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*Relationship between Agricultural Policies and General
Economic Policy*

I

The economic policy of a socialist state finds its best interpretation in the long-term and operational development plans, because a plan formulates both the goals and means for their implementation, thus ensuring a dynamic equilibrium for the economic system as a whole.

Economic planning may only be effective if it functions as a system in which plans of different range, field and time horizon exist side by side. A planning system consists of:

- (a) plans for the expansion of the national economy as a whole and of its branches and sectors (macro-economic planning),
- (b) plans for town and country development (country-scale, regional and local planning),
- (c) internal plans of enterprises (factory planning also referred to as operational planning).

In the practical management of the national economy of a basic importance are the relationships between the aforementioned kinds of plans so as to avoid conflicts between the basic economic goals and the methods and means of their implementation. To attain compatibility between the objectives and conditions of the general economic expansion and the tasks of individual sectors and branches is one of the more difficult problems of the theory and practice of economic planning. One should, however, emphasize that sector-and-branch planning is not autonomous and that it constitutes an integral part of central planning. The fundamental decisions concerning the national economy as a whole and its individual parts are made in a uniform system of economic planning. And although — as is the case in Poland — the individual peasant sector plays a dominant role in agriculture, embracing 80% of the whole area of arable land and giving 77% of the end production and 75% of the total commodity production in agriculture, it is wholly incorporated into the general plan of the socio-economic development of the country. Otherwise

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it would not be possible to develop a plan for the expansion of the national economy; peasant farming is linked, through many channels, with other branches of our national economy, and participates in their final products. At the same time, it supplies them with raw materials, manpower and various services. Due to the deepening relationships and a growth of the scale of interbranch flows, the points of contact between agriculture and the non-agricultural sectors and branches are gaining in importance.

Polish agriculture is characterised by a complicated multi-sector structure. State, co-operative, group and individual enterprises exist here side by side. The state farms are administered directly within the framework of the central plan. In relation to the co-operative and private sectors the methods of indirect influence by means of a set of economic instruments are adequate. Here, planning is not of an imperative nature. This does not mean that the production of the private sector is not a subject of central planning, but this plan is obligatory not for individual farmers but for the state administration and the enterprises concerned with supplying services to agriculture. Of a directive character is the part of the agricultural development plan which concerns (a) the supplies of production inputs of industrial origin for agriculture and the implementation of the basic investments in this sector of the national economy and (b) the tasks of the economic apparatus in the sphere of purchase and processing of farm products.

For agriculture, central planning is combined with the influence of the controlled market. This should be understood as follows: the market mechanisms (prices, credits, rates of interest, etc.) are made use of for the implementation of the tasks preset in the plan. The market with its mechanisms does not replace the plan; it does not occupy its place; but the market supports the plan in the course of the implementation of the planned tasks which have been determined at an earlier time. On the other hand, information of various kinds coming from the market is essential for the construction of an economic plan. As has already been said, to include agriculture in the plan for the national economy as a whole means going outside the state sector. This fact and the enormous diversity in conditions of production in farming are responsible for the fact that it is practically impossible at present to collect and process in a computer centre the information about the existing alternatives. As a result, it becomes necessary to use parametric control methods and to make wide use of the market mechanism.

The necessity of using parametric planning methods also results from the co-operative form of the ownership of the means of production in agriculture. Also the co-operative farming enterprises are not liable to imperative planning. The Centre can only shape, in a purposeful way, the conditions of economic choice in production co-operatives. Contracts for the delivery of farm products and credits are the two main instruments of planned management by the state of the production in the agricultural production farms.

In conclusion one can state that a socialist state can shape directly the production in the state agricultural sector and that planned influence methods are used in relation to the co-operative and private sectors. Having at its disposal all the more essential instruments of economic policy, the state can

control agricultural production so as to meet the needs of the central plan and the community as a whole. In this way the conformability of the goals of the general socio-economic policy with the tasks of the individual sectors and branches, including agriculture, is secured.

II

The basic problem of economic policy is to determine an appropriate rate of economic growth. In a country which — like Poland — is on an average development level and where agriculture still plays a great part in supplying the gross product (17·5%) and the national income (11·8%), the ratio of the rate of growth of the national income to the rate of growth of agricultural production is of basic importance. In agriculture one has to do with some specific barriers which restrict the possibility of accelerating the rate of growth of farm production. With the present advance of technology, the rate of growth of agricultural production over longer periods of time, in the European conditions of the lack of non-cultivated land, generally does not exceed 2·5%–3·0% per year. During the past 25 years, the average annual growth of agricultural production in Poland amounted to 2·9%. Although this is quite a fast rate, in certain fields, especially that of animal protein, the rapidly growing demand is still higher than supply. Possibilities of increasing both the absolute level and the rate of growth of agricultural production determine both the general rate of economic growth and the rate of improvement of the national standard of nutrition. The implications of the feasible rate of growth of the agricultural production are the greater for the national economy as a whole the higher is the share of agriculture in the production of national income and in meeting the consumptive needs of the society.

The diminishing share of agriculture in the production of the national income — in addition to many other effects — makes it possible to greatly increase the ratio of investments in agriculture to the national income produced by this sector of the national economy. In a highly industrialised country where a relatively small part of the national income is produced by agriculture and where the share of agricultural investments is relatively low, it is possible to speed up the rate of growth of national production by increasing the share of agricultural investments in the total sum allotted for the investment projects. In a country of a low level of industrialization, agriculture has at its disposal practically unlimited resources of manpower; this restricts the scope of investments meant for the replacement of live labour and leads to keeping the capital absorption in production on a low level.

Economic growth is accompanied by a decline of the labour reserves in agriculture. In these circumstances, the selected rate of growth of agricultural production is, at the same time, the selection of an alternative of where the labour should be employed: in agriculture, or outside it. This being so, the social cost of labour in agriculture should be measured by the additional growth of the national income which might be attained should labour be shifted from the agricultural sector to the non-agricultural one. The necessity of attaining an increase in agricultural production with the decreasing

resources of manpower calls for substantial outlays on the substitution of labour outflowing from agriculture. This is accompanied by the final capital absorption in farm production. These processes act – on the principle of feedback – on the level of investments which must be allotted by the national economy on the expansion of agriculture in the conditions of increased capital absorption in farm production. Thus, making a decision in the matter of the desired rate of growth of the national income one also decides about the division of investment funds between agricultural and non-agricultural sectors and – taking into account the high capital absorption of farm production – about the migration of rural people to jobs outside agriculture.

Agriculture affects directly and indirectly the rate of growth of the national income and the expansion of the national economy as a whole. Direct influence depends on the branch structure of the national economy, especially on the share of agriculture in supplying the national product. Indirect influence is revealed in several planes. First of all, agriculture influences the rate of growth of employment outside agriculture. As long as there exist differences in the level of consumption of agricultural products per one person employed in agriculture and outside it – the growth in employment outside agriculture increases the demand for farm products. If a country is not able to supply the additional amount of food required, the barriers to economic expansion begin to appear. In this way productivity in agriculture determines the possibility of increasing employment outside agriculture and the expansion of the economy as a whole, provided that the level of income and food consumption per capita does not drop. To maintain a dynamic equilibrium in the growth of the national economy it is necessary that the surplus of agricultural market production grows faster than the outflow of agricultural population to the non-agricultural sector.

If the labour released from agriculture is shifted to the non-agricultural sectors without improving the level of investments, the technical armament of work and, also, productivity will be correspondingly lower. The problem will be different if the investment fund is increased. Then, the technical armament in working tools of the additional labour, the migrants from agriculture, and their productivity will display a tendency towards growth. The problem will become much more complicated when the outflow of labour from agriculture would compel us to increase the stream of investments and capital goods meant to substitute for this outflow of manpower. Under such circumstances the national economy may face difficulties with maintaining the upward tendency in the technical armament in agriculture and in the non-agricultural sectors.

