THE GEOGRAPHY OF AGRIBUSINESS AND CONTRACT FARMING IN THE DITSOBOTLA AND MOLOPO DISTRICTS, NORTH WEST PROVINCE

BY

REBONEKGOSI HERMAN MATONKONYANE

DECEMBER 2001

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A dissertation submitted to the Department of Geography and Environmental Studies,
Faculty of Science and Technology
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Mmabatho for the Degree of Master of Arts

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DEDICATION

To Choeu Solomon Matonkonyane (1913 – 1980)

Kesebeilwe Kesby Matonkonyane (1916 –1986)

Rebonekgosi Obed Moshoette (1918 – 1999)

May their souls rest in peace.

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Above all else, I thank God for keeping me and for having given me the power and wit to produce this thesis. I also wish to express my words of gratitude and appreciation to James Henry Drummond for his guidance and patience during the lengthy production of this work. Many thanks to all the farmers in Ditsobotla, Molopo, and Setlagole; and Mr. Tertius Bothma of the New Nut Company for their time and inputs. Thank you to all friends who accompanied me during the interviews.

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ABSTRACT

Agribusiness, on the one hand, has been on the rise since the 1950s because of changes in the agri-food system brought about by the introduction of refrigerators, the need for convenience foods, and the appearance and increase in the number of supermarkets. Through agribusiness, there has been a change in the organization of traditional food production. The horizontal chain from the farm to the market and then to the consumer has been replaced by a more sophisticated chain involving the (1) farm, (2) distributors, (3) manufacturers, (4) wholesalers, and (5) retailers – all of which add value along the chain.

In Africa, the presence of transnationals can be traced back to the colonial period. Towards the end of the colonial era the transnationals initiated and promoted the cultivation, marketing, and first stage processing of crops. At independence the inherited colonial firms remained vital parts of the various national economies.

It has now become difficult for African governments to do without agribusiness corporations. For example, Tanzania had attempted after independence to process its own coffee. However, because of a lack of skills and expertise, the government was forced to call on Nestle to provide marketing, processing, and training.

Contract farming, on the other hand, is an integral part of agribusiness and offers farmers guaranteed prices for producing specified crops at specific times. It stands for a new means by which agriculture is industrializing and restructuring. Most importantly, employment opportunities are created.

The research findings suggest that there is an ample degree of agribusiness taking place between small-scale farmers in both Ditsobotla and Molopo and cooperatives like Noord Wes Kooperasie. The farmers buy agricultural inputs and even machinery from such cooperatives. The farmers are also aware that they can add value to their produce by processing.

The research findings reveal a considerable degree of contract-threshing amongst the farmers of both Ditsobotla and Molopo. The farmers who owned no threshing machines often hired the services of those who owned threshing machines, but generally had to wait for the owners of the machines to finish with their own threshing first.

The research findings reveal that the overwhelming majority of small-scale farmers aspire to be large-scale commercial farmers. As farmers on communal land, these farmers are confronted with problems of no control over the time of ploughing, planting, and communal grazing; hence the farmers' desire to "own" their "own" land.

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GLOSSARY

AEIC	African European Investment Company
ANC	African National Congress
Agribank	Agricultural Bank of Bophuthatswana
Agricor	Agricultural Development Corporation of Bophuthatswana
BAI	Booker Agriculture International
CCA	Canadian Cooperative Association
CDC	Commonwealth Development Corporation
CPLAR	Community Perspectives on Land and Agrarian Reform
CTM	*Confederacion de Trabajadores Mexicanos*
E.D.C	Economic Development Corporation
FAO	Food and Agricultural Organization
GDP	Gross Domestic Product
GEAR	Growth, Equity, and Redistribution
ICA	International Cooperative Alliance
IMF	International Monetary Fund
KTDA	Kenya Tea Development Authority
LAPC	Land and Agriculture Policy Centre
L.Fs	Large Farms
LSCF	Large-scale Commercial Farming
NAFU	National African Farmers Union
M.E.C	Member of Executive Council
MSC	Mumias Sugar Company
NGOs	Non Governmental Organizations
NP	National Party
NTK	North Transvaal Cooperative
OTK	East Transvaal Cooperative
RDP	Reconstruction and Development Programme
RRP	Rural Restructuring Programme
RUTEC	Rural Technologies

SASA	South African Sugar Association
SAPPI	South African Pulp and Paper Industries
SCDA	Special Crops Development Authority
S.Fs	Small Farms
SWK	Central West Cooperative
T.A.C	Tswana Agricultural Cooperation
UNDP	United Nations Development Programme
ZCPA	Zimbabwean Cane Planters Association
ZSA	Zimbabwean Sugar Association

CHAPTER 1

INTRODUCTION

Since the 1950s agribusiness has been on an increase. Agribusiness involves large companies getting involved in planting, processing, distribution, and marketing of agricultural products. These have led to increased job opportunities in agribusiness, while job prospects on the farms have decreased.

Project agriculture forms an important part of agribusiness. These agricultural project schemes, however, tend to be large-scale and are aimed almost exclusively at the export market. Agribusiness also dominates the input and output sides of production. As a result, agribusiness tends to be highly concentrated.

There is also a technological bias against smallholder producers as agribusiness favours large-scale commercial producers. In Africa, the main emphasis has been on increased production, export orientated production, thus neglecting staple food production and smallholder producers. All these, and others, will be discussed in detail in chapter two.

Chapter three focuses on the big versus small debate. This debate explores the possibility for black farmers in South Africa becoming large-scale commercial farmers. It is important to mention at this stage that agriculture in South Africa has in recent years seen more emerging black commercial farmers enter into this sector.

White farmers, on the one hand, have benefited from apartheid policies by having access to land and funding. As a result, their agriculture is highly industrialized and mechanized. Their landholdings are also highly concentrated. Black farmers, on the other hand, were on the receiving end of apartheid policies. The communal land system and betterment planning imposed many disadvantages on black producers.

Land reform and redistribution is at the core of chapter three. Research up to the mid-1980s suggested that black South Africans could not and did not want to farm. Today, however, it has been shown that smallholder farming capacity exists among black South Africans and that their desire to farm in 1997, for example, was 78 percent in the Northern Province and 76 percent in Gauteng (Levin and Weiner, 1997).

The past and current infrastructure supporting farming is almost exclusively geared towards large-scale commercial farming. Small-scale farmers have, however, been able to effect economies of scale through contract farming, machine rentals, and obtaining credit through cooperatives.

Chapter four focuses on contract farming and the peasantry. Contract farming started in the 1950s and was perceived as an answer to Africa's agricultural problems. Local inhabitants are offered contracts by large companies to grow cash crops that are largely export-orientated. Local staple foods have generally been ignored.

Because landownership practices in sub-Saharan Africa favour men, women are usually ignored when contracts are awarded. Women are the chief sources of labour on farms but when farmers are paid the money goes to the men. As men often spend money on alcohol, this often leads to family disputes.

Contract farming has had some positive spin-offs for the peasant farmers such as increased incomes, more employment opportunities, and increased food security. However, there are some disadvantages associated with contract farming. These negatives include farmers losing independence. For example, with contract farming, the farmer is told when to plant, how much fertilizer to apply, *etc.* Farmers also lose their freedom to ask for higher prices.

Chapter five focuses on the research methodologies that have been applied during the production of this dissertation, namely, observations, questionnaires, and interviews.

Chapter six summarizes the agribusiness field studies in Ditsobotla and Molopo. The responses to the questions in appendix 1 - agribusiness questionnaire - are summarized in this chapter.

Chapter seven summarizes the responses to the questions, firstly, in appendix 2 - New Nut Company – and, secondly, the responses to questions in appendix 3 - Livelihood surveys of the New Nut Company contractees.

The last chapter, chapter eight, offers concluding remarks and presents some recommendations regarding the plight of black peasant farmers.

Against this background, it is the aim of this dissertation to investigate: the impacts of agribusiness on small-scale black farmers, and to investigate the contract farming relationship between the small-scale black farmers in and around Setlagole and the New Nut Company in North West Province.

CHAPTER 2

AGRIBUSINESS

2.1 INTRODUCTION

One of the most notable changes in the food industry since the World War II has been vertical integration. Individual companies now try to control as many segments of agriculture as possible such as production, distribution, and processing. These integrative developments will be examined in this chapter. In the context of Africa, the characteristics of agribusinesses, the structure and types of agribusinesses, the background to agribusiness in Africa, the advantages and disadvantages of agribusinesses, and lastly, the consequences of agribusiness will be discussed.

The second part of the chapter will focus on project agriculture. Project agriculture has seemed inseparable from agribusiness, particularly in the developing world. Many African governments have opted for large-scale projects that are mainly export-oriented and which favoured large-scale producers at the expense of the smallholders. Particular attention will be paid to agricultural projects in the former Bophuthatswana.

2.2 AGRIBUSINESS: A BACKGROUND

Drummond (1992) points out that the term agribusiness was coined by Goldberg of the Harvard Business School. Davies and Goldberg, cited in Wallace (1985, p. 491) define the term as "the sum total of all operations involved in the manufacture and distribution of farm supplies, production operations, and the items made from them".

Wallace (1985), however, notes that the term agribusiness is used widely in several ways, and is hence riddled with ambiguity. For example, in the former Soviet Union and Eastern Europe, the focus used to be on agro-industrial complexes, while in the west the

focus has been and continues to be on dominant large institutions - transnational corporations that are involved in one or more stages of production. This terminological ambiguity leads to a problem as to whether the term agribusiness denotes a system or an institution. In summing up agribusiness in the United States, George (1979, p. 29) chooses the words "waste, concentration and ... efficiency".

The relationship between agriculture and industry is demonstrated by Riddell (1990) who notes that in Zimbabwe, between 1965 and 1981/82, the manufacturing sector had absorbed an increasing share of the output from agriculture by a factor of seven. He also observed that in Zimbabwe, the agricultural sector is more dependent on manufacturing (accounting for 45% of its total production) than manufacturing is dependent on agriculture as less than 10 percent of manufacturing's output is directed towards agriculture.

Seitz *et al* (1994, p. 12) state that "agribusiness includes (1) firms and industries that produce and sell services for use in farm production, and (2) firms and industries that buy, store, and process farm commodities and distribute them to domestic and export market. The first group is the input sub-sector and the second is the agricultural processing and marketing sub-sector".

In the input subsector the firms change minerals, raw materials plus other inputs into farm machinery, fertilizers, pesticides, *etc.* that are utilised in growing crops and raising livestock. This subsector is limited and poorly developed in developing countries. With development, new inputs often compete and remove other inputs for example oxen and horses, were displaced by machine implements.

The processing and marketing subsector, on the other hand, is well developed in developed countries. "... in more developed countries, more food is available in highly processed forms, such as frozen, canned, cooked, or even ready to eat ... as much as three-fourths of the total value of the final products is contributed by the processing and

marketing subsector" (Seitz *et al,* 1994, p. 13). Employment opportunities in these industries are growing, while in the farm sector they are decreasing.

Agribusiness involves a series of actors that enable agricultural produce to move from the farm to the market place (Austin, 1974). These actors can be categorized into three:

(1) Operating organizations like farmers, processors, storage operators, and distributors,

(2) Supporting institutions like farm suppliers, banks, and research centres, and

(3) Coordinating mechanisms like governments, contractual arrangements, futures markets, and industry associations.

The development of agribusiness has been encouraged by the developments in food production systems such as frozen foods, super-markets, and media advertising (Ilbery, 1985). There is a rising demand for convenience foods in the developed countries because of increasingly urbanised and rich population, and a higher percentage of women in the labour force.

Core to agribusiness is the relationship between agricultural production and two related sets of industries - the upstream agricultural supply industries (e.g. machinery, chemicals, *etc.*) and the downstream food processing industries. Agribusiness is organized around scientific, national, and industrial business principles and agribusinessmen as farmers in crop and animal husbandry (Ilbery, 1985). Food production as a result of agribusiness has become highly concentrated, for instance, in 1976, about a third of the non-communist countries' manufactured goods were produced by 189 firms. In the United Kingdom, in half of all agricultural processing industries, the five largest firms constitute 80 percent of total sales.

The agribusiness flow-chart can be summarised by fig. 2.1 on the next page. The flow-chart shows the whole process of farming, starting with farm supplies into farming, then farm out-puts taken for processing. After being processed, the commodities are

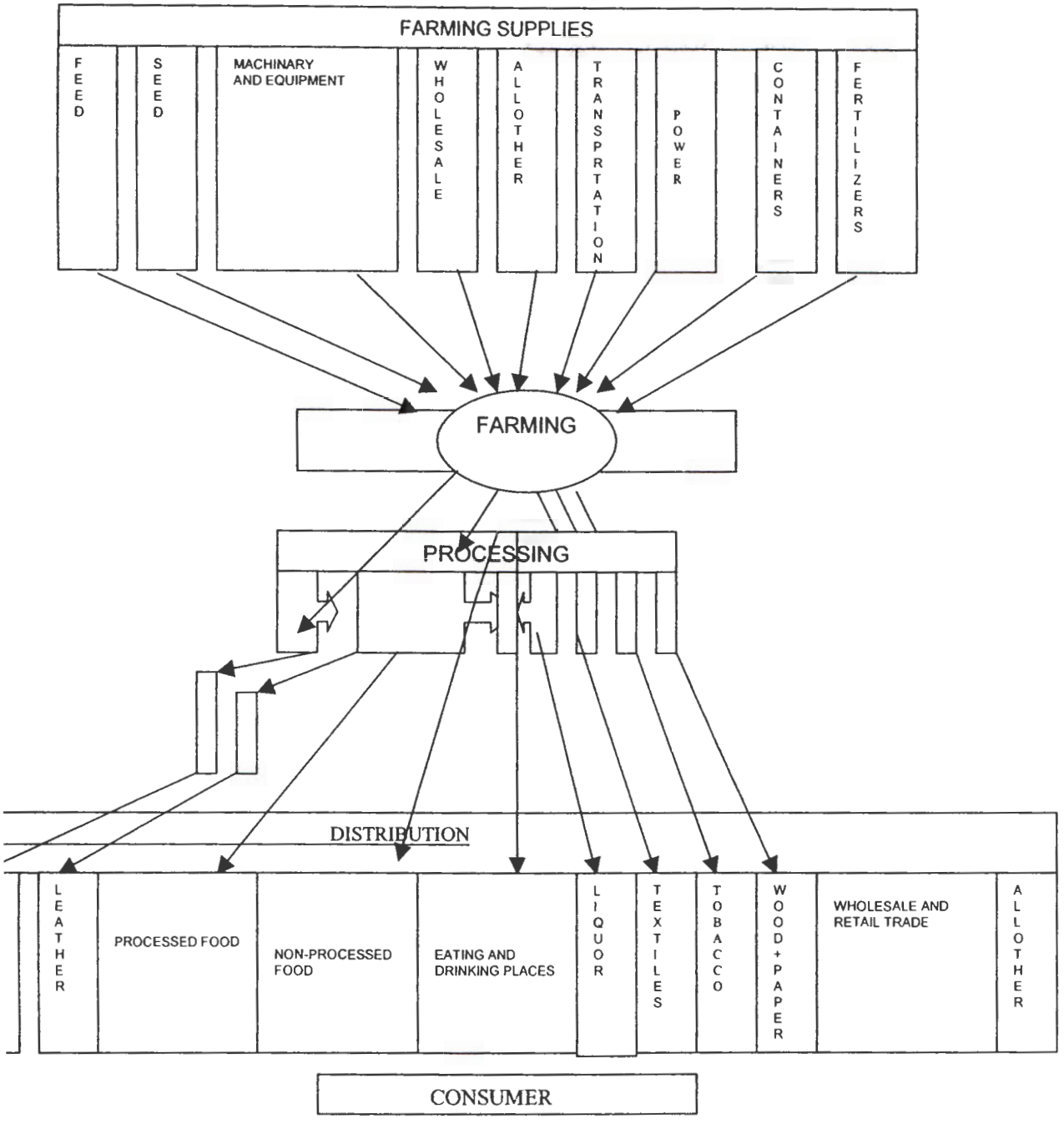

Fig. 2.1: Agribusiness flow-chart

Source: Roy (1972)

wholesalers to, for instance, distributors and retail traders before ultimately reaching the consumer.

The dominance of big agribusiness firms has resulted from the processes of vertical integration and horizontal integration. Vertical integration is "the combination of two or more successive stages of production and/or distribution under the ownership and/or control of one firm" (Roy, 1972, p. 3). It occurs when one firm takes over another firm that deals in the same commodities but at different stage in the production chain. The reason for such a take over is to secure a stronger market position by controlling the input or the market linkages. If vertical integration is extensive, it can enable agribusiness firms to control food production systems from the beginning to the end.

Vertical integration can also be achieved through production or marketing contracts. "A marketing contract involves one firm, usually a farm, contracting to supply a certain quantity and quality of output to a processing firm at a stated price. Under a production contract, the farm production is generally undertaken according to specifications set by a processing firm, which may also provide financial and other management services" (Seitz *et al*, 1994, p. 228).

The contracts decrease uncertainties for both the producers and the processors by ensuring a market for the commodity at a satisfactory price to both parties. However, the farmer abstains not only from the possibilities of higher profits that higher market prices would generate but also the possibility of lower profits that low market prices would generate.

There are various reasons for vertical integration, including *inter alia*, more reliable supply, economies of large scale, reduced price uncertainties and transactions costs, assurance of desired product characteristics, and diversification or reduction of risk.

Horizontal integration, on the other hand, is "the combination of two or more lateral stages of production and/or control of one firm" (Roy, 1972, p. 13). It occurs when one firm takes over another firm within the same level in the production chain. The bigger

firm then enjoys a larger share of the market and has a greater power to influence prices (Paine *et al,* 1988).

Paine *et al* (1988, p. 188-189) maintain that "traditionally, farmers supplied many of their own inputs. They repaired machinery, grew their own seed, and added organic fertilizers to the soil. Farm output was sold in regional markets where large numbers of buyers would assemble at auctions to bid for the produce ... At most stages of the food production and distribution system a large number of buyers and sellers were engaged in the market and no individual had the power to influence prices".

Today the input and output sides of most food production systems are dominated by agribusinesses. The growth of agribusiness firms has given them the opportunity to become very powerful operators in the food sector of most economies. With an increase in their power, came the fall of the economic independence of most farmers (Paine *et al*, 1988).

2.3 CHARACTERISTICS OR TRENDS IN AGRIBUSINESS

Important components in agribusiness are made up of agricultural producers, processing and manufacturing industries, distributors of agricultural and food products, and commercial establishments (Wallace, 1985). Common trends include "bigger production units, intensification of capital, specialized production, and farm production integrated into other parts of the food system ... convergence between the forms of agriculture in eastern and western block nations" (LeHeron, 1988, p. 412).

Drummond (1992, p. 14) identifies the following characteristics of agribusiness:

a. Production is geared to the domestic market, particularly in the field of food production.

b. The food producing projects are part of a vertically structured production system, comprising input, supply, production, processing, and distribution.

c. The modern agro-industrial complexes are a subordinate link in the organizational framework of multinational corporations operating in the field of food production.

d. Agribusiness prefers joint projects. It controls these joint ventures by means of management contracts that enable them to determine the type of technology and the type of inputs used in the production process.

The goals of agribusiness include, among others, (1) profit, (2) growth, (3) market share, and (4) social responsiveness. Zinkin (1977) points out that multinationals usually look for (1) the market - are there enough people to buy the produce at a profitable price? Small farmers as a market involve a series of problems like distribution, scale, lack of awareness, *etc.*, (2) the fit of product and its skills - knowledge of management, research and development, experience of the business, *etc.*, and (3) favourable business climate - if one needs long-term profit, there must be no chance that the firm will be nationalized.

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American agribusiness looks for economies with: (1) large and growing markets, (2) ample raw materials, (3) skilled labour force, (4) extensive and reliable infrastructure, (5) stable governments, (6) favourable investment codes, and (7) favourable fiscal regimes and customs regulations (Dinham and Hines, 1983). In 1983 the most favoured countries in Africa were Nigeria, Ivory Coast, and Kenya.

Dinham and Hines (1983) identified the four management functions of agribusiness are (1) planning, (2) organizing, (3) controlling, and (4) directing.

2.4 STRUCTURES AND TYPES OF AGRIBUSINESS

Agribusinesses vary in structure, types of competition, and performance.

2.4.1 Fertilizers and chemical pesticides

Growth of these agribusinesses has been linked to technical advances in the commercial production of nitrogen (Seitz *et al,* 1994). These advances led to a great growth in size of individual firms and a decrease in the total number of firms. The pesticide industry has followed a similar developmental course to that of fertilizer industry.

2.4.2 Machinery and equipment

This sector is also highly concentrated. The problem for the farmer is the frequent invention of new machinery and equipment (Seitz *et al,* 1994). However, small firms often offer repair services and maintenance. Thus farmers can keep old machinery for some time during years of poor crops or low prices.

2.4.3 Transportation

Initially the lack of efficient transport systems hindered the development of agriculture because it was expensive to transport goods. Later it was thus to become economical to transport products using trucks, farmer-owned vehicles, or commercial shipping firms. "In comparison [to the developed countries], in many developing nations, most agricultural commodities are transported [over] relatively short distances and mainly by trucks. The trucking industry is generally unregulated with many individual truck drivers operating in competitive markets, although in some of these countries poorly regulated, oligopolistic, or monopolistic trucking industries operate. In contrast, in Europe, an extensive railroad system - which is regulated, subsidized, and efficient - is augmented by truck and water transport somewhat analogous to the situation in the United States" (Seitz *et al,* 1994, p. 234).

2.4.4 Grain marketing

In the United States and other developed countries, three market levels in the grain industry exist: local, national, and international (Seitz *et al*, 1994). Generally farmers have one or two places to sell at local level, leading to a near monopoly or oligopoly situation. The result has been the establishment of grain marketing cooperatives owned by local farmers. An important function by the government in grain markets is establishing and ensuring a system of grades and standards on which market participants can depend.

2.4.5 Food processing and marketing

The reason for concentration in this market is the result of strong links between concentration and the price and profit levels. Generally, an increase in prices and profits can be seen when the share of the market, controlled by the dominant retail grocery chains running their business in given metropolitan area, rises from 40 percent to greater than 70 percent (Seitz *et al*, 1994).

2.5 AGRIBUSINESS AND FOOD CONSUMPTION

Agribusiness firms are aggressive marketers of their products and they do this through advertising and brand packaging. They are the largest users of media advertising in the United States. In the 1970s over 5000 new grocery items were introduced in the United States.

In Australia, in 1938, there were about 1000 grocery items, in 1958 there were around 4000 grocery items, about 6000 in 1978, and by 1984 the figure had risen to above 12,000 (Paine *et al*, 1988). Transnational companies have penetrated markets of many developing countries and have played a bigger role in changing their food consumption patterns However, nutritionists are concerned about the diets composed of mainly processed or 'fast foods' (Paine *et al*, 1988).

2.6 BACKGROUND TO AGRIBUSINESS IN AFRICA

There is generally a lack of research and data relating to corporate farming in the developing world and South Africa in particular (Neill, 1986). Two reasons why geographers have tended to ignore agribusiness are identified by Wallace (1985) as, first, traditional agricultural geography not fashionable anymore, and second, the rich literature on industrial geography regarding theories and philosophy has addressed little of the changes taking place in the agri-food systems.

2.6.1 Colonial history of agribusiness

The slow integration of sub-Saharan Africa into the world economy has had extreme effects on socio-political organization, technology, and production in African societies. Hinderink and Sterkenburg (1987) note that the incorporation of Africa into the world economy has differed both spatially and temporally. In the case of time, they identify three phases, namely, (1) the mercantilist phase between 1500 and 1800 - associated with the slave trade, (2) the period of informal empire that was associated with the industrial revolution, and (3) the colonial era that was associated with accelerated industrial development in Europe and North America after 1870.

In terms of space, the incorporation of Africa into the world economy can be aligned to three geographic levels: (1) macro scale, for instance, West Africa associated with cash crop production, Congo basin associated with concessionary companies, and East and Central Africa associated with European settlers, (2) level of individual colonies, for example, the market economy in the Gold Coast [now Ghana] was based on the indigenous plantations whereas in the Ivory Coast it was based on French planters, and (3) different ways of incorporation within one country, for instance, in Mozambique where incorporation was based on two ways: (a) denying Africans individual property rights and introduction of forced labour, and (b) giving foreign companies free hand to exploit the country's resources.

Dickenson *et al* (1983) maintain that the reason for the development of agribusiness can be traced to the changing relations between Europe, North America, and the Third World. Since the 1880s, the extent of world trade has increased sharply, together with the standard of living, and population growth, hence the need for imports took a new dimension in quantity and variation. Secondly, better transport systems (rail and water) made a major impact on trade.

The pattern of the transnationals' presence in tropical Africa is rooted in the colonial period (Halfani and Barker, 1984). During the post-independence period, the inherited colonial firms often remained active and were an important part of the economy.

As a result, "agribusiness in the Third World (sic) means an integrated food system that extends from factory to consumer - from food production to the manufacture of farm implements and pesticides to food processing and food marketing. Besides linking agriculture to industry, agribusiness also means that agricultural production increasingly resembles industrial production, in the application of technology to control nature, an increase in productivity, and in the use of wage labour ... the spread of agribusiness to the Third World (sic) also entails a central role for the multinational agribusiness corporations that dominate the food system [internationally]" (Burbach and Flynn, 1980, cited in McFadden, 1986, p. 89).

By the end of the colonial period the transnationals had, in Africa, initiated and promoted the cultivation, marketing, and first stage processing of crops needed by metropolitan industries. Henderink and Sterkenburg (1987) maintain that there are few differences between post-independence sub-Saharan countries' agricultural policy.

At independence, transnationals had to adjust to the abrupt nationalization of export commodities. However, through supplying farm machinery, fertilizers, seeds, and processing equipment, the transnationals were able to establish new linkages in African economies, and to expand old ones. "Since the late 1960s agriculture within the region

[Southern Africa] has, through deliberate and carefully planned policies, been reoriented to follow a certain pattern - that of export-oriented production. Under the supervision of multinational capital, and with the direct collaboration of the neo-colonial state, countries like Swaziland and Malawi have emerged in the 1980s as major exporters of commodities like sugar, citrus, tea, tobacco, cotton, *etc.*" (McFadden, 1986, p. 87).

Agribusiness does not only determine how food production and distribution take place, it also shapes the lives of the developing nations' populations who depend on agriculture for a living. In fact, agribusiness is the transferring the social relations of inequality which characterize the capitalist system from First World to Third World countries.

