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Articles should have a maximum length of 10 folio pages (including tables, graphs, etc.) typed in double spacing. Contributions, in the language preferred by the writer, should be submitted in triplicate to the Editor, c/o Department of Agricultural Economics and Marketing, Pretoria, and should reach him at least one month prior to date of publication.

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Contents

SOCIALIST ENTERPRISE FORMS IN AGRICULTURE. II: EASTERN EUROPE*

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INTRODUCTION

The Second World War resulted in an expansion of the Communist political and economic system throughout nearly the whole of Eastern Europe. A number of countries — Bulgaria, Czechoslovakia, the German Democratic Republic (Eastern Germany), Hungary, Poland and Rumania — have been within the Russian sphere of influence since the end of hostilities. Yugoslavia also accepted the Communist system, but is not part of the Soviet power bloc and Albania leans towards the Red Chinese power bloc.

All these countries have tried to introduce socialist enterprise forms in agriculture.

In this article a closer look will be taken at the changes in these countries — excluding Albania.

The change-over from small farms to large-scale farm enterprises is based on Lenin's co-operative plan, which was the outcome of his studies of the Marxist theories on agriculture, and his interpretations of the early results of socialist reforms in the Soviet Union.

A key point in his reasoning was the need for federation between the worker class and the farming class. He formulated manuals on socialist farming practices and so supplemented the Marxist theories.

Lenin emphasised that in the transition stage from capitalism to socialism it is necessary for the goods-producing small farmers and the socialist agricultural sector to exist side by side[1]. According to him, however, the small farmers would never be able to maintain the required production laid down by the National Plan. Lenin also realised that collectivisation was not an easy process and that it could not succeed without state help, particularly in view of the fact that the newly formed collective enterprises could not function on an economic basis in the initial stage[2].

To Lenin the basic point of departure for collectivisation was free will and purposeful persuasion of farmers on the strength of the potential advantages of large-scale production methods.

From the point of view of socialist re-organisation of agriculture, Lenin's contribution is particularly important because he pointed out that in the process of building up socialism various forms of commercial co-operatives could play an important part[3]. Lenin included a whole spectrum of matters concerning the way to a collective agricultural system in his co-operative plan.

Experience in the transition from individual farm enterprises to large-scale collective enterprises in the Soviet Union proved the practicability of Lenin's theory[4]. This experience and its practical implications enjoyed much attention far beyond the borders of the Soviet Union. This is evident from the organisational structures in agriculture as designed and applied not only in the socialist countries of Europe and Asia, but also in recent times in Cuba and in certain independent African states.

In the European socialist countries land was held in private ownership when the collective movement was started. Intermediary ways had to be found to persuade the individual farmers to combine their resources and possessions. Early experience in the USSR convinced the policy-makers of the advantages of persuasion over force.

The scope and characteristics of the co-operative movement in the various countries will now be discussed briefly.

BULGARIA

Outside the Soviet Union, Bulgaria has the greatest traditions of collective farming. The Bulgars built on the workable practices of the capitalist co-operatives and blended them with a socialist content.

In many towns credit and consumer co-operatives were formed. There was an excess of small farming units and there were few big farms. For example, in

* Based on an M.Sc (Agric.) thesis by T.I. Fènyes, University of Pretoria.

1. Lenin Muvei. Vol. 26, Szikra, Budapest, 1952, p. 343.
2. Lenin Muvei. Vol. 30, Szikra, Budapest, 1953, p. 187-188.
3. Lenin Muvei. Vol. 32, Szikra, Budapest, 1953, p. 305.
4. It must, however, be pointed out that the collectivisation of agriculture in the Soviet Union and Eastern Europe did not always take place on a voluntary basis; in some cases force was used to this end.

1941 there were 1,1 million individual farms with an average farm size of 4 hectares[5].

The transition to collective farm enterprises took place in three stages. It lasted 12 to 13 years and was completed in 1957-1958[6]. By this time more than a million small farms had been transformed into 830 collective agricultural enterprises[7].

CZECHOSLOVAKIA

After World War II the development of collective agriculture became an integral part of the general development policy of the socialist government.

