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Articles in the field of agricultural economics, suitable for publication in the journal, will be welcomed.

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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SOCIALIST ENTERPRISE FORMS IN AGRICULTURE, I: THE SOVIET UNION*

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INTRODUCTION

In many parts of the world, particularly in the less developed countries, an effort is being made to speed up economic development in various sections, including the agricultural sector. In such planning the capitalist system is sometimes relied on and sometimes socialist systems are copied.

Both systems have certain inherent advantages and disadvantages. In South Africa there is fairly little systematised knowledge of enterprise forms in agriculture in the socialist world. It is therefore desirable to describe these systems.

This is the first in a series of articles on socialist enterprise forms in agriculture and eventually on their potential relevance to agriculture in Africa.

TYPES OF SOCIALIST OWNERSHIP IN THE SOVIET UNION

In the Soviet Union an attempt is being made to base the economic system on a socialist order and on socialist ownership of labour and means of production. This order is aimed at liquidating the capitalist system, ending private ownership of means of production, including land, and, in accordance with the Communist ideology, ending exploitation of people by other people¹. In agriculture, as in other sectors, the aim is to achieve a high degree of efficiency through large-scale production.

Two forms of socialist ownership have come into being, namely, state ownership — ownership by the whole community — and co-operative ownership, in which the right of ownership is granted to a certain group. This has given rise to two main types of

agricultural enterprise: State farms (sovkhozy and machine and tractor stations²) and collective farms (kolkhozy).

These two forms of socialist agricultural enterprise have certain characteristics in common:

- (a) They are created and function according to the principles of the socialist state: land belongs to the whole community and not to a few individuals or undertakings.
- (b) Every kolkhoz, machine and tractor station and sovkhoz is an independent production unit, but forms an integral part of the whole economy which is controlled by central planning.
- (c) The main objectives of the production of any socialist enterprise are the growth of the national economy, gradual and constant improvements in standards of living and increased power of resistance against hostile countries.
- (d) Every socialist agricultural enterprise produces according to the socialist labour approach with the stated aim of making exploitation of people by people impossible.
- (e) The socialist philosophy lays down the following as the basis for remuneration: everyone must produce to the best of his ability and must be remunerated according to his labour productivity.

Apart from these important common characteristics, there are also differences between the various types of socialist agricultural enterprise:

- (a) In the state enterprises (sovkhozy and machine and tractor stations) all possessions are the property of the state. In the kolkhozy the land also belongs to the state, but it is granted permanently for use by the kolkhozy; the other possessions

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

1. A Scovjetunio alkotmánya. 1 Fejezet. 4 paragrafus. Kivonat, Moscow, 1947, p. 7.

2. The machine and tractor stations were done away with in 1958; their staff were incorporated in the kolkhozy, where machine and repair stations were erected.

belong to the undertaking itself (buildings, livestock, machinery, seed, feed, etc.).

- (b) The state has full right of disposal over all the produce of the state enterprises. Collective enterprises have the right of disposal over their produce and deal with them freely after obligations to the state have been met.
- (c) The production plans of the state enterprises are drawn up by state bodies. The state arranges the basis of production, labour force, etc. The production plans of kolkhozy are drawn up by means of share plans which include obligations to the government. The state helps the kolkhozy to meet the obligations through the facilities of the machine and tractor stations, the granting of credit and training courses.
- (d) In the sovkhozy the work is done by state workers. Their wages and salaries are determined by their qualitative and quantitative performance and paid from state funds. In the kolkhozy the work is done by the members. Every member takes part in productive activities and is taken into consideration in the division of proceeds. The work inputs of the individual members are measured by means of work units which reflect the quality as well as the quantity of the work done. Members of the kolkhozy also have their own domestic farm units.

The work done with the help of the machine and tractor stations is done jointly by the state workers and kolkhoz members.

- (e) The fixed capital goods consumed in the state undertakings are covered by the state depreciation fund. The state has the sole right over the application of profits. The state makes available to every sovkhoz and machine and tractor station material assets for production and expansion activities. The labour force is also controlled by the state; numbers can be reduced or increased.

In the kolkhozy the fixed capital goods consumed are covered by the indivisible fund. This fund is made up of the total revenues of the kolkhoz after deduction of expenses, but before the earnings are divided among the members. From this indivisible fund provision is also made for the financing of maintenance.

- (f) The management system of the state enterprises rests on the responsibility of individual management. Each enterprise has a manager, appointed by the state, who is responsible to the state administrative body directly above him. The management of the enterprise has powerful authority over the managers of the various branches. The individual management is closely bound up with the social interests of the community³.