In conclusion, it may be said that in the period of accelerated economic expansion, agriculture may become a barrier to the growth of the national economy as a whole in that the rate of growth of agricultural production dictates the feasible rate of growth of the national income; the lack of flexibility in the supply of farm products constitutes an important factor which restricts the possibility of speeding up the rate of economic growth. This statement is confirmed by Polish experience from the period of fast industrialization.

In the socialist countries the central plan adapts the rate of growth of

planned employment outside agriculture to the expected rate of growth of agricultural production. This is one of the basic principles of socio-economic planning.

One should, however, emphasize that with the expansion of the economy the influence of factors referred to as the "agricultural barrier of growth" diminishes. The reasons for it are as follows: the flexibility of demand for farm products is dropping; the differences in the consumption of farm products in the agricultural and non-agricultural sector become less pronounced; the reserves of labour in agriculture get slowly depleted; the expansion of industry becomes, to a growing extent, based on intensive methods and the increase in employment outside agriculture is more and more slowly hampering the general rate of growth of the national income. The experience of the past few years in Poland clearly confirms this opinion.

The change in the strategy of economic expansion introduced in Poland after the year 1970 has created a situation in which agriculture has become a factor stimulating general economic growth. This has occurred under the following circumstances:

Firstly, according to the new strategy, the growth of consumption has been considered to be a separate factor of economic growth. This view is based – quite correctly – on the feedback between the volume of consumption and the living standard of the population on the one hand and productivity and production – on the other hand. This strategy is based on the thesis that growth of income gives rise to factors accelerating the rate of growth due to its very strong effect on the motivation system. In the general program of improving the living standard of the population in Poland, agricultural products have been given a particularly exposed position. This called for the activation of factors stimulating the growth of agricultural production. Agricultural policy after 1970 in Poland has been clearly oriented towards production.

Secondly, criteria for the inter-branch allocation of investments have been changed so as to give preferences to agriculture. This is linked directly with the planned switching-over of the whole processing apparatus in agriculture to modern technology – the process of technical reconstruction of agriculture. This policy has created quite a different situation in the national economy expressed, for example, by a great increase in outlay on the branches of industry which produce modern technical facilities for agriculture, including the import of licences, machinery and equipment. A characteristic feature of the new policy in purchases abroad is that we concentrate on importing complete technological lines instead of single pieces of machinery and equipment.

Thirdly, the new development strategy has put forward with the whole acuteness the problem of structural changes, i.e., the process of passing from individual, disintegrated property in agriculture to large, modern agricultural enterprises. This is both the problem of increasing the scale of production and of system transformations (forms of ownership, human relations, organization of production, administration of farming enterprises). The new demographic situation of peasant farming (intensified migration aimed at wage-earning outside agriculture, biprofessionalism of more than one third of peasant farms,

ageing of a great group of farm owners, lack of successors, feminisation of the profession of farmer, etc.) speeds up now the maturing of conditions for the socialist reconstruction of peasant farming. One of the most important forms is the taking over, in exchange for a pension, of the land of farmers who, arriving at the pensioner's age, have no successors. The processes of the socio-economic transformations in Polish agriculture are quite complicated and it would be impossible to discuss them in full in this paper.

The strategy of the dynamic growth of consumption is dependent the more strongly on the development of agriculture the larger is its share in covering the consumption needs of the population. Poland is now at such stage of general development when the share of foodstuffs in total expenditure on consumer goods on the part of the population is relatively high.

Agricultural foodstuffs account for about 34% of the total value of consumption. In these circumstances the "pressure" of the general economic growth and dynamics of wages and incomings on agriculture and foodstuffs is still relatively high. In the years 1971-75 the real income of the non-agricultural population has increased by 41% per one person employed. A great part (approximately 27%) went for the purchase of farm products and agricultural foodstuffs. In the last 5-year period the total agricultural production increased by 20.5% against a 35% increase of the market production and a 71% increase in the supplies of foodstuffs to the retail market. These data indicate how much the implementation of the general strategy of economic development is dependent on agriculture and on the dynamics of its development.

The Polish economy undergoes continuous dynamic transformations. As a result of a rapid expansion of the industries producing consumer goods the structure of consumption changes and the pressure of demand for foodstuffs and — indirectly — the pressure on agriculture decreases. This can be illustrated, e.g., by the fact that if in 1965, as much as 42.3% of the total amount of money spent on consumption was earmarked for food, in 1975 this index dropped to 34%, which is still high compared with the highest developed countries. The possibility of relieving the pressure of social demand for food and its pressure on agriculture depends at present on the non-agricultural sectors producing manufacturing consumer goods and rendering consumer services rather than on the agriculture and foodstuffs industry alone.

The considerations made in this paper and generalising first of all Polish experience were to indicate that agriculture strongly affects the rate of growth of the national income. A high share of agriculture in the national income and in its growth may hamper the general rate of growth of the national income and bring about increased consumption of capital and a decrease of the total effectiveness of outlays. In the countries which are at the medium and weak development stage any increase in non-agricultural employment must be accompanied by an appropriate increase in agricultural production. In this sense, the rate of growth of agricultural production dictates the feasible rate of growth of production and employment in the non-agricultural sector thus influencing the rate of the economic development of the country. On the other hand, the rate of development of the non-agricultural sectors strongly

affects the expansion of agriculture not only in the sphere of the growth of farm production but also in the line of its technical and social reconstruction. Thus, there is a clear and strong feedback between the rates of growth of the two sectors of the national economy. The existence of these relationships has a vital significance when it comes to the choice of the strategy of economic development of the country. The high outlay-to-effect ratio in agriculture makes those responsible for central planning increase agricultural investments in order to overcome, in this way, the low efficiency threshold. Otherwise it would be impossible to implement the program for improved nutrition of the nation. The occurrence of the phenomenon of a high absorption of outlays and capital in agriculture induces the countries on a medium development level to free themselves from the barriers produced by a high share of agriculture in the growth of production. The actions in this case should aim at the optimisation of the structure of consumption expressed by replacing the consumption of goods of agricultural origin by that of the non-agricultural ones.

III

As has already been said, planning in agriculture in relation to the co-operative and private sectors affects only indirectly the level and structure of agricultural production by means of economic policy instruments.

The first indispensable instrument for influencing the development of agricultural production is to ensure, through the central plan, the inflow to agriculture of an appropriate stream of production means for current agricultural production and for investments. The total volume of these means and their variety depend both on the possibilities of the national economy (domestic industry and imports) and on the needs of agriculture, the latter being, however, very flexible. The potential demand on the part of agriculture for the means of production in Poland is many times greater than the effective demand for them. The task of the economic policy in relation to agriculture is to shape the demand for the means of production so as to make it possible for agriculture to absorb all the production means put at its disposal by the national economy, i.e., to adjust the demand for the means of production to the supply of these means. This is why economic policy is another instrument of the central influencing of the development of agricultural production. This policy is expressed, most generally speaking, in ensuring such a level of income from agricultural production as would guarantee to the farmers not only the appropriate standard of living (level of consumption) but also means for further increasing outlays on production and investments. Here, the prices of farm products and of the agricultural means of production constitute the main instrument for exerting influence on the level of income of agricultural producers. Of similar importance are such instruments, not connected with prices, as the tax and credit system and the system of subsidies.