During the period between 1945 and 1948 there was a substantial increase in the importance of operational type collective agricultural enterprises. At the end of 1948 these collectives accounted for 62 per cent of the total number of agricultural enterprises, whereas the percentage contribution of the credit co-operatives, which were previously the most important, had dropped to 28 per cent[8]. The productive collective agricultural enterprises, 28 of which were established during this period, were the precursors of the further development in this direction[9].

The majority of collective enterprises were in Bohemia, Moravia and Silesia, but only 919 co-operatives with 150 000 members and 256 other co-operatives with 29 000 members were established during this period in Slovakia[10]. The establishment of large numbers of machine co-operatives was regarded as a main criterion and up to the end of 1948, in other words in the space of three and a half years, 4 800 machine co-operatives and 850 electricity co-operatives were established with a membership of more than 175 000[11]. Before World War II there were only 161 machine co-operatives with a membership of 5 000[12].

The new co-operatives, which were well equipped with machinery and transport facilities, provided important services to farmers. Large-scale use was made of modern machinery for the first time in the history of Czech agriculture.

The machine co-operatives helped a great deal to motivate the farmers by showing them that large-scale team work, based on modern technology, offers great advantages in comparison with individual efforts based on traditional, simple and usually outdated technology. The machine co-operatives therefore contributed to the development of the pre-conditions for the creation of a collective type of agricultural sector producing on a large scale. The first 800 production co-operatives, in fact, originated from the machine co-operatives on the basis of voluntary decisions by the members.

In 1949 Czechoslovakia experienced a new phase in the co-operative movement, namely the large-scale establishment of production co-operatives. The implementation of the land tenure reform and the distribution of the landlords' land to the landless proletariat and small farmers changed the whole structure of agriculture.

Before 1945 there were mainly small farms. The largest group of farms were those under 10 ha (86,3 per cent of the total)[13].

The initial stage of the creation of large-scale collective enterprises was characterised by three concepts[14]:

1. About 150 model farms which could serve as examples for further expansion.
2. Agricultural co-operatives were established on the pattern of the Soviet kolkhozy.
3. In order to demonstrate the advantages of large-scale socialist methods in a productive way to the small farmers, state farms and machine and tractor stations were created.

Five different types of productive agricultural collective show the systematic transformation of the agricultural sector from individual to fully integrated collective production[15]:

Type I — United agricultural co-operatives (UAC). The members organise jointly the main operations (sowing, harvesting, etc.) and the utilisation of their private and collective machinery, without ploughing over the boundaries of the land and without combining the land. Remuneration of members and expenditure are financed from a collective fund.

Type II — The most important characteristic of this UAC is a partial integration of production, namely joint crop production on collective land including joint ploughing. However, livestock production continues on an individual basis. The planning is collective, the members are organised into working groups according to need. The remuneration of the members is paid partly in cash and after the closing of the production year part of the yield is divided among the members on a proportional basis according to work done.

Type III — In this case there is a total integration of work; both crop and livestock production takes place on a collective basis. Each family may own for its own requirements a small domestic farm unit, the size of which is restricted to 0,5 ha of land, one cow with a calf, one or two pigs, a certain amount of water and certain buildings.

The members are organised for crop and livestock production and they are remunerated in cash and in kind in proportion to the quality and quantity of the work done. Members who have made land available to the collective enterprise are compensated for it.

Type IV — This productive collective enterprise differs from Type III only in that the members do not receive compensation for common land use.

5. Nemzetkozi Statisztikai Evkonyv, KHS, Budapest, p. 93.
6. Jurakov, D. A mezogazdasagi termeloszovetkezetek belso szovetkezeti demokraciaja Tarsadalmi szemle. Vol. 19, No. 1, Budapest, 1946, p. 22.
7. Nemzetkozi Statisztikai Evkonyv, *op. cit.*, p. 94.
8. Nemzetkozi Statisztikai Evkonyv, 1968, *op. cit.*, p. 98.
9. Nemzetkozi Adtok a Mezogardasagrol. Agroinform, Budapest, 1969, p. 36.
10. Spirk, L. Development of the agricultural co-operative movement in Czechoslovakia. Year Book of Agricultural Co-operation, 1969. B. Blackwell, Oxford, 1969, p. 137.
11. *Ibid.*, p. 138.
12. Csizmadia, E. Ket ut, ket vilag, Kossuth, Budapest, 1962, p. 37.
13. Nemzetkozi Statisztikai Evkonyv, 1968, *op. cit.*, p. 99
14. Spirk, L., *op. cit.*, p. 139-140.
15. *Ibid.*, p. 140-141.