2.6.2 Main characteristics of post-independence African agriculture

There are few differences amongst sub-Saharan countries regarding aspects of agricultural policy. African agricultural policies are summarized by Hinderink and Sterkenburg (1987) as follows:

a. It is mainly geared towards increased production, not rural development.
b. Emphasis on export crops at the expense of food crops.
c. Investments in agriculture being allocated a low percentage of the national budget.
d. Agricultural development is perceived as projects thus ignoring smallholders.
e. External influence, especially advisors, exists in the formulation and implementation of agricultural policies.
f. Little attention is paid to price mechanisms as means of motivating smallholder production.
g. Poor extension services, credit facilities, and marketing assistance.
h. Lack of continuity in agricultural policy.

On the future outlook of African agricultural policy, Hinderink and Sterkenburg (1987, p. 137) comment that "... there are as yet few observable signs of any real change in agricultural policy".

2.7 ADVANTAGES AND DISADVANTAGES OF AGRIBUSINESS

There are mixed feelings as to the impacts of agribusiness in Africa. There are those who believe that agribusiness has been advantageous and others who feel that it has been disadvantageous.

2.7.1 Advantages

Amongst others, agribusiness offers the following advantages:

a. It is responsible for most of the research and development of new inputs (pesticides, herbicides, *etc*).
b. It is capable of streamlining food production and distribution thus reducing food production costs.
c. It brings higher productivity to regions where farming productivity is low.
d. It provides access to new and more profitable markets in the developed countries.
e. Agribusiness can adapt to farming by using smallholders and cooperatives.
f. The multiplier effect of agro-industries helps in the development of the industrial base in Africa.

2.7.2 Disadvantages

Western involvement in African production systems has been exploitative (Dickenson *et al,* 1983). These disadvantages, *inter alia*, include:

a. An increasing encouragement to grow cash crops over food crops. Kebbede and Jacob (1988) report that during the 1984 famine in Ethiopia, vegetables were exported for winter consumption in Europe.

b. It has become hard to gain foreign exchange through the sale of cash crops using traditional plantations.

c. "The creation of large agribusiness may temporarily ease the balance of payments problem of a new country, but creates a level of economic dependency..." (Dickenson *et al*, 1983, p. 111).

d. Agribusiness is least likely to increase production of food crops (Drummond, 1992) and "for the transnational agribusiness corporations, the current approach to food supplies in Africa has opened up large new markets..." (Dinham and Hines, 1983, p. 155).

e. "The consequences of this high technology farming, accompanied by greatly reduced employment opportunities, have been higher food prices, highly concentrated landholdings, reduction in real wages for those lucky enough to have work, and rural migration which merely displaces poverty from the countryside to the cities" (George, 1979, p. 40).

f. Large corporations tend to reduce competitiveness of agriculture by forcing small farmers out of business.

g. Competitive bidding by corporations can result in inflated land prices and high rentals.

h. Mafeje, cited in Nwagboso (1989, p. 137) is very critical of the role of multinationals in African agriculture and angrily questions that "given the experience in Latin America and Asia... what would be the justification for the even weaker African states for putting themselves in the hands of such rapacious agents?".

i. "Farming is saturated with uncertainties: weather, soil, seed, yields. Such uncertainties call for countless important decisions that must be made out in the field and not behind a distant desk " (Neill, 1986, p. 9)

2.8 CONSEQUENCES OF AGRIBUSINESS

Agribusiness is riddled with many consequences and problems. The problems of the small farmers entangled with agribusiness need to be comprehended:

a. They are intertwined producer-consumer units.

b. Their staple foods are often less researched.

c. Their production cycles alternate between short periods of hard work and long periods of "underemployment".

d. They suffer, together with the landless, more than big farmers, from urban-industrial balance of power often through rising prices paid by farmers.

In fact, "large farmers (LFs) adopt innovations, specifically the "Green Revolution" innovations first. The lag in adoption by small farmers (SFs) may give rise to a temporary positive relationship between size of farm and productivity per acre. But the relationship is phoney, in that once a technology has been adopted by both SFs and LFs, the pre-Green Revolution inverse relationship between size of farm and productivity reappears" (Lipton, 1977B, p. 3).

The problem with small farmers is not the technological bias against them, but that the input of supplies and marketing institutions are biased against them. "It is a deep paradox that inputs - including those supplied by western agribusiness - go mainly to LFs, when consideration of efficiency (as well as equity) favour SFs" (Lipton, 1977B, p. 4).

It has also become difficult for African governments to do without agribusiness corporations. Dinham and Hines (1983) for instance, note that in Tanzania, the country attempted after independence, to process its own instant coffee. But because of lack of skills and expertise, the government was forced to call on Nestle to provide marketing, processing, and training.

2.9 PROJECT AGRICULTURE

Closely linked to agribusiness is what is termed "project agriculture". Such large-scale projects have basically been aimed at increased food production, especially of cash crops, in order to ensure national food security. These projects have largely been of no benefit to the local populations, as they are by and large export-orientated.

It has been argued that "one way in which small farmers affected by high production costs can greatly increase efficiency is by forming cooperatives, as in Israel" (Boyce, 1978, p. 219). Cooperatives can therefore be seen in great numbers in regions in which a particular commodity, for instance, wheat, cotton, dairy, livestock, tobacco, wool, citrus, poultry, *etc.* greatly dominates the others. "The system operates through joint ownership of critical off-farm facilities by cooperating farmers. Such farmers may cooperate in the marketing of crops, the consumption of goods and services, or in making available farm loans through credit unions" (Boyce, 1978, p. 219-220).

Marketing cooperatives are the most abundant. Some marketing cooperatives are intimately involved in the packaging, storage, trucking, advertisement, and testing activities regarding a particular agricultural commodity. In such a way, the cooperatives hope to go into larger and far afield markets.

Since independence in the 1960s, many African countries have encouraged large-scale and ambitious project agriculture schemes in order to increase the agricultural output. The desire was also to promote the emerging African commercial farmers. Unfortunately, project agriculture has been of benefit to very few black farmers, and to a certain extent, has made them even worse off. At the same time, project agriculture has benefited large-scale farmers and agribusiness corporations, thus reinforcing the polarity in the African production systems.

Roodt (1984) notes that since the introduction of project agriculture in Ditsobotla, farmers have become more debt-ridden. Furthermore, they are farmers in name only as decisions on fertilizer application, weeding, crop spraying, and harvesting are taken by the corporation.

Roodt (1985A) maintains that the development of agriculture by large-scale capital-intensive projects follows the changes and structure of the economy in South Africa since the 1960s. Drummond (1992) notes that the development of project agriculture can be linked to political motivations. For example, in the former Bophuthatswana, the development of the Ditsobotla dry-land maize schemes was aimed at making the homeland self-sufficient in food production in order to strengthen the former Bophuthatswana's case for international recognition.

The establishment of large agricultural projects has been aimed at promoting viability and self-sufficiency in the homelands. The Transvaal and the Free State cooperatives became involved in the financing and management of the projects in the former Bophuthatswana. "... the increase in foreign investment and the centralization of mining, manufacturing, and agricultural capital have promoted the organizational and financial infrastructure required for large-scale investment in homeland agriculture" (Roodt, 1988, p. 241).

In 1962 the former bantu homelands constituted 13 percent of the total South African land surface and had 43 percent of the country's 8.5 million population (Fair and Green, 1962). The former homelands were characterized by: primitive and subsistence agriculture, few towns of any significance, scarce mineral resources, no widespread manufacturing, electric power lines, railways, and main roads were either absent or severely limited. "There is, however, no question of these reserves being entirely abandoned economically and their inhabitants deprived of any hope betterment" (Fair and Green, 1962, p. 7).

The former homelands arose because of the policy of separate development whereby these areas were to be 'divorced' from the white areas. The main development problem facing the former homelands was that too many people and livestock lived on too little land. For instance, there were 63 persons per square mile in the former homelands against 27 persons per square mile for South Africa as a whole.

The projects have largely encouraged the growing of export-orientated cash crops. Where these crops are directed to African markets, production is normally unnecessary mass consumption goods like beer and cigarettes (Halfani and Barker, 1984). Dinham and Hines (1983) tell of how Bud Senegal - a California-based agribusiness company - exported vegetables to Europe. When prices fell drastically in Europe, and locals could not afford the cash crops, the crops were simply thrown away. While the Senegalese were starving of drought in 1974, European governments were buying up and destroying vegetables in excess of 53 million pounds.

Often the projects have been imposed on and were not to the benefit of the local population. Drummond (1992) points out how the local population in Dinokana resisted the projects by stealing the crops and by destroying water pumps used for irrigation in the projects. In Senegal, Dinham and Hines (1983, p. 32) comment that "Local people gained few jobs from the project [Bud Senegal] ... Bud uprooted the indigenous baobab trees which were important village resource, having previously provided local families with rope, planting materials, fuel and with erosion protection. Other villagers fared even worse: the government provided police to evict them from their land to make way for Bud's plantations".

2.9.1 Summer Grain cooperatives in South Africa

Morrell (1986, cited in, Bernstein, 1996, p. 8) maintains that "hardly anything has been written on South African cooperatives". In the 1920s and 1930s the formation of cooperatives was a key to the development of coherent agrarian interest

(Bernstein, 1996). They became powerful agricultural institutions, building an almost monopoly of the infrastructure of grain handling, silos, and their transport connections. "As agents of Land Bank credit, often monopoly suppliers of inputs, the cooperatives were able to tie many of their members to the purchase of machinery, spare parts, fuel, seed, fertilizer, and other chemicals from their stores ... the grain cooperatives also started to invest significantly in downstream activities such as maize milling and feed production" (Bernstein, 1996, p. 9).

While in legal form and ideological self-image the cooperatives were organizations owned and controlled by their farmer members, their socio-economic status was that of a vertically integrated agribusiness enterprise run in quasi-corporate manner by professional senior management.

White farm debt increased from R86 million in 1980 to R16 billion in 1990 (Bernstein, 1996). Drought relief supported farmer debt to the cooperatives. However, in the beginning of the 1990s the cooperatives were in a stronger position economically. The re-incorporation of the Bantustans into South Africa after 1994, and the collapse of their various development agencies, gave the cooperatives a chance to expand their business with black farmers and consumers by taking over the depots and stores that were owned or sponsored by the bantustan regimes (Bernstein, 1996).

In the early 1990s there were 25 amalgamations of cooperatives involving 60 cooperatives (summer grains and winter grains). Only four such amalgamations had taken place in the 1980s (Bernstein, 1996). There was also a R3 billion state drought relief programme of which R640 million went straight to cooperatives' accounts, R1.8 billion was given to farmers (as compensation for crop damage or as carry-over debt subsidies) the bulk of which went to the cooperatives to which farmers were heavily indebted.

There was also, in 1993, the enactment of amendments to the cooperatives legislation (Bernstein, 1996). The cooperatives repositioned themselves for the new South Africa.

For instance, there was an extension of cooperative business to non-member African farmers, whom the cooperatives wanted to capture their expenditure without admitting them to membership. Furthermore, the cooperatives were able to convert themselves into companies or closed corporations.

2.9.2 Project agriculture and settlement schemes in Bophuthatswana

Roodt (1985B) points out that as of 1985 there had been very little direct involvement of private agribusiness in the homelands, especially in Bophuthatswana. Most capital penetration in Bophuthatswana has involved a combination of state and private agricultural capital. Keenan, cited in Drummond (1992, p. 145) cites the following factors as having made the bantustans attractive to agribusiness:

a. Cheap or non-existent rent for agricultural land.

b. Cheap and controlled labour.

c. Various forms of subsidy.

d. Large-scale high technology projects that guaranteed captured markets for agribusiness.

From 1973 - 1980, 60 primary and two secondary cooperatives were set up in Bophuthatswana (Beuster, 1980). Their role was to provide farmers with credit facilities, management services, and marketing facilities. Development priorities included *inter alia* (1) the full development of existing irrigation schemes, (2) dry-land cropping areas with high potential, (3) intensive and extensive livestock production areas, and (4) the development of new irrigation schemes (Beuster, 1980).

The projects in Bophuthatswana have been linked to the highly capital-intensive multinational agribusiness network (Roodt, 1984). Notable is Vetsak, a retail outlet in South Africa for giants like Fiat Trattori, Claas, Amozonen, Allis-Chalmer, Hobbs Incorporated and Kuhn. Vetsak also co-owned Temo-vet on a 50 - 50 basis with Agricor

(Agricultural Development Corporation). Temo-vet sold all inputs except fertilizer and fuel.

The establishment of Agricor at the end of 1977 was a policy to improve agriculture through government action (Jeppe, 1980). Agricor was charged with monitoring the growth and the development of the agricultural projects in Bophuthatswana. The two largest agricultural projects in Bophuthatswana were the Mooifontein the Sheila-Verdwaal projects. The Mooifontein and Sheila dry-land maize projects occupied nearly half (48%) of the Ditsobotla region.

These farms had been bought from white farmers and the African European Investment Company (AEIC) (Roodt, 1988). The residing population was composed partially of former employees of the white farmers who chose to remain. The individuals were allocated plots to farm. Most of the residents had been victims of forced removals from Western Transvaal and surrounding white farms. Many had been removed under the policy of "betterment planning". "Betterment planning" will be discussed in detail in the next chapter.

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Before the introduction of the projects in Ditsobotla in 1976, 56 percent of the farmers cultivated their own land and an average farmer earned an average gross income of R70.60 per ha and an average net income of R40.98 per ha (Roodt, 1985B). Since the implementation of the projects black farmers have lost income. In 1983 the farmers' gross income was R69.99 per ha. This was largely attributed to over-capitalization. "It is clear ... that Agricor's priority was not to improve the lot of the individual project participants [but] increased maize production ..." (Roodt, 1985B, p. 8).

Since the introduction of the projects in 1976, the majority of participants were not full-time farmers because they were unable to earn a living from the 15 ha of land that had been allocated to each of them. Roodt (1984) points out that the companies that sold inputs could not lose out because their money was guaranteed irrespective of the yield.

The farmer, on the other hand, was only dependent on what was left over after all the costs had been subtracted.

A number of projects will now be briefly discussed.

a. Dinokana rice and vegetable schemes

Drummond (1992) studied two projects in Dinokana, the rice and the vegetable schemes. The rice project, although it did not benefit the local farmers, as it was state project, was relatively successful. Gross income of R6250.00 per ha was obtained. The rice straw could be sold to stock farmers at R230.00 per ha. However, the problem was that the local population rejected the scheme claiming that it used too much of the water from the local spring. Other problems developed when the Taiwanese managers left in 1986 and when the rice market in Botswana was lost due to visa disputes between Gaborone and Bophuthatswana in 1986.

The vegetable project was set up in 1984 and was very capital intensive using an Israeli-built computer controlled drip system and a hired Israeli agribusiness company Agri-Carmel. The first year of produce was successful as cheap vegetables like onions and carrots were planted and the locals could afford them. During the second year, the project switched to expensive vegetables like green peppers. Because of marketing problems in the open market, like poor timing of delivery and because the local population could not afford those vegetables, they were simply thrown away. This crippled the project and precipitated a financial crisis. Furthermore, when the Israeli experts left, the computerized irrigation system could not be used, as the local people working in the project had not been trained to operate the computerized irrigation system.

b. The Sheila-Verdwaal project

The Sheila-Verdwaal project was the first agricultural project initiated in Bophuthatswana and was seen as a pilot project, comprising 429 farmers. The project was started in 1975,

on state tribal land, after a thorough soil survey by the University of Potchefstroom. The reasons for selecting the site were: (1) the location was on good dry-land farming land, (2) farmers had been able to produce good harvest without outside help, and (3) easy accessibility as it was near Mafikeng-Lichtenburg main road.

The area of fields previously planted by villagers on communal land was about 1200 ha. There were approximately 170 fields of an average field size of about seven ha. The planning, initiation, and implementation of the project was carried out in close cooperation with the local community authority (Jeppe, 1980). However, Roodt (1988, p. 242) states that "this [project] involved the loss of some communal grazing, yet most farmers approved of the scheme as it represented an overall increase in arable land".

Technical assistance, credit facilities for buying tractors, other implements, seeds, fertilizer, and fuel, were obtained from NWK (North West Cooperative). Through negotiations with NWK, 45 white farmers from the neighbourhood simultaneously ploughed about 1400 ha. Twenty six tractors were bought on credit by black farmers.

The buying of mechanical units (tractors and implements) was done through three registered cooperatives: the Sheila, De Hoop, and Verdwaal cooperatives. Contractors could plough 30 ha. A total of 3400 ha were planted in the first season. The average field size in the Sheila project was 18 ha. The villagers who had had seven ha kept the land and received an extra 18 ha. It was initially estimated that net income would be R 65/ha per *annum*, thus a net income of almost R1170.00 per year for 18 ha.

Outcomes after the first year

Yields ranged from about nothing to about R2000.00 net income and most farmers kept some maize for household consumption. The targeted output of 70,000 bags could not be met. Only 55,000 bags were produced. The officials noted that 18 ha were not economical

(too small) and therefore it was decided that 45 ha would suffice to bring a net income of between R1500.00 and R2000.00 per year.

Neglect of fields by farmers who went to look for jobs elsewhere because of the uneconomical plots became a big problem. Finance interest (11% and 12%) was too high. The interest rates were not developmental to the farmers, but was financing aimed at producing profit. Interestingly enough, the Department of Agriculture received several requests from other tribes to set up similar projects in their villages. "This project, which then had three full production seasons, covers about 3725 ha and is divided into 30 tractor units ... of 120 ha each. Each contractor cultivates an average of 30 ha for his own account, while he also cultivates the plots (of 15 ha each) of six holders of rights of use" (Jeppe, 1980, p. 131).

c. The Mooifontein project

This project began in 1977 and was financed by the Economic Development Corporation (E.D.C) at five percent interest and grew to become the largest dry-land maize-producing project in South Africa. The project had 1305 participating households (Roodt, 1988). The management system was greatly influenced by the Israeli Moshav system. Farmers did not, as in Sheila, buy tractors and implements in the first year. However, tractors and implements were bought by the cooperative and each operator was fully responsible for one tractor, and successful farmers could be entitled to be allocated machinery in the second year.

Roodt (1988, p. 243) states that "instead of using contractors, machinery is owned by 15 production cooperatives which make up the project and employ drivers to operate machinery at hire charges to farmers. Participants are also allocated 15 ha arable allotments. Agricor is responsible for seasonal inputs such as seed, fertilizer, weed killers, and fuel; and all costs are shared by Agricor and the E.D.C". The 15 primary cooperatives formed the basic units of Agricor's *Temisano* - farming together - strategy for rural development (Roodt, 1985A). The aims of *Temisano* were: (1) agricultural production,

(2) community development, (3) a training function, and (4) promotion of secondary industries.

The E.D.C applied a booster phosphate in Mooifontein which led to a better crop production than in Sheila. The total hectarage in Mooifontein was 2500 and the average field size about 18 ha.

All the primary cooperatives had a management committee elected annually, officially controlling the project (Roodt, 1988). However, in reality they just rubber-stamped decisions made by white management. Roodt (1988) maintains that 57 percent of the farmers had intended to quit cooperative farming at the end of 1983 and to continue farming on their own. The prospects for agriculturally-based industries as a source of rural employment looked bleak as only 483 jobs could be created in Ditsobotla (Roodt, 1984).

It had become obvious that the 15 ha plot size was not capable of supporting capital-intensive production techniques and to provide participants with equitable income. Thus it was suggested that the farmers would need 71 ha to obtain livable income. Should this have been the case, only 986 households would have been accommodated, instead of the already existing 1305 households. Roodt (1984, p. 330) notes that "over-capitalization therefore, could be one of the major reasons why the total amount spent on inputs at Mooifontein often exceeds the gross income".

The government's contribution to both the Sheila and Mooifontein projects had been the provision of free overhead management. However, in future, the projects would themselves have to undertake this management.

d. The Mierrust wheat project

This project was carried out on state land on the border between Mankwe and Madikwe districts. It was undertaken on the principle of a moving nucleus run by the Tswana

Agricultural Cooperative (T.A.C) to generate own income (Jeppe, 1980). The total area of the original nucleus was 2400 ha.

The T.A.C allocated 100 ha to each of six farmers who had been trained as workers in the preceding year. Expectations were that the T.A.C would be phased out after about 6000 ha had been developed. A net income ranging between R3000.00 and R4000.00 per year was expected (Jeppe, 1980).

e. The Polar project

This was a cooperative beef production scheme undertaken on state tribal land in Ganyesa district, covering 11000 ha. Sixteen Batswana farmers participated, each contributing 20 heifers and R200.00 to the communal cattle farm (Jeppe, 1980). The farm manager was an extension officer from the Department of Agriculture and would manage the farm for only three years, while training one farmer who would replace him at the end of his term.

In June 1978, there were 320 cattle (20 cattle contribution by each of 16 farmers) and 160 calves had already been born (Jeppe, 1980). A similar project to Sheila-Benny Colville group of farmers - of about 39,800 ha - was being planned for Tlhaping-Tlharo on state land and would have a carrying capacity of 4000 herd of cattle, thus many black farmers would be able to participate.

f. The Taung irrigation scheme

In 1977 the total area, on which 1620 plots of two morgens (1,7 ha) each were cultivated, was 3057 morgens (Jeppe, 1980). Because of the small size of the plots, communal farming was allowed. By June 1977, there were ten communal projects. The average yield of about six - ten people who farmed communally on 20 - 26 morgens (16.7 – 21.7 ha) obtained higher yields than 2 morgens.

Gross income on two morgens was about R600.00 per year and R12 rental was paid annually (Jeppe, 1980). Plans were afoot to increase the average plot size to eight ha so that a farmer could get R2000 net income per year. "The Department of Agriculture has in view a big physical redevelopment programme which will mean an estimated government expenditures of R2000 per hectare. Consequently rent on plots will have to be increased considerably to about R100.00 per ha per *annum* ..." (Jeppe, 1980, p. 138).

Another development that was being considered was the introduction of two pivot irrigation systems, each capable of irrigating two circles of 32 ha and these would be more efficient than flood irrigation. The development of 500 irrigation plots of eight - ten ha each, totaling about 4000 ha, was also being considered. The objective was thus to establish 500 full-time irrigation farmers.

g. Goedvooralles group farming

This project was a communal farm on state land with eight cropland farmers and 11 cattle farmers, in Moretele district. The eight farmers cultivated 62 morgens (53.1 ha) communally, paying the rent of R200 per morgen. They decided to keep all the profits for five years from the start of the project in 1972 in order to establish reserve funds. They also farmed tribal lands of about 2.5 ha each

Jeppe (1980, p. 140) notes that "... the eight farmers are in agreement that they want separate fields. One important argument is that all farmers do not make the same labour input and consequently, the harder workers do not receive their just additional benefits". The eleven cattle farmers were also farming communally and had approximately 300 cattle. One farmer had 95 cattle while another had only 15 cattle.

h. Railway block cattle farming

This project was carried out in Western Molopo. Rights of grazing were leased to individual farmers at 60 cents per head per year (Jeppe, 1980). Only cattle farming for

milk and beef production was allowed. The biggest farmers (3 - 5) each had up to 300 cattle while the smallest farmer had at least 15 cattle.

After the 1994 democratic elections in South Africa, the former Bophuthatswana's agricultural schemes were run by the North West Agricultural Department. The agricultural schemes all continue to be run by the Agricultural Department, except for the Tsholofelo Citrus project that has been rented to a white businessman.

2.9.3 Cooperatives in the new South Africa

Cooperatives are now converting into companies - a trend started by the Oos Transvaal Kooperasie (OTK). It is still not clear how (partially) deregulated maize market will work, but certainly the cooperatives will be faced with competitive conditions (Bernstein, 1996).

There is excess number of silos and most of them are located in isolation or in marginal growing areas (Bernstein, 1996). This is likely to have strong negative impact on North Transvaal Cooperative (NTK). On the other hand, big cooperatives like Sentraal Wes Kooperasie (SWK) are (1) close to the centre of demand, (2) have many farmers indebted to them, (3) controlling the bulk handling and storage infrastructure, and (4) their downstream usage of maize milling and feed production places them in a better position than any potential competitor.

Cooperatives are also serving themselves as agents to deliver agricultural and rural development, that is, are contracted to RDP projects by (1) claiming unique expertise to servicing farmers and rural communities, (2) proven track record in the bantustans, and (3) opposing black farming associations. They have reduced their dependency on Land Bank by establishing relationships with commercial banks (between 1983 and 1992), especially Volkskas, listing on the Johannesburg Stock Exchange, for example the (OTK) - East Transvaal Cooperative (Bernstein, 1996). Some cooperatives have entered

into joint ventures with the Transnational Companies, for instance, SWK and Heinz in potato products, and others have sought legitimation (they have entered the International Cooperative Alliance [ICA] and have links with Canada through Canadian Cooperative association [CCA]) (Bernstein, 1996).

2.10 CONCLUSION

This chapter has outlined the characteristics and the behaviour of agribusiness. While agribusiness offers many positive spin-offs like research on inputs, providing farmers with access to new and profitable markets, *etc.*, there are also negative aspects associated with agribusiness, for instance, favouring of large producers over small producers and encouragement to grow cash crops over food-crops.

Plantation or project agriculture, on the other hand, seems not to benefit the majority of peasant farmers. Many developing countries have fallen into the trap of equating project agriculture with rural development. Project agriculture tends to be large-scale and capital-intensive, thus excluding the peasant farmers. They have also been characterized by the forced appropriation of tribal lands as it was the case with Bud-Senegal in Senegal.

Chapter three changes focus away from agribusiness to the agrarian question in South Africa. Briefly, the chapter will outline the land injustices in South Africa, farming in 'white South Africa' and how to solve the land question in South Africa.

CHAPTER 3

THE AGRARIAN QUESTION IN SOUTH AFRICA: THE BIG VERSUS SMALL DEBATES

3.1 INTRODUCTION

Agriculture in South Africa has in recent years seen more emerging black commercial farmers coming into the fold. Black small-scale farming, on the one hand, had largely been confined to the former homelands. White large-scale commercial farming, on the other hand, has benefited a lot from government policies at the expense of black farming. Now, in post-1994 South Africa, the agrarian question seems to be going to be one of the mostly debated issues. There will be various approaches as to how to solve the land injustices that have occurred over the last century.

Against this background, this chapter sets out to examine, firstly, the historical background to South African agriculture, secondly, the land tenure systems in the homelands, thirdly, "betterment planning", fourthly, farming in white rural South Africa, fifthly, land utilization in South Africa, sixthly, the land question, and finally, how to solve the land question.

3.2 HISTORICAL BACKGROUND TO SOUTH AFRICAN AGRICULTURE

South African agriculture can be studied under different temporal frame-works, namely, the 19th Century, farming at the beginning of the 20th Century, and the following periods: 1910 – 1948, 1949 – 1958, 1959 – 1976, and late 1970s – post-1994 elections era.

