

THE MAIN PROBLEMS OF AGRICULTURAL PROGRESS IN THE DEVELOPING ECONOMY

Adam RUNOWICZ

All the less economically developed countries, without exception, have at least one common feature — a backward economic structure. And the characteristic feature of this structure is its dualism: The coexistence between a more or less dynamic modern sector and a more or less stagnate traditional sector. At the beginning, the modern sector involves a small per cent of the country's population work force, while the traditional sector — the overwhelming majority of the society. At first, and for quite some time, the expansion of the backward sector of the economy seems to be a quantitative process — the modern sector grows and the traditional sector gradually shrinks. This, however, leads to a new quality which can only be a single sector economy, uniform as regards economic relations. Only such an economy can be termed highly developed.

A highly developed economy has areas and sections, but it does not have sectors with differing types of economic relations. A poorly developed economy does not have many areas and sections — instead, it has sectors. The core of the traditional sector is agriculture, although it also includes services/traditional/, small trade and handicrafts. Since the subject matter of this paper is agriculture — we shall limit ourselves to that. It might, perhaps, be a simplification, but the essence of agriculture in a developing economy could be presented as follows: Agriculture in such an economy is now a sector/traditional one/ — while, it is to become only an economic sector.

The division of the economy into areas and (sectors) is based solely on the division of labour, while the division of the economy into sectors is based on the criterion of differences in economic relations and also differences in technology. Using Marxist terms, this can be expressed as follows: A traditional and a modern sector differ both in the type of production relations and in the character of the production forces. In more simple words, this can be expressed in the following way: Traditional agriculture is based on an out-dated agrarian system dating back to ancient times. The techniques used — that is the way in which the land is utilized — also originate from past epochs. Agriculture is thus, first and foremost, a sector/traditional/, while it is an area only as far as it is linked with the rest of the economy by a division of labour and commodity-and-monetary relations. At first, this link is small, because the modern sector involves, as yet, an insignificant section of the society. This link can be still smaller if the modern sector is supplied with imported agricultural products, for example, because of an underdeveloped infrastructure/transport and distribution/, as is the case in Sudan and Laos.

As can be seen, a modern economy, must possess a modern agriculture, homogeneous with the rest of the economy in terms of the type of economic relations and constituting only an area — based on economic links and trade with the non-agricultural areas. Such agriculture must be fully market-oriented, which means that auto-consumption in it must be reduced to a minimum, if not wholly eliminated. But how to achieve this?

Where to begin?

Industrialization or development of agriculture? Or both, perhaps? And what does this imply? These are the questions, the answers to which determine the choice of the proper strategy of economic development. It is my conviction that the best agricultural policy for a poorly developed economy is that of... industrialization. For only along with industrialization, and on its basis, can one talk seriously about modernizing agriculture. The reasons are as follows.

In a poorly developed economy, 60 to 90 per cent of the population lives on the land, and agriculture is the source of 50 or more per cent of the national income. Growth of agricultural production — in these circumstances — amounts to economic growth. But can the less developed countries — almost without exception agricultural countries — advance to the group of highly developed countries while preserving the agricultural character of their economies? In other words, can an agricultural country be a highly developed country, at the same time and, even more important, tomorrow? Let it be said straight away that there are no economically highly developed agricultural countries today.

In actual fact, although the highly developed countries boast modern agriculture/in respect to economic relations and technology/ — they ceased to be agricultural countries a long time ago, though historically speaking they once had been agricultural in character. Neither Denmark nor the Netherland, New Zealand nor Australia are agricultural countries any more, not to mention the United States of America. And the socialist states of Europe are not agricultural countries, either. Every country in the world has an agricultural past, but today one would search in vain for an agricultural and, at the same time, a highly developed country. But one could perhaps say: "So what? Maybe now, when so many people in the world are starving — the development specifically of agriculture could give the developing countries the chance for which they have been waiting for so long?" Unfortunately, this is not so.

The fundamental problem of economic underdevelopment can be reduced to the development gap in terms of productivity, and thus to the difference in the level of national income — not so much per capita/the petroleum exporting countries have good indices here, although they are economically underdeveloped — as per every person employed in the whole national economy.

