that "agricultural development requires the effective exploitation of modern technologies by many millions of people with concomitant changes of attitudes and institutions and extensive investment in organization and infrastructure".

Mitchell and Schatan (1967) noted in their study of Latin American countries that "the most successful of these countries in achieving a balanced development of agriculture and industry have been those that have planned and expended in agricultural sector much more energy and effort and public investments than they have in the industrial sector". Such an economic and agricultural plan is more profitable and can generate accelerated progress in agricultural production. This is to be preferred by the Federal and State Governments of this nation because industry cannot progress beyond a certain rudimentary stage unless agriculture has been developed to make great strides ahead of industry.

## REFERENCES

1. Lewis, W. A. (1966). *Development Planning*. Allen and Unwin. p. 270.
2. Mosher, A. T. (1966) *Getting Agriculture Moving. Essentials for Development and Modernization*. Agric. Dev. Council. Praeger. p. 61.
3. Mitchell, C. & Schatan F., (1967). *The outlook for Agricultural Development in Latin America*. "In Agricultural Development in Latin America in the next decade". Inter-American Dev. Bank. p. 88.

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