The income of people employed in peasant farms, both private and co-operative, has a different character and fulfils other functions than the income of people employed in the non-agricultural sectors of the national economy. Unlike the income of the workers of state farms and non-agricultural sectors,

that of the people employed in peasant farms depend, at the given price level, directly and completely on the results of farming.

The income of the peasant farms, besides the function of shaping the level of consumption, as is the case in other sectors, fulfils a productive function, too. Some part of the income is earmarked for extended production i.e. both on increasing outlays on the production in the next year and on new investment projects of a productive nature.

According to the results of the systematic many-year studies of the Institute of Agricultural Economics there is a close relationship between the growth of income in peasant farms in a given year and the growth of the amount of money spent on production next year. The higher is the growth of income the more money is earmarked by the farmers for a further growth of production in the forthcoming years. On the other hand – what is worthy of emphasising – in the periods of smaller income the farmers do not cut expenditure on production; they rather restrict its further growth which, naturally, inhibits the rate of growth of agricultural production in the years immediately after the year of reduced income. In such cases it is necessary to follow an appropriate agricultural policy in order to stimulate the growth of outlays on agricultural production.

The planned influence of the state policy on the level of income of the agricultural population calls for the determination of criteria of the required level of this income. The absolute level of income per person employed in peasant economy and in other sectors (the parity of income) cannot be compared directly, i.e., because of a usually higher degree of professional qualifications and education in the non-agricultural sectors. The rate of growth of income per one person employed can, however, be compared. In the longer periods of time the rate of growth of income of agricultural population should not deviate from the rate of growth of income of the non-agricultural population. This is justified by social considerations and – even to a greater degree – by production reasons.

In conditions of incomplete coverage of demand for farm products whose growth is faster than the growth of the income of population outside agriculture, a lower rate of growth of the income of the agricultural population would not stimulate increased outlays on extended reproduction and would inhibit the rate of growth of agricultural production thus widening the gap between the demand and supply of farm products.

In Poland a rule has been adopted that the income of the agricultural population should grow proportionally to the increase of the income of the non-agricultural population. This is the only just and rational policy for stimulating the growth of agricultural production to the benefit of the community as a whole. The implementation of the policy of equalising the rate of growth of the income of agricultural population compared to the income of those employed outside agriculture is not a simple task due to the unavoidable fluctuations in agricultural production. As results from the experience collected during the past 25 years, in every 5-year period there was one year of a greater or smaller decrease of production and, consequently, of the income of agricultural population which – after the rise of prices for farm products

being introduced in such situations — were usually compensated and exceeded only in the third year after the year of poor production.

The necessity of equalising — through economic policy — the income of the agricultural population by introducing corrections into the division of the national income for the benefit of agriculture (which is effected mainly by raising the prices of farm products) results, first of all, from the slower rate of growth of productivity in agriculture compared with the remaining sectors of the national economy. Thus, for example, in the years 1950–1975 the average rate of growth of the national income produced by every person employed in the non-agricultural sectors of material production amounted to 5% per year compared to only 2.3% in agriculture.

The reason for the relatively slow rate of growth of income per person employed in agriculture could be found in the too slow rate of decline in employment (0.5% in agriculture as a whole during the past 25 years against only 0.3% in peasant farming) per unit of agricultural land. The slow rate of decrease of employment in agriculture, under the conditions of a continuous migration of rural population to towns, was due to the high birth rate (the population of Poland increased from 25 million in 1950 to 34 million in 1975) and to the restricted possibilities for greater employment than was its real level in the non-agricultural sectors in spite of the relatively high rate of growth — by 3.8% per year (from 4.7 million people in 1970 to 12 million in 1975*). The relatively high level of employment in peasant farming was one of the main causes of the slow changes in the agrarian structure which, naturally, had a decisive influence on the rate of growth of the income generated per one person employed. Agricultural production from 1 hectare of farm land was growing by 3.2% on the average per year in the period under study, but the outlays on production were being increased by approximately 8% which means that, in fact, the income produced from 1 hectare was growing by only 2% per annum and 2.3% annually per person employed.

In such a situation corrections to the benefit of agriculture had to be made in order to equalize the rate of growth of the agricultural population in relation to people from outside agriculture. The range of these corrections is best illustrated by the index determining the share, in the growth of agricultural income, of the growth from the increased farm production and from the changes in agricultural prices to the benefit of farmers. The parts of farmers' income obtained from these two sources are different in various periods and are mainly dependent on the rate of economic growth of the country and, consequently, on the rate of growth of real income per person employed in the non-agricultural sectors. For example, in the decade from 1961 to 1970 — when the average rate of growth of the national income amounted to 6.0% per annum, the corrections of the division of national income to the benefit of agriculture were relatively small. The share of income from the growth of

* It is anticipated that already in the current 5-year period (1976–80) the decrease of employment in agriculture will be accelerated. But a more drastic decline is expected after the year 1980. If the increase of labour (i.e., people in the production age) in the national economy as a whole in the period 1971–80 is to amount to 3.1 million, the same figure for the years 1981–90 is estimated at only 1.1 million people.

agricultural production in the general growth of the real income of agricultural population amounted to 73% compared to 27% from the changes of agricultural prices to the benefit of agriculture.

In the last 5-year period (1971–75) these proportions were changed drastically. The dynamic expansion of our country illustrated by the average growth of national income by 9.6% per annum and a 7.4 annual growth of real income per one person employed outside agriculture called for increased redistribution of national income to the benefit of agriculture in order to guarantee such an increase of the income to the agricultural producers which would stimulate increasing expenditures by them on production and investments, thus speeding up the rate of growth of agricultural production. This was necessary because of the high growth of demand for food resulting from the quickly growing real income of the non-agricultural population.

Starting from the preset strategy of accelerated economic development of the country, the prices of animal products were raised markedly already in the beginning of the 5-year period; in the next years the prices of other agricultural products and — once again — of certain animal products were raised.* This has produced so strong economic stimuli that the farmers increased the rate of growth of expenditures from 6.6% per annum in the years 1966–70 to 10.3% in the period 1971–1974 (this, naturally, was possible thanks to the growth of supplies of the means of production to agriculture). As a result, the rate of growth of agricultural production from 1 hectare of farm land increased from 2.8% to 5.3% p.a. and the rate of growth of the income generated per one person employed — from 2.1% to 3.4% p.a. On the other hand, the rate of growth of the income materialised increased by 6.8% in the same period of time which means that 50% of the growth of farmers income resulted from the increased farm production, the other 50% being the result of the changes in agricultural product prices to the benefit of agriculture.

In the first four years of the past 5-year period the income of farmers in terms of one person employed increased at almost the same rate as the income of people outside agriculture. Since the financial charges to be borne by farms (mainly taxes), were kept on an almost unchanged level, the part of income remaining at the disposal of farmers increased at a higher rate of 7.6% p.a.

As has already been said, in every one of the past 5-year periods one year was adverse for agriculture. For example in 1975, the agricultural production in the peasant sector dropped by 3.5% from one hectare because of a poor harvest of cereals (yields from 1 hectare decreased from 28.3 to 24.9 quintals).

* One should stress that the rise of prices of the farm products purchased does not affect the retail prices of food. The retail prices for the basic foodstuffs (bread, flour, meat, milk, butter and sugar) have been maintained at a constant level for many years. The difference between the prices of farm products purchased and the retail prices of food is subsidized from the State budget in the sphere of turnover or processing. The aim of this solution is to counteract the inflation processes, etc. This results, however, in a stronger pressure on the market of farm products. For example, meat consumption per capita increased from 53 kg in 1970 to 71 kg in 1975. To meet the growing demand for meat its export has to be partly reduced.

Still, the income of farmers decreased by only 2.2% per one person employed due to increasing prices for certain farm products during that year.