In the kolkhozy, on the other hand, the management activities rest with the members. The kolkhoz democracy combines state and individual interests. The main executive organ in the management of a kolkhoz is the general assembly of members. The head of the kolkhoz is a president elected for a period of three years by the general assembly of members.

The above differences between the kolkhozy, machine and tractor stations and sovkhozy have a number of implications in practice.

2.1 The sovkhozy

The sovkhozy are large-scale state undertakings in which the land and the other production factors belong to the state (directly or indirectly).

The state is the sole owner of the total yield of the sovkhoz and the work is done by state workers. They receive salaries for the work done. In this respect the sovkhozy do not differ in any way from state industrial undertakings.

After the great socialist October revolution the greater part of the land belonging to the landowners, more than 150 million ha, was divided up among the small farmers; the state took about 3 million ha and began to organise the sovkhozy.

On 14 February 1919 the Central Committee of the Communist Party passed legislation providing for the change-over to socialist land utilisation. This legislation laid the foundation for the creation of the sovkhozy. From the beginning two main objectives were set for the sovkhozy:

- (1) To provide the Soviet State with the greatest possible quantity and best quality of agricultural products; and
- (2) to set examples to the vast number of small farmers through large-scale socialist production methods of a high standard and, at the same time, to help them with their own production activities.

In the Soviet Union 4 316 sovkhozy had come into existence by 1922, covering a total area of 3 312 000 ha. The sovkhozy, according to Russian writers, successfully pursued their main objectives during the period of reconstruction in the Soviet Union. In spite of the civil war, the economic chaos and the shortage of production factors, the Soviet sovkhozy year after year grew stronger, produced more efficiently and were a great help to small farmers. For example, they saw to the building up of livestock service and lending stations, sold stud animals, seed and planting material to help the small farm enterprises, and provided various forms of agrarian propaganda and extension services.

In 1928 the Supreme Soviet sought ways of increasing grain production. As one efficient method,

3. Lenin Muvei. Vol. 12, Szikra, Budapest, 1947, p. 23.

it was decided to use as far as possible unutilised or virgin land for grain production.

In these areas they built large-scale grain sovkhozy equipped in accordance with the most modern techniques. Crawler tractors and automatic combines were used for the first time on sovkhozy during that period. In 1930 the expansion of livestock production began. Big sovkhozy specialising in stock breeding came into existence. Other types of specialised sovkhozy were also built up for the production of industrial crops, fruit and vegetables.

The sovkhozy, as the prototypes of the large-scale socialist state agricultural undertakings, played an important part in the collectivisation of Soviet agriculture. Experience gained through the sovkhozy also helped in the organisation of the kolkhozy.

According to Stalin⁴ the sovkhozy gave the small farmers the opportunity to realise the power and advantages of new technology and large-scale production. Most Soviet economists regard the role played by the sovkhozy as vital to the development of agriculture.

Western observers, however, emphasise that after the 1917 revolution there was a drastic decrease in per capita food supplies. The 1913 level of food consumption was exceeded only in the late fifties⁵.

This can probably be attributed to a variety of reasons. It is likely that an important reason is that before 1917 knowledge of modern agricultural production techniques and management was concentrated largely in the then existing big landowner class. Its disappearance inevitably resulted in less knowledge being available in the agricultural sector, at least for a certain period, and production had to suffer for it. In addition, the Soviet Union strove unceasingly from its inception to stimulate industrial growth. Naturally a larger part of the brainpower had to be recruited for this purpose than was previously the case. An inevitable result was that less new knowledge was channelled into agriculture. Shortages of capital and the policy in the early Soviet period of making little capital available to agriculture were certainly important contributor factors. It is also open to doubt whether, from the point of view of motivation, the newly established objectives of agricultural production could be an effective substitute for the profit motive.

To these factors may be added problems unique to the organisation of large agricultural enterprises — whether capitalist or socialist.

2.2 The kolkhozy

The kolkhozy is a collective agricultural enterprise which produces on state land. The buildings, implements, livestock, stocks, etc., belong to the kolkhoz. The machinery of the machine and tractor stations is made available to kolkhozy.

In the course of time three forms of kolkhoz emerged:

- (1) The association for the joint cultivation of land (toz)⁶
- (2) The agricultural artel
- (3) The agricultural commune

2.2.1 The association for the joint cultivation of the land (toz)

This association is the simplest form of collective farm enterprise in which only labour and land are handled collectively. The main production agents of the toz remain in individual ownership and only those purchased by the group become collective property. The toz carries out its work by using jointly all the available resources (draught animals, machinery, etc.).