3.2.1 Farming in the 19th Century

Haines and Cross (1988, p. 73) point out that "by the late 19th century (sic), whites had conquered the whole of the geographic areas of what is now South Africa, and had taken possession of the bulk of the land". The agrarian landscape of South Africa in the mid-19th Century constituted of (1) large-scale white farms using hired labour, (2) manorial settler estates with indigenous tenant farmers, and (3) free indigenous farming on land owned by blacks (Mbongwa *et al*, 1990). Differences between coastal and interior farming could be discussed.

Coastal farming, on the one hand, had all three types of farming mentioned above: producing horticulture, livestock and crops; and was exporting wool, wine, and fruits to Europe. Interior farming, on the other hand, practiced mostly by indigenous farmers, was raising livestock and crops for household consumption and sold the surplus. Land ownership varied from communal to private land ownership.

From the mid-19th Century blacks held the land in the same manner of title as white settlers in the Cape Colony. There was no law prohibiting Africans from acquiring freehold of property (Haines and Cross, 1988). During the second half of the 19th Century there was in the Cape Colony the creation of a number of reserves - created either as refuges for dispossessed Africans or as labour pools for whites. "Cape Colony's major reserves were the Ciskei, demarcated in the late 1870s, and the Transkei territories (Transkei proper, Tembuland, Pondoland, and parts of Griqualand East) which were incorporated into the Cape Colony from 1875 - 1900. Other reserves were established in the districts of Vryburg, Kuruman, Taung, and Gordonia, and in Griqualand West. Natal held numerous locations and mission reserves ..., while Zululand was divided between white farmland and reserves after annexation in 1897. In the Free State only a few reserves were established: Thaba Nchu and Seliba are today parts of Bophuthatswana and Witzieshoek forms a core of the homeland of Qwaqwa. In the Transvaal, there was

considerable confusion regarding the demarcation of land for black occupancy, 21 locations were set up between 1884 and 1896" (Haines and Cross, 1988, p. 73).

The discovery of diamonds and gold in the 1870s and 1880s not changed the interior farming system but South Africa's economy completely. African family farming responded positively to the growing urban and industrial population by producing more agricultural commodities. On the other hand, large settler farming was inefficient because of low wages and could therefore not attract African labour away from their own farms.

In 1860 more than 83 percent of about 500,000 ha of white owned land was farmed by Africans. "Many settler farmers ... were unable to compete with African farmers who produced higher grain yields per hectare and cultivated more land than they did" (Mbongwa *et al*, 1990, p. 38). The incorporation of the Transkei territories brought fears of an increase in African voters on the Cape common roll. This, and demand for labour in the mines led to changes in the reserve policy (Haines and Cross, 1988). With no labour, settler farmers forced the government to intervene on their behalf by (1) limiting African competition in the market place, and (2) setting native reserve policy to create land shortages for Africans. The 1894 Glen Grey Act envisaged political segregation process.

The period between 1870 and 1890 was seemingly the most productive era in the black farming history (Haines and Cross, 1988). *Black farming had responded well to the market. However, the success came from those who held title to the land or were renting land from white farmers.* In the 1890s, mission reserves were prohibited from giving out freehold title and by 1910 African acquisition of land had been prevented. Towards the end of the 19th Century ability to produce grain and vegetables by tenant farmers was affected by sharp increase in the rate of evictions of Africans from white-owned lands.

3.2.2 Farming at the beginning of the 20th Century

Attempts by the British to take over the Boer republics led to the outbreak of war (1899 - 1902). During the time, Africans bought land individually and in groups - using missionaries as 'fronts'. "The state, however, did more than hinder black farming, white farmers received substantial support from the government in the form of subsidies, grants and other aid for fencing, dams, houses, veterinary and horticultural advice, as well as subsidized rail rates, special credit facilities, and tax relief during the period 1890 -1908" (Mbongwa *et al*, 1990, p. 42).

3.2.3 1910 - 1948

The South African Party became the first government after the Union. It principally represented white farmers and the mining interests. Among government's objective was to secure adequate labour supplies for the mines. To achieve this, various restrictions were imposed on African farmers such as:

a. The Land Acts of 1913 and 1936 restricted Africans from purchasing land outside the reserves.

b. African farmers were prohibited from joining state-sponsored marketing cooperatives and unions.

Whites were also forbidden to occupy or to buy land in the reserves. However, the new changes in the agrarian structure did not resolve the problem of large-scale white farming, that of low profitability or labour shortages as landless African farmers chose rather to work in the mines, industries, or in towns (Mbongwa *et al*, 1990). One option which was exploited to supplement farm labour shortages, was the employment of black prisoners arrested under pass laws.

The National Party came into power in 1948 and introduced further segregation policies that even segregated blacks from blacks. "Under apartheid, the old agrarian economy

dominated by junker estates was transformed into a new agrarian economy based on large commercial farms" (Mbongwa *et al*, 1990, p. 52 - 53).

3.2.4 1949 - 1958

Haines and Cross (1988, p. 84) note that "the post war United Party had been tentatively moving towards accepting permanent African urbanization, it had been moving away from reliance on migrant labour, and considering the possibility of land settlements by Africans outside the reserves. Immediately on taking over, the National Party began to change all this".

The first priority was to do something about the threatening presence of blacks in towns (Haines and Cross, 1988). This led to the 1950 Group Areas Act, the segregation of residence and trade. Townships with black freehold such as Sophiatown and Lady Selbourne were destroyed. In 1950 the Tomlinson Commission was appointed to pursue policies of separate development.

3.2.5 1959 - 1976

The reserves were officially renamed 'homelands' in the late 1950s. The National Party's intention was to remove all blacks from white areas to the former homelands. Whites living in the former homelands were paid to leave. Since 1960 about 1 million people had been forcibly removed from white farms. Another 600,000 had been moved from black spots (Haines and Cross, 1988). In total, about 3.5 million people, mostly African, were forcibly resettled between 1960 and 1980 (Mbongwa *et al*, 1990).

On May 31, 1961, South Africa became a republic and withdrew from the Commonwealth of Nations. Racialism increased and this led to some countries imposing economic sanctions against South Africa (Mbongwa *et al*, 1990). In 1970, the Bantu Homeland Citizenship Act was passed, forcing all Africans in the republic to become

citizens of some homeland. Decentralization attempts were extended through the 1970s with little success (Mbongwa *et al*, 1990).

3.2.6 Late 1970s - post-1994 elections era

Due to black political dissatisfaction, black poverty in the homelands, the state came to realize that the economies of the homelands could not be seen as separate entities. The 1981 Good Hope Plan divided the country into eight development regions that cut across the homelands' borders.

As a consequence of the Land Acts and National Party policies, by the end of the 1980s, the Black African family farming sector had been diminished (Mbongwa *et al,* 1990). Ninety percent of arable land was white owned. The remaining 10 percent of arable land was in the former homelands. Government had argued that the former homelands would be areas where Black Africans would engage in subsistence farming. However, this subsistence policy clearly failed as today about 80 percent of household incomes in the former homelands is obtained from migrant earnings and pensions.

Available research points to the dominance of off-farm income for the bantustans households. Wages and pensions account for greater than 80 percent of total income. (Weiner *et al*, 1997). Producing for home consumption is found in varying degrees throughout the bantustans. In Community Perspectives on Land and Agrarian Reform (CPLAR) workshops, an important rural need was to secure more reliable subsistence food production closely tied to demands for more arable land. "Today most former homelands are peripheral, overcrowded, poverty-stricken, and lack proper infrastructure, despite some family-farmer support development programmes. Genuine developmental strategies were frustrated by the overwhelming problems of these areas" (Mbongwa *et al*, 1990, p. 57).

Attempts to study social differentiation in the former bantustans have reinforced the importance of off-farm income for household production. "Access to off-farm income as it interacts with family demographic cycles and educational status has become the dominant measure of socio-economic differentiation" (Weiner *et al,* 1997, p. 52).

During apartheid, the former bantustans were seen as apartheid labour reserves, black agriculture as underdeveloped, and the former bantustan residents were functionally urbanized. Three years after 1994 elections there was still confusion about "who the bantustan population are, and what they want, need, and are capable of achieving. Bantustan people continue to be categorized both as aspiring urbanites and as latent peasants" and that "essentially urban, and often uninformed, perceptions regarding the skills and desires of rural bantustan people are a product of a top-down research environment where poor rural people are treated merely as objects of study" (Weiner *et al,* 1997, p. 47 and 53).

3.3 LAND TENURE IN THE HOMELANDS

Communal tenure system was officially defined by the Proclamation R188 of 1969 which allowed a male to hold various land allotments for residence, arable farming, and grazing. Land access is simply by virtue of being a member of the community. In 1989, approximately 15 percent of land in the homelands was held in freehold (Mbongwa *et al,* 1990). "The traditional land tenure system in the national states can be classified as a system where ownership is vested in the community and usufructory rights are vested in families. These usufructory rights are rigidly protected by traditional laws. This system provides social security for the people in tribal areas, and any threat to the system is a threat to the security of the community and the individual" (Van der Wal, 1988, p. 36).

3.3.1 Land availability, use, and productivity

Weiner *et al* (1997) maintain that there are three important assumptions on land availability, use, and productivity that dominate policy documents: (1) that there are high landlessness rates, (2) overcrowding and arable land under-utilization, and (3) that bantustan small-scale farms have potential to be more efficient than large-scale commercial farms.

With regard to the first assumption, empirical case studies often tell a different story, for instance, a KaNgwane survey and two Kwa-Zulu surveys reported 100 percent access to agricultural land because only farming households were surveyed (Weiner *et al,* 1997). This leads to possible sampling bias associated with bantustan research, raising questions about the true extent of landlessness.

Under-utilization of arable land in the bantustans represents a rational household behaviour - constrained by access to agricultural capital and inputs. Whereas there is empirical evidence to support this claim, there is a need to recognize an over-utilization problem as well since many households farm areas not well suited to agriculture. This problem of over-utilization, is supported by Mather (1996) who states that in the former bantustans pastures are overgrazed due to the overcrowding that resulted from forced removals. Furthermore, the development of capitalist and state agricultural projects, have further exacerbated environmental degradation.

Data on agricultural productivity is poor. Low yields (less than 1000kg/ha) are generally reported, due to limited use of inputs, droughts, and poor soils. However, there are examples, where intensification of production has been documented and yields of one to three tonnes/ha have been reported (Weiner *et al*, 1997).

3.3.2 Tribal land administration

The 1951 Bantu Authorities Act was a three-tier system of authorities consisting from top to down, of the chief magistrate, district magistrate, and the tribal authority (the chief and his councilors). Prior to 1951 it had only been the former two. The Act saw the removal and replacement of 'dissident' chiefs and between 1955 and 1958, 30 chiefs had been removed. Chiefs demanded reimbursement for their services and "complaints about the chiefs' injustice, corruptibility, and the higher bribes people now had to offer instead of the modest customary gifts, were heard on all sides" (Meyer, 1973, cited in Haines and Tapscott, 1988, p. 167).

Traditionally land allocation is the duty of the chief through his headmen. However, "it is a virtual norm in all districts of the Transkei, that applications for land must be accompanied by payments of alcohol, poultry, sheep, or even, where competition for land is high, an ox... In addition it is certain that the practice of payment for land, though illegal and prohibited, has become increasingly prevalent as land shortages have been exacerbated" (Haines and Tapscott, 1988, p 170).

Bantu Authorities introduced more systematic application of land rehabilitation and stock control measures that led to widespread resistance. It is important, however, to note that "the stultifying effects of chiefship on rural development are by no means confined [to the] Transkei - similar practices exist in all the homelands" (Haines and Tapscott, 1988, p. 173).

Whereas there is general opposition to the chief allocating the land (in Mpumalanga), the chieftaincy institution is ambiguous (Levin and Makhabela, 1997). They argue that democratic land reform should not overlook the power relationships associated with the institution.

Their 1997 workshops in Marite (Mpumalanga) had shown that:

a. People felt land should be democratically allocated in future through committees chaired by an elected official, not a chief or king.

b. People maintained that chiefs should not occupy their present status as they have become apartheid puppets who oppressed their own people.

However, there is a need to accept that chieftaincy is here to stay because the new constitution allows for this. Chiefs are allowed to be ex-officio members of local government structures (Levin and Makhabela, 1997).

3.4 BETTERMENT PLANNING

About 70 percent of South Africa's black rural population lives under "betterment planning" or planned village land use (Mbongwa *et al*, 1990). Yawitch (1988, p. 101) maintains that "ostensibly intended to improve rural agriculture, betterment originally served to push rural dwellers into agricultural and industrial workforce. Today, with structural unemployment increasing, betterment entrenches state control over the impoverished areas which house the reserve army of the unemployed".

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3.4.1 Historical overview of "Betterment Planning"

The 1913 Land Act divided the land according to racial lines and was reinforced by the 1936 Land Act. The latter Act came up with a list of 'released areas', that is, land to be set aside for Black African resettlement. A fund was set up to buy land and was administered by the South African Native Trust, hence the name 'Trust Land'.

Nonetheless, "the direct origins of betterment schemes are not easy to trace. However, their basic pattern of one-man one-plot can be traced back to the Glen Grey Act of 1894, which provided for surveyed allotments under individual tenure" (Yawitch, 1988, p. 102). The four morgen plots were uneconomical and were intended to provide migrant

workforce through both the need to supplement subsistence production and also through the creation of landlessness in each generation.

"Betterment planning" has led to people finding themselves with smaller fields and longer distances to walk to fetch fuel. A decrease in land for Black Africans resulted in overstocking, overgrazing, land deterioration, overpopulation, and landlessness (Letsoalo, 1991). These problems continued until the reserves were no longer self-sustainable and could no longer produce migrant labourers.

The Nationalist regime attributed all these factors to 'bad' farming practices and 'laziness' among Black Africans. The government, therefore, perceived the problem as lying in land mismanagement rather than underdevelopment. As a result, their solution was rehabilitation - division of land and stock. "Rural development thus entailed a piecemeal scheme of agricultural extension schemes with the emphasis on introducing better crops, methods of production, and livestock strains" (Letsoalo, 1991, p. 103). "Betterment planning" was also accompanied by the infamous cattle culling measures that precipitated peasant resistance in the 1930s, 1940s, and 1950s in the homelands. The rebellions were, however, localized and were never organized nationally (Yawitch, 1988).

A critical period in the history of "betterment planning" was the appointment of the Tomlinson Commission in the early 1950s. In its 1956 report the Commission recommended land reform in the reserves - that Africans be divided into the landless and full-time farmers groups. The landless had to occupy "closer settlements" (settlements near towns) and were to be entitled only to residential plots. Full-time farmers would be settled in betterment villages and would have farming rights.

The second key feature of the Commission was the proposal that arable and residential plots should be demarcated and sold at a fixed price. However, the government turned down this proposal arguing that the approach would be contemptuous to the whole tribal

structure. The Department of Bantu Affairs instead implemented a mixed "betterment planning" programme, governed by Proclamation R196 of 1967.

The main provisions (Letsoalo, 1991) were:

a. Some people would be allocated full economic units, others would be allocated progressively smaller units, in the hope that people with small plots would be freed to leave their plots to seek jobs elsewhere.

b. Economic units were to be given to potentially competent farmers chosen by the chief or headmen.

c. The state allocated farming rights to all who previously had such rights. Arable units were divided into equal units, thus reduction in plots for those who previously had more.

d. People were granted certificates of occupation that could be withdrawn if the occupier failed to satisfy conditions of occupation. Plots were heritable and could be subdivided.

e. Areas occupied by Africans could be declared an irrigation scheme and each occupant automatically becomes a probationer lessee, paying a R12 annual rent.

f. Culling and sale of stock were imposed to achieve stock limits.

g. Betterment involved reorganization of rural settlements from scattered homesteads to grid-iron street pattern.

h. Arable lands and grazing camps were demarcated, changing traditional patterns of land usage, landholding, and communal grazing.

To sum up, although it was racist in outlook, "betterment planning" had its own good outcomes: the goal had been to rehabilitate the agricultural base in the former reserves. The formerly dispersed settlements were replaced with nucleated settlements after the people had been forcibly resettled and it was therefore easier to provide infrastructure like schools, clinics, electricity, *etc.*

There were also bad outcomes that were associated with "betterment planning" and they seem to outweigh the good outcomes. "Betterment planning" was associated with forced removals – more than 1.5 million people were moved. "Betterment planning" led to major reconstruction of rural lives, for example, traditional systems involved communal grazing without provision for rotational grazing. "Betterment planning" involved demarcation and fencing of arable lands and grazing camps. "Betterment planning" also led to growing landlessness and reduction of the area of land that African farmers could cultivate.

3.5 FARMING IN WHITE RURAL SOUTH AFRICA

The Industrialization of South African agriculture was rapid after 1960 so that "by the 1980s it was difficult to distinguish farming practices in South Africa's white areas from those present on the Canadian prairies" (Mather, 1996, p. 43). Over the last half of the 20th Century agricultural production in South Africa experienced considerable restructuring as a result of: (1) concentration of land ownership, (2) concentration of capital, (3) mechanization and technological innovation, and, (4) promotion and subsidizing of these processes by the state (Marcus, 1989).

3.5.1 Concentration of land

In South Africa, arable land is concentrated in white hands, holding 87 percent of all land. Another source of land to whites has been the homelands themselves when "it was decided to invite white-owned and operated companies to undertake crop production in the homelands, thereby opening up, atleast theoretically, some 15 million ha to white agricultural capital" (Marcus, 1989, p. 7). Also, it was ensured that land bought from farmers under 'homeland consolidation' measures did not imply loss of land for white agriculture.

As a result, these two measures increased land for white community agriculture to about 100 million ha. On the other hand, there has been a decline in the number of farm units, and a growth in farm size. However, despite a decline in the number of farmers and employees, production has increased by annual 2.2 percent average since 1970 (Van der Merwe, 1988). Accompanied by the use of technology, farm sizes have become larger and also heavily capitalized and this led to the need for outside financing. Average farm size in 1970 was 979 ha and in 1985 it was 1438 ha - a 47 percent increase, whilst during the same period the number of white owned farms has declined by 54 percent (Cobbett, 1988).

3.5.2 Concentration of capital

At primary level, the extent of concentration of capital can be measured in terms of the number of individuals or companies owning farm units. In South Africa, the number of farm owners has declined by about 40 percent between 1950 and 1984 to the number just above 70,000 (Marcus, 1989).

Economies of scale have increased profit levels and have been linked to the rationalization and reorganization of the labour force. Concentration of distribution is highly centralized and controlled by the state and agricultural producers organized in cooperatives. In 1981/82, 72 percent of agricultural production was distributed by specific state schemes through 21 control boards (Marcus, 1989). Another 10 percent was distributed through cooperatives such as K.W.V (for wine growers) or the South African Sugar Association (SASA) for sugar growers.

3.5.3 Mechanization and technological innovations

Mechanization and technological innovations have advanced considerably since the 1960s, though they have not reached the levels of Western Europe and the USA. Between 1975 and 1982, 123,528 tractors were sold in South Africa (Marcus, 1989). Another

major technological development was the use of chemical compounds such as fertilizer and chemicals to control pests, weeds, parasites, *etc.* In 1937, 365,000 tonnes of fertilizer were used, by 1980/81 3.4 million tonnes were used (Marcus, 1989).

There has been an increase in capital formation and mechanization from 1950 – 1980 as shown in table 3.1 below.

Table 3.1: Percentage of growth of mechanization

Period	No. of farm employees	Gross capital formation
	Percentage of growth	
1950-1960	2.08	3.21
1960-1970	4.38	5.34
1970-1980	-2.67	5.00

Source: (Cobbett, 1988)

3.5.4 The role of state

The role of the state has to be understood in the context of historical relations to the land question. Since 1910, land policy has been aimed at promoting and supporting whites on the land and dispossessing Africans (Marcus, 1989). Since 1994, however, the policy has been aimed rather at addressing and redressing the past injustices.

3.6 LAND UTILISATION IN SOUTH AFRICA

Van der Merwe (1988, p. 24) maintains that "climate and agricultural potential vary within areas in South Africa. Arid areas in the west gradually become more humid eastwards". South Africa is poor in land good for cultivation. Only 4 million ha can be termed high potential.

3.6.1 Land use

The land in South Africa is used for a variety of reasons, as shown in Table 3.2 below, including cultivation, plantation and forestry, pasturage, settlements, nature reserves, and for infrastructure such as roads, railways, airports.

Table 3.2: Land use in South Africa

Land use	Area in ha.	Area as % of total
Cultivated land	1,060,700	8.7
Plantations and forests	150,000	1.2
Natural pastures	7,134,200	58.4
Other	434,600	3.6
Total agriculture and forestry	8,797,500	71.9
Other uses		
Cities, towns, nature reserves, roads, railways, airports, *etc.*	3,431,600	28.1
TOTAL	12,211,100	100.1

Source: Van der Merwe (1988)

Farming is confronted with high risks - biological hazards difficult to control, low and variable rainfall, normal marketing risks, and business cycles. Steep increases in the price of inputs and droughts have led to a reduced cash flow for many farmers and have led the

agriculture industry to the financial crossroads. A 1984 survey indicated that it cost approximately R400,000 to establish a new farmer (Van der Merwe, 1988). Today the figure is seemingly higher. Thus many black farmers' opportunities to be absorbed by organized South African farming are poor.

3.6.2 Agriculture in South Africa's economy

Agriculture's direct contribution to Gross Domestic Product (GDP), employment, and exports has dropped dramatically in the post war period (over 17% in the 1950s to about 4% in the 1990s) (Mather and Adelzadeh, 1997). The number of persons employed in the sector dropped from 1.5 million in the 1970s to under 1 million in the 1990s. This is a result of very fast mechanization and industrialization. The GDP value of agricultural exports declined from greater than 10 percent in the 1970s to 4 percent in the 1990s (Mather and Adelzadeh, 1997).

Mather and Adelzadeh (1997, p. 6) maintain that "the indirect role of agricultural production on growth is a function of the strong forward and backward linkages agriculture has with the rest of the economy. Fertilizer, chemical, and implement manufacturers are dependent on a growing agricultural economy. In the 1993/94 season, for instance, farmers spent over R500 million on packing material, R1.6 billion on fuel, R1.18 billion on fertilizer and R1 billion on dips and sprays ... Many of these companies are dependent on the sale of chemicals and machinery to farmers. There are also important forward linkages between agriculture and industry. In the early 1990s, only 34 percent of what farmers produced was consumed directly, the remaining 66 percent was processed in some form by the manufacturing sector"

About 49,000 jobs were lost due to the 1992 drought and an additional 20,000 people lost their jobs in non-agriculture formal employment as a result of the indirect impact of agriculture on other sectors of the economy. Recent surveys (Mather and Adelzadeh, 1997) have indicated that agricultural wage income, never-mind

low salaries and insecurity, is the most important source of income for the rural poor, particularly women. It is argued that "... increases in agricultural production have large positive impacts on growth, employment, and the balance of payments. The output multiplier for agriculture is 1.6, that is, for every R1 million of agricultural production, an additional R600,000 is generated in other sectors of the economy" (Mather and Adelzadeh, 1997, p. 6).

3.7 ECONOMIES OF SCALE: BIG VERSUS SMALL DEBATES

Against the challenge to achieve rapid agricultural growth, emerged the economies of scale debates, that is, whether large farm production is more or less advantageous than smallholding production.

Britton and Hill (1975, p. 31) maintain that "... there are theoretical reasons, often supported by practical experience, to suppose that below a certain (but undetermined) size, farms or firms are 'too small' to give the lowest possible cost per product unit, while above another (equally undetermined) point on the size scale, farms or firms are 'too large' and use resources less economically than they would if they were smaller".

Binswanger (1996) outlines the following misconceptions regarding the debate:

a. Underestimating supply response.

b. Believing that large farms are superior "In communist countries, the belief in superiority of large-scale farming was one of the motives for failed collectivization of agriculture. In market economies, it led to costly differential policies and programmes in their favour, including subsidies to inputs, investments, and marketing, and especially credit" (Binswanger, 1996, p. 20).

c. Assuming technological backwardness. The adoption of green revolution technologies by small-scale farmers in Asia, Latin America, North Africa, and few sub-Saharan countries has long dispelled the backwardness notion. Smallholders rarely lag behind their larger counterparts by more than a few years.

d. Ignoring women farmers and workers. In Africa women head a majority of farming households. In Colombia, about a third of rural households are headed by females.

e. Ignoring rural non-farm linkages. "Smallholder-based agricultural growth has fuelled non-farm activities and employment through forward, backward, and consumer-demand linkages" (Binswanger, 1996, p. 22).

f. Underestimating the poverty reduction impact on agricultural growth. Poverty reduction can lead to rapid growth of rural employment and self-employment.

According to Van Zyl *et al* (1996) the sources of economies of scale in large farming areas include:

a. Lumpy inputs like machinery and management skills that can only be used on farms above a certain minimum size.

b. Advantages of credit market and risk diffusion.

c. Processing plants through wage plantations.

Small farmers, however, have wide options to deal with the negative effects of economies of scale, for instance, through:

a. Machine rentals.

b. Contracting management and technological skills.

c. Access to credit through cooperatives.

In Poland, policy makers favour large farms over small farms, with the perception that the latter offers the economies of scale. But research there has shown that (a) large farms are not more efficient than small farms and (b) small farms are more labour intensive. "Empirical evidence demonstrates that family type farms are generally more efficient and superior to other types of farming because of the way in which labour relations are organized. Patterns of resource utilization indicate that smaller farms use labour and land with greater intensity than large farms" (Van Zyl *et al*, 1996, p. 3).

This situation is not only present in Poland, but occurs in other parts of the world. In Asia, Africa, and Latin America, smallholdings (less than 5 ha) "use land and purchased inputs so efficiently because unlike big farms, be it private or cooperative, they saturate these inputs with ample, self-motivating family labour" (Lipton, 1977A, p. 1).

Also, there is a problem with the practicality of the term "economies of scale". "The general consensus is that economies of scale do not exist in agriculture, except under specific circumstances" (Johnson and Ruttan, 1994, Peterson and Kisler, 1991, cited in Van Zyl *et al,* 1996, p. 4). Therefore economies of scale would only occur under induced conditions. The inducement hypothesis implies a long-run relationship between direction of technological change and a measure of factor scarcity like relative prices (Thirtle *et al,* 1995).

Adams (1990, p. 1309) maintains that the "... idea that small-scale approaches to development are more effective in economic terms, less-damaging environmentally, and more humane in terms of their impacts on participants is now a common theme in development writing. The merits of such approaches are often argued from a platform of the demonstrated failings of large-scale approaches, and often justified on the grounds that they represent a polar opposite to the unsuccessful large-scale projects".