These few empirical data have been quoted to illustrate the mechanism of the economic policy of a socialist state in relation to agriculture in the sector of co-operative and individual farming (the data refer to these two sectors together), especially how this policy affects the level of farmers' income and, consequently, the rate of growth of agricultural production. The two instruments of the state economic policy in this sphere are: the system of agricultural prices and contracts with farmers for the delivery of farm products.

Individual and co-operative farms in Poland sell 90% of their production on the socialised (state or co-operative) market, 10% only being sold on the free market (mainly vegetables, fruits, potatoes, eggs and milk), in the form of direct sale of farm products to the consumers. Within the socialised market, 70% farm products are being purchased on the basis of contracts concluded with farmers. In this form, 100% of "industrial" plants, 99% of pig livestock and cereals, 91% of poultry and potatoes, 80% of vegetables, 72% of beef livestock, 66% of fruits and only 5% of eggs are purchased.

The system of contracts gives to the farmers certain price preferences (slightly higher prices, bonuses for delivery within the agreed schedule, or the guaranteed price, the latter covering vegetables and fruits whose prices outside contracts depend on demand and supply) or organizational preferences (collecting the products directly from the farm, free-of-charge advice and veterinary services) or enables starting the production of, e.g., industrial plants covered by the contract (the contracting institution delivers seeds to the farmer).

Recently, the parties are switching more and more widely to long-term contracts. This form ensures to the farmer preferences in obtaining investment credits on advantageous terms, priority in buying goods whose production does not fully satisfy the demand for them, and a partial remission of payments of the investment credits. This latter is a form of state subsidy and covers only farms which start specialization in specific branches of animal or vegetal production on the basis of long-term contracts stipulating that products would be sold to state or co-operative enterprises.

In spite of the complicated multi-sector structure of Polish agriculture, especially the dominance of non-integrated individual farming, the system of instruments of agricultural policy developed in our country makes it possible to control effectively the expansion of agriculture in full compliance with the requirements of the centrally planned national economy. This system — as shown here in a brief outline — cannot be rigid. It must react in a flexible way to changing production, and to demographic and social conditions in agriculture and in the non-agricultural sectors. The efficiency of a planned system of controlling agricultural expansion depends, to a great extent, on the properly prepared system of information which would enable both the evaluation of the current production and economic situation in agriculture and short-term forecasts concerning changes in this situation. A correct evaluation of the

situation makes it possible for the central organs of economic policy to make decisions which may counteract any disadvantageous phenomena. As has been confirmed by long experience, decisions counteracting such adverse phenomena are, from the social point of view, more effective than decisions made in order to offset the effects of these adverse phenomena.

*Rural Nutrition and Living Conditions in Relation to GDR
Agricultural and Economic Policies*

As in other socialist countries the economic policy of the GDR is focussed on doing everything to raise further the material and cultural levels of living of the people on the basis of a high rate of development of socialist production, increased efficiency, scientific and technological progress, and higher labour productivity.

This objective serves the welfare of all working people in our socialist society. It is through high individual work results, a sustained and systematic growth of production – making full use of all the potentials of the country, and increasingly close co-operation (especially with the Soviet Union and the other socialist countries) that we will be able to amply satisfy the steadily growing needs of all people.

The objective for the agricultural policy of the GDR derives from these considerations:

- (a) We increase systematically both agricultural production and its efficiency in order to ensure stable, steadily improving and continuous supplies of high-quality food, to the population, meeting demand and increasing the degree of self-sufficiency. The same aim applies to the demand of the manufacturing industry for raw materials of agricultural origin. As experience shows, the demand for high-quality foodstuffs increases continuously.
- (b) At the same time, we do our best to bring the working and living conditions in the villages up to those in towns, thus gradually overcoming the major differences between rural and urban life.

The laws governing social development imply, and the experience gained in the past years has demonstrated, that we will only be able to solve these problems in a rational way, and with efficiency for the whole society, if we continue to intensify agricultural production, passing over gradually to factory-like, large-scale production crop and livestock farming in specialized co-operative and State-owned enterprises.

* Bernburg, German Democratic Republic

The provision of modern, efficient means of production — particularly machinery systems and fertilizers, extensive experience in co-operation within and between socialist farms, farmers' high level of technical skills, and other factors enable us to make this step now.

Based on the theory of scientific Socialism, encouraged by many years experience of socialist development in the Soviet Union and supported through planning by the whole society, workers and farmers have successfully embarked upon this road.

From the very beginning the economic policy of the Party of the working class and of the socialist State has been directed towards promoting the alliance with the farmers, towards incorporating them in State management, continuously expanding their production basis, hastening the process of social development and improving the rural living conditions on a long-term and planned footing.

The democratic land reform under which almost 30 per cent of the nation's farmland was given to farm-workers and small-holders, or converted into national property, helped to strengthen the confidence of farmers in the working class.

Thanks to a systematic economic policy a powerful farm-machinery and fertilizer industry was set up. State-owned seed-growing and animal-breeding farms were major prerequisites for an overall boost of yields and performances in cropping and livestock farming, respectively. Tractors and implements of the Machinery-Hire Stations of the State gave priority to work on the small- and medium-sized farms at particularly favourable rates. Stable prices for agricultural products fixed by the State, the guaranteed sale of all produce, bonuses to stimulate a high production increase and allowances for improving production conditions (improvement schemes, purchase of livestock, construction of farm buildings, etc.) enhanced production and the sale to the State of a steadily growing share of the farmer's output. All this resulted in a continuous improvement of supplies and a strengthening of the position of the working class and its State in the countryside.

Able cadres of the working class, politically experienced and good organizers, were sent to rural areas. The conditions of schooling and general education in the countryside were gradually adapted to those in towns. The example of socialist State farms also helped to create favourable conditions for the transition to co-operative production.

From 1960, when all farmers had joined the agricultural production co-operatives (co-operative farms), our agrarian policy concentrated on the all-round implementation of co-operative work on the development of Socialist democracy by broadly incorporating the co-operative members into the management and planning of their farms and communities, and on the systematic in-service training of the farmers to enable them to apply scientific findings and to the conscious building of Socialism.

The general principles of Lenin's Co-operative Plan have always been applied in a creative way, taking account of our conditions. These principles include, among others, the central direction of the process, the consideration of differentiated stages of development, forms of organization corresponding

to the practical experience of the co-operative farmers, convincing examples and comprehensive knowledge, voluntariness and, not least, the systematic promotion of the co-operative way by the socialist State, for example, when creating the material and technical foundation.

The continuous increase of production and the fundamental transformation of the farmers' social situation confirm the correctness of the road embarked upon. It is a way understandable to farmers, matching their interests, which are also the interests of the socialist society.

During this period fundamental social changes occurred in the villages. The former rivalries and economic dependence were replaced by common interests, co-operation and mutual assistance. The improvement of living conditions became a community issue. The local State bodies took responsibility for the establishment of a general polytechnical secondary school system providing the children of the co-operative farmers with the same chances of education as under urban conditions. A comprehensive vocational education and in-service training system was set up. So far it has given more than 80 per cent of all those engaged in farming a complete technical training. Some 6.3 per cent of those employed in agriculture have had higher education (university or medium level). In the majority of the villages, facilities for children of pre-school age have been created.

Over the whole country there is a dense network of retail shops, rural department stores, cultural facilities, cinemas and restaurants, rural out-patient clinics and dispensaries, accessible to the rural dwellers because they live near them or can easily go there using public means of transport.

Working conditions and social security have fundamentally changed.