In agriculture, this consist of a tremendous disproportion in productivity, both as compared with the agriculture of the highly developed countries and in comparison with productivity in the modern sector of the given developing nation. At the same time, it must be realized that productivity in the agriculture of a developed country is close and some-times even equal/to productivity in the national

economy as a whole. A highly developed, but still agricultural country would have an agricultural employment structure, while productivity in its agriculture/and, therefore, in general/ — would be on the level of the most highly developed countries today. Let us first examine this disproportion in order to know what we are talking about.

Employment in British and Belgian agriculture amounts to 3 per cent of the national work force. Fine, but these countries are not self-sufficient in terms of agricultural production. So, let us take the United States. 4 per cent of all the employed work force feed the country and turn out a considerable amount of produce for export. This means that one person employed in agriculture supply 10 people including themselves. This means that there is much less than one person outside agriculture per every farmer. And if one considers the level and quality of consumption, it will appear that the proportion between the product per employed capita in a less developed country and in the United States is in the range of 1 to 100, or even worse.

The conclusion from all this is that if any less developed country would like to develop as an agricultural one — it would have not only to raise productivity in its agriculture more than one hundred times, but to raise it in conditions of the present agricultural structure of employment. In other words, it would have to attain — in a fairly distant time horizon — a more than 100-fold growth of its overall agricultural production. Is this possible? And is this necessary? The answer to both these question is — NO.

In the Middle Ages, grain crops in Europe yielded 2 to 3 times more than the amount of the grain sown — that is about 600 kilograms per hectare. It has taken Europe several hundred years to reach the present level of crops — 4000 kilograms per hectare. But what we are concerned with is a more than 100-fold growth. What should, therefore, be the target crop per hectare. The difference in productivity is more than 100 times, productivity per hectare — only 6 times. Is a 15- to 20- fold growth of production per hectare possible?...

More essential, still, is the second question — is this really necessary? Industrial production will always find a market, regardless of the size of the product, if only its structure is appropriate. In conditions of a certain market glut, agricultural per capite production cannot grow at all, whatever its structure would be — according to the law of Engel. In fact, agricultural production can grow only at a rate not much higher than that of the population growth. Therefore, there can be no talk of a several-fold/not to speak about 100-fold or even higher/rise in agricultural production.

It is also senseless to suppose that the highly developed countries would, in future, give up their agricultural production completely and would provide themselves with foodstuffs through imports from the less developed countries. This is pure fantasy. For this would mean that those developed countries would decide — of their own free will — to pay the developing countries a premium for their economic backwardness. But — as one might observe — they to import agricultural goods... Yes, but these goods are cheap, for they are manufactured on imported technologies and, therefore, at a level of productivity close to that in the importing countries,

while the wages there are low. Hence the product of comparable quality is authentically cheap. Meanwhile, the relationship between the gap in productivity and the gap in the farmer's living standard is such that it eradicates any prospects of a competitive export of agricultural products from the underdeveloped — to the highly developed countries. If productivity is 100 or more times lower — then a living standard lower to that extent is unacceptable, for no one could make a living.

What ensues from this is that the process of making agriculture market-oriented must be based on the domestic market, because changing the structure of agricultural production so that it would be composed mainly of products which are not competitive for the highly developed countries cannot help much. The exports of tea, coffee, cacao and the like can grow only at such a rate as that of the population of the importing countries — that is by some 1.5 % a year — and on such a rate of growth it is impossible to build export-based plans to modernize agriculture.

The home market for agricultural products is formed by the non-agricultural sector. But at what rate can it grow? At first, and for a very long period of time, of decisive significance here will be primarily the rate of changes in the structure of employment, and only later on — when employment in agriculture drops to less than half of the total — the growth of incomes in areas outside agriculture becomes increasingly important. Each person newly employed in non-agricultural branches will first translate his consumption to demand, and only then — when his income grows — will he increase his demand for agricultural products.