Type V — This type is a fully integrated collective agricultural enterprise. All work is carried out on a collective basis, members have no private farm units and their operating assets are collectively utilised.

During the first two years of mass collectivisation Types I and II predominated, but from 1952 Types III and IV began to take the lead. After the completion of collectivisation during the years 1958-1959 the UACs gradually dropped the payment for common land used and the difference between Types III and IV disappeared for all practical purposes.

In 1960 the first UACs without any private farm units came into being and by 1972 there were about 240[16]. The average size of the collective agricultural enterprises is 645 ha[17].

Present-day Czechoslovakian agriculture is characterised by large-scale collective enterprises equipped with modern machinery. In general the standard of agriculture may be favourably compared with the agricultural sectors of most developed countries.

GERMAN DEMOCRATIC REPUBLIC

The German Democratic Republic started at a higher level of operation than the other states of eastern Europe. When the socialisation of agriculture was begun, a developed and highly productive industrial sector already existed and the agricultural sector (in private ownership) functioned on a relatively intensive basis. The level of training of the farmers was fairly high and usually great value was attached to private ownership of properties. These farmers were not typical peasants and played a part in an economy which was already at an advanced stage of economic development.

A developed money and goods traffic already existed. Under these circumstances the process of collectivisation took place slowly and on a differentiated basis. Mainly three types of collective agricultural enterprise came into being, with differences in respect of the line of production and the extent of collectivisation.

In the first type of collective enterprise only crop cultivation took place on a collective basis and livestock remained in the hands of individuals. This type of collective enterprise was intended to ease the way to full collectivisation.

In the second type of collective enterprise both crop cultivation and stock breeding were carried out collectively from the beginning, but each member was entitled to keep a domestic farm unit.

In the third type of collective enterprise all production agents were in collective ownership. The first two types of collectives served only as intermediary stages and in 1960 all farms were fitted in to a system of fully integrated large-scale production[18].

16. Nemzetkozi Adatok a Mezogardasagrol. Agroinform, Budapest, 1973, p. 77.
17. *Ibid.*, p. 78.
18. Varga, G. Mezogazdasagi uzemek kooperacioja a Nemet Demokratikus Kozrarsasagban. Gazdalkodas, Vol. IX, No. 1, Budapest, 1965, p. 78.

HUNGARY

The socialist reorganisation of agriculture in Hungary was completed in 1961. At present collective farm enterprises control nearly 5 million hectares of land. Their numbers decreased as a result of consolidation from 4 507 in 1960 to 3 012 in 1972 and during the same period the average area increased from 756 hectares to 2 320 hectares[19].

The membership of the collective enterprises has dropped gradually since 1961 by about 20 000 per year. The present membership is 920 000, of which 720 000 are working members[20].

Nearly 70 per cent of all the agricultural workers are members of the collective enterprises, which differ little in nature from the Soviet kolkhoz.

In Hungarian agriculture, state farms play a less important role. In 1972 there were 204 with an average area of 4 350 ha[21]. The labour force of the state farms amounts to about 160 000 workers, of whom 120 000 are permanent appointees[22].

POLAND

Collectivisation progressed more slowly in Polish agriculture than in other European socialist countries. Because of exceptional local circumstances (at least for a socialist country) the Polish United Workers Party still does not consider it immediately practicable today.

The functioning collective agricultural enterprises may be divided into two groups[23]:

1. Consumer collectives (6 types).
2. Production services collectives (2 types).

The most common form is the farmers' self-help association. In this network there are 2 150 units with more than 4 million members[24].

The supreme co-operative council is the highest authority. It represents the co-operative movement both at home and abroad; it grants assistance to the various co-operatives and regulates their contacts with co-operative bodies in other countries, it issues directives in connection with socio-educational activities, protects the co-operative democracy and has the right of inspection.