The majority of operations have been mechanised. With the exception of temporary labour peaks, the agricultural enterprises have a working schedule comparable to that in manufacturing industry. Rural workers are granted almost the same social benefits (such as paid holidays, sickness allowance, temporary leave, free medical care, right of pension, temporary paid leave for women for one year after childbirth, shorter working hours for mothers with several children, etc.). The State grants stimulation funds, price additions and other allowances to enable farms working under unfavourable conditions of production – which must be made use of to ensure food supplies – to produce adequate returns so that they can pay equally high wages and may improve their production basis. Therefore, the average income of comparable jobs done under differing economic conditions does not vary much.

Granting credits on soft terms helps to ensure normal incomes for co-operative farmers even in years of poor harvest.

By way of financing policies, especially long-term stable prices for agricultural products and continuously rising labour productivity, the average income of a co-operative farm member has reached a level equal to that of comparable branches of industry. State-fixed agricultural prices have been arranged in such a way that all agricultural enterprises are able to obtain the necessary means for expanded reproduction. Price increases for inputs which might have a negative effect on financing are temporarily compensated by

State subsidies. This is done with a view to not endangering the stability in retail prices for staple foods which we have been observing for more than 20 years — an essential principle of social policy.

The GDR co-operative farmers earmark continuously rising sums of money to improve, through higher social consumption, the living conditions for all those living in rural communities. This is done in close collaboration with other enterprises and institutions. This year, for example, a State decision will be taken providing for an extensive housing programme. It will encourage enterprises and co-operative farmers to build houses on a collective or private basis. Apart from what has been achieved already, this programme is estimated to substantially improve, over the next 5 years, the housing conditions of 8 to 9 per cent of the people employed in agriculture. In addition, agricultural workers and co-operative farmers combine in efforts to set up social services, to improve village scenery, to create recreational facilities, etc. In this way, too, rural social conditions are gradually approaching those in towns.

In the meantime, co-operative farmers and workers have gained extensive experience in the socialist way of production. The material basis of production has been considerably enlarged, and there has been experience over several years of contractual co-operation going beyond the limits of one co-operative, or State farm, thus adding to the efficiency of production. All this made the co-operative farmers and workers embark upon the road to factory-like, large scale crop and livestock production.

Economic experiments conducted over several years regarding contractual inter-farm co-operation of several enterprises in the same area for producing crops along industrial lines, experience in the collaboration of specialized breeding farms and commercial farms specialized in one product, of handling and processing enterprises, marketing facilities and wholesale trade, of production increases going hand in hand with a higher degree of specialization and efficiency, more favourable conditions in the national economy as a whole for providing complex machine systems and up-to-date livestock installations as well as new findings in science and technology adding to higher yields and performances have been factors stimulating that process.

This corresponds fully with the objective interests of society as a whole. Already Lenin arrived at the conclusion: "Mechanized large industry and its transfer to agriculture is the only economic basis for Socialism".

Industry and agriculture have a uniform social basis in our society. The same economic laws of increasing socialization, division of labour, growing concentration of production and specialization are acting in it. The further development of the productive forces, new findings of science and technology — if these are to be used efficiently — imply new forms of organization of production and systematic planned co-operation of the enterprises engaged in the division of labour.

Co-operative and State farms with diversified production have taken account of this by farming their land jointly, pooling their machines in large complexes (for example 10 combine-harvesters with the appropriate transport capacities), by setting up plots of 200 hectares (500 acres)

or more, by pooling funds to purchase efficient machinery, to employ stores, application and handling equipment for fertilizers and other agro-chemicals or to build processing units (such as dehydration plants, feed pelleting plants or easling facilities). Often, self-contained enterprises have arisen by these facilities being linked by economic relations and through long-term contracts.

In livestock production, several enterprises pool their funds, animal stocks, feeds and labour force, to produce more efficiently and with less labour in up-to-date, fully mechanized units. These newly arising, inter-farm units are run on the basis of their own plan. Standardized projects with equipment and management systems which have stood the test of time, are available for building such units. These are dairy units housing some 2,000 cows, young-cattle raising units with more than 5,000 head, pig raising and fattening units with an annual output of 6,000 to 25,000 tons of pork.

The formation of such specialized units of production has proved successful as higher efficiency, high and stable production results and improved working conditions clearly show. However, it is a long-term process, requiring substantial inputs. It must be developed according to a central plan. It needs thorough discussion, the selection of the most appropriate variants and the participation of the participating enterprises in the democratic bodies set up by them for their management.

The vertical co-operation of autonomous enterprises of different types of property engaged in the production of one commodity has proved very useful for improving supplies. In these vertical co-operation unions an increasingly close agro-industrial integration is effected in a democratic way and to the benefit of all partners. On the basis of equal rights, enterprises doing breeding-work, reproduction, commercial production, handling, processing and marketing work together.

They co-ordinate their production, make joint efforts for applying scientific and technological advances, for the training of their staff, etc. Special endeavours are aimed at reaching a high product quality, cutting losses, completing the assortment and making the supplies more continuous. They co-ordinate their plans, build joint storage and processing capacities, marketing centres and sales facilities.

The enterprises are mutually linked through long-term contracts and stable prices and supply relationships.

All forms of co-operation are directed by democratic management bodies such as co-operation councils, union councils, assemblies of delegates and plenipotentiaries. The participating enterprises act within them on the basis of equal rights irrespective of their size and share in total output. The decisions taken by the democratic management bodies need to be confirmed by the member assemblies of the participating enterprises or the manager of the respective State enterprise.

Through its economic policy the socialist State supports and promotes this process of transition to the factory-like way of agricultural production because this is in the interest of society.

The State directs this development as a whole, planning the balance between the branches, both on a long-term basis and for the different

territories. The State plans the contributions to be made by science and technology and takes charge of generalizing the experience of the best. Under the leadership of the working class Party new things are continuously analysed, the level reached being evaluated and the macro-economic possibilities considered as regards the further implementation of that process. Especially in State enterprises, long-term economic experiments are conducted to gain experience and judge results likely to be obtained under commercial conditions. At enterprise level, staff-members of State bodies and scientific institutions participate in organization and extension.

The transition to this way of agricultural production is also economically stimulated by granting credits at low rates of interest, by partly subsidising the application of new scientific and technological findings, by price additions for products from factory-like units, etc.

In particular, the State promotes socialist economic integration between the socialist States, for only in this way the growing requirements from agriculture can be met efficiently. A large part of the machinery, agrochemicals and projects for units are jointly developed, designed and jointly (or by division of labour) produced following mutually agreed standards. The same applies to establishing new crop varieties and animals breeds. This kind of integration is feasible because the development problems of agriculture in the socialist countries are tackled fundamentally in the same way, on the basis of the Marxist-Leninist agrarian theory. This also contributes to the further drawing together of our Socialist countries.

The maintenance of peace is the basic condition for the systematic long-term implementation of the agrarian policy and the successful construction of our society. Through the peace policy of the Soviet Union favourable external and internal conditions are created for the undisturbed realization of our projects. Our efforts for increasingly closer economic and trade relations and scientific and technological co-operation with mutual benefit and advantage are also aimed at this. This co-operation is in the interest of the people. It fosters national independence, equality of rights in international relations, economic development and social progress to the benefit of our people.

As agricultural economists we should regard it our permanent commitment to take an active part in this fight for peace, social progress and the improvement of food production to the welfare of the working people.

*Problems of Agri-alimentary Complexes in Territories with
Extreme Production Conditions*

New data about natural resources in connection with the progress of science and technology and increased demands for food products make it necessary to bring into national economic activity land which is extensively used or not used at all. Such land is usually remote from established centres of culture and production. They have weakly developed transportation and show great differences in pedo-climatic conditions of production. During the industrial development of such regions providing the rapidly expanding population with food-stuffs of good quality presents a problem.

