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# Problems of Agricultural Restructuring in South Africa: Lessons from the Hungarian Experience

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**Abstract:** In the wake of current moves to dismantle apartheid in South Africa, the agricultural sector is seeking ways of restructuring its dualistic nature. Restructuring may affect both equity and productivity. Hungarian and other experiences can provide useful guidelines. Hungary's restructuring has virtually come full circle from individual units to collectivization to individualization. Individual units have performed better than collective units. In its restructuring, South Africa must avoid the mistakes of others, striking a balance between equity and productivity.

## Introduction

South African agriculture is on the eve of serious restructuring, which will, as elsewhere, be part of wider-ranging political and socioeconomic restructuring. Wisdom dictates that it is essential to benefit from the experience of others to forestall costly errors and unnecessary hardship.

Agricultural restructuring has traditionally had two main objectives: equity and productivity. The equity objective, which is closely allied to political egalitarian objectives, has for a long time often occupied centre stage. Egalitarian motives were often regarded as so important that any resulting disruption of agricultural production could be ignored. Examples include post-revolutionary restructuring in the USA, Western European reforms after the French Revolution, Eastern European restructuring after World War I, Latin American reforms after 1910, and Japanese, Korean, and Taiwanese reforms after World War II (Ruttan, 1969).

Some other conditions clearly also cause the productivity objective to be vitally important. They include high rural population/land ratios, high rural/urban population ratios, and a high degree of dependence on agricultural exports, all of which certainly apply to South Africa.

Equity and productivity can be but are not necessarily conflicting objectives. Warriner (1964) compared Bulgaria, which restructured agriculture in the early twentieth century, with Hungary, which had not done so before 1940. By 1940, Bulgarian farmers' living standards were much more equitable but, on the average, hardly better than at the turn of the century. The Hungarian distribution was more unequal, and the peasants were poorer than the average Bulgarian farmer. But Hungarian productivity had improved much more and landowners had invested in industrial development, which drew some poor peasants off the land to other occupations.

If a process of restructuring will improve equity and simultaneously induce incentives to produce more efficiently and effectively, then both the equity and productivity goals will be served. Such restructuring must be accompanied by other needed agricultural support activities.

The concept of a break with the past can be a powerful political incentive for a nation. But "... in agriculture there can be no break with the past. Continuity is the essence of its growth. For the world's agricultural countries, the maintenance and increase of agricultural production are now quite literally a matter of life and death. If governments and people wish to break with the past, they must find ways of doing so which will increase the incentives to produce more and to invest more in the land" (Warriner, 1964).

## The South African Agricultural Scene

European colonization of South Africa started in the 17th century when the Dutch East India Company established a settlement in the South (Cape Province) with the aim of supplying fresh products for seafarers sailing between Europe and Asia. This settlement

became a colony, which expanded and was later annexed by Britain. In the 19th century, some settlers who were dissatisfied with the colonial rulers trekked northward, established independent republics, but lost this independence following the Boer War. The Union of South Africa was formed in 1910, gained independence in 1932, and became a republic in 1960.

Over almost three and a half centuries, the European settlers expanded their land area, often at the expense of the indigenous African population who were ill-equipped militarily to check this expansion. This part of South African history has marked similarities with that of some other countries settled by Europeans since the seventeenth century. By the end of the nineteenth century, European farmers had occupied most of the land and Africans had largely retreated to areas today known as reserves, locations, or "homelands." Some took employment on farms operated by European farmers, mostly because of two factors: impoverishment after inter-tribal and inter-racial wars and overpopulation of people and animals in the reserves, resulting in further poverty and the increased attractiveness of selling their labour to European farmers (Grosskopf, 1933).

Rapid mining development following the discovery of diamonds (1866) and gold (1885) led to commercialization and development of agriculture among European farmers, but not in the reserves, which were geographically removed from the new markets and railways. In addition, and more important in the long run, a series of acts were passed which severely restricted African farmers' ability to compete. The Glen Grey Act of 1894, for example, enforced the "one person, one plot" (approximately 4 ha) principle in eastern Cape Province. More legislation and other measures either discriminated against indigenous land ownership or favoured the mainly European commercial farmers with respect to infrastructure. Some other measures entrenched outmoded tenure systems in the reserves (Louw and Kendall, 1986; Davenport, 1990; Leseme *et al.*, 1980; and Kassier and Groenewald, 1990).