Economies of scale occurred after the 1950s in South Africa. From the 1900s until 1950s, the total number of farms and the area cultivated rose, but average farm size decreased. The opposite emerged after the 1950s - farm size increased and leveled off in the late 1980s. The number of farms decreased from 116,848 in 1950 to 62,084 in 1990, leading to a decrease in employment opportunities for blacks (Van Zyl *et al*, 1995).

In South Africa, agriculture appears to be sophisticated and highly successful, but this picture conceals distortions and inefficiencies, for example, the small and decreasing share of GDP. "Although there may exist very real economies of scale [in South Africa],

they are mostly 'false' because they are usually the result of policies that favour large farms over small farms" (Van Zyl *et al*, 1995, p. 1).

The reason why large-scale farming was preferred to smallholder production in the former Bophuthatswana was political. Agriculture was being used as an instrument to fight for the lost cause of international recognition (Drummond, 1988). It is argued that "the dual structure of agriculture in South Africa and the comparatively low productivity of small African farms observed today is not the result of genuine economies of scale in the large farm sector, but of government policy that was guided - in large measure - by the general political and economic philosophy of white domination known as apartheid" (Mbongwa *et al,* 1990, p. 36)

It is however, difficult to assess small-scale black farming against white commercial farming. "Given their location, lack of infrastructure and support services, generally poor soils, and extreme population pressure, it would be unfair to compare small-scale farming in the homelands with farming in white areas" (Van Zyl *et al*, 1995, p. 11).

Binswanger (1996) outlines the following misguided policies as responsible for the non-genuine economies of scale in the large farm sector:

a. Excessive agricultural taxation.

b. Urban bias in development expenditures.

c. Compensating inefficient food sectors in the name of national self-sufficiency. This leads to food becoming more expensive for everyone including the rural poor.

d. Compensating the rural elites. Politically aligned farmers obtain producer subsidies in the form of subsidized or not paid credit, and tax privileges.

e. Misguided land policies. Policies for the allocation of land rights and for land titling have often led to eviction of previous owners.

f. Protectionism in the developed world - protection against international competition.

In summing up the economies of scale debates, Thirtle *et al* (1995, p. 24) observe that the use of South African agricultural data "corroborate the inducement hypothesis and empirical results suggest that average farm size, research and extension expenditures, favourable tax, and interest rate policies are also important determinants of the observed rates and biases of technological change".

3.8 THE LAND QUESTION

There is no way one can answer the land question without having to first address the issue of land reform. There are often many people who desire access to the land, but are excluded from accessing the land by, for instance, apartheid laws - as it had been the case in South Africa.

3.8.1 The issue of land reform

Land reform, or "... the redistribution of property or rights in land for the benefit of small farmers and agricultural labourers ..." (Adams, 1993, p. 191), first got serious attention in the 1960s. The focus was on Latin America, South Asia, and the Middle East, where it was deemed important to end landlordism and to bring about justice and equity in land resources. Since 1970, the focus has been on Africa where, with the exception of Ethiopia, a great proportion of land is owned by whites (Adams, 1993).

The agrarian question in South Africa has received much attention over the last decade (the 1980s). There have been heated debates over the timing of the transition to capitalism agriculture, over the last decade. It is argued that agricultural reform must address not only the land question but also the whole system of agricultural support including financing and non-farm capital (Dolny, cited in Mather, 1992).

It has been argued that "the classic agrarian question is concerned with transitions to capitalism. It investigates and analyses, first, the historical processes through which

capitalist social relations of production are established in agriculture, with resulting increases in production and productivity, and second, the mechanisms through which increased agricultural production and productivity contribute to the formation and development of industry" (Bernstein, 1997, p. 27).

The agrarian question in South Africa includes the following:

a. Addressing aspiration to access to land.

b. Investigating evidence from CPLAR and other studies of commitment to farming.

c. Using the experience and expertise in farming among those dispossessed by apartheid (Bernstein, 1997).

In Marxism and Leninism - the agrarian question is political, that is, it is concerned with the relationship between countryside and town, industry and agriculture, democracy and land (Levin and Weiner, 1997). In South Africa, the land question is a vital agrarian question because, to many rural poor people, transformation of agrarian relations leads to accessibility to land and other natural resources. To people living in the former homelands and bantustans political freedom has not changed their dire economic circumstances.

The African National Congress (ANC) acknowledges the importance of land reform in South Africa. However, this is being done through "a conception of reconciliation which constitutionally entrenches private property rights established during the colonial and apartheid eras. Assurances given to white farmers and agribusiness frequently ignore the contradicting relations which exists between them and various categories of forced removal victims" (Levin and Weiner, 1997, p. 6).

The struggle against apartheid in South Africa was largely fought in urban areas and only weakly in rural areas. It is for this reason that "reconciliation around the land question has enprivileged white farmers and agribusiness as the de facto producers of agricultural

goods, whose confidence it is deemed necessary to maintain. At the same time, the ANC-led Government of National Unity put its faith in comprehensive land reform and market related land reform strategy" (Levin and Weiner, 1997, p. 9).

One of the most important land and agrarian question in South Africa is the level of farming interest and agricultural skill existing in rural, peri-urban, and urban blacks. Up to the mid-1980s, because of the linear proletarianization thesis of the left and racist ideology of the right, there was a general belief that most blacks could not and did not want to engage in farming. Presently there is a shift in favour of the idea that some black smallholder farming capacity exists, but to what extent it is not known and is strongly debated.

Black farming capacity and desire to farm appear to be greater than what many policy makers assume. Nationally two-thirds of total sample of 2098 respondents to the 1995 Land and Agricultural Policy Centre (LAPC) indicated the need for farming land. "Demand appears to be very high in at-least six of South Africa's nine provinces [Eastern Cape - 70%, Western Cape - 70%, KwaZulu-Natal - 78%, Northern Province - 72%, Mpumalanga - 68% and Gauteng -76%]. The ages of persons expressing the need for farming land is surprising and counters conventional wisdom: economically active persons, including young adults, appear to be the most interested in greater access to farming land. Another surprising aspect of the data is that one quarter of the total sample lived in 'formal townships' and 58 percent of this group expressed that they need more land" (Levin and Weiner, 1997, p. 8). The LAPC sample size in the North West Province was 242, of whom 97 needed land for farming. As a result of a high percentage (40 percent) of poor rural social classes, the market driven land reform therefore poses a delivery challenge for the ANC.

Large-scale commercial farming (LSCF) employs ten percent of South Africa's formal employees and contributes five percent of GDP. The backward and forward linkages associated with agriculture are important. Two-thirds of total output is in the form of

intermediates and more than eight percent of these goods are inputs to the manufacturing sector. Therefore, the entire manufacturing-agricultural complex in 1998 accounted for 25 percent of employment in manufacturing, 31 percent of manufacturing production, 21 percent of its capital stock, and about a quarter of the manufacturing sector to GDP (Levin and Weiner, 1997).

Mather (1996, p. 46) maintains that "in South Africa, the infrastructure supporting farming is geared almost exclusively to large-scale industrial farming". About 95 percent of agricultural production in South Africa comes from LSCF. "Presumably, their (World Bank) statistics refer only to marketed output that is not consumed by farming households and excludes production for domestic consumption" (Levin and Weiner, 1997, p. 10). However the dominance of LSCF is clear. South Africa is self-sufficient and exports food. Bernstein (1997) maintains that South Africa is entirely self-sufficient in production of major foods. Most food production takes place in the 50,000 to 60,000 white farms, some 4000 to 5000 white farmers produce about 94 percent of maize harvest on average.

There is, however, a darker side to LSCF in South Africa, plagued by "over-investment in machinery, overindulgence in the use of fertilizer and injudicious use of credit ... 54 percent of all agricultural revenue was contributed by 2.8 percent of commercial producers .... The question must be posed as to who benefited from the various price support schemes: the small and poor, or the rich and mighty" (Kassier and Groenewald, cited in Levin and Weiner, 1997, p. 11)

LSCF profits are produced at high financial, ecological, and social costs. In 1992 the National Party (NP) wrote-off the R3.4 billion debt of white farmers mainly through 'drought relief' aid. Mather (1996) indicates that government drought relief aid has worsened the degradation problem as large-scale white commercial farmers would fail to de-stock and risk planting, as they knew that they would be paid out if the weather failed.

Mather (1992, p. 235) maintains that "the restructuring of local regional economies and household production in rural areas also requires a rigorous analysis of the way in which they are shaped by, and respond to, a dynamic and powerful international agri-food system". He further maintains that debates on post-apartheid (1994) agriculture have to consider a part played by non-farm capital in a new agrarian order.

Levin and Weiner (1994) point out that two broad policy perspectives dominate the land reform policy in South Africa: the ANC's Reconstruction and Development Programme (RDP) and the World Bank's Rural Restructuring Programme (RRP). "Overall the [RRP] proposal is implicitly supportive of core white agriculture and corporate and company farming capital, in conjunction with emergent class of black farmers" (Levin and Weiner, 1994, p. 306).

The RRP calls for:

a. Land restoration and restitution process where people were forcibly removed.
b. Land reform through redistribution.
c. Market forces to facilitate land acquisition and redistribution.
d. State land to be sold or given to the needy groups like labour tenants or victims of betterment.

The ANC's Reconstruction and Development Programme (RDP) favours a programme where the "present commercial agriculture sector will remain an important provider of food, fibre, jobs, and foreign exchange ... but where rural development must entail a dramatic land reform programme to transfer land from the inefficient, debt-ridden, ecologically damaging, and white-dominated large-farm sector to all those who wish to produce incomes through farming in a more sustainable agricultural system" (ANC, cited in Levin and Weiner, 1994, p. 308). There is, however, evidence of convergence between the ANC and World Bank policy makers in the ANC's claim that land reform programme has two stages: redistribution and restitution (Levin and Weiner, 1994).

The World Bank maintains that it is possible to produce enough food for all people in the world. "First we must put emphasis back on rural growth, not just agricultural production or natural resource management. We must focus squarely on the needs of people - their access to knowledge, technologies, markets, health care, education, financing, and land-ownership" (World Bank, 1996, p. 1).

Agriculture and its associated sector provide 60 percent employment and a third of national income in many developing nations (World Bank, 1996). However the challenges for rural development differ from region to region. In Africa, the key characteristic is the slow agricultural and rural non-farm growth. Agricultural growth since the 1980s has been 1.7 percent while population grew at 2.9 percent. The challenge for Africa is, therefore, to attain rapid agricultural growth.

3.8.2 Solving the land question

Andrew Makenete of National African Farmers Union (NAFU) maintains that not all of the transformation process has been to the advantage of the formerly disadvantaged black farmers, that is, land reform, marketing reform, agricultural financing, creation of opportunities, and nature of support being provided to help the disadvantaged farmers. "Quite clearly, our farmers are constrained by a whole range of bottlenecks including technology transfer, which areas have not been adequately covered. The intentions to date were no doubt good, but this good intent has not been translated into results" (South African Agricultural Union, 1998, p. 12).

Mather and Adelzadeh (1997, p. 21) maintain that "there is an enormous political will in South Africa for small-scale black commercial farming". The Department of Finance's 1997/98 budget had put aside money for loans to the 'emerging farmers' and is helping black farmers to better their productivity through infrastructure and training.

However, Mr Makenete said the R15,000 grants to the rural residents were inadequate to equip a farm. "We in NAFU do not seek the establishment of squatter camps on subsidized farms... We look rather for people who show clear potential and desire to farm..." (South African Agricultural Union, 1998, p. 12).

Current policies encourage commercial agricultural production with the emphasis being placed on smallhold development against the estate schemes (Cobbett, 1988). Therefore, the importance of subsistence farming will decline in comparison to commercial agricultural production.

GEAR perceives small-scale farming as being vital to eradicating rural poverty. "It was noted earlier that GEAR's assistance to small-scale farmers will be temporary and that they will not be protected from market forces through subsidies and protection white commercial farmers enjoyed for so long. Once emerging farmers have received an initial grant, assistance will take the form of 'streamlined extension' and in the development of marketing strategies... Unfortunately, most case studies suggest that in the absence of direct state intervention, small scale farmers are less likely to succeed in a free market environment" (Mather and Adelzadeh, 1997, p. 21).

In the former homelands that are farthest away from metropolitan areas (Venda and Transkei), there is greater dependency on the agricultural economy. In those former homelands that were closer (Bophuthatswana and KwaNdebele), there is the least dependency on agricultural earnings (6.9% and 1.3% respectively) (Cobbett, 1988). Therefore, demand for land redistribution in post-apartheid South Africa is likely to vary from former homeland to former homeland. For instance, in the former Transkei, Gazankulu and KwaZulu, the demand might be greater, while the demand might be least in the former KwaNdebele and Bophuthatswana where increased agricultural production is limited.

Cobbett (1988, p. 69), however, maintains that "a corollary assumption is that the vast majority of households living in the homelands have been agriculturally de-skilled, they practice, with some exceptions, a rudimentary form of agriculture solely because they reside in a rural environment. If this is indeed the case then it would seem pointless to embark upon costly development programmes designed to rekindle desire in agriculture. A far more logical approach would be to introduce complementary economic policies designed to enable those communities who wish to participate on a more competitive basis in the urban environment to do so, whilst simultaneously introducing appropriate rural strategies where agricultural conditions are most conducive. The latter would include the opening of the white commercial sector to allow the purchase of land on 'non-racial' basis".

Development programmes by the post-apartheid government in the former homelands will be basic needs oriented, thus the emphasis must be on welfare. "In addition, the need will be to improve infrastructural development, administration and institutional capacity (which is woefully poor at present), to create job opportunities using labour intensive technologies, to create cohesive social structures, and to reduce social inequalities" (Cobbett, 1988, p. 71).

In *Ready to Govern, Policy Guidelines*, the ANC called for a redress of forced removals and dispossessions through the land claims court (Levin and Weiner, 1997). Restitution facilitates a process where the formerly dispossessed have an access to land (Philander, 1997). The process is carried out through mediation between the dispossessed and the present owner of the land. If no amicable solution can be reached, the case is then referred to the land claims court. The land claims court will only consider compensating those who have proof that they had a legal title to the land on or after 19 June 1913.

LAPC (1996, p. 2) points out that "colonial and apartheid land partition, and land dispossession have been central to the political disempowerment of the black people of

South Africa". The immediate results of land reform may not be immediate, however, expectations are high.

3.9 CONCLUSION

This chapter has outlined the agricultural scenario in South Africa. It has been argued that black farming had responded quite well to the need for more food in the mines in the 1870s and that they outperformed their white counterparts. Then came state interventions through policies and laws. Black agriculture declined as white agriculture expanded. White farmers had been aided by the government, so that, now 'false' economies of scale have been created.

The following chapter, chapter four, examines contract farming and the peasantry. Contract farming has been widely recognized as a way of empowering the small-scale farmers. In South Africa, many black small-scale farmers are contract-ploughing and contract-threshing for other farmers who do not have the necessary implements.

CHAPTER 4

CONTRACT FARMING AND THE PEASANTRY

4.1 INTRODUCTION

Contract farming became established in the 1950s and was hailed by many as a solution to Africa's agricultural problems (Little, 1994). However, contracting by and large favours large and established commercial farmers at the expense of the peasantry (largely women) who are Africa's major agricultural producers.

This chapter examines, first, contract farming's background in sub-Saharan Africa. Secondly, attention will be focussed on the forms of contract farming; thirdly, the reasons for contracting; fourthly, the impact of contracting on the peasantry; fifthly, contract farming and women; sixthly, the sustainability of contract farming schemes, and lastly, the advantages and disadvantages of contracting.

CONTRACT FARMING: A BACKGROUND

The rise in the frozen food sector since the 1950s has encouraged many companies to offer farmers "written contracts to produce a given volume of produce, of specified quality for they undertake to pay an agreed price" (Ilbery, 1985, p. 172). Contract farming is an attempt by the processing industries to raise their level of integration between the production and marketing of farm produce.

Contract farming can be defined as "forms of vertical coordinates between growers and buyers-processors that directly shape production decisions through contractually specifying market obligations (by volume, value, quality, and at times, advanced price determination), provide specific inputs, and exercise some control at point of production

(*i.e.*, a division of management functions between contractor and contractee" (Little and Watts, 1994, p. 9).

Contract farming is perceived differently by different parties. Some perceive it as a possible solution to Africa's agrarian crisis. Others see contract farming as a tool for bettering food security, as well as a platform for encouraging regional development, and mechanism for new land settlement programmes (Little, 1994).

Contracting is a new means by which agriculture is industrializing and restructuring (Little and Watts, 1994). Contract farming appeared, in the 1980s in Africa, as a result of globalization of production, marked technological changes, and an increased capacity to manipulate nature as one strategy for transforming rural Africa. Initially, contract farming was developed for export commodities like sugar, tea, and vegetables (Carney, 1994). However, contract farming now encompasses the production of staple foods.

In the early 1980s, African export earnings declined alarmingly (Little and Watts, 1994). Structural adjustment programmes imposed by the International Monetary Fund (IMF) and World Bank became the order of the day. Agricultural contracting was promoted in reform programmes that were intended to diversify export production and to stimulate the production of 'non-traditional' exports such as flowers, specialty fruits, and vegetables.

Von Bulow and Sorensen (1993, p. 39) note that "contract farming is generally seen as a rational system for increasing the productivity of smallholder farming through the provision of credit, inputs, and technical information". Little and Watts (1994, p. 13) add that "the development of contract farming represents a particular form of agro-industry... the subsumption of rural labour process - that has strong historical precedents outside Africa".

Proponents of contracting have put forth contract farming as "a 'dynamic partnership' between small and large private enterprises, in which both transnational or local firms and

peasant growers benefited without sacrificing the rights and interests of either party" (Little and Watts, 1993, p. 7). Companies take marketing risks, while the farmer bears production risks and the management of an often seasonal workforce (Munro, 1996).

It has been argued that "in short, proponents argue, such contracts can bring wealth, entrepreneurship, and employment to rural communities. In that respect, contract schemes might be regarded as vehicles for modernization" (Munro, 1996, p. 1). Jackson and Cheater (1994, p. 141), however, argue that "contract farming does not necessarily lead to poverty, increased exploitation, and landlessness for small-holders, but not all contract farming schemes have been successful".

George (1979) notes that corporations prefer that the farmer takes risks like bad weather, or labour unrest, hence their inclination towards contracting. Under contract farming, should labourers or farmers demand better salaries or working conditions, the company simply closes down and moves elsewhere.

Critics of the contract model argue that contracts "extend constraints and controls over peasant autonomy" (Munro, 1996, p. 4), thereby reducing a farmer to a wage labourer on his own land. Roy (1972, p. 9), however, has a different view as he argues that "contract farming in and of itself is neither good nor bad. It is dependent upon the economic circumstances surrounding each individual situation".

4.3 FORMS OF CONTRACT FARMING

There exist two forms of contract farming: (1) limited management contracts, and, (2) full management contracts. In limited management contracts "the farmer enters into contract with a feed dealer for feed and chicks, for example, but is not guaranteed any fixed payment for what he may produce. Credit is extended to the farmer by the supplier, and the farmer is responsible for the loan or credit advance" (Roy, 1972, p. 5). This type of contract allows the farmer to take all production decisions and restricts him only to a

limited extent. 'Specific buying', 'quality control', and 'open account' contracts all fall under this category.

In full management contracts "the farmer contracts with a business firm and is guaranteed so much per pound, per dozen, or per ton for his fulfillment of the contract. In such cases, the farmer must follow the rigid schedule set up under the contract and must allow for close supervision of his activities. On the other hand, the farmer is relieved of many risks and is able to have greater economic security while engaged under such a contract" (Roy, 1972, p. 5). 'Flat fee', 'feed conversion', and 'profit sharing' contracts fall under this category.

Roy (1972) identifies the following forms of contract farming:

a. Cash lease agreement, whereby the tenant pays the landlord cash price for usage of the landlord's land and buildings on per acre basis or lump sum. The rent is fixed, whether or not the tenant makes profit. In certain cases, cash rents may differ with product yields and product prices, however minimum rentals are guaranteed to the landlord. Cash rent may be paid either entirely in advance or a portion in advance and the remainder at harvest.

b. Cash crop lease, under which the tenant pays the landlord a share of the total crop produced. His share is contingent upon mutual agreement with the tenant as to how the crop will be shared.

c. Livestock-share lease, whereby the landlord contributes to production expenditures and does not receive cash rent. Farm labour is supplied by the tenant and the landlord provides land, buildings, maintenance, taxes, and insurance. The landlord may or may not supply some of the operating equipment.

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4.4 REASONS FOR CONTRACTING

There are basically two schools of thought regarding reasons for contracting. One is that contracting is a calculated move by large corporations to capture farm markets and turn

the farmer into a hired hand of the corporation (Roy, 1972). The other is that contracting is good as it gives an opportunity for the farmer to produce a commodity for a guaranteed market, decreases his capital requirements, and eliminates some of his risks.

Some of the reasons are outlined by Crouse, 1958, cited in Roy (1972, p. 7 - 8):

a. Changes in the retail outlets. Supplies must be lined upon volume and quality to meet the demand of the hard-fisted, well-trained buyer of the super-market. He knows he must have quality and quantity over time if his store is to hold its customers and he is to keep his job.

b. New, more efficient production, and technological methods can be pushed into operation more rapidly on a contract basis.

c. High, fixed labour costs, especially in the packaging business are evident. An uneven supply greatly increases unit costs during days or months of low volume.

d. Underemployed farm labour in some parts of the country needs capital and management assistance. Contract farming has tended to locate in these areas.

Other reasons cited by Roy (1972) are: reduction of costs, upgrading of management, gaining bargaining power, upgrading market positions, assuring enough inputs, investing surplus reserves, developing new technology, and obtaining additional capital. These are often interrelated and it may at times be difficult to find the dominant objective.

4.5 IMPACTS OF CONTRACT FARMING ON THE PEASANTRY

There are a number of impacts on the peasantry associated with contract farming. These include grower incomes, social differentiation, welfare on neighbouring farmers and labourers, employment, and food security.

4.5.1 Grower incomes

Contract farming is associated with a rise in grower income of between 30 – 60 percent (Little, 1994). However, this growth in income is still not enough to meet grower's subsistence costs. The shortfall presses farmers to diversify their production. Also, the farmers would tend to depend on off-farm income.

4.5.2 Social differentiation

Accumulation of cash occurring on contract farming projects involves richer farmers who already have significant cash and non-farm investments. Therefore poor farmers are seldom recruited as contract growers. Contract farming, also, tends to occur where capitalist agriculture is practiced. Thus, it would be hard to isolate contract farming as the main cause of wealth differentiation. "Careful examination of landholdings shows that most contract growers are indeed, middle or upper-income peasants rather than from the poorer strata of society" (Little, 1994, p. 224). Levin (1987, p. 2) observes that "... although contract farming may be differentiating, it tends to produce the conditions for middle peasant reproduction alone".

4.5.3 Welfare of neighbouring farmers and labourers

Contract farming affects many non-contract growers' families. Contract farming schemes are often located on land that was appropriated from local farmers and communities (Little, 1994). Many lose their land without enough compensation or opportunities to participate in the contract farming schemes. "Those who lost land to the scheme were pushed further into dependence on wage employment, often working as agricultural labourers on the project itself" (Little, 1994, p. 225).

4.5.4 Employment

Contracting schemes often demand huge numbers of unskilled labourers due to the labour intensivity of the crops. As a result, contracting schemes often encourage seasonal or long-term immigration to some countries. For example, the sugar schemes in Kenya employ Ugandans and Rwandans while tobacco schemes in Malawi employ Mozambicans. "In some cases, the projects have also appeared attractive enough to dissuade rural labourers from migrating to urban areas in search of employment. Jaffe notes... that 'the employment opportunities created by expanding Asian-vegetable production have led many young people in parts of Machakos District (Kenya) to remain in their home area rather than migrate to Nairobi or other locations in search of work'" (Little, 1994, p. 225 -226).

4.5.5 Food security

The issue of whether contract farming leads to food security or food insecurity is imperative. However, it has been demonstrated that participating in a contract farming scheme does not necessarily eliminate household nutritional or food problems. When incomes are increased through contracting, additional food can be bought thus improving food security at household level.

At the regional level the opposite is true. For instance, the SONY scheme in Kenya is situated in what was formerly a surplus grain producing area. Because the expanding contract schemes have been at the expense of maize production, the amount of market surplus maize has seemingly declined. This decline in maize production could affect local and national food security (Little, 1994).

A study (Little, 1989, cited in Little, 1994) in Western Kenya has shown that the price of maize in contract farming areas is amongst the highest in the region. Information from other African countries reveals that rapid inflation of food prices is associated with an

increase in contract farming at the expense of food production. "While this may not significantly harm the contract growers who earn adequate incomes, it is detrimental to others in a region. In sum, the advent of contract farming can reduce local surpluses of grain, force up the price of food in the local and regional markets, and affect negatively those net buyers of grain who do not earn adequate incomes" (Little, 1994, p. 229).

4.6 CONTRACT FARMING AND WOMEN

Women in sub-Saharan Africa have always played a significant role in food production, producing more than 80 percent of family food in some countries (Dankelman and Davidson, 1991). However, women have title to only one percent of the total world land. In sub-Saharan Africa, production at subsistence level is generally the task of women. Women plough, weed, plant, and harvest. Women also participate actively in cash crop farming, either as extra hands or as workers in large farms. However, women are generally discriminated against as they have less access to resources and are less represented in the decision-making process (Wisner, 1993).

Women's subsistence agriculture is often neglected where large-scale agriculture absorbs labour, land, and economic resources (Dankelman and Davidson, 1991). Women are expected to continue with their agricultural tasks in cash crop fields and to cultivate staple food for their families. This pattern in women's lives is called 'the double day'.

Inheritance laws and communal rights to land which formerly gave women access to land have now been replaced by title-deed systems which restrict land ownership to males (Dankelman and Davidson, 1991). The ever-increasing migration of men to cities in South Africa has led to the dramatic increase of female-headed households. This often means that the responsibility for feeding, clothing, and housing children is left to women. In Lesotho, such women are called 'widows of gold'.

In Sierra Leone the increased usage of tractors and modern ploughs has resulted in a decrease of the working day for men in rice cultivation, but women had to work 50 percent more to finish weeding and maintaining the larger fields. In Cameroon, Massa women from poor backgrounds, living on poor soils and cultivating no cash crops, and having no access to fishing are the most vulnerable group (De Garine, 1993).

