DEFINING SMALL-SCALE FARMERS IN THE SOUTH AFRICAN CONTEXT

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South African agriculture is comprised of mainly two categories of farmers -- the subsistence farmers in the former homeland areas and the large-scale commercial (mainly white) farmers. This is in contrast with the situation in many other countries in the world where one would find a whole range of farm sizes, ranging from the very small or subsistence farmer to the very large farmer/agribusiness. The paper highlights the situation of small-scale farmers in an international context and compares it with the South African situation that is totally different. Within this context, this paper has as basic premise that in South Africa the concept of "small-scale farmer" is usually value-laden, creates wrong impressions and is often viewed in a negative light. "Small-scale" is often equated with a backward, non-productive, non-commercial, subsistence agriculture that we find in parts of the former homeland areas. This paper endeavours to correct the negative perceptions towards small-scale farms by redefining the small-scale farmer and laying to rest the fallacy that small relates to land size only.

1. INTRODUCTION

In analysing South African agrarian history, one finds overwhelming evidence of how various policies and government actions have reduced small-scale farming in South Africa to a state where it contributes very little to the economy as a whole and to the welfare and livelihoods of rural dwellers. A combination of factors ranging from coercive policies and rent seeking by large-scale farm lobbies to population pressure and climate and other natural factors led to the downfall of a once dynamic, market responsive and competitive sector.

One of the most challenging socio-economic problems currently facing South Africa is how the large number of African rural residents could be assisted in establishing viable rural livelihoods. There is ample international evidence that small-scale agriculture has the potential to generate employment and income opportunities in rural areas. It is argued that small-scale farmers are potentially competitive in certain activities and that, with proactive policy support, these opportunities could be developed into "viable niches" for a future smallholder sector. The challenge in South Africa is to remove the

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structural constraints that inhibit the growth of a vibrant commercial smallholder sector.

In this paper we endeavour to address some negative perceptions towards small-scale farming by properly defining the small-scale farmer and laying to rest the fallacy that small relates to land size only. The paper firstly addresses the definition of small-scale farmers. It then highlights the international debate around small-scale farmers and compares it with the South African situation, which is totally different.

2. DEFINING A SMALL-SCALE FARMER

South African agriculture is comprised of mainly two categories of farmers--subsistence farmers in the former homeland areas and large-scale commercial (mainly white) farmers. This is in contrast with the situation in many other countries in the world where one would find a whole range of farm sizes, ranging from the very small (often subsistence) farmer to the very large farmer/agribusiness type. In South Africa the concept of "small-scale farmer" is usually value-laden, creates wrong impressions and is often viewed in a negative light.

In South Africa "small-scale" is often equated with a backward, non-productive, non-commercial, subsistence agriculture that we find in parts of the former homeland areas. It is generally associated with black farmers, as if black farmers do not have the ability to become large-scale commercial farmers. On the other hand, white farmers are generally perceived to be large-scale commercial farmers, who are modern and efficient, using advanced technology. These generalisations are a misrepresentation of the facts. For example, almost 25% of all farms in the "white" commercial sector covers a land area smaller than 200 ha and almost 5% less than 10ha. While these farms are small, they are considered to be "commercial", although they make a small contribution to South Africa's total gross farm income.

What's in a name?

When attempting to discuss the "commercial viability of small-scale farmers", one is not certain who to focus on--emerging farmers, subsistence farmers in the homelands, black farmers, small-scale white farmers, previously disadvantaged farmers, farmers on small pieces of land or farmers with a small turnover. This dilemma illustrates the problem associated with the term "small-scale" farmer. Coetzee (1998) refers to this problem when stating that

small farmers are usually defined in terms of agricultural activity in whatever form.