Historical developments gave rise to a distinct dualistic agricultural structure comprising a commercial sector (mainly European farmers) and a subsistence sector (mainly African farmers in the reserves). The commercial sector comprises some 65,000 farmers and a total land area of approximately 86 Mha, employing 1.37 million workers. It is somewhat similar to the farming sectors of the developed world; it produces surpluses and uses considerable amounts of purchased inputs. It also shares many problems of First-World agriculture. To these are added problems induced by inflation at higher rates than those encountered by most competitors and trading partners. Owner-operated farms predominate and are well supported by infrastructure.

The subsistence sector is rather similar to the agricultural sectors in less-developed countries of Africa and shares most of their problems. While the two sectors involve roughly the same number of people, the commercial sector occupies roughly 6 times as much land as the subsistence sector and produces more than 20 times its output per capita (Cobbett, 1987). Differences in output per person and per acre have been growing consistently and have been caused largely by differences in technology, capital, marketing infrastructure, and public and private support institutions (e.g., credit, research, and extension).

Commercial agriculture is facing many problems. Double-digit inflation has caused input prices to outstrip output prices. The resultant continuous decrease in its terms of trade has eroded its competitiveness on export markets, led to large increases in indebtedness (13.4 percent per year), and caused many insolvencies. Managerial problems and drought aggravated this situation (van Zyl *et al.*, 1987; and Janse van Rensburg and Groenewald, 1987).

At the same time, the subsistence sector, being largely dependent on remittances from family members in urban employment, has sunk deeper into poverty. A sluggish economy reduced urban employment opportunities, depressed wages, and increased costs of purchased production and consumption goods. The subsistence farmers were very vulnerable to the same droughts as the commercial farmers.

South Africa is now on the threshold of important political and economic restructuring. The apartheid system has been discredited and is being dismantled. Laws relating to racial division of land were revoked in 1991. Some institutions, such as the statutory Land Bank, have been ordered to remove discrimination. At the same time, however, the indigenous

farming population still has serious handicaps in its potential ability to compete with the European farmers. Backlogs in provision of education have left them with fewer farming and managerial skills, their poverty has left them with very little capital, and the traditional communal tenure system in the reserves has left them with a lack of experience in individual entrepreneurial action.

The challenge is to find an orderly process of restructuring that will achieve, simultaneously, a more equitable distribution of resources and returns, improvement or at least maintenance of productivity, and stability. Possible guidelines are sought in the Hungarian experience, augmented by experiences from elsewhere.

Why choose Hungary? Besides the first two authors' familiarity with Hungarian agriculture, the choice was also influenced by some similarities in the two countries' agricultural resource base and performance (Table 1).

Table 1—Comparative Data: Hungary and South Africa

	GNP/Capita (US\$)	Percentage Share of Top 10 Percent	Population (millions)	Life expectancy (years)
Hungary	2,240	21	10.6	70
South Africa	1,890	50	33.1	60

The Hungarian population is, on the average, better off than the South African population, and the welfare is more evenly spread. The total geographical area of Hungary is 9.3 Mha, of which 6.5 Mha are suitable for farming; of that, 4.7 Mha are arable. By comparison, South Africa consists of 119.5 Mha, of which 99.2 Mha are available for farming; of that, only 18.3 Mha are arable and only 4 Mha are considered to be high potential arable land—less than in Hungary. Both Hungary and South Africa consistently produce surpluses for export.

## Hungarian Experience In Restructuring Agriculture

Before the second World War, Hungary's agriculture was dominated by large, privately owned estates. Six percent of the owners owned 68 percent of the land. Restructuring started immediately after the war. An aggressive land reform programme affected more than one third of the land. On average, each "new" farmer (previously farm labourer) received a grant of 2.9 ha; 400,000 new farms were established.