Let us take a closer look at this. If we assume that the level of consumption of agricultural product among people leaving the farms and taking up non-agricultural jobs does not drop, it will mean that such a person begins, right away, to buy at least as much as he formerly produced himself. We thus see that the change in the structure of employment radically increases the market-oriented production of agriculture, even of people. It certainly will be. The issue is not of feeding but of the time it will take the economy to carry out the indispensable modernization of its structure. Let it be added, finally, that man does not live by bread or rice alone — it is not enough to give man a bowl of rice —. He must be given many other things — material and cultural — which are already enjoyed by the rich nations. And it goes without saying that this depends on the per capita national income. If in an undeveloped economy this is very low, then an unrestricted birth rate seriously hampers any radical improvement in this respect.

Secondly, the time horizons can be brought closer by a sensible choice of the structure of the modern sector. There are areas of high and low capital intensity, that is those which have expensive and inexpensive work places. Preference to the latter makes it possible to depopulate agriculture, avoiding — at the same time — unemployment in towns. This is very important, because — as we have seen — not the dynamics of overall production but a drop in employment in agriculture is the main productivity growth instrument in this area of the economy. A ten-fold drop in agricultural employment is easy to imagine, but a ten-fold growth of agricultural production makes no sense whatever.

Despite all appearances to the contrary, it is very easy to cause agricultural overproduction in a poorly developed economy. This always occurs when the

growth rate of agricultural output is considerably higher than that of population growth. One gets an irresistible impression then, that instance, the structure of employment change from 80 % in agriculture and 20 % in other areas to 40 % and 60 % respectively, the market-oriented production of agriculture will then double, but at the same overall production!

How much time is needed to achieve this? Assuming, for example, that the growth of non-agricultural production amounts to 7 %, this growth being fully extensive/that is obtained only through an increase in employment/ — it would take 10 years. If we assume a 2.5 % population growth — 16 years. And if we make a rather optimistic assumption that half of the growth rate stems from the increase of employment and the other half from a rise in productivity with the growth rate of the non-agricultural sector being 7 % and the rate of population growth — 2.5 % — then the time needed to make agriculture market-oriented by 40 %/without exports/ would extend to 71 years. The employment structure would still be at level of 60 % in agriculture and only 40 % in the non-agricultural area of the economy, while agricultural employment in the highly developed economies amounts to 5 % or less already. One can see from this that the process of orienting agriculture toward the market and of modernizing it on this basis is a very long one; and that the time factor which must be taken into consideration here would be in terms of generations rather than years.

This prospect can be shortened considerably primarily by limiting the population growth. As one can see, this has nothing to do with neo-Malthusianism, for the problem is not whether it will be possible to feed a quickly growing number without changes in the level of its overall output. The increase of incomes of people already employed outside agriculture will result only in a small market growth. A person, who left his farm for a town has expanded the market by 100 % of his purchases/ for he now buys what he once manufactured/. However, if after some time his income grows, let us say by 10 %, then — at 50 p.c. income-demand flexibility factor a rather optimistic assumption, for he will want to lead a town-dweller's life and so he will limit his expenditures on foodstuffs for the time being — he will expand the market for the farmer only by 2.5 %, that is very insignificantly.

These observations can be summed up as follows: — In a highly developed economy, with an insignificant proportion of people employed in agriculture, the rate at which the demand for agricultural products increases depends on the rate of population increment and on the rate at which incomes grow. The demand growth finds its expression here in the necessity to increase the overall agricultural output. In a poorly developed economy, the growth of demand for agricultural products is, for long, connected to a small extent with the need to increase on a substantial scale, at least the overall output of agriculture, but is a question of pushing a given product through market channels. Growth: If we assume for a moment that there exists a rather unrealistic zero population growth economic model, then the market expansion for agricultural products means, fundamentally, a broadening of trade at the expanse of the commodity economy. Should, for agricultural products be unusually cheap and also that they are in profusion. But looking at this from the point of view of the farmer, there is little hard cash around. The problem is that in

an agricultural country there are many producers and there are few buyers of agricultural products. In this way — although it might seem strange — the problem of agriculture is that of demand, and not of production and supply.