Von Bulow and Sorensen (1993) note that women continue to be marginalized or ignored in the developing world by development practitioners and national governments. Barrett and Browne (1989) observe that much published work on African women follows four themes: (1) African women have a double work load - agricultural and household labour, (2) the duties they perform are done in a traditional way without labour or time saving devices, (3) women have to walk long distances to collect water or fuel-wood. In the Herschel district (Transkei) six to eight hours may be spent on collecting wood (Viljoen, 1994), while Soussan (1988) points out that in Northern Ghana one full day is needed to collect wood enough for only three days. Head-loads weighing between 40 kg and 50 kg have been reported in Gambia and Tanzania, and (4) it is generally accepted that women are not benefiting from the development process. More so, they lose control of and access to land, and are failing to benefit from education and healthcare facilities.

The United Nations decade for women has unfortunately highlighted the imbalance between women's contribution in the development process and the meager benefits they derive from it (Barrett and Browne, 1989). To remedy the situation the Gambian government, in association with the United Nations Development programme (UNDP), took the initiative to turn women's agricultural skills into cash returns. More than 80 percent of Gambians depend for their living on agriculture which includes cash-crop groundnuts that produce almost 90 percent of the country's domestic export earnings. Groundnuts are, however, traditionally cultivated by men while food-crops are cultivated by women.

Because of reduced cash-crop yields, declining groundnuts prices, devaluation, and rapid inflation, Gambian women have become more involved in cash earning pursuits, especially horticultural production (Barrett and Browne, 1989). Horticultural schemes are run by women and are financed and supported by NGOs and government departments. All have noted the importance of women's gardens in increasing household incomes and diversifying the economy.

The first garden cooperative in Gambia to participate was established in 1987 is at Bakau and had 195 members. Each member was allocated 15 vegetable plots. Fencing, fertilizers, wells, and implements were provided by the UNDP. Seeds were provided by Citro-Products. Citro-Products contracted women to grow chilli peppers, aubergines, and okra. The crops are harvested weekly when Citro-Products purchases the crops. "The success of the scheme is perhaps demonstrated by the fact that within nine months of the first harvest the women had fully repaid their loan" (Barrett and Browne, 1989, p. 160).

The garden cooperatives are very demanding on women's time and energy. Time available to women for farming is severely constrained by their domestic responsibilities. For instance, the average Gambian woman will have had 10 to 14 full pregnancies and an almost continuous cycle of lactation (Barrett and Browne, 1989). This does, however, not prevent women from attending to domestic and agricultural tasks as most of them work until delivery and resume work a week later!

In contract farming, men have always been preferred to women when contracts are awarded despite evidence that male contractees may be inefficient. For example the Kenyan Tea Production, in Kericho district, has had low output as men neglected a third of tea plots (Von Bulow and Sorensen, 1993). Women's contribution has not been recognized despite the fact that they are often involved in planting and picking of tea.

The study conducted in Kericho district suggests that the inception of contract farming has worsened gender relations. The worsening of gender relations has had an impact on

the running of the tea out-grower schemes (Von Bulow and Sorensen, 1993). Tea is the most important cash crop in Kericho and licences are only issued to males thus ignoring women who grow tea together with their husbands, as tea is very labour intensive.

Women, however, prefer to cultivate maize, a staple, as it is customary that a good wife and mother has to feed her family properly. Labour problems in tea production are caused by women's other competing labour tasks (garden and household chores) and women who withdraw their labour from their husbands' fields in protest to the way the men spend the money generated from tea production.

Training and agricultural extension programmes are seldom directed towards women. As a result, such development ignores 'ecologically sound traditional knowledge'. Therefore, "if development is to be addressed, the farmer herself must be recognized and empowered" (Dankelman and Davidson, 1991, p. 21).

4.7 SUSTAINABILITY OF CONTRACT FARMING SCHEMES

Although much of the debate has centred around environmental sustainability, donors have been concerned with financial sustainability. "... their reliance on private rather than public sector management and resources and on the 'market' makes them more readily sustainable than most other types of agricultural investment" (Little, 1994, p. 229).

However, instability of the markets and management problems often make contracting schemes susceptible to collapse and unstable in the long run. If market prices of certain contracted crops fall rapidly, well-organized schemes may quickly collapse.

Market demands and specifications of such contracted crops change from time to time and multinational firms are often forced to seek a cheaper route even if it might mean relocating operations from one country to another (Little, 1994).

The organization of the scheme is another important factor affecting the sustainability of contract farming schemes (Little, 1994). In schemes with autocratic control, out-growers have withdrawn their participation and/or sought alternative markets, putting their enterprise's viability in danger. "Peasant protests have been shown through: unlawful grazing of cattle on contracted crops, withdrawal of labour at harvest time, and the diversion of irrigation water to domestic food crops. More conspicuous protests have included political strikes, violent demonstrations, and other forms of resistance by unaffected growers as was the case on the Bakalori scheme in Nigeria" (Beckam, 1985, cited in Little, 1994, p. 230).

4.8 ADVANTAGES AND DISADVANTAGES OF CONTRACT FARMING

Contract farming schemes have both advantages and disadvantages.

4.8.1 Advantages

Ilbery (1985) outlines, *inter alia*, the following advantages of contract farming:

a. Reduction in risk, which is shared with the contracting company.

b. Higher prices for farmers than in the open market.

c. Greater certainty for market and price received from produce.

d. Access to specialized knowledge and expertise.

e. Reduction of capital requirements for farmers.

4.8.2 Disadvantages

Ilbery (1985) outlines, amongst others, the following disadvantages of contract farming:

a. The farmer loses his independent status.

b. Freedom to seek higher prices in the open market is lost.

c. Contract terms can vary between farmers according to their relative bargaining strength.

d. The farmer is no longer the major decision-taker and can be little more than a tool as the companies dictate the date of harvest, type of fertilizer, and amount of weed control to be used.

e. Contract farming favours large farmers.

f. If the contractor misjudges the needs of consumers and commercial potentiality, failures can be speedy and large.

4.9 CASE-STUDIES

4.9.1 Del Monte in Mexico

When Del Monte (an American-based multinational food processing corporation) first arrived in the Bajio Valley, Mexico in 1959, it found the area unsuitable for its production. Grain cultivation dominated the valley's agriculture. Land tenure system was unsuitable as average the landholding was four to eight hectares. The land sales were prohibited and no foreign corporation could own land. However, Del Monte used the contract farming model to change the valley's agriculture (Burbach and Flynn, 1980).

By using financial credit and through contracting, Del Monte altered the valley in several ways, that is, (a) crops that had never been grown there were introduced, (b) large growers were favoured over small growers, and (c) large growers obtained operational control over huge tracts of land.

Gross income per hectare increased by up to 50 percent. In 1964 Del Monte had contracted 21 growers with 167 ha and average eight hectares per grower; in 1974, 110 growers with 2025 ha total hectarage and average 18 ha per grower; and in 1977, 150 growers with total hectarage of 3038 ha and average 20 ha per grower (Burbach and Flynn, 1980).

The reason for working with large growers is simple. It is easier for Del Monte to supervise one grower with 20 ha than five growers with four hectares each (Burbach and Flynn, 1980). As a result, smaller growers were being marginalized so that a number of them ended up renting or selling their land to large growers.

The growers largely grow for export markets than for local consumption. Three largest crops contracted by Del Monte in 1980 were (1) sweet corn (400 ha), peas (600 ha), and asparagus (900 ha) (Burbach and Flynn, 1980). Sweet corn and peas were introduced by Del Monte in the Bajio Valley while the asparagus was introduced by Campbell's - another giant American-based multinational.

The relationship between the farmers and the corporation is not always a sweet one. For example, a grower once lost all his crop because the corporation had not sent out its pea harvester on time (Burbach and Flynn, 1980).

During the year Del Monte employs 1750 workers, of whom 1200 are permanent. The rest are seasonal workers, 90 percent of whom are employed 4 to 6 months a year. Wages are in accordance with the Mexican law - four dollars-ninety per day in 1977. Workers belong in theory to a union affiliated with the *Confederacion de Trabajadores Mexicanos* or CTM. However, CTM is an official government union better known for quelling labour militancy than for its defense of workers' interests.

In addition to the 1750 cannery workers mentioned above, Del Monte also employs an additional 3500 people in Bajio. These additional workers work as field hands for the corporation's contract growers. The additional workers are also not represented by a union and they received three dollars a day. "Del Monte did not point out that of the 5000 people who work for the company in the Bajio, only a small fraction receive wages adequate to fulfill their minimal dietary needs, let alone purchase Del Monte canned foods" (Burbach and Flynn, 1989, p. 191).

4.9.2 The Mumias Sugar Scheme in Kenya

Jaffe (1994, p. 97) states that "within sub-Saharan Africa, the contracting of smallholder farmers to produce and sell export and industrial crops has been most extensively developed in Kenya". Even though first smallholder contracts began during World War II, it was only during the 1960s that contracting became an important part of Kenyan agriculture. Since 1960, various contract schemes (including tea, sugar, tobacco, sunflower, sesame, barley, and various types of fruits, vegetables, and flowers) have been developed.

From the end of World War II, more than twelve different contract schemes have existed in Kenya (Jaffe, 1994). However, most have been smaller than the three giant schemes, (a) the tea scheme of the Kenya Tea Development Authority (KTDA), (b) the sugarcane scheme of the Mumias Sugar Company, and (c) the tobacco scheme of British American Tobacco, Kenya (BAT). By 1991 there were approximately 350,000 registered small-scale contract farmers in Kenya.

The Mumias sugar scheme was established in 1972 with an 800 ha nucleus estate. It has 5000 full-time and 9000 part-time labourers. "... it has been widely cited as an agribusiness success story, one which is both profitable and beneficial to small farmers" (Glover and Kusterer, 1990, p. 95). The Mumias sugar scheme involves Booker Agriculture International (BAI), the Commonwealth Development Corporation (CDC), and the Kenyan government. The World Bank was only involved in its early stages through financing.

Before 1972, the Mumias district was among the least developed districts in Kenya (Glover and Kusterer, 1990). The majority of households planted millet, maize, and sorghum for subsistence, as poor soils were not suitable for cash crops. The off-farm employment provided by the sugar scheme was a vital income source for this essentially peasant society.

The Mumias Sugar Company (MSC) was initiated by the government in 1972 to (1) reduce Kenya's dependence on imported refined sugar and (2) to spread development in one of the most disadvantaged regions (Glover and Kusterer, 1990).

Impacts

The impacts of the Mumias Sugar Scheme on the peasantry are by and large mixed. "Some groups have gained, others lost; most households have experienced both beneficial and harmful effects..." (Glover and Kusterer, 1990, p. 99). Income has increased as out-growers earn two or three times the average agricultural wage in the area.

However, investment has been less and most investment has been directed to non-agriculture related activities. There has also been displacement of about 1000 households who were not given jobs on the estate nor sugar contracts (Glover and Kusterer, 1990). On a positive note however, there has been technology transfer as farmers now apply fertilizers.

Nutritionally, because of higher financial returns of sugar, farmers are now using the bulk of their land to cultivate sugar rather than maize the staple (Glover and Kusterer, 1990). There has been an overall decline in calorie intake. There have also been changes in household roles. The MSC employs gangs of male labourers. However, it is women who respond to employment opportunities in weeding.

Regarding social differentiation, because out-grower incomes are higher than agricultural wage levels, differentiation has occurred between out-growers and non-out-growers. However, differentiation is less conspicuous among out-growers. "Smallholder production has not provided technological economies in production, nor has it provided many opportunities for spin-off effects and broader rural development" (Glover and Kusterer, 1990, p. 106).

4.9.3 Kenya Tea Development Authority (KTDA)

The KTDA is an independent corporation that produces and markets tea. "It has been cited as a successful scheme combining profitability with benefits to smallholders" (Glover and Kusterer, 1990, p. 106). The KTDA originated from the Swynnerton Plan under the colonial government. The tea scheme promoted tea as an export crop for smallholders known as the Special Crops Development Authority (SCDA), now KTDA since independence.

The KTDA buys tea from 150,000 Kenyan tea growers, provides an extension service, is involved in the distribution of planting materials, and runs 39 tea processing factories. Although being very profitable, tea has not displaced food crops. The 1979 FAO (Food and Agricultural Organization) study of the Kericho district cited in Glover and Kusterer (1990) found maize was planted on 7300 ha and tea was planted on only 1300 ha. The study also found that not all smallholders were involved in tea production as non-tea smallholders outnumbered tea smallholders.

The KTDA has successfully controlled tea production through the pricing policy system (Glover and Kusterer, 1990). Initial tea plots were 0.18 ha but were raised 0.4 ha as farmers were finding it uneconomical to harvest and transport small quantities of tea. A lot of tea growers are still evading the 0.4 ha limit. The scheme has brought with it positive income effects as tea producers' income is higher than the region 's average. Nutritionally, the region is self-sufficient in food.

4.9.4 Sugar case study in Zimbabwe

Contract farming in Zimbabwe goes as far back as mid-1950s (Jackson and Cheater, 1994). The exact terms, conditions, and organization of contract farming are quite distinct as they have been inherited from colonialism. Contracts awarded to small farmers

can only include input credits and seed from the contractor. For established commercial farming a marketing contract at an agreed pre-planting price is all that is needed.

Sugarcane was first planted in the 1930s by Murray MacDougall and came under the control of Natal sugar farmers in 1955 (Jackson and Cheater, 1994). Since 1930, sugarcane production in Zimbabwe has been monopolized by white producers. In 1981 the post-independence government insisted on resettling black smallholders (each farming about 10 ha) on one of the estates.

The present plantation system has contributed to the impressive agro-industrial development in a remote part of the country (Jackson and Cheater, 1994). On the Triangle estate 120,000 of the population are dependent directly on the plantation system for their living as permanent workers (about 22,000), seasonal workers (about 3500), and their dependents.

Today production has quadrupled. Domestic sugar consumption has increased by 100 percent and Zimbabwe is among the leading exporters of sugar (Jackson and Cheater, 1994). However, all these are the result of a monopoly situation as sugarcane is controlled by two of Zimbabwe's three estates, (1) the Triangle estate and (2) the Hippo Valley estate that together cultivate 70 percent of total cane hectarage and process the entire cane harvest in their two mills. The two estates also jointly own the third estate, (1) the Mkwasine and, (2) the non-profit marketing operation, Zimbabwe Sugar Sales.

Both Triangle and Hippo Valley estates are foreign-owned, although fully controlled by Zimbabwean boards of directors. Hippo Valley has 80 percent of its shares held in Zimbabwe, the majority of which are held by Anglo American (a South African corporation). Monopoly is passed down to their free-holding planters, both large and small, who all belong to Zimbabwean Cane Planters Association (ZCPA) through which they find representation on the executive of Zimbabwean Sugar Association (ZSA). "The government's role in sugar production is limited to licensing growers, millers and refiners,

fixing internal prices for refined and unrefined sugar, and regulating in law conditions of land and water use and employment" (Jackson and Cheater, 1994, p. 146-7).

Even the largest and best individual farmers often find it difficult to obtain 10 percent net profit on 400,000 Zimbabwean dollars, the direct cost of cultivating 150 ha of cane. Many have even diversified their production in order to spread the financial risks. Small farmers are more vulnerable as they require 800 Zimbabwean dollars per month to meet their direct input costs. "The minimum agro-industrial wage in 1987, 165 Zimbabwean dollars per month, and the perks of estate employment (free housing, domestic power, or fuel, water, transport, healthcare, and primary schooling) mean that unskilled workers on the two processing estates are possibly better-off than the small 10-hectare sub-field planters on the third estate" (Jackson and Cheater, 1994, p. 154).

4.9.5 Contract farming in KwaZulu-Natal

Small-scale sugar farming and small-scale timber farming among Black African farmers have a long history in KwaZulu-Natal region (Munro, 1996). Currently there are about 44,000 sugar small growers, of which approximately 65 percent is female. Their productivity levels in terms of tonnes per ha are substantially lower than commercial growers. However, they are very important to the mills as their additional productive capacity provides a stable throughput in poor harvest years.

Since the late 1980s, the South African Sugar Association (SASA) has been promoting small growers as medium and large-scale white commercial farmers have left the industry for the internationally more profitable commodities (Munro, 1996).

The timber industry, faced with similar international constraints, has followed the sugar industry's route. The two main pulping companies, South African Pulp and Paper industries (SAPPI) and Mondi, have developed their own programmes based on sugar industry model. The programmes encourage timber farming amongst Africans. Between

1986 and 1989, 30,000 ha of cane land have been lost to timber because of either soil quality or because forestry is less labour intensive, or because of growers are dissatisfied with sugar contracts (Munro, 1996).

In KwaZulu-Natal, there are two particular characteristics that "shape the interest of farmers and constrain the institutional ensemble of contract farming arrangements" (Munro, 1996, p. 6). First, among the majority of farmers cash cropping is but one among many sources of income. The average sugar cane plot is small, about 2.5 ha. Important sources of income are wages, urban remittances, and pensions. Due to poverty and small landholdings, contract income is often not reinvested, but is used to build houses, for the children's education, or for savings.

The second characteristic is that contract farming is semi-commercial because production factors are not fully or evenly commoditized. Land is not commoditized as it is under the control of the local chief. Labour agreements are flexible and therefore conflict-prone. These labour agreements, therefore, mean that contracts are not "straightforward arrangements between the company and the individual farmers" (Munro, 1996, p. 8).

4.9.6 Contracting rice in the Gambia

In order to develop the Gambia River basin, the government implemented the Jahaly-Pacharr irrigated rice scheme in 1984. The irrigated rice scheme was supposed to provide year-round cultivation through irrigation projects "that would improve national food security while simultaneously expanding and diversifying the export sector" (CRED, 1985, cited in Carney, 1994, p. 167). The scheme was to be based on contract farming. The scheme was also to be a model for all future irrigation schemes.

The Jahaly-Pacharr is among the first projects to contract cereal products in Sub-Saharan Africa (Carney, 1994). The Jahaly-Pacharr irrigated rice scheme uses a lease that is

renewable after 21 years. Although the principal aim is to double rice production, it is also the aim of the scheme to ensure continued peanut cultivation.

Water, ploughing machines, high yielding rice varieties, fertilizers, and pesticides are given by the management to participants to facilitate two cycles of rice production, each lasting 120 days. The Jahaly-Pacharr involves more than 2500 peasant households from four ethnic groups, (1) the Mandika, (2) Serahuli, (3) Wolof, and (4) Fulani.

Participants are each allocated 0.5 ha plot. The rice growers are supposed to belong to cooperatives in order to receive inputs and to pay loans timeously (Carney, 1994). The management organizes planting dates, plot irrigation schedules, weeding, transplanting, and harvesting. The participants are informed of all these stages by nine extension agents (about 1 for every 300 households). Failure to pay loans can lead to eviction of participants from the Jahaly-Parcharr rice scheme.

Demand for labour in both upland [peanut] and lowland [rice] cultivation often leads to conflicts between peasant cultivation and irrigated rice development (Carney, 1994). Women dominate rice cultivation, although access to cash cropping peanuts varies by ethnicity. Among the Fulani, Serahuli, and Wolof women, there is often involvement in peanut production. The Mandika women are mostly involved in rice cultivation for subsistence and for cash also.

The project aimed to achieve two welfare objectives, (1) to extend irrigated rice farming to the rural poor and (2) to extend the opportunities to women who are major traditional rice growers (Carney, 1994). The donors had insisted that women should receive title deeds to the plots. However, less than 10 percent of pump-irrigated land was registered under women's names due to men's opposition to female ownership. The men's opposition to women receiving the title deeds was on the basis that divorce would permanently take away the land from the household. Government and management

intervened. An agreement that households, not individual female members of the family would have final control over the plots was reached.

As a consequence, the men became de facto controllers of the plots. The men expected women labour in cash crops as well as in the irrigated rice projects over which they had no share. "Attempts to increase production of irrigated rice through contract farming in the Gambia has instead transformed the labour process and social relations within peasant households... When negotiations yielded uneven results, women withdrew their labour from household plots and sought compensation through organized work groups that demanded remuneration in wages" (Carney, 1994, p. 180).

Men are now growing rice on project plots. The ability to increase a marketable surplus through contract farming has, therefore, been greatly compromised. The Gambian government had pioneered contract farming of a cereal, rice, that had never been cultivated under contract elsewhere (Carney, 1994). However, "... for each incremental one hundred dalasis earned from the projects' plots, there was a loss of sixty-four dalasis resulting from the upland cash and food crop production [peanut]" (Carney, 1994, p. 184).

By 1985, Gambia had come under IMF's structural adjustment policies (Carney, 1994). Among these IMF policies is the promotion of export cash crops. The price of peanuts was increased above the world commodity prices and subsidies for cereal crops were withdrawn.

In 1989 the peanut price increased again by 50 percent from 1100 dalasis to 1650 dalasis per tonne (Carney, 1994). Household heads met policy makers' expectations by shifting their interests from pump irrigated plots to upland peanut fields during wet season. The average yield on project plots decreased to one tonne per ha, far below seven tonnes per ha donors and project management had aimed to achieve.

In summing up, contract farming has several advantages including (a) new crops can be introduced to a region; (b) gross income of the farmers can be greatly increased; (c) production can be immensely increased, for example, sugar production in Zimbabwe was quadrupled; (d) domestic consumption can also be increased, for example, in Zimbabwe sugar consumption increased by 100 percent after sugar was contracted to the farmers; (e) there can also be an increase in employment opportunities, for example, the Mumias sugar scheme had 5000 full time and 9000 part time labourers and; (f) contract farming can lead to regional development, for example the agro-industrial development in Zimbabwe.

There are, however, disadvantages associated with contract farming including (a) contract farming often favours large growers at the expense of small growers; (b) contract farming is often export oriented and it often ignores local consumption; (c) contract farming is more often associated with forced removals of people who ought to make way for the projects; (d) food crops are also often displaced by contract framing schemes; and (e) contract farming schemes are associated with monopoly in production, for example, sugar cane was controlled by only three estates in Zimbabwe.

4.10 CONCLUSION

Although contracting tends to favour large-scale commercial farmers, contract farming has brought many positive spin-offs for the rural peasantry, that is, (a) rural areas have been industrialized, (b) there is higher wage employment, (c) better nutrition, (d) technology transfer, and (e) better food security. Women, however, continue to be marginalized. Often their labour is demanded for both food crop and cash crop production. Contract farming schemes are susceptible to market conditions and specifications of the corporations. The corporation may simply pack up and relocate elsewhere where it is cheaper to run its business.

The last three chapters have, by and large, been looking at the literature review. The next chapter, chapter five, examines the methodologies that were used to collect data for this thesis. Three primary methodologies, namely, observations, questionnaires and interviews have been used.

CHAPTER 5

RESEARCH METHODOLOGY

5.1 INTRODUCTION

The preceding four chapters have, by and large, been theoretical. Chapter five changes the focus from theoretical to empirical perspective. At first, the chapter briefly discusses the study area – its location, vegetation, climate, and topography. Secondly, the research problem and hypotheses are stated. Thirdly, the three research methods used to collect data for this dissertation, namely, observations, questionnaires, and interviews are also briefly discussed. Lastly, the problems encountered during the collection of data are outlined.

5.2 STUDY AREA

North West is one of the nine provinces of the Republic of South Africa. It is divided into five regions, namely, Central District - where this dissertation is focused, Eastern District, Far Eastern District, Southern District and Western District (fig. 5.1). The surface area of North West is 117,000 square kilometres, with an altitude ranging between 1000m and 2000m above sea level.

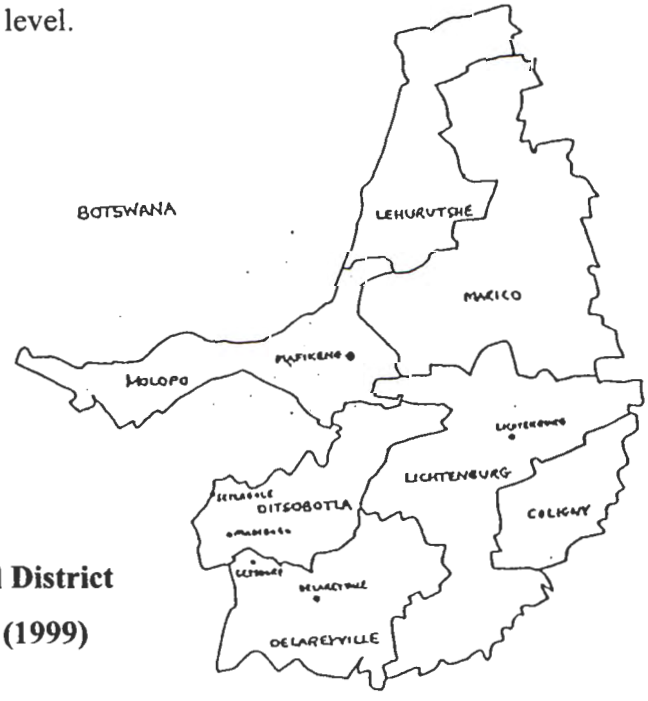

Fig. 5.1: Central District

Source: Francis (1999)

The population is 3,043,000 (Central Statistical Service, 1997), eight percent of total South African population. In terms of gender distribution, North West population is comprised of 50.9 percent females and 49.1 percent males. North West Province is predominantly rural, 65.2 percent of its inhabitants reside in rural areas, while only 34.8 percent of the population live in urban areas (Central Statistical Services, 1997).

The mean annual population growth rate of urban population is two percent. The main spoken language is Setswana (63%), followed by Xhosa (14%), Sesotho (8%) and Afrikaans (8%). Shangaan, Zulu and English are also spoken, with English being a business language.

5.2.1 Location of Ditsobotla and Molopo regions

Ditsobotla region is made up of 245,175 ha while Molopo region is comprised of 300,164 ha (Stacey, 1992) (fig. 5.2). It is, however, important to note that the regions have been changing through time as a result of addition of released land.