In the second phase of restructuring (1949–61), these new farmers were forced into cooperative farms. The cooperatives use land partly owned by the cooperatives themselves and partly by their members who receive rent for this privately owned but collectively cultivated land. The privately owned land is inheritable, but beneficiaries who are not members of the cooperative are obliged to sell the inherited land to the cooperative; the land then becomes collective property. In this limited "land market," the selling price is determined by the monopsonistic buyer, much below what it could have been in a free market. During the last decade, some state-owned land cultivated by the cooperatives has also become collective property. Parallel with the collectivization, state farms were established on socialized (confiscated) feudal estates, with the main aim of applying modern technology and farming methods and assisting the fledgling cooperative movement.

A further stage in the restructuring process was the establishment of household plots for cooperative members, especially in the late 1960s, to provide incentives for private initiative. By the late 1970s, well over 95 percent of agricultural land was employed in the socialist sector. A restructuring in the opposite direction also occurred, however, especially after 1968.

The aim of this counter-reform was to increase the efficiency of the socialist system through the liberalization of planning, greater independence for enterprises, the acceptance

of profit as the main indicator of economic performance, strengthening of material incentives to labour, price reforms (whereby a larger proportion of prices can be determined by the market forces of supply and demand), a greater role for finance and credit (by more flexible use of interest rates, credit, and taxes), a closer link between production and distribution (mostly by basing profit calculations on quantities sold rather than mere quantities produced), and a stronger orientation towards foreign trade outside CMEA.

A partially hidden element of these reform approaches is a recognition of the scarcity of non-labour resources and an implied marginal analysis. These are in conflict with the labour theory of value, a central theme of Marxist economics.

The process of restructuring is far from complete. With the collapse of one-party socialism and establishment of a multi-party democracy, privatization and deregulation of the Hungarian agricultural economy have gained new momentum. It is not certain what form new structures will take. In general, the different parties favour more individualization. One partner in the governing coalition, the Smallholder Party, demands the re-establishment of the pre-1947 landed relationships, with certain limitations on farm size.

The whole process of restructuring of Hungarian agriculture has virtually come full circle, involving a starting point with huge inequality of privately owned landholdings, nationalization including confiscation, creation of a new smallholder class, elimination of the smallholder class and formation of cooperative and state enterprises, inefficiency of production, establishment of household plots as a first step away from Marxist dogma (with marginal results), further liberalization of the economy, and movement towards the elimination of socialist structures in land ownership and agricultural production.

Various authors have analysed agricultural productivity in Hungary since the start of restructuring (Donáth, 1980; Fekete *et al.*, 1976; Fekete, 1989; and Fekete, 1990). Such analyses may promote an objective view of the alternative farming models. Relevant data appear in Table 2.

Table 2—Comparative Data for Hungarian Farming Structures, 1989

	Cooperative farms (large-scale section)	State farms	Individual Units
	<i>Percentage share</i>		
Land ownership	76.2	14.3	9.5
Farm assets	64.6	21.2	14.2
Output (GDP)	47.1	13.6	36.7
Value added	40.1	8.9	44.4

Source: Fekete, 1990.

A salient feature is the relatively high productivity obtained by the individual units. This productivity performance has been effectively supported, particularly on cooperative members' domestic plots, by inputs from large units—feed, soil cultivation, transport, and services. There have been important differences in activity structures and in factor combinations. For example, small private farms have concentrated largely on labour-intensive crop production and grain-fed livestock, and state farms have enjoyed investment priorities, enabling them to develop plantations and dairy and poultry activities with high capital requirements.

In terms of national average yield, the state farms performed best in wheat and sunflower production, while the cooperatives excelled in maize and potato production, and the individual farmers were superior in sugar beet and tobacco. Data on GDP and value added per hectare reveal that state farms achieved double the yields of cooperatives. Individual units' output varied between double and four times the levels achieved by cooperatives (Fekete, 1989).