This applies also to the undernourished and even the starving nations. Only in a subsistence economy does there appear a direct interdependence between the size of agricultural production and the level of nourishment. In a market-oriented economy, this relation is very loose. It is enough here to have money in order to have a decent meal. It is easy to say "enough"... To be landless does not automatically mean hunger — all the highly developed societies are "landless" in the sense that only an insignificant per cent of the population there is engaged in agriculture. Landlessness causes hunger only when it is accompanied by unemployment — that is a lack of income. A man who has a permanent job is not walking about hungry. Therefore, the medicine for hunger is not so much a growth of agricultural production, as a growth of employment and the liquidation of unemployment, in other words — a general development of the economy. That is precisely why most of the world's hungry people are in agricultural countries — not because they are agricultural, but because they are poor. The dynamics of agricultural production determine only whether or not there is the necessity to import agricultural products. But just as it does not matter for a well-fed man whether he eats rice produced by "his" or a foreign farmer, it also does not matter for a hungry man which rice he does not eat at all, because he has no money to buy it. The contemporary world is governed by the unrelenting laws of supply and demand. If a demand appears — a readiness to buy, that is — it is followed by the appearance of a desire to produce and sell. In a poorly developed economy there are few buyers. And this is the crux of the problem.

I do not maintain that agriculture should be completely left to itself, that nothing should be given to it. I only say that the modernization of agriculture is a complex and prolonged process, the success of which depends first of all on what is happening outside agriculture.

In cases when agriculture plays a major part in employment, in the national income and exports, a national ministry of agriculture constitutes an important lobby. Arguments are raised in many countries, that since agriculture is the source of, for example, half of the national income and most of the foreign currency earnings — it is surely justified that agricultural investments should also participate to the extent of a half of the total. From this stem gigantic projects and undertakings which are nothing more than a waste of money. The Niger Agricultural project is a telling example here. For with the present structure of employment resulting from the low level of industrialization, such projects are, indeed, premature. What agriculture needs first and foremost is a market and infrastructure, and perhaps also an agrarian reform — but not mainly investments and not of such a scope. The time for them will come later. Meanwhile, the non-agricultural areas of the economy should be developed as much as possible — in the best understood interest of agriculture itself. That is why I maintain that the best agricultural policy is the policy of industrialization.

The Role of Traditional Agriculture in the Development of the Economy

The traditional sector — and more particularly agriculture — does not enjoy much popularity in enlightened circles. Economists brought up on patterns of a highly developed economy and used to formalized analyses of the market or inter-area movements do not find in the traditional sector those relations and motivations to which they are accustomed. Agronomists educated in the West, used to intensive farming equipment and agricultural chemicals look at traditional agriculture with contempt: Oxen, primitive wooden ploughs, hoes and machets — what kind of tools are these!... The fact remains, however, that although one may not admire traditional agriculture, it is a fact of life, and a fact of centuries — long standing. And since it is impossible to modernize agriculture rapidly in the course of a few five-year plans, the question arises whether greater use could not be made of it? Indeed it could, but it must be of use for the entire economy. All that has to be done is to give it a chance.

Therefore I pass to the role played by agriculture in economical development, I shall try to give a simple definition and classification of traditional agriculture. Geography and history employ very detailed classifications of traditional agriculture. Details are superfluous for the needs of this paper. Traditional agriculture is such an agriculture in which the forms of land ownership and methods of land utilization have remained unchanged for many generations. In terms of agrarian relations, traditional agriculture can be divided into three basic types:

1. The family — tribal system — in which the land is community owned and given to farmers for tilling under different principles. This system, once universal, is now most popular in Sub-Sahara Africa/with the exception of enclaves/.
2. The system of land tenancy and sub-tenancy- most widely encountered in Asia. The owners of the land lease it to small landholders in return for rent.
3. The estate system. The peasants working on such estates receive small plots of land, deriving their living from them.

Agriculture should fulfill four functions to the benefit of the entire economy.

There are:

- 1) The function of a labour reserve force,
- 2) Accumulation function,
- 3) The function of a domestic market, and
- 4) Manufacturing function.

These functions can be performed better or worse by traditional agriculture, depending on the type of the agrarian system. Some of these types of traditional agriculture require agrarian reforms in order to ensure its better functioning. Generally speaking, the best system is the most "traditional" one, that is the family — tribal system, while the worst is undoubtedly the estate system, although the Asian system in its present form is not worth much either.