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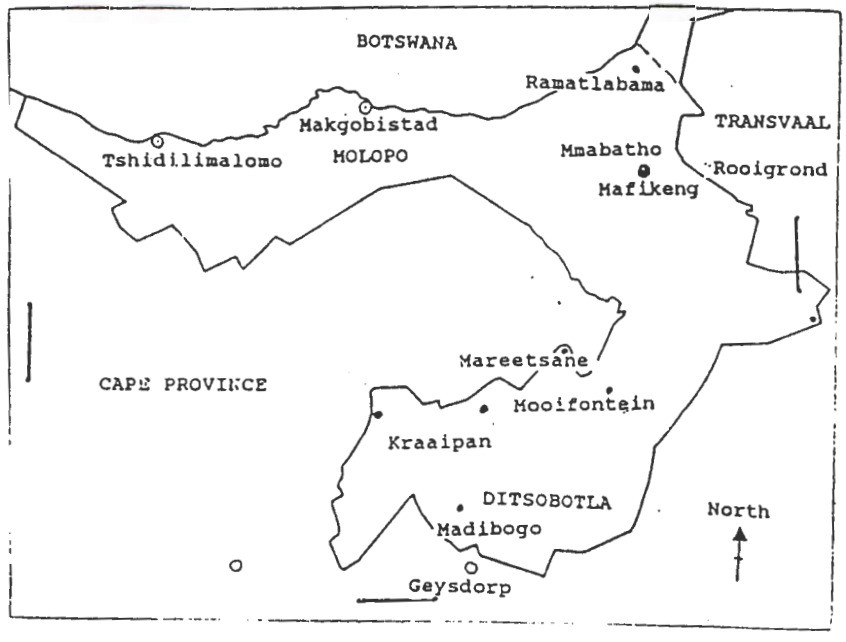

Fig. 5.2: Molopo and Ditsobotla

Source: Stacey (1992)

5.2.2 Vegetation

The predominant vegetation in both Ditsobotla and Molopo regions is Kalahari thornveld. The vegetation is typical of Acacia Savanna and is made of various thorn trees, shrub and dry grasses (Cowley, 1985). The more common grasses are the blue seed grass and the buffalo grass.

5.2.3 Climate

Both regions are located in the semi-arid plateau. They are in summer rainfall area, by and large, occurring in heavy thunderstorms between October and March. Average yearly rainfall of Mafikeng is 560mm. Rainfall is, by and large, low and unreliable (Cowley, 1985). Larger parts of Molopo and Ditsobotla fall under district 92 – where there are regular occurrences of wet and dry years - according to the South African Weather Bureau (Freeman, 1988).

5.2.4 Topography

The Central District falls under the Highveld area of Southern Africa (Cowley, 1985). Over much of Molopo and Ditsobotla there occur, by and large, flat terrain – between 1100m in the west and 1350m above the sea level in east. Topography of both regions is generally flat to undulating. However, in northern and eastern parts of Lehurutshe the surface begins to undulate and to become hilly. The soil is sandy and is subject to wind erosion (Stacey, 1992).

5.3 THE RESEARCH PROBLEMS

Agribusiness has been going on for the last half a century and yet very few black farmers are reaping the benefits from, for instance, processing of agricultural products. The following research questions have been formulated:

a. What buying arrangements and contracts exist between agribusiness and producers and how are these perceived by agribusiness and producers respectively?
b. Are black small-scale farmers aware of agribusiness chain links that add value to the farmers' produce?
c. What contract-threshing relationship exists among small-scale farmers in Ditsobotla and Molopo?
d. What are the fertility strategies employed by the black small-scale farmers in Ditsobotla and Molopo?

5.3.1 Objectives

The following objectives have been set to answer the research questions stated above:

a. To investigate the ways in which buying arrangements and contracts are established between agribusiness and producers, and how these are perceived by agribusiness and producers respectively.
b. To investigate whether black small-scale farmers in Ditsobotla and Molopo are aware that they can add value to their produce by processing.
c. To investigate contract-threshing relationship among black small-scale farmers in Ditsobotla and Molopo.
d. To investigate the farming inputs employed by the black small-scale farmers in Ditsobotla and Molopo.

5.3.2 Formulation of hypotheses

This dissertation has two basic hypotheses. First is that black small-scale farmers in Ditsobotla and Molopo are buying their agricultural inputs and machinery from agribusiness enterprises like NWK (North West Cooperative). Second is that black contractee farmers to the New Nut Company are content with their relationship with the New Nut Company.

5.4 DATA COLLECTION

Three basic approaches, namely observations, questionnaires, and interviews have been used to collect data for this dissertation:

5.4.1 Observations

In this method, data is collected through watching and listening rather than asking questions (Van Dalen, 1979). They do not require technical tools with the exception of pencil and a paper. The most important skill in observation is sensitivity to what is being observed. Observations may be controlled or uncontrolled. In controlled laboratory conditions "investigators have some assurance that the experimental treatment rather than other experiences have caused the observed effect on the subject's performance" (Van Dalen, 1979, p. 162). In uncontrolled conditions one actively participates in a group and may gain insight into the subculture and obtain information that is not accessible in any other way.

There are two types of observations, namely, unstructured and structured observations. Unstructured observations are usually used in the early stages of the research when "one is searching for relevant variables, refining the definition of the problem, and generating hypothesis and theories" (Van Dalen, 1979,p.163). Structured observations are usually used when researchers know what variables are relevant in a study. Data is collected and recorded in a systematic order.

These observations have been very invaluable to my research findings. When visiting some of the fields with the farmers, to check the rates of erosion for instance, I could verify the answers that the farmers had provided. They have also been helpful in trying to assess the wealth of the farmers, as many farmers would have been uncomfortable if they were asked about their wealth. Observation of cars the farmers were driving, the type of furniture in their households, models of their tractors, *etc.* were some of the observations I made.

5.4.2 Questionnaires

These are methods whereby respondents are provided with carefully selected and ordered questions (Van Dalen, 1979). A questionnaire is generally mailed or handed to the respondent and is completed by him without the interviewer's help (Bailey, 1987). The interviewer normally reads the questions to the respondent.

Questionnaires are thought to be "formalized and stylized interview" (Walker, 1985, p. 91) and are similar to face to face interviews. They "rely on the fact that people are able to offer accounts of their behaviour, practice, and actions to those who ask them questions" (Walker, 1985, p. 90-91). They are specific to the social and human sciences.

There are also two types of questionnaires, namely, open-ended questionnaires and closed-ended questionnaires. In open-ended questionnaires answers are not fixed or specified whereas in closed-ended questionnaires answers are fixed or specified. There are several advantages of using questionnaires, including easier accumulation and analysis of data, being easier for respondents to answer as they are often given choices, standard questions that can be compared from one person to the next.

There are, however, disadvantages as well. These include, among others, mass production and lack of interpretative opportunity, the respondent may be frustrated because his preferred answer is not given in the options, it is easy for the respondent who is not sure of the answer to guess as he only has to choose.

A draft questionnaire had been set in preparation for the initial interviews. The questionnaire was slightly revised in relation to the experience gained from the fieldwork. It was found out that there were other questions that were unsatisfactorily answered. These questions were those on whether the farmers would export their produce and whether they had ever considered using RUTEC (Rural Technology) to process their produce. These questions were subsequently dealt away with.

The questions on the questionnaire were in English. However, all the farmers were asked questions in Setswana, the local language and I then translated their answers into English as the interview was being conducted (Setswana is my mother tongue). The reason for doing this is that many farmers are semi-literate and some are totally illiterate. Therefore, conducting the interview in the local language, I hoped, would make them comfortable.

5.4.3 Interviews

Interviews need more time, money and energy to carry out than questionnaire (Van Dalen, 1979). Most people are, however, more willing to communicate orally than in writing. There are two types, structured and unstructured interviews. Structured interviews are very similar to the questionnaire in both form and assumptions underlying issues (Hitchcock and Hughes, 1989). They are rigidly standard and formal and "the same questions are presented in the same manner and order to each subject and the choice of alternative answers is restricted to a predetermined list" (Van Dalen, 1979, p. 159). The content and procedure are organised in advance, that is, the wording of the questions are determined by means of a schedule (Cohen and Manion, 1989). They tend to be more scientific than their unstructured counterpart.

Structured interviews have many advantages including, *inter alia,* (Hitchcock and Hughes, 1989): flexibility and ability to obtain more detailed information than mailed questionnaire, they are versatile both intra and inter social sciences, they are often used in large samples, they can be used both by persons who structured the interview and those who did not, and they are cheap to run.

Unstructured interviews, on the other hand, are flexible and have few restrictions on respondent's answers (Van Dalen, 1979). The aim is to provide for greater and freer flow of information between the researcher and the respondents. There are also some advantages of this approach: there is a possibility for the interviewer to introduce some new material that was not thought of beforehand (Hitchcock and Hughes, 1989).

Respondents are sometimes encouraged to speak freely and fully regarding particular issue.

Regarding the reliability of the results from the surveys and interviews, I conducted all the interviews myself ensuring that the respondents answered all the questions adequately and that they did not pass the questionnaire to someone else to supply the answers. Also, an initial small pilot study of 5 to 6 interviews was conducted a year before the actual survey and no significant differences were discovered between the two surveys.

The farmers were encouraged to talk at length rather than giving simple 'yes' or 'no' answers. The interviews took between 70 and 90 minutes to complete. After completing the interview, some of the farmers were willing to drive with me to their fields to show me how they were farming.

5.5 FIELDWORK

A total of 30 semi-structured interviews were conducted in Ditsobotla and Molopo villages in 1998 (appendix 1). Many farmers refused to be interviewed as a lot of them did not pay income tax. As a result, they feared that the researcher was an official from the tax office and that by availing themselves to be interviewed, they could expose themselves.

Another reason why only 30 interviews were conducted is that it is not always easy to get hold of farmers at their homes. The majority, if not all, are also keeping livestock. So, during the week they visit the cattle posts to check their livestock. During the weekend, they attend social functions (funerals, weddings, church *etc.*) The situation is compounded by the fact many farmers (and rural dwellers at large) do not have telephones and it therefore becomes difficult to make appointments with the farmers telephonically.

In Ditsobotla, interviews were conducted in Uitkyk, Nooitgedacht and Makouspan; whereas in Molopo interviews were conducted in Ikopeleng, Miga, Lekoko, Disaneng, and Masutlhe. It is interesting to note that all farmers interviewed were males, thus highlighting less accessibility to land by women in rural African societies. The main objective of conducting these interviews was to gain information as to whether black peasant farmers were aware of agribusiness chain links.

Another interview was conducted with Mr Tertius Bothma, the Chief Executive of the New Nut Company (appendix 2). The intention here was to get information on how Mr Bothma ran his contract-farming scheme and to compare and contrast this with the literature that I had read.

The interview with Mr Bothma was followed by interviews with twelve farmers who are 'contracted' to the New Nut Company (appendix 3). It is imperative to point out at this stage that I would have loved to have interviewed more contractee farmers, but I could not find more of them, as Mr Bothma had claimed to have fifty black contractees. The objective with these interviews was to compare the information that had been provided by the contractees with the information that had been provided by Mr Bothma.

5.5.1 Sampling techniques

Simple random sampling of the villages in Ditsobotla and Molopo was conducted. All the villages had to be within a maximum one hour drive from the university as the interviewer received no financial assistance to carry out this research. In the villages the interviewer only interviewed only those farmers who were willing to be interviewed in order to get as much reliable data as possible. However, the researcher acknowledges some shortcomings of this: the interviewed farmers' views may not be representative of the whole farming community. Simple random sampling may also not be sophisticated as other designs so that conclusions might be limited (Walizer and Wienir, 1978).

The sample was fairly a good representative of the number of small-scale farmers in Ditsobotla and Molopo. Many households are leasing their lands to the sharecroppers as the heads of the households go to the cities to find (or to look) for employment outside agriculture. This Situation is clearly illustrated by the farmers in Setlagole (chapter 7) some of whom cultivate up to 41 and more fields. It also important to state that there was no comprehensive list of farmers in Ditsobotla and Molopo.

Lastly, no tests of association or correlation were made with the dataset. The reason for not doing so was that I did not want my thesis to be too positivistic in outlook.

5.6 PROBLEMS ENCOUNTERED

The main difficulty I encountered was the respondents in Molopo and Ditsobotla were not honouring the appointments. The interviews were conducted in June – during the schools and university holidays - so the farmers were busy harvesting. The other problem was trying to identify the contract farmers in Setlagole. Although Mr Bothma claimed to have fifty black contractee farmers, the interviewed farmers and Mr Bothma could not give me the names of the other contractees. This problem thus affected the results as I could not conduct as many interviews as I would have liked.

5.7 CONCLUSION

This chapter has briefly discussed the study area and has stated the research problem and hypotheses It has also discussed the three methods that were used to collect data for this thesis. Lastly, this chapter has mentioned major problems encountered during the production of this thesis.

The next chapter changes focus to the analysis of the gathered data. The main focus will be on agribusiness practices among the Ditsobotla and Molopo farmers, and the agricultural cooperatives.

CHAPTER 6

RESEARCH FINDINGS: DITSOBOTLA AND MOLOPO

6.1 INTRODUCTION

This chapter analyses the results from fieldwork studies conducted with the farmers in Ditsobotla and Molopo *i.e.* this chapter analyses the responses that have been provided to the questions in appendix 1. The intention was to look for the possibility of agribusiness, in general, being practised in Ditsobotla and Molopo.

In the literature review (chapter 4) several pages were set aside on women. However, no mention of women is made in the questionnaire (appendix 1). The reason for not doing so had to do with the fact that according to the Batswana custom and culture (I being a Motswana myself and the majority of the people in the Molopo and Ditsobotla districts) women are not allowed to own the land and therefore not allowed to farm. I, therefore, expected to interview only male farmers. Had I encountered any woman farmer a special mention of her would have been made in the dissertation.

6.2 SOCIO-ECONOMIC DETAILS

The first few questions established the farmers' socio economic details. These included age, number of years in farming, whether they had ever been employed in a white farm, their relationships with white farmers, and off-farm income.

6.2.1 Farmer's age

The first question was regarding the farmers' age. The answers are summarized in table 6.1 on the next page.

The average age of a farmer in Ditsobotla is 62 years, whereas mean age for a farmer in Molopo is 57 years. The youngest respondent in Ditsobotla was 50 years old and in Molopo the youngest farmer was 28 years old. The oldest farmer in Ditsobotla was 92 years old, whereas the oldest farmer in Molopo was 78 years old! It is significant to note the near-absence of farmers in the age groups 30 and under and 31-40; and the dominance of farmers in the old age groups.

Table 6.1: Farmer's age

Age	Ditsobotla	Molopo
30 and under	0	2
31-40	0	0
41-50	1	1
51-60	7	6
61-70	3	5
71 and above	3	2

The domination by old farmers can perhaps be attributed to the difficulty in accessing production credit by the small-scale farmers (see sources of capital, 6.4.2). In most cases the farmers do not have collateral to put up against the loan. As a result their loan applications are turned down. The aspirant farmers have, therefore, to find some employment elsewhere in order to raise money for their farming activities. Hence old men who have worked for many years raising money are the predominant farmers in Ditsobotla and Molopo.

6.2.2 Number of years in farming

Farmers were then asked how long they had been farming. The Ditsobotla farmers were more experienced than their Molopo counterparts as they had a combined farming experience of 341 years compared to 311 years of Molopo. The average farming experience in Ditsobotla was 24 years versus 19 years in Molopo. The least experienced farmers in Ditsobotla and Molopo had, respectively, two years and three years experience. The most experienced farmer in Ditsobotla had been farming for 47 years, however, he had started farming with cattle rather than crops. In Molopo, the most experienced farmer had been farming for 36 years.

Thus with averages of 24 years and 19 years experience in Ditsobotla and Molopo respectively, it is hoped that the farmers' experience will be invaluable when they give their responses to the interviewer's questions. It can also be said that these old people are 'no longer unemployable' in the cities due to old age. This is one of several reasons for their return to the rural areas and to earn a living from agriculture.

6.2.3 Employment in a white farm

Farmers were asked if they had once worked in a white farm. The responses are summarized in Table 6.2 below.

Table 6.2: Employment in a white farm

	Ditsobotla	Molopo
Yes	21.4 percent	87.5 percent
No	78.6 percent	12.5 percent

In Ditsobotla, 21.4 percent of farmers had once worked on a white farm. This experience gained was mainly in the western Transvaal and Free State. They maintained that it is where they had learned farming basics. The remaining farmers (78.6 percent) had never worked on a white farm. They had learned farming skills from their families as most had grown up in subsistence farming families. Of these, one farmer claimed to have learned how to farm from extension officers.

In Molopo, the overwhelming majority (87.5 percent) had had the experience of working on a white farm. Nearly all had worked in western Transvaal and Free State, with only one having worked in what is now Northern Cape. The remaining 12.5 percent had no experience of working on a white farm and they maintained that they had learned farming skills from their families.

White commercial farming has, therefore, had an important influence on black agriculture. The small-scale farmers have learned and copied the white farming practices from the farms they once worked on. Although the percentage of farmers in Ditsobotla who once worked in white farms is small (21.4 percent), the multiple-effect of these learned experiences cannot just be discarded. The majority of farmers in Molopo (87.5 percent) have clearly benefited from their stay on white farms [and they say so].

6.2.4 Relationships with white farmers

Farmers were then asked if they had any current relationships with white farmers. The responses are summarized in Table 6.3 on the next page.

Some farmers (21.4 percent) in Ditsobotla said they had a working relationship with white farmers. They hired combine-harvesters from white farmers. One of the farmers said in the previous years he had been hiring a combine-harvester from the Free State but in 1997/98 he hired one from Coligny, about 80 km away. This farmer is trying to overcome the economies of scale. The self-propelled combine-harvesters are too

expensive for small-scale farmers to buy. Renting, therefore, becomes the viable option. Two other farmers said they always hired the combine-harvesters from Coligny.

Table 6.3: Relationships with white farmers

	Ditsobotla	Molopo
Yes	21.4 percent	25.0 percent
No	78.6 percent	75.0 percent

Of the 78.6 percent who claimed to have no relationship whatsoever with white farmers, one farmer said he had last had a contact with a white farmer in 1946 when he was a labourer. All the white farmers he had once worked for were now dead, hence no current contact.

In Molopo, 25 percent of farmers had a current relationship with white farmers. Of these, 50 percent hire tractors from white farmers. The farmers here are also trying to overcome the economies of scale. With an average landholding of 46.3 ha, it makes a perfect business decision to hire tractors. Others said they received information on what and how to plant, which fertilizer to apply, *etc.* from white farmers. The remaining 75 percent said they had no relationships with white farmers.

6.2.5 Off-farm income

Farmers were then asked if they had access to off-farm income. The results are shown in Table 6.4 on the following page.

Table 6.4: Access to off-farm income

	Ditsobotla	Molopo
Yes	50.0 percent	25.0 percent
No	50.0 percent	75.0 percent

Half of the farmers in Ditsobotla (50 percent) had an off-farm source of income in their families. Off-farm income is very vital as crop failures are prevalent in Ditsobotla. Many communities in Ditsobotla had been forcibly removed from the western Transvaal, where there were good rains and soils, and dumped in almost barren lands where rainfall is generally unpredictable. Also, as the Ditsobotla average landholding is only 20.4 ha, it means that the farmers do not make much out of their farming because of small farm size.

The source of off-farm income mainly comes from spouses who work as nurses and general workers in Gelukspan Hospital or as dressmakers. One spouse was an ex-teacher who had taken a severance package. One farmer and his spouse were pensioners. Of the Ditsobotla farmers with an off-farm income 35.7 percent claimed to never use off-farm income to supplement farming cash flow. Of those who supplemented farming cash flow with off-farm income one bought 10 head of cattle and an extra van. Another pointed out that bulk of the off-farm income was used for subsistence purposes. The remaining farmers said they had no access to off-farm income.

A large majority of farmers (75 percent) in Molopo had no access to off-farm income. This can be attributed to larger landholding in Molopo. Unlike Ditsobotla, where each family was allocated 15 ha after being resettled, in Molopo the farmers' families have always "owned" the land communally and thus have access to larger plots. The average

landholding in Molopo was more than double that in Ditsobotla (46.3 ha and 20.4 ha respectively).

Only a quarter of Molopo farmers received extra cash from outside farming. Sources of this extra cash were: government pensions, spouse working as a clerk in government, one farmer was also a shopkeeper, and another farmer was both a herbalist and a tavern owner. Three quarters (75 percent) of farmers who had access to off-farm income used it to supplement farming cash flow.

6.3 LAND

The next few questions established whether the farmers had access to land. These included whether they "owned" the land (ownership of the land entails usufructory rights as the farmers do not have title deeds to the land as they lived on a communal land), or were they sharecroppers, how they paid the "landowners", whether they would opt to be large commercial farmers if they could, and whether they belonged to any farmers' union.

6.3.1 Landownership

Farmers were asked if they "owned" the land they are farming. The answers are summarized in Table 6.5 on the next page.

All the farmers in Ditsobotla had access to and "owned" a piece of land under communal ownership. However, all the 14 Ditsobotla farmers owned only 285 ha amongst themselves. The farmer with smallest piece of land owned 15 ha and the one with the largest plot of land had 75 ha and the average landholding was 20.4 ha. However, the majority (85.7 percent) only had 15 ha – maximum total allocated by government to each family after they were forcibly resettled in Ditsobotla from the western Transvaal.

Table 6.5: Land ownership

	Ditsobotla	Molopo
Yes	100.0 percent	43.8 percent
No	0.0 percent	56.3 percent

In Molopo, however, not all the farmers owned the land. Only 43.8 percent "owned" the land that they cultivated. The remaining 56.3 percent of the landless farmers are probably the immigrants to Molopo. As a result, they do not have usurfruct of communal land as do the original inhabitants of the villages in Molopo.

6.3.2 Sharecropping

The respondents were asked if they were sharecroppers. The responses are shown in Table 6.6 below.

Table 6.6: Are you a sharecropper?

	Ditsobotla	Molopo
Yes	92.9 percent	100.0 percent
No	7.1 percent	0.0 percent

Sharecropping is a tool that the individual farmers have used to bring more land under cultivation. These are normally farmers who have more money and agricultural machinery. These farmers rent the land from the households who cannot afford to cultivate their lands. With the small average landholdings in Ditsobotla and Molopo, it is not surprising to see the overwhelming majority of farmers engaging in sharecropping agreements.

The overwhelming majority (92.9 percent) of farmers in Ditsobotla were sharecroppers as 15 ha is too little to sustain the families of farmers. This is further illustrated by the fact that Ditsobotla farmers were sharecropping 1607 ha amongst themselves (compared to 285 ha they collectively owned). Thus each farmer was sharecropping an average of 123.61 ha. The biggest sharecropper was sharecropping 285 ha while the smallest was sharecropping 15 ha.

All the respondents in Molopo were sharecroppers. Almost all (93.8 percent) of the farmers collectively sharecropped 2381 ha. Each farmer was, therefore, sharecropping an average of 183.15 ha. Only one farmer did not know how many hectares he was sharecropping because he was illiterate. The biggest sharecropper was sharecropping 300 ha and the smallest was sharecropping 15 ha.

6.3.3 How do you pay the "landowner"?

The respondents were asked how they paid the "landowners". The answers are summarized in Table 6.7 on the next page.

There was no consistent form of payment to the "landowners" by sharecroppers in Ditsobotla. It largely depended on agreement entered into between the "landowner" and the sharecropper. The "landowners" were paid ten percent of total produce by 38.5 percent of sharecroppers. About one-fourth (23.1 percent) paid the "landowner" one (1) bag for every six (6) bags produced. The remaining 23.1 percent each paid the "landowner" 15 percent, eight percent and seven percent of total produce. Other farmers

gave "landowners" a once off payment of 100 bags (7.7 percent) or 60 bags (7.7 percent). Only one farmer was not sharecropping due to old age.

Table 6.7: Forms of payment to "landowners" in Ditsobotla and Molopo

Form of payment	Ditsobotla Percentage	Molopo Percentage
10 percent of total produce	38.5	62.5
5 percent of total produce	0.0	12.5
1 bag in every 6 [16.7 percent]	23.1	6.3
1 bag in every 8 [12.5 percent]	0.0	18.8
15 percent, 8 percent, 7 percent	23.1	0.0
100 bags	7.7	0.0
60 bags	7.7	0.0

The majority of the respondents (62.5 percent) in Molopo paid the "landowner" ten percent of total produce. More than one-tenth (12.5 percent) paid the "landowners" five percent of produce, 18.8 percent paid the "landowners" one (1) in every eight (8) bags produced, while 6.3 percent paid the "landowners" one (1) in every six (6) bags produced.

The lack of standard payment to "landowners" highlights the power of bargaining between the "landowner" and the sharecropper. Some "landowners" are able to receive double what their fellow "landowners" are receiving. It is not only the "landowners" who are likely to lose out. Farmers who agree to pay 100 bags, for instance, may lose if the crop should fail.

6.3.4 Would farmers opt to be large commercial farmers?

Farmers were then asked if circumstances permitted, would they opt to be large commercial farmers. The responses are summarized in Table 6.8 below.

Table 6.8: Farmers desiring to be large commercial farmers

	Ditsobotla	Molopo
Yes	92.9 percent	87.5 percent
No	7.1 percent	12.5 percent

Commercial farming has many advantages compared to communal farming. These advantages include amongst others: easy access to production loans, title deed to the land, larger land, fenced land, extension advice, *etc.* The small-scale farmers are obviously aware of these advantages. It is not surprising, therefore, that under the right circumstances so many of them would opt to be commercial farmers. These farmers have been working under strenuous conditions: They struggle to get the production loans, they cannot improve the land as some of it is being sharecropped, and they cannot cultivate at their own time due to uncontrolled communal grazing.

Contrary to popular belief, if circumstances permitted, 92.9 percent of the respondents in Ditsobotla would opt to be large commercial farmers. The only one who would not opt to be one was 92 years old. He said he would not have the energy to effectively manage a big farm. Those who would gave a variety of reasons as to why they would opt to be large commercial farmers including: better profits, helping the community to survive, government aid to such farmers, they would be their own bosses, and they would not have to go from one place to another, as is the case with sharecropping.

Mr Maotoanong Mokgethi of Nooitgedacht put forth the following reasons for wishing to be a large commercial farmer: he has many cattle and would like to keep and breed them in one place, he cannot plant at the time he chooses because of communal land (where there is often uncontrolled grazing). If he were to plant early, cattle would eat his plants as they graze on the fields after harvesting. Mr Mvuseleni Zilimbola, also of Nooitgedacht, added that it would be easier as he would be a "landowner" - no longer a sharecropper, for all that he would have, including the land, would be inheritance for his children when he passes away, sharecropping is unreliable as the "landowner" may at any time decide to rent the land to someone else thus making it difficult to improve the land.

The great majority of the respondents in Molopo (87.5 percent) would also opt to be large commercial farmers. Only 12.5 percent would not opt to be large commercial farmers, also because of old age (77 and 78 years old respectively). Those who would opt to be large commercial farmers advanced the following reasons: They have farming knowledge, large-scale commercial farming is well organised, for instance, bank financing, love of farming, large-scale commercial farmers receive loans in time, and no animals destroy one's crops. In the farming system they use fields are far apart and one has to spend on diesel and petrol – which is a drawback, and they would have all implements and will thus be able to look well after crops. Mr T. C. Morule had even applied to buy a farm, as he does not have his own land.