There is also a co-operative research institute and in 1968 there were 9 central co-operative research institutes and in 1968 there were 9 central co-operative unions with affiliated co-operative groups functioning in both urban and rural areas.

The co-operatives functioning in rural areas are affiliated to the central agricultural union of the farmers' self-help associations and to the central dairy co-operatives, savings and credit co-operatives and general farming co-operatives[25]

19. Mezogazdasagi Statisztikai Zsebkonyv. KHS, Budapest, 1973, p. 14.
20. *Ibid.*, p. 15.
21. Gouth, E., Lelkes, B. Uzemszervezesi tapasztalatok hat allami gazdasagban. Akademia, Budapest, 1965, p. 7.
22. *Ibid.*, p. 8.
23. Papai, M. A lenini szoverkezeti terv megvalosulasa az Europai Szocialista Orszagokban. Az Agrartudomanyi Egyetem Kozlemenye, Vol. 1, Budapest, 1971, p. 62.
24. *Ibid.*, p. 63.
25. Year Book of Agricultural Co-operation, 1969, *op. cit.*, p. 148.

RUMANIA

The co-operative movement in Rumanian agriculture has developed strongly in the last quarter of a century. The agricultural reform which led to the amalgamation of individual small farms into large-scale collective and state agricultural enterprises began in 1945.

Today the agricultural co-operatives and their unions are managed according to rules formulated during the first productive agricultural co-operative congress of 1966[26]. The rules laid down the main objectives of joint cultivation of land, large-scale use of machinery, chemicals and irrigation and the use of advanced scientific techniques to achieve the highest possible productivity and a permanent improvement in the standard of living of the farmers. The activities of the co-operatives rest on a collective basis, the income is in direct relationship to the quality and quantity of the work done and the value of the product produced.

Members of collective enterprises are entitled to private domestic farm units up to a maximum size of 3 acres. The personal property of the members consists of their houses, outbuildings, the land on which the houses stand, domestic livestock, agricultural implements, income and savings derived from remuneration for their collective work and produce from domestic farm units. The members have full rights to this personal property.

The main executive body is the general assembly, which has the sole right to take decisions on general economic policy, financing and organisation. The general assembly consists of all members and meets when circumstances require, but not less than once a quarter.

In 1966 the agricultural productive co-operative unions were formed. In terms of the rules, the unions are social and economic organisations with the following functions[27]: Guidance to the agricultural collective associations on economic, social and cultural matters; co-ordination of the pursuit of a continued increase in productivity; the provision of means of production and equipment; the organisation of the marketing of agricultural produce through market research and negotiation of contracts with the government and other organisations; extension; and representation of the collective farms to state and public bodies. The collectivisation of agriculture was completed in 1962 and as their functions indicate, the unions play a mainly co-ordinating role.

YUGOSLAVIA

After World War II the Yugoslav government began a far-reaching land tenure reform programme.

The size of private farms was limited to between 35 and 45 hectares. Prices for most agricultural produce were fixed and a strongly progressive system of taxation was put into operation. At the same time a distinctly socialistic agricultural sector of collective and state farms was created[28].

In 1953 a radical change in the general policy resulted in farmers getting the opportunity, if they so chose, to leave the collective farms. Free purchases and sales of land were reintroduced.

However, in a second land tenure reform the maximum size of private farms was reduced to 10 ha.

The number of collective farms dropped from about 7 000 in 1952 to 200 in 1960, but thereafter rose again to 2 080 in 1965 with a membership of 1 500 000 and 119 000 appointees. The number of individual farms which had some form of connection with the collective farms was 109 300 during the same period[29].

Prices were allowed to take their natural course on the market and began to rise. Farmers increased production for the market to 30 per cent of the total production (including industrial crops). The wholesale of agricultural produce was undertaken by 840 purchasing and export enterprises, 280 co-operative federations and 20 commission agencies — all belonging to the socialist sector.

With the decrease in the number of collective enterprises the general purpose associations came into being to carry out the function of organising and co-ordinating the activities of the more than 2 million small farms (nearly 40 per cent of them smaller than 5 ha). In 1953 there were more than 7 000 such associations.

By the end of the decade this number had dropped to about 4 800, but their activities in connection with marketing, processing and organisation of products had increased.