Labour Force Reserve

There was a time when industrialization required a big work force, by far exceeding the possibilities offered by the population growth in the non-agricultural

sector. The construction of railways and roads, earth works and building as well as the processing industry itself then required much manual work. And if there was a population surplus, people could emigrate to the colonies. Today it is obvious that people in Third World countries have nowhere to emigrate to on a mass scale; what is needed here is a kind of "fourth world" — but where is that to come from? Meanwhile, the demand for labour in the developing countries grows very slowly, which prolongs the period needed to depopulate agriculture. There are two reasons for this: —First, the financial accumulation possibilities of the poor countries with a low per capita income are very limited; secondly, technological progress reduces the need to expand employment. A given amount of capital accumulated with much effort and then invested gives less and less new jobs. In other words, a work place becomes increasingly expensive, for heavy industrial equipment and work mechanization have now reached the less developed countries as well.

In these conditions, the task of agriculture is no longer that of supplying the non-agricultural sectors of the economy with people, but that of keeping those people till better times, when the more advanced economy will need them. This is a very important task of a national economic character. From a subjective point of view, everybody wants to live, and lives for himself. Objectively, agriculture bears the costs of feeding and bringing up manpower for other economic branches. It also bears the costs of preserving that labour force until the time when it will be needed by those branches. The best situation is when those people are well nourished, healthy and have some education — starved, ignorant and physically deficient workers, will be of little use for the economy.

This task is being fulfilled in the best way by the African system, because it does not now landlessness and, thus, unemployment in the strict sense of this word. An unemployed person in Europe or in Latin America is a man deprived of any alternative source of income and is homeless. If he does not find a job, he has nothing to live from. An African can — in case of misfortune — return to his village where some plot of land is waiting for him. And that is always something...

The estate system is the worst, because it does not guarantee land to anybody at all. Modernization of the estates simply throws people out of agriculture at a rate which greatly exceeds the employment growth in towns. An agrarian reform would be needed there, especially since a major part of the land possessed by the landowners lies fallow.

Theoretically speaking, the Asian system is slightly better, but it suffers from agrarian overpopulation on the small plots of land of the tenants, and first of all the practical absence of legal protection for the tenants. Also here an agrarian reform is needed as well as a more just division of the land.

Accumulation of Capital

The accumulation function of agriculture is particularly important for the poorest countries, which are void of natural riches. They have to draw their accumulation funds from agriculture. And once again one can say that the best system here is the family — tribal one. In this system no one pays for land and this alone opens up the possibility to accumulate certain funds, which in other systems would be

spent on land renting or purchases. The African farmer usually has a considerable amount of land, so he can grow industrial cash crops. And this does not mean any risk of a lack of nutrition, because such plants do not compete with those grown on the plot from which he gets his food. A well organized system of purchasing centres and prices can give the state the foreign currency needed for the development of its economy. The work time is relatively short, so that if a market develops, the farmer can cultivate more land; and under this system there is enough land. It is clear, therefore, that the trend to make land private property, actively imposed here and there, is very harmful because it inevitably results in the concentration of land and landlessness; this in turn leads to unemployment. It also makes agricultural production more expensive because the costs incurred are compounded by the cost of the land. Higher agricultural production costs signify higher labour costs in the whole economy, and this - in turn - reduces the possibility of financial accumulation.

The estate system is the enemy of accumulation, because the ultimate goal of a rich landlord is not maximum profit but high consumption and social prestige. He cultivates only part of his land, but he has so much of it that he can still lead a comfortable life. Since, at the same time, the price of land grows along with inflation, his wealth is not threatened. The peasant, with his tiny plot of land, does not accumulate cash — simply because he has nothing to accumulate from.

An agrarian reform would help a lot here — even a modest one. It would be enough to divide the fallow land for a small recompensation. This itself would give the state a considerable accumulation fund, at the same time doing away with unemployment and hunger. Of course, all the countries of Latin America have passed bills on agrarian reforms, but apart from Cuba and Mexico these reforms in practice are implemented on a very small scale. In the Dominican Republic, for example, the bill on agrarian reform was passed a long time ago, but not a single piece of land has been divided.