Differences in capital requirements and efficiency can be illustrated as follows: for one unit of GDP, the cooperatives employ 23 percent less capital than state farms; and the private farms employ only approximately one quarter of the capital used by large units to achieve the same output. However, organization of new family and/or market-oriented farms in the recent transition period has required large amounts of capital.

In summary, relative productivity performances dictate the following future strategies: decrease the role of state and cooperative sectors; increase the role and share of small and medium-sized private farms in harmony with the supply of land, financial, physical and human resources; decentralize the organizational structures on cooperative farms; decrease the average size of large-scale units; and strengthen tenure arrangements, inter-farm cooperation, and activity (first-stage marketing) linkages in the mainstream development process towards market-oriented mixed (property-based) farming.

### Lessons for South Africa

Restructuring of South African agriculture starts from a situation of inequity, inequality, and non-sustainability in both subsistence (Vink, 1986) and commercial agriculture (Fényes *et al.*, 1988). The pattern of restructuring will depend partially on which political grouping predominates. The Land Commission of the African National Congress (ANC, 1990) recently issued a statement on their present stance. Some of their recommendations resemble the early stages of the Hungarian experiment. They propose to start with measures almost identical to those of the immediate postwar period in Hungary. According to the statement, the state should play the principal role in redistributing land. It sees an urgent need for a programme of affirmative action involving the acquisition of land for African people and in support of aspiring African producers.

In this sense, the compilers of the report paid insufficient attention to Hungarian and other experience. In Hungary, state farms were used for the same purpose, but with poor results. Zimbabwe has also experienced problems with similar programmes. One problem is that success cannot be hoped for unless the settlers are selected according to definite criteria (Lewis, 1964), a point well-proved by Zimbabwean disappointments (Eicher and Rukuni, 1990). Another problem is that rapid population growth can turn such a programme into a demographic treadmill. This consideration should overshadow the idealistic dream of "one man, one farm." It also leads to resource degradation. A third problem is that planning, servicing, and staffing of resettlement programmes require very high human resource input (Eicher and Rukuni, 1990).

However, the ANC does not necessarily regard nationalization as the only redistributive instrument; selective nationalization according to land use need is mentioned as a possible choice. There appears to be an understanding that, after nationalization, the government will return the redistributed land to the people—indicating further similarities with Hungary.

The possibility of state and/or cooperative farming has also been mentioned in some circles. Once again, experience in Hungary and other countries can provide guidelines. Such units can reduce incentive and productivity, smallholders become mere wage earners, and managerial problems can occur. In Zambia, cooperative farming units were a failure—largely because of managerial problems—and have virtually disappeared (Watts, 1990); nor have state farms had a happy history in Africa.

Agricultural restructuring will inevitably involve tenurial changes. Even if the state does not use expropriation as a redistributive tool, it has some land available in trust. The Land Bank (a statutory finance institution) and private banks have taken over land because of debt delinquencies. Such land can be used for redistributive purposes.

Customary communal tenure in the subsistence sector (i.e., the reserves) has been a source of low productivity but not necessarily of inequitable distribution. In Africa, as in Hungary (Fekete, 1990), it is clear that absence of a land market hinders productivity. Recent analysis (Lyne, 1990) shows that even if a land market could only be developed in the form

of allowing people to rent one another's use rights, productivity would improve to the benefit of both parties.

In the final analysis, all considerations regarding agricultural restructuring in South Africa should strike a balance between equity and productivity. The challenge is one of increasing equity while simultaneously maintaining and improving productivity. South Africa does not need to repeat mistakes made elsewhere; the experience of Hungary over the last 40 years, and other examples, are very relevant.

## Note

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### Discussion Opening—*E. Wesley F. Peterson* (University of Nebraska)

The authors of this paper believe that the important social changes currently taking place in South Africa will not leave South African agriculture unaffected. They expect to see a "restructuring" of agriculture and argue that South Africa would do well to heed the lessons from recent Hungarian experience with changing patterns of land ownership. The main point of the paper is that collectivized agriculture was not a success in Hungary and probably would fail in South Africa as well.