The general purpose associations have the following main characteristics[30]:

1. They are obliged by law to build up production funds before any surplus is paid out to the members;
2. they form an integral part of the planned economy;
3. They can establish autonomous enterprises (managed by the workers); and
4. One of their aims is to promote the general principle of "one town one cooperative".

Within the general framework of Yugoslav agricultural policy, the general purpose associations have an important task in the development of so-called socialist co-operation or production collaboration. This means that the associations strive to increase their control over the farming community by spontaneous rather than compulsory methods (aid associations, investment, contracts, etc.).

During the early sixties the associations had contractual ties with 81 500 individual farmers[31].

Until 1954 the agricultural co-operatives were managed by Soviet-type traditional organs: general assembly, board of managers and various committees, and appointees had no right to participation in the managerial activities.

26. Csikos, B. A Roman Mezogazdasagrol Gazdalkodas, Vol. XVI, No. 5, Budapest, 1972, p. 19.
27. The Co-operative Movement in Rumania, in Digby, M. (Ed.) Year Book of Agricultural Co-operation, 1969, *op. cit.*, p. 158.
28. Bicanio, R. Die Jugoslawische Agrarpolitik in den Jahren 1953-1959. Zeitschrift für das gesamte genessenschaftwesen Bd. 11, Göttingen, 1961, p. 3.
29. Ilyin, M. Co-operation in the countryside Beograd, 1965, p. 12.
30. Az Agrartudomanyi egyetem kozlemenyei 1, *op. cit.*, p. 65.
31. Az Agrartudomanyi egyetem kozlemenyei 1, *op. cit.*, p. 65.

Since then the situation has changed; large-scale decentralisation has taken place and at the same time all persons in the permanent labour force have received the right to membership.

The general assembly of the general purpose associations is open to both members and non-members.

The most important functions of the general purpose associations are:

1. The provision of consumer goods.
2. Agricultural marketing:
   (i) Purchases of products for resale at competitive prices;
   (ii) extension in relation to market conditions;
   (iii) contract marketing.
3. Provision of credit.
4. Mechanisation.
5. Organisation of small farmer production:
   (i) The association offers requirements and machinery for cash or credit until the harvest (cost price plus a small margin);
   (ii) the individual farmer enters into contracts for the provision of specific products at fixed prices;
   (iii) the farmers undertake to follow the pattern of collective production on their own lands;
   (iv) the farmers lease their land to the association and receive rent or part of the yield;
   (v) collaboration in respect of stock breeding is usual for stud breeding or fattening and livestock research;
   (vi) horticultural co-operation includes the collective establishment of orchards and vineyards for which the association provides the planting material, fertiliser, etc.

The extent of co-operative collaboration is far less in Yugoslavia than in the other socialist countries (with the exception of Poland).

The process of collectivisation was in this case also motivated by the well-known Communist view that the individual farming system was not and would not become really successful and that large-scale fully mechanised collective and state enterprises would become the factories of the rural areas and free labour for industry[32].

The farmers were to some extent subjected to indirect pressure to form collectives (compulsory supply to the government, heavy taxes, etc.).

The vast majority of state farms were created from big farm enterprises which were never in private ownership (for example, land which belonged to the Dual Monarchy of Austria-Hungary before 1918), but some big private farms were taken into state ownership.

The socialist agricultural sector even today does not play such a central part in Yugoslav agriculture as was intended. Poland and Yugoslavia are the two European socialist countries in which private agriculture still plays a dominant role[33].

32. Digby, M. Agricultural co-operation in Yugoslavia. In: Year Book of Agricultural Co-operation 1967, B. Blackwell, Oxford, 1967, p. 163.
33. Az Agrartudomanyi egyetem kozlemenyei I, *op. cit.*, p. 64.

GENERAL DISCUSSION

Table 1 shows the distribution of agricultural land according to type of tenure in Russia and the other seven socialist countries under discussion. It is apparent that the transformation from private farming to large-scale state and collective enterprises was virtually completed by 1960 in most socialist countries in Eastern Europe. (In the Soviet Union the process was completed in the mid-thirties.)