The Asian system of land tenancy is not good also from the point of view of accumulation. True enough, the landowners squeeze the last penny from the tenants, but what of this is of little effect if they use their incomes for hoarding gold, purchasing more land and for usury. This money is lost for investment accumulation. One does not have to add that an agricultural reform would come in useful here too.

Home Market

A poorly developed economy invariably suffers from underdevelopment of the domestic market. Per capita income is low, the better earning modern sector is for the time being insignificant, village inhabitants buy little. But along with the growth of market-oriented agriculture, its importance in the market grows. Not every system of traditional agriculture performs the same function of a market for industry. My favourite — the family — tribal system — performs this the best because in this system the farmer works exclusively on his own account and the entire income is his. The demonstration effect, which some of the economists dislike so much, brings increasingly new motives. Give the farmer the possibility of a market — and he will increase production/what with his reserves of land and labour/ and

taken he will buy industrial consumer goods. A bicycle, a transistor radio, a flashlight, pots, tools as well as footwear and clothes.

The estate system does not satisfactorily fulfill its role of a domestic market for the indigenous industry. The peasants buy very little, the landlords prefer luxury goods of foreign origin. Meanwhile, the industry badly needs a mass customer. Bolivia is a characteristic example here. Polls carried out there have shown that prior to the agricultural reform an average peasant had been spending the equivalent of 33 dollars annually on purchasing industrial goods — a considerable part of it in the form of barter. A year after the reform his purchases increased threefold! The Asian system also does not expand the domestic market to any significant extent because the tenants buy little, since their incomes — after paying rents — are insignificant, while the landowners buy little because there are relatively few of them and they earmark a major part of their incomes for hoarding gold and for usury. As in the case of the estate system, here too an agricultural reform would radically broaden the market for home-made industrial goods.

The Manufacturing Function

This I have put at the end not because I consider it the least important, but because it is the most obvious. Although productivity in traditional agriculture is low agricultural production, is relatively cheap, capital outlays small and the farmers' needs, too, are not great. Anyhow, the developing countries cannot afford to import agricultural products, because they have other more important import needs and the revenue from their own exports are, after all, very limited. Whether we like it or not, traditional agriculture must feed the country and also give something for export. The question is to make this task of agriculture as easy as possible, and never to increase the costs of agricultural production by premature investments. The African system — with its slash-and-burn farming — presents the least trouble. Fire, machete and hoe... But what does it matter, if there is enough land and the cost of production is insignificant. Such an agriculture still possesses considerable reserves both as regards land and labour time. An average African works on the land one-third of the time an Indian farmer does. This means that for many years to come it will be possible to increase agricultural output without any major investments. For the time being, investments should be reserved for industry; only after the possibilities of investment-less growth of agricultural production are exhausted the time will come to modernize agriculture. Why, indeed, should an African not work on the land for 10 hours a day — as an American does? Because he is lazy? No! — Because he would not have an outlet for a ten-hour product of his labour. Despite appearances, it is precisely in Africa that a considerable number of people can, generally speaking, be taken out of agriculture without any fear that of a drop in production and at the same time with practically no investment outlays. Can one ask for more?

The system of estate agriculture fulfills its manufacturing function the worst. There is no possibility to increase production on a small plot of land — because it is small. Estates are traditionally not trade-oriented; they keep a lot of land fallow. An agricultural reform could change this radically.

The Asian system of tenancy also requires an agrarian reform. Even in overpopulated India such a reform would give work — according to Paglin's — to 50 million people. The point is that the bigger the size of a farm — the smaller utilization of the land. In India, this can be observed in farms from ten acres — 4 hectares — upwards. An equitable division of land would increase its average utilization which would, of course, bring about a major growth of production.

The so-called green revolution adopted in India, instead of an agricultural reform, has only strengthened the position of the larger farms and has given nothing to the most suffering small farms. Not to mention the fact that — in spite of all the assurances — it has not done away with hunger and unemployment. Hardly the best way out, surely!