In the toz the division of proceeds is made in accordance with both quantitative and qualitative yardsticks and the private possessions of members — which are put at the disposal of the whole toz — are also taken into account.

2.2.2 The agricultural artel

The agricultural artel was the basic form which the kolkhoz took during the period of kolkhoz establishment.

According to Stalin,⁷ the agricultural artel united the farmers' individual interests with the community interest and so facilitated the adjustment of the individual farmers to the collective organisations.

In the agricultural artel — in contrast with the toz — all production agents are jointly owned.

Each member of an artel is obliged to take part in production through his work and he must perform a set minimum number of work units. The division of proceeds is made strictly according to labour achievement. Within the agricultural artel each member, according to the constitution of the Soviet Union, in addition to the main income he obtains from the activities of the kolkhoz, may have a supplementary source of income in the form of a small piece of land on which he can farm as an individual, with a house, livestock, agricultural equipment, etc.⁸.

4. Stalin, J.V. *A Szovjetunio Agrárpolitikája*. Szikra, Budapest, 1949, p. 352.

5. Clark, C., Haswell, M. *The economics of subsistence agriculture*. Fourth Edition, MacMillan St. Martin's Press, London, 1970, p. 89-91.

6. Abbreviation of the Russian expression: *Trudovoje Obscestvo Zemljegelcev*.

7. Stalin, J.v. *A Leninizmus kerdesei*. Szikra, Budapest, 1948, p. 492.

8. *A Szovjetunio Alkotmánya*. Kivonat, Moscow, 1947, p. 10.

2.2.3 The agricultural commune

This is the most advanced form of collective farm enterprise; all the production agents are in communal ownership.

In the Soviet Union the communes which were established between 1918 and 1930 nationalised all the production agents and no land or other resource was made available for personal gain. The division of proceeds was in accordance with the principle of equality. Individual achievements by members therefore played no part.

Stalin analysed the working of communes and emphasised that their origin was due to the low level of technology and shortage of products⁹.

The commune was a too idealised form of collectivism, whereas the *toz* was seen as an obstacle in the way of further socialisation because production agents were not entirely nationalised.

The share of the communes and the *toz* movement dropped from 6,2% and 60,2% in 1929 to 2,1% and 2,8% in 1933, respectively¹⁰.

In 1939, during the thirteenth congress of the S.C.P., Molotov stated that in the third five-year plan the *artel* would remain the basis of *kolkhoz* creation¹¹.

Russian authors consider that the success achieved in World War II was due largely to the success of the *kolkhozy*, in that during the time of that war no serious food or industrial raw material shortages arose¹².

In the first five-year plan after World War II (1946-1950) further objectives were formulated, namely, continuing increases in productivity, further expansion of other enterprises, strict maintenance of the *kolkhoz* democracy and generally strict application of the rules of the *artel*.

The eight fundamental chapters of the rules of the agricultural *artel* are briefly as follows:¹³

- (1) As regards the objectives and duties of the agricultural *artel*, it is emphasised that farmers became members of the agricultural *artel* voluntarily in order to help build up the socialist system in agriculture by means of communal production agents and with collective organisation of the work. The members of the *artel* take an oath that they will honestly work according to their ability, divide the returns of the *artel* according to work done, protect or maintain the communal ownership and fulfil obligations to the state.

- (2) Roads between the land of the individual *artel* members must be removed immediately after the establishment of the *kolkhoz* in order to create one large area of land which is taken into collective possession by the *artel*. The land is handed over to the *artel* by the local government authorities for the permanent use of the *artel*. This "transaction" is confirmed by an official document. From this communal land each member is granted a piece of land (usually $\frac{1}{4}$ to $\frac{1}{2}$ ha) for domestic use.

- (3) Members' production agents are taken into communal ownership. The homes, buildings for personal livestock and small agricultural implements for the cultivation of the domestic subsidiary farm enterprises, however, remain individual property.

- (4) The fourth chapter of the rules deals with the functioning and management of the *artel*. The need for rational management is strongly emphasised. The national plan lays down the line of production for each socialist farm enterprise. The main responsibilities of the management are the fulfilment of the requirements laid down in the national plan. The management must strive for ever-increasing yields. The *kolkhozy* are therefore obliged to draw up optimal plans for crop rotation and to apply modern agricultural techniques. The management of the *kolkhoz* must ensure that in times of labour surpluses the labour force is set to the cultivation of virgin land in order to increase the cultivable area of land of the *kolkhozy*. The state subsidises such work by granting exemption from tax obligations in the first few years. The management of a *kolkhoz* must also ensure the good maintenance and full utilisation of the production agents. There is a constant effort to increase the level of training of workers. Depending upon specific circumstances, courses are organised for such workers as tractor, combine and truck drivers and there are also management courses for the various enterprises. Attention is also devoted to cultural and political development; recreation areas, libraries, etc., are laid out or erected.