Yugoslavia and Poland — as already mentioned — are interesting exceptions. Whereas in the other countries collective and State farms together accounted for 79 per cent or more of the total area of agricultural land by 1968, the corresponding figures in Yugoslavia and Poland were 14,5 per cent and 15,0 per cent, respectively. In Yugoslavia collectivisation was strongest in 1951 when 22 per cent of the agricultural land belonged to the socialist sector and in Poland in 1955 with 23 per cent of the agricultural land in the socialist sector[34].

The mass collectivisation was put into practice in the Soviet Union by administrative regulations (therefore also force) together with large-scale propaganda. By such measures the number of collective farms was doubled between June 1928 and October 1929 — mainly as a result of an intensified campaign against the kulaks (middle-class farmers). The percentage of collectivised farms doubled again in the last quarter of 1929 when it reached the 5 million mark. In 1930 59,3 per cent of all farms were collectivised (about 15 million ha)[35].

The resistance that the unorganised Russian farmers were able to offer to collectivisation was largely desperate and consisted in the extermination of livestock, destruction of produce, etc.[36].

However, the collectivisation progressed and the number of collectivised farms increased from 400 000 in 1928 to 14,7 million in 1932; 18,1 million in 1937 and 18,7 million in 1940[37]. The share of individual farms dropped from 96 per cent in 1928 to less than 10 per cent in 1940[38].

The Soviet pattern of collectivisation was followed in the other socialist countries with the exception of Poland and to some extent Yugoslavia. In all these cases, however, considerably less force was used.

An interesting development in socialist agriculture is the growth of domestic farm units cultivated for private gain by collective farmers and also non-agricultural workers. These auxiliary farm enterprises in some countries now account for more than 10 per cent of the cultivated land[39].

The individual farm enterprises (private farms and domestic farm units of collective enterprise members) are particularly successful. In the Soviet

34. Struzek, B. Rolnictwo europejskich krajow socjalistycznych. I.S.W. Warschau, 1963, p. 125.
35. Lewin, M. Russian Peasants and Soviet Power (English translation), 1968, p. 119.
36. Strauss, E. Soviet Agriculture in Perspective. G. Allen and Unwin Ltd., London, 1969, p. 99.
37. Selkhoz, *op. cit.*, p. 56.
38. *Ibid.*, p. 160.
39. Wilczynski, J. Socialist Economic Development and Reforms, *op. cit.*, p. 203.

TABLE 1 — Percentage distribution of agricultural land by type of tenure (1950, 1960 and 1968)

Country	Year	State farms	Collective	Private farms	Domestic farm units
USSR	1950	16,9	80,7	0,5	1,7
	1960	42,2	56,4	—	—
	1968	58,4	40,2	—	1,4
Bulgaria	1950	n.a.	42,7*	n.a.	3,9*
	1960	10,9	79,9	1,1	8,1
	1968	17,8	69,0	0,6	12,6
Czechoslovakia	1950	13,0	14,4	69,2	1,0
	1960	20,3	63,1	11,7	4,8
	1968	28,5	60,5	6,9	4,1
Eastern Germany	1950	5,7	—	94,3	—
	1960	8,0	73,2	7,6	11,2
	1968	6,9	86,1	5,9	1,1
Hungary	1950	13,5	3,6	82,5	0,2
	1960	19,3	48,6	24,6	7,5
	1968	15,5	64,1	10,6	9,8
Poland	1950	9,6	0,8	89,6	—
	1960	11,8	1,1	86,9	0,2
	1968	13,9	1,1	85,0	—
Rumania	1950	21,5	1,9	76,4	0,2
	1960	29,4	50,2	18,1	2,3
	1968	30,0	54,1	9,4	5,6
Yugoslavia	1950	22		78	
	1960	14		86	
	1968	14,5		85,5	

n.a. = not available
* In 1955
Sources: Wilczynski, J. Socialist Economic Development and Reforms. MacMillan, London, 1972, p. 204.
Nemezelkozi Statistikai evkonyv. KHS, Budapest, 1970, p. 176.

Union, where individual farm enterprises utilise less than 2 per cent of the agricultural land, they contribute about 20 per cent of the total agricultural production[40].

Individual farm enterprises provide 60 per cent of the total agricultural production in Hungary (where they occupy about 20 per cent of the area) and more than 90 per cent in both Poland and Yugoslavia[41 42].