There are two sets of problems with the arguments developed in the paper. First, the relevance of the Hungarian experience for South African agriculture is unclear. The authors justify their choice of Hungary as a model for South Africa by noting their familiarity with Hungarian agriculture and pointing to similarities in the "agricultural resource base and performance" of the two countries. The fact that two of the authors are familiar with both countries is irrelevant. It does not provide support for the argument that the Hungarian experience contains lessons for the future of South Africa. The figures in Table 1 as well as those cited in the text reveal more dissimilarities than resemblances between the two countries. In addition, the comparison includes nothing to account for important social, political, and historical variables that would, I suspect, lead most to conclude that there are very few similarities between the two countries.

It seems to me that the argument against collectivized agriculture could be made by considering a wide range of experiences, not only in Europe but in other parts of Africa, Asia, and Latin America. In fact, South Africa could probably learn a great deal more about appropriate structural changes in agriculture from neighbouring Zimbabwe, for example. Zimbabwean resettlement programmes, combined with the development of marketing infrastructure, smallholder credit programmes, and price policies, have led to a dramatic expansion of food production by smallholder farmers. This point is related to the second set of problems in the paper, the excessive focus on land tenure arrangements. While rules to govern land ownership are undoubtedly of great importance for both efficiency and equity, the prosperity of a national agricultural sector depends on much more. For example, allowing individual land ownership in Eastern Europe has not solved problems associated with inefficient marketing systems. Again, the experience of Zimbabwe in providing marketing, credit, technical, and policy support for resettled farmers is probably of greater relevance to South Africa than Hungary's present anguish over who owns land that was nationalized after the second World War.

*[Other discussion of this paper and the authors' reply appear on the following page.]*



## **General Discussion—*Johan van Zyl, Rapporteur*** (University of Pretoria)

Three issues were raised with respect to Sudan's wheat policies: to what extent political instability has contributed towards widening the supply-demand gap, to what extent the subsidy on wheat is a subsidy on bread consumption, and why Sudan would want to expand wheat production in the first place, given the comparative advantage of sorghum and millet. In reply, Hassan stressed that the model used assumes that Sudan is a price taker with respect to wheat (small-country assumption) and that food aid is only one issue aimed at bridging the gap between supply of and demand for wheat. Managing food aid is the most important point. However, Sudan has not done this adequately.

The paper on the relative international competitiveness of Africa and Asia received favourable comments. However, one speaker felt that the paper asks many new questions without addressing old ones. In particular, the role of size of a country in determining its trade is not clear. In their response, the authors emphasized that the results may be questionable due to data problems. However, the three different analyses used to overcome this shortcoming all yielded similar results. Size of a country and trade were also controlled through sample selection, which improves the reliability of the results. The case studies are valuable in this regard as they imply that countries should find a specific niche where they have a comparative advantage.

In relation to the third paper, almost all participants agreed with the discussion opener that Hungary cannot really be compared with South Africa. South Africa can learn much more from the experiences of Kenya and Zimbabwe with respect to land reform. Other issues raised included the relative weight of productivity and equity in a new strategy as well as different policy options, what Hungary can learn from South Africa, and what can be learned with respect to other prime movers of development such as technology, marketing services, and credit. The authors replied that access, not only to land, is critical in a new strategy. In this respect, South Africa can learn much from Kenya and Zimbabwe. However, a critical issue is that the supporting structure must be in place in order to facilitate development. Land tenure reform is a necessary condition but not a sufficient condition to ensure development. It is not possible to put weights to productivity and equity in a new strategy. The authors elaborated further on the Hungarian experience of land reform and argued that while other countries are relevant to South Africa, Hungary provides a different or even outside perspective.

Participants in the discussion included H. Alfons (Federal Institute of Agriculture Economics, Austria), K. Daubner (Budapest University of Economic Sciences), G.T. Jones (University of Oxford), H.A. Mahran (University of Gezira), A.W. Mukhebi (ILRAD, Nairobi), J. van Rooyen (Development Bank of Southern Africa), and L.D. Smith (University of Glasgow).