- (5) The rules regarding membership stipulate that any man or woman over the age of 16 may be a member of an *artel*. The acceptance of new members is proposed by the management and authorised by the assembly of the members. The expulsion of members is carried out by the assembly and at least two-thirds of the total number of members must be present. Expulsion normally takes place if a member repeatedly neglects to fulfil his obligations. The expelled person may appeal against his expulsion to the local state authorities. A committee of the relevant state body then gives the final decision in

9. Stalin, J.V. *A Leninizmus kerdesei*, *op cit.*, p. 439.

10. Piatiletri Plan L. Moscow, 1939, p. 90.

11. Kocsis, I. *A Szovjetunio kommunista partjanak tortenete*. Szikra, Budapest, 1949, p. 241.

12. Zalcman e.a. *Szocialista mezogazdasag*. Moscow, 1947, p. 124.

13. *A mezogazdasagi artel alapszabalyai*. Szikra, Budapest, 1950, p. 27-48.

the presence of the appellant and the president of the artel concerned.

- (6) Chapter 6 of the rules deals with financial contributions by the members on joining and with indivisible assets.

When an artel is formed each member has to pay a membership fee of 20 to 40 rubles. These amounts are added to the indivisible assets. The assets of members — which come into communal ownership (livestock, machinery, buildings, etc.) — are valued and, depending on the strength and potential of the artel, $\frac{1}{4}$ to $\frac{1}{2}$ share of these assets is added to the indivisible assets and the remaining share is taken as a credit for the member. If a member resigns from the artel this credit can be claimed in cash. Such a person is compensated for his land by the artel with land falling outside the artel because, according to the rules, the artel's area of land may not under any circumstances be reduced. The indivisible assets, as the name indicates, may never be paid back or divided.

The indivisible assets form the basis of the increasing replication of the kolkhoz and according to the rules they must be supplemented annually after the determination of economic results. The main objective in holding indivisible assets is firstly, security and secondly, the expansion of production potential.

- (7) The seventh chapter of the rules concerns labour organisation, remuneration of labour and labour discipline. All the work of an artel is done by the members themselves. The management divides the labour force into work teams headed by team leaders. Because the teams are organised for fairly long periods, there are opportunities for better utilisation of knowledge of the subject and private initiative; at the same time opportunities are created for competition between the teams. The team's plan of operations sets out work processes in a strict sequence and stipulates the prescribed minimum number of work units for the members of a team. Provision is also made for team and individual incentives. At the end of the year each member of a team that has achieved an increase in production has 10 per cent added to his work units; the best members within a team with the

best performance as regards work units, 15 per cent and the leader of the team 20 per cent — calculated on the total number of work units performed.

The rules also make provision for a 10 per cent reduction in the total number of work units in the case of a team which has not met the minimum requirements. These incentives and penalties strengthen discipline and make for keener personal interest in collective production.

- (8) The managerial processes of the artel are briefly as follows:

The general assembly is the executive organ. The assembly chooses a management, a president and various committees.

The leadership of the kolkhoz is therefore in the hands of the management, which in turn is chosen from among the members of the kolkhoz and is responsible to the members (assembly).

2.3 Machine and tractor stations (MTS)

The MTSs are state undertakings established with the specific object of serving the kolkhozy. They do not produce for their own gain, but help the kolkhozy on a contract basis to carry out their operations. They are mainly modern large-scale state undertakings. The basis of the operational relationship between the MTSs and the kolkhozy is the contract scheme approved by the Supreme Soviet on 13 January 1939. The contract entered into by the MTSs and the kolkhozy is legally binding. Strict compliance with the provisions of the contract is the duty of the MTSs and the kolkhozy concerned¹⁴.

The MTSs receive remuneration in kind for the work done, depending on yields. The basic motive for this system of remuneration is that the MTSs should have a direct interest in the pursuit of efficient production.

CONCLUSION

In the development of socialist agriculture in the Soviet Union two main types of enterprise have come into being, namely, state enterprises and collective enterprises. The two forms are still in existence. In subsequent articles more detail will be given of their organisation, their structure and their achievements.

14. Zalcman, A.M. *Uzemszervezes*. Athenaum, Budapest, 1950, p. 51.