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The eagerness to enter into large-scale commercial farming among farmers in Ditsobotla (92.9 percent) and Molopo (87.5 percent) shows that the small scale farmers are prepared to face the challenges involved in large-scale commercial farming. The farmers have had the experience of working on white-owned large-scale commercial farms. They know the pros and cons of large-scale commercial farming *vis-a- vis* small-scale communal farming they are involved in.

6.3.5 Union membership

The respondents were then asked if they belonged to any union. The answers are summarized in Table 6.9 below.

Table 6.9: Union membership

Union member	Ditsobotla	Molopo
Yes	0.0 percent	50.0 percent
No	100.0 percent	50.0 percent

None of the interviewed farmers in Ditsobotla were affiliated to any farmers' union. However, 21.4 percent of the respondents had been members of the former Bophuthatswana Farmers' Union. One farmer said he did not see any importance in National African Farmers' Union and said the union was apparently dying.

More than one-third (35.7 percent) of the respondents in Ditsobotla felt there was no one who was bargaining on their behalf. More than one-fifth (21.4 percent) felt the Member of Executive Council (M.E.C) – then Rev. Tselapedi – bargained on their behalf. As little as 7.1 percent were not sure if Rev. Tselapedi was bargaining on their behalf. Another 7.1 percent thought that the management of the cooperative in Mooifontein bargained on the farmers' behalf. A further 7.1 percent felt that the tribe was bargaining on the farmers' behalf

Some respondents (14.3 percent) were pro-the former Bophuthatswana government, saying the former homeland government had opened Agricultural Bank of

Bophuthatswana (Agribank) for them, that Rev. Tselapedi did not listen to their problems and, that the former Minister of Agriculture in Bophuthatswana – Mr P. H. Moeketsi – was a farmer himself and understood their hardships.

In Molopo half (50 percent) of the respondents were not union members. Of these, a quarter (25 percent) had been members of the former Bophuthatswana Farmers' Union. Another quarter (25 percent) was contemplating joining NAFU. However, one farmer had some reservations about NAFU as he felt NAFU was weak. In Molopo 37.5 percent of the respondents were members of farmers unions. NAFU members constituted 31.3 percent and 6.3 percent were members of CFBF (Land Bank).

The majority (68.8 percent) of the interviewed farmers in Molopo felt that there was no one bargaining on their behalf. As much as 31.3 percent of farmers were strongly opposed to Rev. Tselapedi. They claimed that: he did not care about them, he had told them to expect an *El Nino* but it rained, he had never been productive, and he knew nothing concerning farming. Mr Mangope (former Bophuthatswana president) had their wellbeing at heart as he wrote-off their debts during drought years.

One (1) farmer was not sure if Rev. Tselapedi was bargaining on their behalf as he had told them not to plough at all although some of them and their families were entirely depending on farming for their survival.

Unions are supposed to bargain for their members with the government, the banks, *etc.* However unionism in Ditsobotla and Molopo is apathetic. This is probably rooted in the former Bophuthatswana government which was known to be very anti-union. The farmers were not even sure of what the unions stood for.

6.4 FARM RESOURCES

The following questions sought to determine the farm resources the farmers had; namely machinery owned, capital, and labour sources.

6.4.1 Machinery

The respondents were asked if they owned a threshing machine and their responses are shown in Table 6.10 below.

Table 6.10: Ownership of farming machinery

	Ditsobotla	Molopo
At least one threshing machine	71.4 percent	81.3 percent
Threshing machine and combine	7.1 percent	6.3 percent
Hiring a combine-harvester	7.1 percent	0.0 percent
None of the above	14.3 percent	12.5 percent

The majority (71.4) of the respondents in Ditsobotla owned at least one threshing machine. As little as 7.1 percent said they were hiring a self-propelled combine-harvester from white farmers for threshing sunflower, as it is both faster and efficient than farm hands. Another 7.1 percent owned both a threshing machine and a tractor-drawn combine-harvester. A further 14.3 percent did not have either a combine-harvester or a thresher. They hired threshers from local farmers or used relatives' for free.

Nigel 42 and Soilmaster proved to be the most popular threshing machine models among Ditsobotla farmers as they were each owned by 28.6 percent of the respondents. They

were followed by Nigel 21 (14.3 percent). The combine-harvesters (14.3 percent) were of Slattery make.

In Molopo, 81.3 percent of the respondents owned threshing machines. Few (6.3 percent) owned three (3) machines (including a combine). Only 12.5 percent of the respondents did not own either a combine-harvester or a threshing machine and also had to hire the machines from local farmers. Of the farmers who owned farming machinery, 62.5 percent owned one (1) threshing machine, 12.5 percent owned two (2) threshing machines, and another 6.3 percent owned four (4) threshing machines.

The ownership of threshing machines by the great majority of farmers in Ditsobotla and Molopo is a clear cost containment decision. If the farmers did not own the threshing machines, they would have to hire them from those who own the machinery. This is inconvenient not only it terms of cost but time as well. The farmer would have to wait for the owner to finish threshing his crops before threshing the farmer's crops. Worse, there could be other farmers in the queue before him all waiting for their crops to be threshed.

The most popular threshing machine in Molopo was Nigel 21 (50 percent), followed by Slattery (42.9 percent), and Vetsak and Soilmaster at 7.1 percent each. The combine-harvester was of Vetsak make.

6.4.2 Sources of capital

The respondents were asked where they had got the money from to buy the threshing machines and their answers are summarized in Table 6.11 on the following page

As many as 83.3 percent of the threshing machine owners had used their own money to purchase the threshing machines. The source of money thus casts serious doubt concerning accessibility of credit to small to medium-scale black farmers. Only 16.7 percent of threshing machine owners had borrowed money from financial institutions, Agribank and Land Bank.

Table 6.11: Sources of capital

	Ditsobotla	Molopo
Own money	83.3 percent	71.4 percent
Agribank or Land Bank	16.7 percent	21.4 percent
Children	0.0 percent	7.1 percent

Almost all (91.7) percent of the threshing machines were in good running condition. Only 8.3 percent of the machines were not in good running condition. These, however, belonged to a farmer who also owned a combine-thresher. All the combine-harvesters were in working order.

Regarding the financial resources from which the farmers in Molopo obtained the money to purchase the threshing machines the picture is by and large similar to that of Ditsobotla. As many as 71.4 percent of the Molopo farmers who owned the machines used their own money to buy the machines. The remaining 21.4 percent had received loans from Agricor and 7.1 percent had been given money by children. Only 7.1 percent of the machines were not in good running condition. The tractor-drawn combine-harvester was working well.

The fact that the overwhelming majority of farmers (83.3 percent and 71.4 percent in Ditsobotla and Molopo respectively) had bought the threshing machines from their own savings once again highlights the difficulty that the farmers encounter in accessing loans from the banks. It also explains why the farmers are generally older in Ditsobolta and Molopo, because they need to have accumulated some capital working somewhere else before the can enter into farming.

6.4.3 Sources of threshing machines

The respondents were asked where they had bought the threshing machines and their responses are shown in Table 6.12 below.

Table 6.12: Sources of threshing machines

	Ditsobotla	Molopo
White commercial farmers	66.7 percent	78.6 percent
Black farmers	16.7 percent	14.3 percent
Cooperative	0.0 percent	7.1 percent
Do not own a threshing Machine	16.7 percent	0.0 percent

At least 16.7 percent of the threshing machines were bought from other black farmers, who had progressed and bought combines, in neighbouring villages. This is in contrast to De Klerk (1984) who argues in his paper titled "Seasons that will Never Return: The Impact of Farm Mechanisation on Employment, Incomes, and Population Distribution in the Western Transvaal" that the era of threshing machines has long come and gone. The seasons have indeed never returned to white commercial farmers, but certainly they did return to black farmers. The prices of the threshing machines ranged from R1600 to R18,000 depending on their quality when they were bought, as some of the farmers bought machines needing repair.

Almost all (91.7 percent) farmers serviced the machines themselves. Only 8.3 percent took their machines for servicing at the cooperative in Mafikeng. However, all the

respondents indicated that they bought the spare parts to service the machines from the cooperatives.

The 16.7 percent of farmers who did not own threshing machines indicated that they would buy themselves threshing machines if they made sound profit. Citing the following reasons: they would be able to do contract-threshing in order to make extra income, threshing machines are vital during harvesting, and threshing machines would save them money in the long term.

As to where the farmers in Molopo bought their threshing machines, the picture is also generally similar to that in Ditsobotla. As many as 78.6 percent had bought their threshing machines from white commercial farmers, by and large within the North West province. The remaining 14.3 percent of the machines were bought from black farmers from neighbouring villages and 7.1 percent had been bought from the cooperative in Mooifontein. The prices ranged between R 2000 and R15,000.

Many (85.7 percent) Molopo threshing machine owners serviced the threshing machines themselves and the remaining 14.3 percent hired local mechanics to service their threshing machines. The farmers also stated that they buy spare parts to service machines from cooperatives.

In Molopo, 12.5 percent of the farmers had no threshing machines but said they would buy themselves one if they made a good profit, saying that this purchase would reduce their expenses and that they would be able to do contract-threshing in order to make extra money.

6.4.4 Labour

The respondents were then asked about the sources of labour they used on their fields. The respondents' answers are summarized in Table 6.13 on the next page.

Table 6.13: Sources of labour

	Ditsobotla	Molopo
Hiring local labour	64.3 percent	50.0 percent
Children and local labour	0.0 percent	37.5 percent
Local labour and family	0.0 percent	6.3 percent
Combines only	0.0 percent	6.3 percent
Combines and local labour	28.6 percent	0.0 percent
Family labour	7.1 percent	0.0 percent

The majority (64.3 percent) of the respondents in Ditsobotla admitted to having to have to hire local men and women during weed picking, harvesting, and threshing. Contrary to my observations (I saw child labourers), none admitted to using child labour which is against the law. About one-third (28.6 percent) used combines but also had to hire labourers to hand-pick the weeds and to pick up the cobs that the combine-harvester left behind. Only one farmer (7.1%) used manual family labour as he cultivates only 15 ha.

In Molopo half (50 percent) of the farmers used men and women during weed picking, harvesting, and threshing. Of these, 12.5 percent said school children were a problem as they are playful and they do not work productively when it is cold. Slightly more than a third (37.5 percent) admitted to using school children during school holidays and men and women as labourers. The last (6.3 percent) used a combine-harvester to harvest his fields.

The use of manual labour by the farmers in Ditsobotla and Molopo also shows that the small-scale farmers cannot afford to buy the machinery that will substitute labour. It has already been stated that these farmers have difficulty in accessing production loans. As a

result, farmers resort to labour which is much cheaper. Also, labour is readily available in the villages as unemployment is widespread.

6.4.5 Forms of payment to labourers in Ditsobotla and Molopo

The farmers were then asked how they paid their labourers and their responses are summarized in Table 6.14 below.

Table 6.14: Forms of payment to labourers in Ditsobotla and Molopo

Form of payment	Ditsobotla	Molopo
Between R10 and R15 per day	14.3 percent	37.5 percent
R7 per day	0.0 percent	12.8 percent
R250 per month	7.1 percent	0.0 percent
Between R90 and R95 per ha.	14.3 percent	0.0 percent
Nothing	14.3 percent	0.0 percent
10 percent of total produce	0.0 percent	18.8 percent
7 percent of total produce	14.3 percent	0.0 percent
6 percent of total produce	21.4 percent	18.8 percent
5 percent of total produce	14.3 percent	0.0 percent
15 bags per labourer	0.0 percent	6.3 percent
Used own combine-harvester	0.0 percent	6.3 percent

The labourers were either paid cash or in bags of maize. Those paid in cash were paid between R10 and R15 per day (14.3 percent). At least 7.1 percent of the farmers in Ditsobotla were paying their permanent labourers R250 per month and a couple of bags of maize after harvesting. Another 7.1 percent did not have to pay his labourers as he

used his family as farm hands. A further 7.1 percent used a brother's combine and did not have to pay him.

Those who were paid in bags were collectively sharing seven percent of total production (14.3 percent), five percent of total production (14.3 percent), and six percent of total production (21.4 percent). The remaining 14.3 percent paid white farmers, from whom they hired combine-harvesters to harvest sunflower, between R90 and R95 per ha.

The labourers in Molopo were, like those in Ditsobotla, paid either in cash or by bags of maize. Those paid in cash (37.5 percent) received R10 per day and children R8 per day, (although one farmer said he sometimes paid children R6 per day) plus the farmers fed the labourers. Of these farmers, 16.7 percent said labourers worked only from Monday to Friday. At least 12.5 percent of the farmers paid their labourers R7 per day.

Those paid in bags of maize collectively received between six percent of total produce (18.8 percent) and ten percent of total produce (18.8 percent). Only 6.3 percent had a fixed payment of 15 bags of maize per labourer. Another 6.3 percent used his own combine-harvester.

The unemployed labourers were prepared to work for anything, cash or bags. This shows how people in the rural areas are in need of jobs. Even the under-aged children are, in certain circumstances, forced into labour in order to try to supplement the household income and food supply.

6.5 CONTRACTING

The next few questions established whether the farmers were involved in contracting. The questions included whether farmers were contract-threshers, how much do contract-threshers charge, how many hectares do the threshing-machines thresh each year, how many people were needed to operate a threshing machine, and what crops do the threshing machines thresh.

6.5.1 Contract-threshing

The farmers were asked if they were contract-threshers and their answers are shown in Table 6.15 below.

Table 6.15: Contract-threshers

	Ditsobotla	Molopo
Yes	35.7 percent	50.0 percent
No	64.3 percent	50.0 percent

Just more than a third (35.7 percent) of the respondents in Ditsobotla were contract-threshers for those who do not have threshing machines. Only 14.3 percent were not contract-threshers as they owned no threshing machines. Half (50 percent) of the respondents were not contract-threshing although they owned threshing machines, citing reasons like their machines are problematic and that it is costly to service and maintain the machines.

In Molopo half (50 percent) of the respondents were contract threshers. Only 12.5 percent were not contract-threshers as they owned no machines. However, 37.5 percent chose not to do contract-threshing out of their own free will, although they owned threshing machines.

Although contract-threshing could be a valuable source of income to the farmers, the farmers were by and large apathetic towards it. The farmers might be avoiding clashes with other farmers who might refuse to pay them. Another reason could be the fact that

many farmers own threshing machines as they had bought them very reasonably from white commercial farmers and other established black farmers. Those involved in contract-threshing did so solely in mutual trust as no legally binding contract is signed by both the contractor and the farmer.

6.5.2 The amount charged by contract threshers

The farmers were asked how much they charged to do contract threshing for other farmers who did not own threshing machines. Their responses are summarized in Table 6.16 below.

Table 6.16: The amount charged by contract-threshers

	Ditsobotla	Molopo
Between R2 and R3 per bag and R5 per ha	60.0 percent	100.0 percent
15 percent of produce and 1 in every 60 bags threshed	40.0 percent	0.0 percent

There was generally no standard price charged by contract-threshers in Ditsobotla. About two-thirds (60 percent) of contractors charged monetary values (R2 per bag, R3 per bag and R5 per ha) while the remaining 40 percent asked for bags, 15 percent of produce and one (1) in every 60 bags threshed.

In Molopo, however, there was generally a standard amount charged by contract-threshers. Many (62.5 percent) charged R2 per bag whereas 12.5 percent of the contract-threshers charged R2.50 per bag, another 12.5 percent charged R2.80 per bag and a

further 12.5 percent charged R1.50 when using the contractee's tractor and R 2.50 per bag if using his own tractor.

The amount charged by the contract-threshers indicates how the contract-thresher negotiates with the farmer. The amounts charged by the contract-threshers are very varied (R2 per bag to 15 percent of produce).

6.5.3 Average hectares a threshing machine threshes each year

The farmers were asked how many hectares on average did their threshing machines thresh each year. Their answers are shown in Table 6.17 below.

Table 6.17: Average hectares threshed each year

	Ditsobotla	Molopo
15 ha	14.3 percent	0.0 percent
Between 51 ha and 99 ha	0.0 percent	12.5 percent
Between 151 ha and 199 ha	35.7 percent	12.5 percent
200 ha and more	35.7 percent	56.3 percent
Do not own a threshing machine	14.3 percent	12.5 percent
Do not know	0.0 percent	6.3 percent

More than a third (35.7 percent) of the threshing machines in Ditsobotla threshed an average of 200 ha and more per *annum*, with the highest being 400 ha. Another 35.7 percent of the machines threshed between 151 ha and 199 ha. Few (14.3 percent) of the machines threshed only 15 ha – their own fields - and another 14.3 percent of the farmers did not own machines. The hectares of production that the threshing machines threshed

are huge when compared to the average landholding and the percentage of contract threshers (20.4 ha and 35.7 ha respectively) in Ditsobotla.

In Molopo 56.3 percent of threshing machines threshed 200 ha and more per *annum*, the highest being 600 ha. A few (12.5 percent) of the machines threshed between 151 and 199 ha. Another 12.5 percent threshed between 51 and 99 ha. A minority (6.3 percent) did not know how many hectares his threshing machine threshed as he was illiterate. Only 12.5 percent of the respondents did not own threshing machines.

The picture in Molopo is similar to that in Ditsobotla. Some threshing machines thresh up to 600 ha annually. With an average landholding of 46.3 ha and the fact that only 50 percent of the farmers were contract-threshers, clearly the threshing machines in Molopo do a lot of threshing.

6.5.4 Average number of people needed to operate a threshing machine

The farmers were asked how many people were needed to operate a threshing machine and their answers are shown in Table 6. 18 below.

Table 6.18 Average number of people operating a threshing machine

Ditsobotla	Molopo
6 people	8 people

The people operating a threshing machine are some of the very important labourers the farmer needs during the harvesting season. Often people who are skilled in operating the

threshing machines are hired. These people will help in the grading of the crop and will ensure that not much waste occurs.

On average, six (6) people were needed to operate a threshing machine and their roles are to: unload the bags from the truck or trailer, to feed maize/sorghum/sunflower heads into the threshing machine, to stand at the weighing scale, to sew the bags, to drag the bags from the weighing scale, and to check the general running of the threshing machine.

An average of eight (8) people were needed to operate a threshing machine in Molopo. Their roles are similar to those stated by the Ditsobotla farmers. Two labourers were needed to operate a combine-harvester – tractor driver drawing a combine-harvester and tractor or truck driver into which maize was being harvested.

Fig. 6.1 Labourers operating a threshing machine

6.5.5 Types of crops threshed by threshing machines

The farmers were then asked what crops did their threshing machines thresh and their responses are summarized in Table 6.19 below.

Table 6.19: Crops threshed by threshing machines

	Ditsobotla	Molopo
Maize and sunflower	50.0 percent	21.4 percent
Maize	33.3 percent	14.3 percent
Maize, sunflower, and sorghum	8.3 percent	42.9 percent
Maize, sunflower, and groundnuts	8.3 percent	14.3 percent
Groundnuts, sunflower, and Sorghum	0.0 percent	7.1 percent

Half (50 percent) of the farmers who owned threshing machines in Ditsobotla said that their threshing machines could thresh maize and sunflower. A third (33.3 percent) said their threshing machines threshed maize only. The minority (8.3 percent) said their threshing machines threshed maize, sunflower, and sorghum, while another 8.3 percent said their threshing machines threshed maize, sunflower, and groundnuts.

In Molopo, slightly more than 40 percent (42.9 percent) of the farmers who owned threshing machines said their threshing machines could thresh maize, sunflower, and sorghum. About one-fifth (21.4 percent) said their threshing machines could thresh maize and sunflower, 14.3 percent said their threshing machines threshed maize only, and 7.1 percent said their threshing machines could thresh groundnuts, sunflower, and sorghum.

Despite the obvious advantages of using threshing machines that can thresh up to three different crops many farmers in Ditsobotla (83.3 percent) used threshing machines that threshed one or two crops. This can be explained in the fact that the majority of farmers only plant maize (a staple food) and plant sunflower (which is said to be more drought resistant) when the rains are late. In Molopo, however, the farmers seem to be aware of the advantage of owning a threshing machine that can thresh more crops. The majority of farmers (64.3 percent) own machines that can thresh two or three different crops.

6.6 FERTILITY STRATEGIES

The following questions ascertained the fertility strategies employed by farmers in their farming practices. The questions included whether farmers applied fertilizer, insecticides, herbicides, where they bought these inputs, and whether they used commercial seed when planting.

6.6.1 Use of Fertilizer

The farmers were asked if they applied fertilizer on their fields and their responses are summarized in Table 6.20 below.

Table 6.20: Application of fertilizer

	Ditsobotla	Molopo
Yes	100.0 percent	100.0 percent
No	0.0 percent	0.0 percent

All the respondents in Ditsobotla applied fertilizer on their fields in order to increase soil fertility. Almost all (92.9 percent) applied 3.2.1 and with only 7.1 percent applied 3.2.0. One of the farmers, Mr Nkate of Nooitgedacht, who applied 3.2.1 pointed out that he had been told by an extension officer to use 3.2.0 as it fitted the soil type in his area. He, however, pointed out that he had a problem finding 3.2.0, as it was not available in the cooperatives around his area.

All the respondents in Molopo also applied fertilizer on their fields. Mr Mogorosi even claimed that without fertilizer the crops would not survive as the soil was poor in nutrients. Few (62.5 percent) of the farmers applied 3.2.1. About one in five (18.8 percent) applied either 3.2.0, 3.2.1, or 3.2.2 depending on the price. Slightly more than one-tenth (12.5 percent) applied 2.3.2 and 6.3 percent applied 3.2.0 on the fields.

All the farmers in Ditsobotla and Molopo are in the primary stages of agribusiness. By simply applying fertilizer on their fields, they engage themselves in a long agribusiness chain that includes farm supplies, farm outputs, distribution, retailing and consumers.

6.6.2 Use of herbicides

The farmers were asked if they applied herbicides on their fields in order to combat the weeds and their answers are shown in Table 6.21 below.

Table 6.21: Use of herbicides

	Ditsobotla	Molopo
Yes	100.0 percent	68.8 percent
No	0.0 percent	31.3 percent

To combat weeds, all farmers in Ditsobotla used either Adriesel, Gesaprim Super 600 SC, or 2.4.D Amin SL. Almost two-thirds (64.3 percent) used Gesaprim Super 600 SC which then cost about R400 per 20 litre container. Only 7.1 percent used 2.4.D Amin SL which then cost about R500 per 20 litre container. Another 7.1 percent used Adriesel and 21.4 percent used both Gesaprim Super 600 SC and 2.4.D Amin SL. Interestingly, not any of the respondents used insecticides.

More than two-thirds (68.8 percent) of the farmers in Molopo applied herbicides on their crops. Few (12.5 percent) used both Gesaprim Super 600 SC and 2.4.D Amin SL. Another 12.5 percent used Gesaprim Super 600 SC only while a further 12.5 percent used only 2.4.D Amin SL. Mr Petrus Nkomo claimed using herbicides to be cheaper than manual labourers especially as one has to feed them. Finally, 6.3 percent used Curagrass and 2.4.D Amin SL. About a third (31.3 percent) of the respondents said they hired manual labour to uproot weeds as herbicides took people's jobs.

Farm supplies constitute an integral part of agribusiness chain links. Herbicides, just like fertilizers, are sold by agribusiness enterprises. By buying herbicides from these enterprises, all the farmers in Ditsobotla and the majority of the farmers in Molopo (68.8 percent) are getting involved in agribusiness.

6.6.3 Sources of fertilizer and herbicides

The farmers were then asked where they bought fertilizer and herbicides and their answers are summarized in Table 6.22 on the next page.

Half (50 percent) of the farmers in Ditsobotla bought fertilizer and herbicides from nearby Mooifontein Noord Wes Ko-operasie (NWK). About one-fifth (21.4 percent) bought the inputs either from Agrihome or cooperative in Mareetsane. Another 14.3 percent bought the inputs from Agrihome only. A further 7.1 percent bought the inputs from the cooperative in Uitkyk and another 7.1 percent bought their inputs from either Mareetsane NWK or Sanieshof NWK.

Table 6.22: Sources of fertilizer and herbicides

	Ditsobotla	Molopo
Mooifontein NWK	50.0 percent	0.0 percent
Agrihome or Mareetsane NWK	21.4 percent	0.0 percent
Agrihome	14.3 percent	37.5 percent
Uitkyk cooperative	7.1 percent	0.0 percent
Mareetsane NWK or Sanieshof NWK	7.1 percent	0.0 percent
Tswana Fertilizer	0.0 percent	31.3 percent
NW cooperatives	0.0 percent	25.0 percent
Mr Small	0.0 percent	6.3 percent

Agrihome sold fertilizer and herbicides to 37.5 percent of the respondents in Molopo. Just under a third (31.3 percent) bought their inputs from Tswana Fertilizer in Mafikeng – a cooperative, whereas a quarter (25 percent) bought theirs from NW cooperatives. Lastly, 6.3 percent bought their inputs from Mr Small – a white businessman.

Agribusiness enterprises like NWK cooperatives have been established in the localities of the small-scale farmers. It is an advantage to the small-scale farmers, as they need not travel long distances to obtain the inputs. It is also time and money saving to the farmers. As a result, the majority of the farmers buy from the local cooperatives.

6.6.4 Sources of diesel

The farmers were then asked where they bought diesel and their responses are shown in Table 6.23 below.

Table 6.23: Sources of diesel

	Ditsobotla	Molopo
Cooperatives	85.7 percent	0.0 percent
Zennex	7.1 percent	81.3 percent
Agrihome	7.1 percent	0.0 percent
ESSO	0.0 percent	12.5 percent
BP	0.0 percent	6.3 percent

Diesel is one of the important inputs the farmer needs. Because the small-scale farmers often depend on production loans to carry out their business, the farmers (100 percent) end up obtaining their diesel from the cooperatives or the petrol filling stations with which the banks have made an arrangement. Therefore, the farmers cannot drive into any filling station to get diesel.

Almost all (85.7 percent) farmers in Ditsobotla bought their diesel from the cooperatives, 7.1 percent bought their diesel from Zennex depot in Mafikeng, and another 7.1 percent bought their diesel from Agrihome.

The farmers in Molopo either bought diesel from Zennex, ESSO or BP depots through arrangement of Agribank. Most (81.3 percent) obtained their diesel from Zennex, 12.5 percent from ESSO whereas 6.3 percent obtained theirs from BP.

6.6.5 Use of commercial seed

The farmers were asked if they used commercial seed when planting and their answers are shown in Table 6.24 below.