Two recent surveys in the Northern Province and KwaZulu-Natal prove the point (Outtara & Graham, 1996; Baydas & Graham, 1996). These surveys were divided into small business and small farmer surveys. The results from these surveys indicate that farming plays a small role in terms of income, although a major proportion of small farming households (and small business households) cultivate the land and produce crops. Thus very small proportions are sold and the majority of the households are deficit producers (Van Zyl & Coetzee, 1990). These are often the typical households which many people would picture as small-scale farmers. The results, however, show remarkably similar characteristics between small business and small farmers, emphasising that both target groups have multiple sources of income. Moreover, the so-called small enterprises that are considered to be non-farm, sometimes have more farming interests than the target group of small farmers. For example, the so-called small farmer target group in Kwazulu-Natal earned 2.8% of total household income from farming, while the micro-entrepreneurs target group earned on average 8.5% of total income from farming. The point is that poor rural households usually generate income from several sources--as farmers or businessmen or pensioners.

The scepticism of many people about small-scale farming also relates to viability or a viable farm size. South Africans typically judge a farm's viability on its land size without necessarily considering other attributes, for example the specific farming enterprise or managerial ability. Defining the "viable farm" in terms of size alone had a profoundly negative effect on the relative profitability of farms smaller than the viable size. Given the historic high levels of official assistance and subsidies to farmers during the previous five decades, the viability definition became almost a self-fulfilling prophecy because, under the Agricultural Credit Act, all farms below the viable size were excluded from assistance. Moreover, under the Subdivision of Agricultural Land Act of 1970, it is not possible to subdivide an existing title deed without ministerial approval. Permission is granted only with proof that a reasonable net farm income can be obtained with 'average' management. The subjectivity of this requirement, together with the lending criteria of the official funding agencies, precludes systematic empirical analysis of small farms in South Africa. Ironically, the benchmark for determining farm viability, farm size, has changed over time. During the 1960s and 1970s, expansion and mechanisation were considered the solution to remain competitive with non-farm incomes. However, in the 1980s, the high debt ratios reduced farm profitability. Thus many farms once thought to be viable

according to criteria set in the 1970s, were exposed as being not viable in the financial crisis of the 1980s.

What is a small farm?

With the specific mind-set referred to above firmly entrenched in South Africa, it is no wonder that small farms were always considered in a negative light. It is thus fairly obvious why small-scale agriculture in South Africa never really had a chance in a policy environment that deliberately favoured large-scale farms. The fact that there is not a strong small farming sector in South Africa contributes to the scepticism and confusion about small-scale farming. That what many people equate to small farmers--the farmers in the former homelands farming on one hectare of dryland or less--are not the small farming types we have in mind, and also not what the international literature is reporting on. So, what is a small farm then?

Size is not a good criterion for defining small farms. For example, one hectare of irrigated peri-urban land, suitable for vegetable farming or herb gardening, has a higher profit potential than 500 hectares of low quality land in the Karoo. Turnover, or rather the level of net farm income, determines the farm size category, not the land size.

Lund and Price (1998) and Lund (1983) highlight the problem of defining farm size categories further by illustrating that any proposed method of classification of farm sizes can be problematic:

"..there is no generally accepted measure of firm size in the economics literature to guide the choice in the specifically agricultural context. Various measures of output, sales or turnover; of inputs, both flow or stock based (e.g. number of employees or value of fixed capital), and of the incomes (accruing or capitalised) of a company's equity holders have been used in different contexts. Moreover the most obvious measure in the agricultural context, land area, may be a poor economic measure of farm size since land is so variable in its agricultural attributes and farms of different types can require vastly different areas of land for the same value of output. The possibility of weighting land areas on the basis of a land (quality) classification system could be considered, but would raise problems including the attribution of weights."

Thus, when we use the term small farm in the rest of the paper, it should be interpreted against the above arguments related to farm size. The bottom-line is that a small farm is a relative concept--relative to the particular ecological region and soil quality and also relative to the particular farming industry. It should also be emphasised that small-scale farms are not simply scaled down

models of large farms. Systematic differences in output and input intensities result from farm-size effects and have important policy implications (Tomich, Kilby and Johnston, 1995).

The mistaken perception that small farms are less efficient than large farms stems in part from the illusion of modernity: a farm endowed with tractors and combine harvesters looks modern and appears efficient. The view that large, capital intensive farms are more economically efficient than small farms is based on beliefs about economies of scale in farming. A large majority of agricultural production function studies find either no or negative economies of scale in farming (Lipton, *et al.*,1996).