The USSR has built up a varied experience of industrial development of territories with extreme conditions of production. In general such territories are situated in the north of the country, in desert and semi-desert regions. A thorough study of this experience shows that attracting manpower into the new regions of industrial and transport construction by means of higher payment does not give the necessary results for ever. The economic development of such regions, especially when intended for long term functioning, should be based on the application of the complex of economic and practical measures which may provide an attraction and a necessary specialist consolidation. First of all it requires the provision of the cultural and welfare facilities appropriate to the local conditions and good quality food – a main condition for effective vital activity.

There is no need to emphasize that the problem to be solved is difficult even for the regions where we have favourable soil-climatic conditions for agricultural and food industry development. The difficulties of solving the problem increase greatly in regions with extreme conditions of production and particularly in the construction zone of Baikal–Amur railway in the Soviet Union. Almost throughout the whole territory which will be crossed by this railway there are low average annual and seasonal temperatures, with mountainous relief in one place and marsh-ridden areas in others. The length of the growing season is 50–116 days in some places where new towns and workmen's settlements are being built. Such a season is 2–4 times less than in active agricultural regions. The average annual precipitation is 180–530 mm, positive temperature sum is 850–1350°C.

* U.S.S.R.

The successful fulfilment of a large scale programme of industrial development on the lands poorly used before is only possible by a systematic approach to their development and realization. Programme-objective planning is a highly reliable methodological basis for the development and realization of such programmes. From the methodological point of view programme-objective planning is to be considered as the complex method of development of national economic plan and its parts which make it possible to realize the planning logic "from objectives". At the same time the achievement of one or two purposes is based on co-ordination with the complexes of organization-economic, and other, measures including financial and material-technical resources and manpower. Therefore, the most important feature of programme-purpose planning is a directed usage of resources in time and space for the achievement of specific purposes.

The co-ordination of purposes and resources creates a firm basis for selection of rational solutions, optimisation of industrial development proportions within one branch and between different branches, and the creation of specific features of social economic infrastructure. The infrastructure provides harmonious combination of public interests with interests of development of separate regions and each executor who takes part in the achievement of specific purposes.

Scale, structure, dates and manner of working out the programme for industrial and agricultural development of new regions depend on their concrete content and purposes and on the presence of production resources that can be used.

The elaboration of long-term forecasts and objectives of production forces development within the limits of definite territories is the conceptual (purpose) stage of programme-objective planning. So possibly exact determination of the following factors is of principal significance in the elaboration of food subprogramme at the forecasting stage of the development of new regions. There are three general factors: (a) intermediate and final objectives of economic development of the present territory; (b) volume and structure of necessary food products in near and far future; (c) the sources of food products at minimal total expenditure.

The basic feature of programme-objective planning for food product supply of specific regions consists in the fact that this problem solution is achieved by means of agri-food complex creation as a part of a complex programme for the solution of the main purposes of industrial assimilation of new regions and not by means of realization of separate episodic measures.

The main peculiarity of the agri-alimentary complex problem consists in system creation of food products production and delivery to direct consumers by means of arrangement of food production in areas of consumption or its delivery from other districts in fresh or processed state. The complex includes the solution of such questions as ploughing up new earth, ensuring manpower and corresponding material-technical means, processing, storage and realization of production, creation of social infrastructure, organization and execution of research and design development, etc.

Realization of the whole programme of developing regions' supply with

food products depends, to a considerable extent, on accurate matching of these problem solutions in time and space. Though the above-mentioned questions do not include its whole range, they reflect, to a considerable extent, the specificity and many-sided problem solution of agri-alimentary complex creation. The total expenditure is the most important optimum index of separate questions solution of agri-alimentary complex creation. However, it is impossible to proceed only from mechanical comparison of expenditures for these purposes during problem solution of supply of population with food products in new industrial regions situated in extreme conditions of production, and so it may be advisable to deliver it from other regions or to organize local production. It is necessary to take into account that relatively high expenses for milk, vegetables and a number of other products near areas of consumption, especially at the first stages of arrangement of agri-alimentary complex, are caused very often by unfavourable nature and practical economic factors, particularly by dissipation of production among small sections or by application of obsolete technology. It is impossible also to leave out of reckoning that during a whole year natural milk, potatoes — to say nothing of fresh vegetables — cannot be delivered to regions with low and very high temperatures without special and expensive transportation and packing. And these very products are the most important components of quality nourishment. The defect mentioned cannot be eliminated completely by means of storehouse construction, with regulated conditions of storage, and by means of product delivery in warm seasons because we must bear in mind the great volume of consumption of these products.

Our estimations of technical economic indexes of production and realization of general agricultural products obtained from different expenditure comparison and generalization of accumulated experience in analogical problem solution in similar production conditions of other regions are the basis for conclusion that we should solve the problem of meeting the requirements of the population in the zone of the Baikal–Amur railway for food products in three main directions:

(a) by means of organising the production of products which are perishable and travel badly in areas near the consumption point, for example, field vegetables, potatoes, milk, eggs;

(b) by means of intensification of agriculture in neighbouring regions having more favourable economic-natural conditions for potatoes and vegetable growing, and dairy-meat production;

(c) by means of delivery of heat-loving vegetables, fruit, grapes and melons from more distant regions.

The significance of these sources of food products for the separate parts of the railway under construction will be unequal because of considerable differences in soil-climatic conditions of production, location, transport communications, etc. And in future it will change in different ways. For instance, in the eastern part of the railway the demands for potatoes, field vegetables, milk and meat will be met in the near future by local arrangement for production. But the majority of food products will be delivered in the near future from other regions to central parts of the railway which have a less favourable

soil-climatic conditions for agricultural development and where we assume there will be intensive road and industrial construction.

The above mentioned facts and others point out the impossibility of routine methods of approach to the problem of meeting the population demands of new regions in specific food products. We must speak not about difficulties but about rational combination of different variants of supply with the necessary products (in volume, assortment and quality) with minimal expenditure of labour and facilities taking into account a variety of assortments of the necessary food products and the physical possibility of their production in the required volume.

*Decision-making in the Self-management System
in Yugoslav Agriculture at the Macro- and Micro-level*

1. GENERAL FEATURES

Decision-making in agriculture is a very complex process including all aspects of the development of agricultural production and all agents of agricultural development. The promotion of the process and the methodology of decision-making in agriculture gains all the more in importance in contemporary circumstances.

Realistic and timely decision-making at the national, regional and international levels is the condition of primordial importance for the efficient development of agricultural production, for the solution of the world food problem and the balancing of the world food supply and demand in the long run.

The analysis of the decision-making process in agriculture requires a complex approach. It is essential to take into account both its methodological and its social aspect.

The methodological aspect of the decision-making consists in working out the most convenient methodology for defining and setting up the basis and background for making realistic and efficient decisions concerning agricultural development at all the levels where they are made.

The methodology of decision-making depends on the level of scientific theory and research, the application of scientific and professional methods and the availability of systematic statistical data and documentation.

The social aspect consists of the analysis of the position and the role of agricultural producers in the decision-making process in agriculture. It requires an answer to the question whether agricultural producers are independent in their decision-making and what is their influence on decision-making at all levels, from the individual farm right up to national agro-economic policy.

Both aspects of the decision-making process in agriculture are mutually connected and conditioned. There are, however, qualitative differences between them. The methodological aspect is extremely important for the

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rational constitution of decisions, but its importance is primarily of a technical and technological nature. The focus lies in the social aspect of decision-making, which is determined by the particular features of the socio-political system and socio-economic relations.

The social position of the decision-makers in the process of social reproduction represents the basic element of rationality and efficiency of decision-making.