In 1962 the private agricultural sector in the Soviet Union was credited with 33,1 per cent of the gross agricultural production, but with only 16 per cent of the market production and similarly vegetables 22,9 and 11 per cent and livestock products 44,9 and 21 per cent[43 44].

Of the farm produce from domestic units, personal consumption accounts for more than 60 per cent of the potatoes, 53 per cent of the eggs, 43 per cent of the watermelons and sweet melons and 35 per cent of the fruit[45].

The production figures, however, cannot be used directly in this form to indicate differences in efficiency between the private and socialist agricultural sectors. Input-input relationships differ considerably between the private and socialist agricultural sectors in the sense that individual farms and domestic units function on relatively small pieces of land and, in particular, receive a greater application of labour per unit of area than is the case in the socialist sector.

Nimitz[46] says that in 1963 private agriculture consumed 42,1 per cent of the total labour inputs in the Soviet Union's agriculture and that the labour productivity in the private sector contributed only 71 per cent of that in the socialist sector.

This estimate is based purely on the relative share of the socialist and private sectors in the gross agricultural production and is not sufficiently detailed to serve as a basis for reliable conclusions on relative efficiencies.

The numbers of privately owned livestock have also increased sharply in recent years. In 1969 they were as follows in the various countries[47]: Czechoslovakia 20 per cent, Soviet Union 29 per cent,

40. *Ibid.*, p. 203.
41. Pohorille (Ed.). Ekonomica polityszna socjalizmu Warsawa, 1968, p. 737.
42. Actasoeconomica, Vol. 2, No. 4, 1968, p. 349.
43. Lemeneshev (Ed.). Ekonomicheskoie obosnovanie struktury, selskokhoziaistvenno proizvodstva, Moscow, 1965, p. 163.
44. Narodnoie khoziastvo SSSR 1962 godu. Moscow, 1962, p. 232.
45. Abriutina, M.S. Sel-khoz v Sisteme balansa nar. — Khoziaistva. Moscow, 1965.
46. Nimitz, N. Farm employment in the Soviet Union, 1928-63; in Karcz (Ed.). Soviet and East European Agriculture. Praeger, New York, 1967, p. 178.
47. Gospodariska Planova 6/1969, p. 26.

Eastern Germany 39 per cent, Bulgaria 45 per cent, Rumania 50 per cent, Hungary 51 per cent, Poland and Yugoslavia 85 per cent. On the other hand, state and collective farms restrict their activities mainly to grains, industrial crops and pastoral activities that are characteristic of extensive farm enterprises. Private farms and domestic farm units therefore play an important part in the intensification of agriculture and the intensive economic growth in general[48].

As already mentioned, statistical information is not available in sufficient detail for a proper comparison of the domestic units with collective and state enterprises. In addition, it must be noted that production on these domestic units is based on a strong personal profit motive, whereas the philosophy is the case of the state and collective enterprises is concerned largely with the promotion of national welfare. Furthermore, production on the domestic units, as is evident from the figures given, is aimed to a considerable degree at personal need satisfaction (replacement of food purchases) and it is concentrated on farming activities which can produce the highest profits on small pieces of land. The size of the domestic units is so small that these targets can be achieved with part-time management by persons obtaining their main income from another source — in this case, employment by the socialist unit. The existence of these domestic units can also be regarded as an important part of the attraction for the individual to offer his services to the state or collective enterprise. It is also logical to accept that the technology that brings high yields on domestic units rests largely on skills acquired in the service on the larger units. Logically, therefore, the two types of components cannot realistically be considered entirely separately. They are complementary or supplementary, with only a limited degree of mutual competition.

An important factor is motivation. The private profit motive is and remains an important motivation to development in any population whose outlook has become to a large extent commercialised.

It may therefore be deduced that private farming in the socialist countries has reached a level of efficiency which can at least be compared with that in the socialist sector; such comparisons are statistically and logically difficult to make. As will be evident in a subsequest article, the existence of two sectors, which may be organisationally linked, is an aspect which may be of particular importance in agricultural development in less developed areas.

48. Wilczynski, J. Socialist Economic Development and Reforms, *op. cit.*, p. 205.