The definition of a small-scale farm is also important for the government. From a policy point of view the Department of Agriculture needs to identify its target group or clientele. They could use the following definition to identify the small farmer target group, which they would like to, and should serve:

"A small farmer is one whose scale of operation is too small to attract the provision of the services he/she needs to be able to significantly increase his/her productivity."

It is these farmers that need government assistance and who should be empowered to form part of a new and vibrant agricultural sector.

3. SMALL-SCALE FARMING IN INTERNATIONAL CONTEXT

International empirical evidence illustrates that small-scale farmers in developing countries are considered to be more efficient (or at least as efficient) given a level playing field, than large-scale farmers. This has been established empirically in Asia, Latin America and Africa. These studies on small-scale farming have taken the farm-size/productivity relationship and the issue of economies of scale, as the underlying theme.

The literature demonstrates that a systematic relationship between farm size and productivity is the result of market imperfections, and then only when more than a single market is imperfect. For example, if credit is rationed according to farm size, but all other markets are perfect, land and labour market transactions will produce a farm structure that equalises yields across farms of different operational size. But, if there are imperfections in two markets--land rental and insurance, or credit and labour--a systematic (positive) relationship can arise between farm size and productivity.

In countries like South Africa, where markets facing small farmers for any combination of labour, land, credit, land rental, insurance, etc., are generally imperfect or missing (at least for some farmers, in general smaller farmers), this may give rise to real economies of scale over the short-term. However, these economies of scale are 'false' in the sense that they are only temporary, and the result of deliberate elimination of, or restrictions on, the markets. With development of these markets, economies of scale diminish and eventually disappear. Thus, the issue is *not to pursue* a farm structure that captures these benefits over the short-term but that over the long-term gets a country locked into an inefficient and inequitable structure centring on large-scale mechanised farms.

Even without economies of scale, the question remains whether size matters. Are larger farms more productive and/or profitable than smaller ones, even if an argument cannot be made for superior technical efficiency? The answer to this is not clear. Policies are rarely scale neutral, and external economies of scale are a reality. While these tend to favour larger farms on the one hand, there are considerable transaction costs in the labour market, as well as supervision costs, that, on the other hand, favour smaller farms. The issue thus is what the net effect is.

Most of the empirical work on the farm size-productivity relationship has been flawed by methodological shortcomings, and has failed to deal adequately with the complexity of the issues involved, as we have discussed earlier. It is in many cases the quality of land and management, which is not properly accounted for. Also, productivity measurement is erroneously confined to one factor of production. In general, studies that come to grips with some of these problems consistently show the superiority of smaller farms over large farms.

Numerous studies provide empirical evidence at the micro-level of the existence of an inverse relationship between farm size and the efficiency of resource use--as farm size increases, efficiency declines. This relationship is basically due to higher efficiency of family labour as compared to hired labour, in combination with commonly observed imperfections in credit and land rental markets (Binswanger *et al*, 1993). Berry and Cline (1979) found that the value added per unit of invested capital for the second smallest farm size group (10 to 50 ha) exceeded that of the largest farm size groups (200 to 500 ha) in Brazil.

Evidence is also available at the macro-level, but only in terms of physical yields--an imperfect indicator of efficiency. Prosterman and Riedinger (1987),

using data from 117 countries, show that 11 of the top 14 countries in terms of grain yields per hectare are countries in which small-scale, family farming is the dominant mode of production.

However, studies by Feder (1985) and Carter & Kalfayan (1989), demonstrate that the existence of market imperfections that tend to favour large farms (e.g. capital and insurance markets) may negate the inverse relationship between farm size and productivity. Carter (1994) finds that certain financial market disadvantages may render small farms non-competitive. Hence, whereas the small-scale farming strategy holds considerable promise from an efficiency perspective, this does not mean that its implementation is easy or can afford to ignore critical policy issues, such as resolving the usually constrained access of small farmers to credit markets.

Also underlying the establishment and maintenance of large-scale farms is the misguided perception that there is a relationship between mechanisation and large farms (see Johnson & Ruttan, 1994). Capital intensity is explained by the substitution of capital for labour because of high wages. This substitution process, brought about by changes in relative factor prices (Peterson and Kislev, 1991), indirectly cause larger farms. Machinery, in turn, allows farmers to work progressively larger units of land (Hayami & Ruttan, 1985).