2. SELF-MANAGEMENT AND DECISION-MAKING IN YUGOSLAV AGRICULTURE

The social aspect of decision-making in Yugoslav agriculture is based on self-management, which represents the basic feature of the socio-political system in Yugoslavia. The ideological and socio-economic principles of the self-management system are elaborated in the Constitution of SFR Yugoslavia and the Law on Associated Labour.

The essence of the self-management socio-economic relations in the Yugoslav economy and society resides in the principle that the worker-producer is the only, and the essential, agent of the formation and distribution of income and the beneficiary of the surplus work.

The socio-economic position of the workers in the social reproduction process determines the mode of decision-making in Yugoslav agriculture as well as in the whole economy and society. Decision-making is effected through the essential forms of self-management:

(a) by way of personal declaration by the workers in the basic organisations of associated labour, which represents the basis for all other forms of direct decision-making;

(b) by way of decision-making by the elected delegates in the self-management bodies of the organisations of associated labour, associations and institutions of the producers and political bodies;

(c) by way of effecting the direct workers' control in the organisations of associated labour and other bodies.

The main sense of direct decision-making in the self-management system consists in the principle that every worker or agricultural producer makes decisions in his organisation of associated labour about the conditions and results of his work and the whole social reproduction.

Direct decision-making in Yugoslav agriculture takes place at different levels, beginning from the farms, through various institutions and authorities in municipalities, provinces, republics and at the national level.

The functioning of the system of direct decision-making is discussed here at the national level as well as at the level of the social agricultural farms and private farms since at these levels the most important decisions for the development of agricultural production are made.

We shall consider the basic questions of the domain, content and structure of direct decision-making at the national level and at the level of agricultural farms.

3. DECISION-MAKING AT THE NATIONAL LEVEL

The most important document on which the agricultural producers and their organisations and institutions make decision is the Social Agreement Among Republics and Provinces on the Development of the Agro-industrial Complex in Yugoslavia. In this document the following basic questions of the strategy of development of the agro-industrial complex are worked out:

- (a) the position of agriculture in the policy of the socio-economic development of Yugoslav economy and society;
- (b) the basic aims and directions of development of agricultural production and the possibilities and conditions of balancing the supply and demand for food;
- (c) production policy, rate of growth of agricultural production and development of crop production and livestock breeding;
- (d) development of social farms and the main lines and possibilities of the growth of the socially organised agricultural production;
- (e) basic principles of policy concerning individual farmers;
- (f) relations and frameworks of the linking of agricultural producers, food processing industry, commerce, industry producing fixed assets, working capital for the needs of agriculture and consumption of agricultural products;
- (g) essential conditions and frameworks of the development of expanded production in agriculture, such as the volume and pattern of investment, price policy and the level of protective prices by categories of agricultural products, credit policy and credit terms, conditions and orientation of foreign trade, and commodity reserves.

The Social Agreement defines the long-term policy for development of the agro-industrial complex in Yugoslavia for the five year period. On the basis of this document are worked and implemented the annual development plans of Yugoslav agriculture.

This document is taken as the basis for the elaboration of the programme of development of the agro-industrial complex by republic, province and community, in accordance with their prevailing natural, climatic, land, technical and technological and socio-economic conditions. The whole system of agrarian and economic measures and institutional conditions of the agricultural development is worked out more broadly and concretely in these programmes.

Many scientific and research institutions as well as the socio-political organisations are included in the elaboration of the social agreement on the long-term development of the agro-industrial complex in Yugoslavia. The most responsible institutions for its preparation and elaboration are the Federal Committee for Agriculture and the Federal Office for Economic Planning, as well as the corresponding republican and provincial institutions.

The Social Agreement on the Development of Yugoslav Agriculture is the subject of wide discussion and argument at the national level among the agricultural producers and their institutions and organisations as well as in the framework of the widespread scientific and research and socio-political activity in the country. The opinions and tenets exposed in the public

discussion are the decisive elements for its final adoption by the delegates in the Federal Parliament of SFR Yugoslavia and the republican and provincial assemblies.

4. DECISION-MAKING AT THE LEVEL OF AGRICULTURAL FARMS

In accordance with the basic aims of the long-term development of the agro-industrial complex in Yugoslavia agricultural farms work out their development policies. In doing this they are completely independent in defining and decision-making relating to the direction and the framework of their development.

The socio-economic structure of the Yugoslav economy is characterized by the existence of the socialist social farms and private individual farms. The way of decision-making in these farms is different.

4.1. *Social sector*

In the structure of Yugoslav agriculture the social farms are playing the more important role. They are the agents of technical and technological progress and intensification of agricultural production. The social farms have reached the productivity level of developed countries and in some agricultural farms it has even been surpassed.

Socially organized agriculture has already been yielding 46–47% of the production of commodities.

In the social farms the workers are the main agents of decision-making. By personal declaration as well as by referendum they make decisions on the most important questions of the building up and development of the social farms. These are the following questions: (a) statute of the organisation of associated labour; (b) guidelines of the development plan and programme of the establishment of the organisation of associated labour; (c) production policy in crop production and livestock breeding; (d) efficiency of business management and formation and distribution of the income obtained; (e) policy concerning personal incomes and reward according to work; (f) investment policy, particularly long term investments; (g) provision of financial resources of a large volume and the building up of the organisation of associated labour and (h) conditions for the association of labour and resources with other organisations of associated labour, food processing industry and commerce.

The direct decision-making by workers represents the basis of the work of the self-management bodies, above all of the workers' council and other bodies in the organisations of associated labour in the social sector. The self-management and professional bodies work out the generally adopted decisions, carry out the operational and long-term policy of development of social farms and direct the process of intensification and increase in the socially organised agricultural production on the basis of modern technical and technological progress.

The workers follow by way of direct self-management workers' control,

the working out, and implementation of the decisions generally adopted by the self-management and other bodies in the social farms.

The self-management workers' control has the right to demand that the decisions are respected together with the rights and interests of workers and has to ensure their consistent implementation.

4.2. *Private sector*

The private sector comprises a larger part of productive capacity and agricultural production in Yugoslav agriculture. Small farms are, however, characteristic of the private sector since it consists of about 2.6 millions individual farms with an average size of only 3.8 ha of total land. The linking up and association with the social sector is the right way to promote, increase and to socialize agricultural production of the private sector. In this field considerable productive and socio-economic results have been obtained.

The individual producer is completely independent in his farm and free in decision-making concerning all the questions of development of his farm and especially in the following: (a) production policy; (b) promotion of agricultural production; (c) farm construction and (d) way of use of the income obtained.

The individual farmers influence the agro-economic policy measures and conditions for their activity through their cooperatives and association of cooperatives. Their influence is particularly focused on the following questions: (a) policy of supply of intermediary goods; (b) the use of services by the social sector; (c) the conditions to be fulfilled to obtain and repay credits; (d) way of buying agricultural products; (e) cultivation of land; (f) building up of infrastructure in agriculture, and (g) conditions for obtaining pension, health and social insurance for the farmers.

Individual farmers are completely independent in making decisions on the association of labour and resources with the social farms. When the development and socialization of the common agricultural production of the individual and social farms is in question the individual producers have the same rights as the workers in the social farms and they are completely equal in making all the important decisions on the development of joint production and the formation and distribution of income obtained through joint production in accordance with the work and invested resources.

5. THE MAIN LINES OF FURTHER DEVELOPMENT AND PROMOTION OF THE SYSTEM OF DIRECT SELF-MANAGED DECISION-MAKING

The system of direct self-management and decision-making has contributed to a great extent to the development of Yugoslav agriculture during the past two decades. This system incited the strong interest of agricultural producers in the promotion and growth of agricultural production and in obtaining income and improving the standard of living.