In this respect, the work of Brewster (1950) on the influence of machinery on farm size is enlightening: mechanisation in industry involves stationary machinery which implies that the number of workers can be increased substantially without increasing labour supervision costs. In agriculture, labour and machines are mobile, making supervision expensive and increasing management costs. In addition, agricultural tasks are sequential in nature due to the annual cycle of production. This limits the opportunities for specialisation and division of labour, which creates few advantages to expansion beyond the size of owner-operator.

The literature clearly demonstrates (*cf*. Berry &Cline, 1979; Binswanger & Rosenzweig, 1986; Binswanger & Kinsey, 1993; Binswanger & Elgin, 1992; Binswanger *et al*, 1993) that family farms are generally more efficient and superior to other types of farming because of the way in which labour relations are organised. Family farms, by definition, are farms where the owner is the operator and where his/her family provides the large bulk of the regular labour requirements throughout the year. Presumably small-scale (family) farmers are willing to put more time and energy into their enterprise than would be justified at full market wage rates, since the incentives are going directly to the decision-maker (Delgado, 1996). It is for this reason--the

stronger reliance on family labour--that small-scale farmers can be more efficient than large-scale farmers. While the definition of family farms does not exclude the hiring of other people, especially in a part-time capacity when related to seasonal labour, it tends not to rely too much on such behaviour.

Despite the achievements of small-scale agriculture elsewhere in the world, the fact is that economic conditions for smallholder farming in Sub-Saharan Africa are especially tough, and have shaped smallholder behaviour in a way that is not always the best from the standpoint of increasing incomes. Missing or incomplete input and output markets are some of the structural constraints small-scale farmers have to cope with. These structural constraints manifest themselves in high and often prohibitive transaction costs. Overcoming these transaction costs can be considered to be at the heart of a strategy for increasing the access of smallholders to the assets, information, services and markets necessary to grow their incomes. Delgado (1998) and Von Braun *et al.* (1998) recently indicated that the principal tool for reducing transaction costs is institutional innovation.

5. CONCLUSION

This paper endeavoured to correct the negative perceptions towards small-scale farms by redefining the small-scale farmer and laying to rest the fallacy that small relates to land size only. In doing so the paper emphasised that the concept of "small-scale farmer" should not be value-laden and viewed in a negative light. "Small-scale" is <u>not</u> backward, non-productive, non-commercial, subsistence agriculture that we find in parts of the former homeland areas.

A small number of case studies in South Africa (cf. Ngqangweni *et al*., 1997) have, already shown that small scale farmers do exist in South Africa and are at least as viable, profitable and efficient as their large scale counterparts. The relative efficiency of smaller-scale farmers, however, depends on the neutrality of the policy framework facing farmers.

Hopefully this paper has cleared the misperceptions related to small-scale farmers. It is important to realise that government, policy makers and all agricultural economists should now determine what should be done to ensure a “place in the sun” for small-scale farmers. Government has a tremendous task to lower the transaction cost barriers facing smallholders. Failing to do so would ensure that very few successful small-scale farmers would emerge leading to a continuation of subsistence agriculture. It is therefore the task of the agricultural economics profession in South Africa to rid them of the

negative attitude towards smallholder agriculture and accept the importance of the New Institutional Economics as an ideological tool in assessing the constraints facing smallholders.

NOTE:

1. *Under certain circumstances, such as those in South Africa, there are external economies of scale (Johnson and Ruttan, 1994). These occur when, as firms or farms increase in size, they experience advantages in terms of access to inputs, credit, services, storage facilities, or marketing and distribution opportunities relative to smaller farms. This gives large farms real advantages relative to small farms due to pecuniary economies or policy distortions rather than to greater efficiency. On the other hand, diseconomies of scale may also occur, for example when the labour market fails; or do not exist, when transaction costs in the labour market are high, or when the effort of hired labour is significantly affected by supervision (De Janvry, 1987).*

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