The agricultural production in Yugoslavia has more than doubled. The productivity of Yugoslav agriculture increased relatively greatly per active

farmer and per hectare of arable land. The intensification and socialization of agricultural production in the coming period will enable Yugoslavia to satisfy the home needs for food in the near future, by its own production and provide a part of production for export. Yugoslavia will become a net exporter of food and will make a comparatively important contribution to the solution of the world food problem in relation to her available resources.

The long-term development of Yugoslav agriculture particularly emphasizes the need for further improvement of the system of direct self-managed decision-making, as the essential factor of promotion and increase in agricultural production. It is indispensable to ensure the systematic study, analysis and improvement of this system. In this field the investigations must be particularly directed to the following questions which are characteristic of all levels of decision-making:

(a) Promotion of the system of direct self-managed decision-making should enable the timely decision-making at all levels which is the essential condition for the efficient and stable development of agricultural production;

(b) It is necessary to make a continuous and complex study of the socio-economic relations in agriculture, which are the basis of the system of direct and rational decision-making;

(c) The more efficient and complete agreement of interests of various agents in agriculture in the process of understanding, agreement and decision-making must be ensured;

(d) The system of professional training and informing of the agricultural producers must be promoted so that they are in a condition to make timely and realistic decisions;

(e) It is necessary to examine and improve the system of collecting and filing the statistical data and documentation material in order to ensure the elaboration of trustworthy and complex grounds for making realistic and efficient decisions at all levels;

(f) Programmes of scientific investigations are needed which should be directed to those problems which are important from the point of view of more intensified development of all agriculture and making the corresponding decisions on the most important development problems;

(g) Greater attention should be paid to the training of professionals at all the levels, especially of agroeconomists, with the aim of preparing more efficiently the analytical basis for decision-making;

(h) Building up of the consistent system of direct self-managed decision-making should ensure its efficient functioning both in the short-term and the long-term development of Yugoslav agriculture.

DISCUSSION OPENING – Wiktor Herer, *Poland*

I would like to concentrate the participants' attention on two problems.

The first problem is the comparison of the two planning systems for agricultural development in Poland and Yugoslavia.

These systems show some similarities. In both, peasant farms, which produce an essential volume of produce in these countries, are free in their adjustment to the economic environment. This is shown, primarily in the price system; the indirect influence of the state on peasant farms through a price policy provides the basic state operating method in both countries.

This matter seems clear to me but what should, perhaps, be clarified in the discussion are the differences between these systems. It would be useful to have explained whether in Yugoslavia, to the same degree as in Poland, the central planner determines the basic elements of the economic environment, including the prices of agricultural products and those of input flowing from the non-agricultural sector to the agricultural one, and the volume and product structure of that input, as well as the demand for manpower flowing from the agricultural sector to the non-agricultural one.

The second problem, connected with the paper of Dr. Boyev, is that of obtaining the necessary agricultural production in the Soviet Union, and also in some other socialist countries, in regions marked by high marginal costs.

It seems that this phenomenon, which occurs both in the Soviet Union and in Poland and, perhaps, in some other socialist countries, results from the co-existence of the following phenomena:

- a very high income elasticity of demand for agricultural product which results, among other things, from a fairly egalitarian division of the growth of consumption fund,
- High marginal costs of obtaining agricultural products.

The co-existence of these two phenomena brings about specific difficulties in Poland. In my opinion, these difficulties must be solved not only by accelerating the rate of growth of agricultural production but also by gradual changes in the consumption increase structure, aiming at a growing share in consumption of industrial articles characterized by marginal costs not varying from the average costs, or even declining — as a result of economies of scale. Among other things, it should be realized that a country like Poland, characterized by poor soils and by climatic conditions rather unfavourable to agricultural production, cannot aim at imitating the consumption structure of countries, such as France and the U.S.A., characterized by abundance of fertile soils situated in regions of favourable conditions.

RAPPORTEUR'S REPORT — P. E. Temu, *Tanzania*

Considerations presented as forming a background to the discussion included the fact that notwithstanding differences in conditions and levels of economic development among socialist countries, the accelerated development of productive forces and living standards remains the main characteristic of economic and social development in all the socialist countries. Agriculture had always played an important role in this process and can be expected to play an even bigger role in the future. The view was expressed that more

attention should in future be paid to the close functional interdependence between agriculture and other sectors – the papers underlined this – and measures adopted which would give agriculture the same recognition as the rest of the economy.

Further, there was held to be need to raise the quality of the diet as opposed to the quantity of food produced, in order to raise nutritional levels, to take appropriate measures to modernize agriculture and increase the output of food and fibre sufficiently to cope with increasing demand, to foster the growth of large-scale agro-industry organised along socialist lines, and to improve marketing and distribution of farm products, the development of socialist production relations, and the process of decision-making, etc.

It was pointed out that peasant agriculture in Poland was linked to the rest of the economy in many diverse ways. State farms were subject to imperative planning, but co-operatives and private farms were more subject to controlled planning, influenced by various signals of the market mechanism, itself conditioned by the policy of the central planners. Considerable emphasis was put on the relation between the overall rate of growth of the economy and the rate of growth of agriculture, and circumstances were spelt out in which agriculture could either, on the one hand, become a fetter to general economic growth or, on the other hand, its key propellant.

With respect to Yugoslavia, it was generally observed that there is close connection between development of agricultural production and the system of self-management in decision-making. This system has been institutionalized, and permeates management and decision-making in all sectors and at all levels. It is a system through which peasants and workers at all levels, either by themselves or through their elected representatives, are enabled to move increasingly towards more effective forms of socialization of the economy, including the agricultural sector. As in Poland, the private farm sector has full freedom to reach its own decisions on farm production, investment, etc., reflecting market circumstances. As in other cases of centrally planned economies, this freedom is exercised within the general framework and guidance of the national plan.

The particular feature of the USSR situation discussed concerned the supply of adequate food and other provisions in the development of remote rural areas such as the northern parts of the USSR, in desert and semi-desert regions. The illustration chosen was the area to be traversed by the Baikal-Amur railway in the Soviet Union. It was stressed that the successful fulfilment of such a programme, under difficult conditions of climate, soils and topography, lies in proper programme planning and co-ordination of objectives and the means (or resources) for their implementation. The use of resources in time and space have to be directed to the accomplishment of the desired goal at minimum cost.

Thus, the principal problem of supplying food for the population within the railway construction zone would have to be solved by a judicious combination of measures to (i) transport perishables, e.g. dairy products, as cheaply as possible, (ii) grow on the spot whatever can be produced economi-

cally, and (iii) arrange the delivery of fruits and vegetables from more distant areas.

Further references were made to other situations, notably Czechoslovakia and Hungary, where it appeared that the central plan, as defined by the Party and Government, laid down the global and often specific goals, subject to which various organisations, including agricultural enterprises, planned their activities. The use of different types of mechanisms and incentives to achieve the desired goals was often cited.

It was clear that there were certain lessons from Eastern Europe for the developing socialist countries such as, for example, Sri Lanka and Tanzania. It seems that chief among these is the essential nature of interdependence between the agricultural and non-agricultural sectors in planned socialist growth. A second important consideration concerns the way in which the public (or socialized) sector of the economy, the co-operative sector and what remains of the private sector, can all be made to bend their energies in the direction desired by the national plan. For this to happen, however, careful planning and implementation mechanisms must be worked out in order to minimise or eliminate possible incompatibilities. The really unanswered question concerns the types of mechanisms or system of incentives that would effectively enable a developing country to achieve a full and rapid transition to socialism.