Table 6.24: Use of commercial seed

	Ditsobotla	Molopo
Yes	100.0 percent	100.0 percent
No	0.0 percent	0.0 percent

Seed can be regarded as the farmer's most important agricultural input. All the farmers in both Ditsobotla and Molopo were using commercial seed. They were obviously buying commercial seed from agribusiness enterprises like NWK cooperatives and Agrihome. The farmers were once again integrating themselves into an agribusiness chain link by buying seeds from such places.

All farmers in Ditsobotla used commercial seed when planting. They claimed that maize from previous season, when used as seed, does not grow well – leading to less profitability. Majority (71.4 percent) of the respondents bought their seed from neighbouring cooperatives. About one-fifth (21.4 percent) bought their seeds from Agrihome, whereas 7.1 percent bought seed from Agrihome or cooperatives.

All of the respondents in Molopo also used commercial seed when planting as they claimed that when using stored seed from previous season the crops grew weak. About one in three (31.3 percent) bought their seeds from the cooperatives. Less than one-fifth (18.8 percent) bought their seeds from Agrihome; another 18.7 percent bought their seeds

from Tswana Fertilizer. Few (6.3 percent) bought their seeds from Tswana Fertilizer and Agrihome; another 6.3 percent bought their seeds from Tswana Fertilizer and Pioneer (in Lichtenburg) and a further 6.3 percent bought their seeds from Tswana Fertilizer and NW cooperatives. Seed was selling around R425 per bag of 25 kg. – quite expensive as one farmer Mr Mvuseleni Zilimbola complained that one tonne of white maize was selling for only R420, therefore cheaper than 25 kg. Seed!

6.7 CROP RESIDUES

The next few questions established what farmers did with crop residues after the harvest. The questions included what farmers did with the maize husks, whether they compact the leaves, what they did with the cobs, and what they did with maize stalks.

6.7.1 Maize husks

The farmers were asked what they did with the maize husks and their responses are summarized in Table 6.25 below.

Table 6.25: Use of maize husks

	Ditsobotla	Molopo
Cattle feed	100.0 percent	100.0 percent

After threshing the farmer is often left with heaps maize husks. These husks are not just waste end products of farming. These husks can be sold to livestock owners who are not

crop farming, to use as livestock feed, or the farmer himself can feed the husks to his own livestock.

All of the respondents in Ditsobotla used the maize husks as cattle feed. About one in three (28.6 percent) compacted the husks and stored them for future needs of their cattle. The remaining 71.4 percent did not compact and store the maize husks citing reasons such as: they had not enough storage, they lacked necessary machinery, the compacted husks rot when it rains and cattle would not eat them when rotten, and they have few cattle and therefore there is no need to compact.

In Molopo, 62.5 percent ground the maize husks and used them as livestock feed. More than one-third (37.5 percent) just fed the maize husks to their livestock. Only 12.5 percent compacted and stored the maize husks for future needs of their cattle. The majority (87.5 percent) did not, for these reasons: they had no suitable machinery or they just ground the leaves and fed to livestock when grazing was poor (usually between September and October).

6.7.2 Use of cobs

The farmers were asked what they did with cobs after threshing and their answers are shown in Table 6.26 on the following page.

The cobs are also not just waste end products after threshing. They can be used in a variety of ways, including amongst others, as fire-fuel, livestock feed, and fertilizer. However, because of infrastructural shortages in the villages (introduction of electricity) many farmers (85.7 percent and 50 percent in Ditsobotla and Molopo respectively) are using the cobs as a source of fire-fuel. Even those farmers who may have access to electricity, may continue to use cobs as fire fuel in order to save on the cost of electricity.

Table 6.26: Use of cobs

	Ditsobotla	Molopo
Fire-fuel	85.7 percent	50.0 percent
Livestock feed	7.1 percent	43.8 percent
Fertilizer	7.1 percent	6.3 percent

The majority of the respondents (85.7 percent) in Ditsobotla used the cobs as fire-fuel. A few (7.1 percent) ground and compacted the cobs and used them as livestock feed. Another 7.1 percent just left the cobs in the fields in order to increase soil fertility.

Half (50 percent) of the interviewed farmers in Molopo used cobs for fire-fuel. Above one-third (37.5 percent) were grinding the cobs together with the maize husks to be used as livestock feed and were also using cobs for fire-fuel. Few (6.3 percent) were just grinding cobs in order to be used as livestock feed and another 6.3 percent just left the cobs in the fields.

6.7.3 Use of maize stalks

The farmers were then asked what they did with the maize stalks after harvesting and their responses are summarized in Table 6.27 on the next page.

Maize stalks are also not to be simply discarded. Maize stalks may be ploughed into the soil in order for the soil to recover its nutrients or they may be used as cattle feed. In the study area, almost all the farmers (92.3 percent and 93.8 percent in Ditsobotla and Molopo respectively) used the maize stalks as cattle feed. The farmers use communal grazing areas where overstocking is often the norm. Overstocking sometimes leads to

overgrazing, hence almost all the farmers use the maize stalks as a supplemental livestock feed.

Table 6.27: Use of maize stalks

	Ditsobotla	Molopo
Livestock feed	92.9 percent	93.8 percent
Just left in the fields	7.1 percent	0.0 percent
Ploughed into the soil	0.0 percent	6.3 percent

Many (71.4 percent) of the respondents in Ditsobotla left the maize stalks in the fields to be eaten by livestock after harvesting. Only 14.3 percent ground and compacted maize stalks in order to be used as livestock feed. A few (7.1 percent) cut maize stalks but never ground them. Another 7.1 percent just left maize stalks in the fields.

The majority (62.5 percent) of the respondents in Molopo left the maize stalks in the fields to be eaten by community livestock after harvesting. A quarter (25 percent) left the maize stalks for the "landowners'" livestock. A few (6.3 percent) cut and ground the maize stalks (but not all of it) for livestock feed. Another 6.3 percent ploughed the maize stalks into the soil so that the soil could better hold water.

Fig. 6.4: Women collecting cobs to use as fire-fuel

Fig. 6.5: Cattle eating leaves that cover maize heads

Fig. 6.6: Cattle eating maize stalks

Fig. 6.7: A tractor used for ploughing and threshing

6.8 YIELDS

The farmers were asked to compare the 1997/98 and the 1996/97 season in terms of the expected output and their answers are summarized in table 6.28 below.

Table 6.28: Expected output in 1997/98

	Ditsobotla	Molopo
Weaker	100.0 percent	68.8 percent
Better	0.0 percent	25.0 percent
Same	0.0 percent	6.3 percent

In business it is wise to re-invest any surplus into one's enterprise. Re-investment seemed not to be the case in Ditsobotla and Molopo. All the interviewed farmers, except two who had combine-harvesters, were using old threshing machines. Many also owned old tractors (see Fig. 6.7). During the period of the interviews, many farmers (100 percent and 68.8 percent in Ditsobotla and Molopo respectively) were complaining about the expected production for 1997/98.

All the respondents in Ditsobotla felt that 1997/98's production was less than 1996/97 season. They cited reasons like *El Nino*, that they had planted late, and that the "landowners" had taken their lands back. The respondents also spoke of variations in purchase prices. Sebowana was paying them R500 per tonne of white maize while NWK was paying R420 per tonne of white maize. However the respondents preferred delivering to NWK as they were later paid some money *'agterskot'* after receiving the initial R420 per tonne. NWK was also paying R1300 per tonne of sunflower. Mr P. E. Lebotse pointed out that prices were not even similar among NW cooperatives, for

instance, a tonne of white maize was R444 in Mareetsane, R430 in Nooitgedacht, and R450 in Sanieshof.

In Molopo, 68.8 percent of the respondents were of the opinion that the 1997/98 production was less than the 1996/97 because of *El Nino*. The production loans had arrived late, they had planted less, and plants did not grow well as maize heads did not have enough weight. However, 25 percent of the respondents felt that the 1997/98 season was better than the 1996/97 season, although they had planted less because they had been scared off by *El Nino* rumours. Few (6.3 percent) felt that the two seasons were the same, as they saw no difference at all.

More than one-third (37.5 percent) of the respondents in Molopo did not know how much either Sebowana or NWK paid per tonne of white maize. However, those who did know gave prices ranging between R440 and R555 at NWK, between R900 and R1000 per tonne of sunflower and R350 per tonne of yellow maize. They said Sebowana paid a flat rate of R460 per tonne of white maize. The farmers also preferred delivering to NWK because they received '*agterskot*'.

6.9 EXTERNAL HELP

The next few questions determined whether the farmers had access to external help. The questions included where the farmers got loans, what relationship did they have with the Central Primary Cooperatives and Noord Wes Kooperasie (NWK), and whether they would process the agricultural commodities.

6.9.1 Sources of loans

The farmers were asked where they got their production loans from and their responses are shown in Table 6.29 on the next page.

Table 6.29: Sources of loans

Source of loan	Ditsobotla	Molopo
Agricor	85.7 percent	56.3 percent
Land Bank	7.1 percent	0.0 percent
No loan	7.1 percent	43.7 percent

Agricor aided the great majority (85.7 percent) of the respondents in Ditsobotla in terms of production loans. Mr R. J. Mokgethi stated that he was given a R45,000 loan for 1997/98 season. Few (7.1 percent) said they got their production loans from the Land Bank and another 7.1 percent claimed to have no relationship with either Agricor or the Land Bank.

In Molopo, 56.3 percent of the respondents received their production loans from Agricor. However, there were widespread complaints about receiving loans late. Just 18.8 percent indicated that they used to be aided by Agricor but they had severed the ties because Agricor did not want to grant them loans. There were claims by 12.5 percent of the respondents that Agricor aided them although they did not receive loans for the previous season. Few (6.3 percent) pointed out that Agricor had refused to loan them money and another 6.3 percent claimed to have no relationship at all with either Agricor or Agribank.

Although almost all the farmers in Ditsobotla (92.8 percent) and more than half in Molopo (56.7 percent) had some production loans, in reality it is not what the farmers had applied for. Many farmers would receive only a fraction of what they had applied for. In most cases the loans are approved too late (in late December to mid-January) for the farmers to cultivate as they had wished. The blame, however, should not only lie with the financing institutions. Often the farmers themselves default on the loan repayments, hence this difficult access to financial credit.

6.9.2 Relationship with Central Primary Cooperatives

The farmers were asked if they had any relationship with the Central Primary Cooperative and their answers are summarized in table 6.30 below.

Table 6.30: Relationship with cooperatives

	Ditsobotla	Molopo
Buy production inputs there	64.3 percent	43.8 percent
Sell their produce there	14.3 percent	0.0 percent
Buy inputs and sell produce there	7.1 percent	31.3 percent
Local cooperative closed down	7.1 percent	0.0 percent
Not helpful to them	7.1 percent	25.0 percent

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A majority (64.3 percent) of the interviewed farmers in Ditsobotla felt that the cooperatives helped them in the sense that they bought production inputs from them. Mr Mvuseleni Zilimbola pointed out that as members they paid a R200 joining. Few (14.3 percent) said they sold their produce at the cooperatives, one farmer said he bought inputs and sold their produce at the cooperatives, another farmer said Makgalwane cooperative in Nooitgedacht had closed down, and one more farmer 7.1 percent said the cooperatives were of no help to him.

In Molopo, 43.8 percent of the respondents thought the Central Primary Cooperatives were helpful to them as they brought inputs nearer to the farmers. Almost a third (31.3 percent) benefited from buying inputs and selling produce nearer their fields. A quarter (25 percent) felt that the cooperatives were of no help to them.

The cooperatives are important agribusiness agents that normally sell agricultural inputs and machinery to the farmers. The relationship that the farmers in Ditsobotla and Molopo have with the cooperatives is only of buying and selling to the cooperatives.

6.9.3 Relationship with NWK

The farmers were asked if they had a relationship with Noord Wes Kooperasie and their responses are shown in Table 6.31 below.

Table 6.31: Relationship with NWK

	Ditsobotla	Molopo
Yes	100.0 percent	100.0 percent
No	0.0 percent	0.0 percent

The NWK is one of the largest cooperatives in South Africa with branches in many rural towns. Many white commercial farmers are members of this cooperative. However, the majority of small-scale farmers in Ditsobolta (85.7 percent) and Molopo (93.7 percent) only have a commercial relationship with NWK, that is, of buying and selling. Very few small-scale farmers were members of NWK (14.3 percent in Ditsobotla and 6.3 percent in Molopo).

All the respondents in Ditsobotla had a commercial relationship with NWK. More than a half (57.1 percent) sold their produce to NWK, 14.3 percent bought production inputs from NWK, another 14.3 percent were members of NWK, 7.1 percent were members,

bought inputs and sold their produce to NWK, and another 7.1 percent had applied for membership but had never heard anything from NWK.

In Molopo all of the interviewed farmers had a relationship of one form or another with NWK. They either bought production inputs and machinery parts or sold their produce to NWK. Mr Kgalaletso Kgopiso had applied for NWK membership and Mr Piko Modise was a member.

6.9.4 Would farmers process their produce?

The farmers were then asked if they would add value on their produce and their responses are given in Table 6.32 below.

Table 6.32: Would farmers process their crops?

	Ditsobotla	Molopo
Yes	42.9 percent	75.0 percent
No	57.1 percent	25.0 percent

Processing is one way in which the farmers can add value to their produce. By processing, the farmers can more than double the value they earn as farmers. However, the percentage of the Ditsobotla farmers who would process (42.8 percent) was less than what I had expected. It has been stated that many of the farmers are only semi-literate, so it is possible the education campaigns have never reached them. So the farmers continue farming as their forefathers had done. In Molopo, however, there was a great enthusiasm for processing, as 75 percent of the respondents indicated the will and desire to process their crops.

About a half (42.9 percent) of the respondents in Ditsobotla said they would process their crops if given opportunity and exposed to relevant techniques. Slightly more than a tenth (14.3 percent) would process cooking oil, the motive being better profit, another 14.3 percent would process peanut butter, the motive also being better profit. Only 7.1 percent would process peanuts because groundnuts were planted all over and another 7.1 percent would process maize-meal. Mr Mvuseleni Zilimbola said he and another farmer had thought about processing and said they could use silos in Springbokpan for milling. The objective to process maize-meal being to export and thereby gain better profits, and the fact that the government had encouraged them to group themselves together in order to obtain funding.

More than a half (57.1 percent) of the respondents had no intentions of processing. The reasons given were that: processing needs too much time and therefore less time would be left for farming, they lacked experience, processing is too problematic, they are content with farming and selling maize, they were not sure if they would succeed, and they did not have the necessary machinery.

Given the opportunity and exposed to relevant techniques, three-quarters (75 percent) of the interviewed farmers in Molopo would process their produce. The reason advanced for processing was that processing has been marginal to black farmers and that they were being ripped off by people to whom they were selling their raw commodities. The chief reason for going into processing was that they would get better profits.

Maize-meal would be processed by 18.8 percent of the respondents and the motive was better profit. Cooking oil would be processed by 12.5 percent of the interviewed farmers, with Mr Piko Modise claiming to have been taught how to process sunflower into cooking oil. Mr R. H. Mosenogi also claimed to have been taught by NAMPO (Free State) how to process cooking oil. Only 25 percent would not go into processing because of old age. Given the huge interest in processing one can conclude that the farmers are aware of the agribusiness chains, where at each next level, value is being added.

6.10 CONCLUSION

This chapter has primarily looked at the farmers in Ditsobotla and Molopo. The chief aim was to determine whether these farmers were engaged in agribusiness and whether they were aware of the agribusiness chain links. As a result, the chapter focused on the socio-economic details of the farmers, their access to land, the farm resources that they had, whether they were contracting, the fertility strategies that they applied, what they did with the crop residues, their expected output, and their access to external help.

The main objectives addressed by this chapter were to look for the ways in which buying arrangements and contracts are established between agribusiness and producers, and to find out if small-scale farmers were aware that they could add value to their produce by processing. With respect to the former objective, this chapter has clearly demonstrated that the farmers are buying production inputs and machinery from the cooperatives. All the respondents are using fertilizer and commercial seed and many are using herbicides.

Concerning the latter objective, the Ditsobotla farmers' desire to get involved in processing is strong. However, their counterparts in Molopo have stronger desire to process. Some of the farmers even claimed to have received training on processing methods. This goes on to show that the farmers in Ditsobotla and Molopo are aware that they can make more money by processing their crops.

The next chapter changes focus away from Molopo as it deals with the New Nut Company and its contractee black farmers. This chapter is largely going to focus on contract farming. The New Nut Company is located in Setlagole, in Ditsobotla.

CHAPTER 7

RESEARCH FINDINGS: THE NEW NUT COMPANY

7.1 INTRODUCTION

The last chapter focused largely on agribusiness in Molopo and Ditsobotla. It has emerged that the small-scale farmers are engaged in agribusiness through buying production inputs and farming equipment from agribusiness enterprises like the cooperatives, notably NWK. There is also a degree of contracting among farmers as they engage in sharecropping and contract-threshing. The farmers, particularly those in Molopo, have also showed keenness to process their crops.

This chapter pays attention to contract farming. Contract farming, as it has already been mentioned earlier, is an integral part of agribusiness. Chapter 7, therefore, analyses the answers given by Mr Tertius Bothma, the owner of the New Nut Company – appendix 2 – and it also analyses the responses provided by the New Nut Company black contractee farmers – appendix 3. The focus on the New Nut Company and its black contractee farmers was mainly to try to find the answers to the hypothesis that black small-scale farmers are content with their relationship with the New Nut Company.

The aim of this chapter was to examine how contract farming, involving black peasant farmers, was being run and to compare this with the literature I had read on contract farming.

7.2 THE NEW NUT COMPANY

The New Nut Company was started in 1995 in Setlagole, some 70 km southwest of Mafikeng, and is owned 100 percent by Mr Tertius G. Bothma. The New Nut Company, hereinafter the Company, is a company that contracts groundnuts to surrounding farmers (Setlagole, Madibogo, Mareetsane, Kameel, Stella) and to Coligny. In the first year Mr

Bothma planted 3000 ha himself. In the second year he had about 50 contractees, in the third year 70 contractees. There were no other branches elsewhere but plans were under way to open a branch in the Vaal-Harts area because production there could be more reliable as it is 100 percent irrigation there compared to 95 percent dry-land crop in Setlagole.

The total tonnage received by the Company in 1998 was 6500 tonnes of groundnuts and 7000 to 8 000 tonnes were expected for 1999. The Company had a total of 125 contractee farmers, 50 black small-scale farmers, and 75 white commercial farmers with average landholding of 120 ha, as the Company had 15,000 ha under contract for the 1998-99 season. The number of black contractee farmers is doubtful, as I had struggled to get hold of them during the interviews. It is, however, important to note that the black farmers were also diversifying their produce. There was only one woman contractee (who was white), who had taken over after her husband had died.

The Company had five administrative employees and about 250 seasonal labourers who were paid between R20 and R30 per day. Seasonal labourers were employed for about six months as the grading process lasted that long. There were more men employees for administrative work than women whereas for seasonal labourers, there were more women than men. Mr Bothma was not considering mechanization instead of labourers in the near future. However, he had bought a machine at the grading site in 1997, that is why he was having about 100 women there, otherwise he would have needed about 300 women.

Mr Bothma explained that his contracts work in this way: if a farmer wanted to plant say a 100 ha, the Company hired those 100 ha from the farmer. From that moment on, the crop on the land belonged to the Company, not the "landowner". The farmer was guaranteed a higher price than the market price (co-operative price and R100 per tonne or at least the co-operative price) and got paid for letting out his land to the Company. The "landowner" was referred to in the contract as the 'contractor' and the Company as the 'producer'.

The Company then gave the farmer seed and pesticides on credit (interest-free for a year) only, no machinery or financial credit as start up capital. When the farmer was ready to harvest the groundnuts and was short of money, the Company then loaned the farmer the money to pay his labourers. The Company did not predetermine planting, weeding, harvesting, etc. schedules for the farmers. When the farmer delivered his crop to the Company, he first cleared his debt and then got his money. The Company visited the farmers twice a year – firstly during planting season to see if the seeds that given to farmers had been planted and secondly, when the crop was mature in order to get a production forecast.

The climatic conditions for growing groundnuts around Setlagole are suitable according to Mr Bothma as the soil is sandy and the average required rainfall per year is above 200 mm. The average annual rainfall for Setlagole is 450 mm. The Company did not contract any other type of crop. However, there were different varieties of groundnuts and the Company contracted these. The sallie type is the most common type (95 percent).

The Company sells its groundnuts through agents. It has, however, sold directly to Simba and Black Cat. In a normal year, 50 percent of the crop is exported. There are three basic grades: Choice grade – the export grade, Diverse grade – used as seed for the next season, and the Crushing grade – mainly for oil. The Company did not do any processing but only cleaned, bought in three grades, and selected into nine grades – four Choice grades, two Diverse grades, and three Crushing grades.

Mr Bothma claimed to have a harmonious relationship with his contractee farmers, apart from few white farmers who did not pay him, and he said he had not lost a farmer yet. He was quick to point out that it was mainly white farmers who were dodgy rather than black farmers. Mr Bothma also pointed out the main problem encountered by his contractee farmers is grading. The farmers were always moaning and groaning as the choice grade in 1999 paid R3000 per tonne, diverse grade – R1900 per tonne, and the crushing grade – R1150 per tonne.

When asked what happened to farmers in a year of poor harvest, Mr Bothma claimed that 1999 was his first year of poor harvest. He maintained that before 1999 he had had a good record and that he personally knew all his farmers. It was, however, surprising when I asked for the names and locations of the farmers and Mr Bothma could only provide me with three names. He maintained that most of his farmers were honest and that he would be prepared to help them in 1999/2000 season. Mr Bothma said that of those who could not deliver to him, it was mainly because of poor harvest not because they had delivered to someone else.

7.3 RESPONSE FROM THE CONTRACTEES

A total of twelve semi-structured interviews were conducted with farmers 'contracted' to the New Nut Company to grow groundnuts in and around Setlagole between 12 February 2000 and 04 March 2000. These farmers were all that I could find, although Mr Bothma had claimed that there were more black contractees.

7.3.1 Socio-economic details of contractee farmers

The initial questions determined the socio-economic details of the contractee farmers. Questions were asked about their age, household head status, educational background, work experience on white farms, how long they had been living in their community, etc.

7.3.1.1 Age of the contractee farmers

The farmers were asked how old they were and their answers are summarized in Table 7.1 on the next page.

The overwhelming majority of the farmers (66.7 percent) were what should be thinking about pensioning as they are in the age category of 51 – 60 years. They were followed jointly by the age categories of 51- 60 and 71 and above, with each category making 16.7

percent of the contractee farmers. It is worth noting that there were no farmers below age 50.

Table 7.1: Age of contractee farmers

Age	Percentage
71 and above	16.7
61 – 70	16.7
51 – 60	66.7

The ages of contractee farmers were by and large similar to those of the farmers in Ditsobotla and Molopo (in Chapter 6). There was absence of farmers in ages below 50. The reason could be that these contractee farmers needed start-up capital to enter into farming, and because they often did not have collateral against the loan, their applications for loans were turned down. Therefore, they needed to go and find employment elsewhere, save money, and only then when they were older, could they enter into farming.

When asked about their household status, all the respondents said they were the heads in their households. According to Batswana customs only men can be heads in households. Women can act in this capacity only when their husbands are away due to migrant labour, when they are deceased, or if a son is a minor.

None of the farmers had any tertiary education. However, a quarter (25 percent) had secondary education. Another quarter (25 percent) had never attended school at all. Half of the respondents (50 percent) had only primary education. The education system in

South Africa has been biased towards the urban areas and towards the whites. It is thus not surprising to find that half of the farmers had only primary school education.

Two-thirds (66.7 percent) of the interviewees had never received any formal agricultural training. The remainder (33.3 percent) had received agricultural training through Agricor training courses. The majority of the farmers (66.7 percent) had worked in a commercial white farm where they gained farming experience. Setlagole is just a stone's throw away from white commercial farms. Given the limited education that most of the farmers had, white farms had provided valuable source of employment to the contractees. Only a third (33.3 percent) had never worked in a white farm.

7.3.1.2 Length of stay on a white farm

The farmers were asked how long they had lived and worked on a white farm and their responses are shown on table 7.2 below.

Table 7.2 Length of stay on a white farm

Number of years	Percent
1 – 5	25.0
6 – 10	0.0
11 – 15	37.5
16 – 20	0.0
21 and above	37.5

A quarter (25 percent) of those who had worked in a white farm, had worked there for a maximum of five years. A further 37.5 percent had worked for a period of between 11

and 15 years in a white farm. Another 37.5 percent had worked in a white farm for 21 or more years with one farmer claiming to have worked there for 40 years.

Most of the contractees who had worked in white farmlands stayed there for extended periods of time (37.5 percent stayed there between 11 and 15 years and another 37.5 percent stayed there for 21 years and more). They were possibly accumulating as much money as possible before they could farm on their own. This lengthy stay in white farms also explains why there were no contractees in the ages below 50.

Almost two-thirds (62.5 percent) had been working as foremen in white farms. Given the lengthy period that they had stayed in the farms, it is not uncommon for them to have won the trust of the white farmers who made them foremen. The remaining 37.5 percent had their job descriptions as only labourers.

Many of the respondents (62.5 percent) decided to quit their jobs because they wanted to concentrate on their own farming. By simply being males, these contractees were eligible for pieces of land in their communities, but they did little farming of their own while working for white farmers. Those that did farm their "own" land said they had been doubling the jobs on white farms with their own farming and realised it would be more profitable if they concentrated on their own farming.

A quarter (25 percent) quit white farms because they had found another job – as miners and clerks. It has to be borne in mind that the conditions in which black labourers work in some white farms are not conducive to skilled labour retention. Labourers are often required to work very long hours with meagre salaries. So opportunities for alternative employment are enticing. Only 12.5 percent had left their previous occupation because of poor health.

Two-thirds (66.7 percent) of the interviewees were commoners in their community and a third (33.3 percent) were tribal council members. The position in the tribe is very significant because the more status you have, the more land you are likely to control. This

basically means that the chief "has" the most land, then the headmen, and the commoners come last

The overwhelming majority of farmers (83.3 percent) were born in Setlagole and only 16.7 percent were born elsewhere (in Pampierstad and Wolmaransstad). The issue of where you were born is also significant as only those who had been born in the village (and/or their forefathers) are eligible for land. Thus the contractees who were born outside Setlagole did not have their 'own' land and were sharecroppeers. Those who were born outside Setlagole had relocated because many people were offering their land for sharecropping in and around Setlagole and because they had been recruited by friends to relocate there.

7.3.2 Occupation

The following questions determined the prior occupation of the farmers. The questions included what the farmers' prior occupations were, how long they had been farming, the land tenure system they preferred, and whether they were happy or not to contract to the New Nut Company.

7.3.2.1 Prior occupations

The farmers were asked what their prior occupations were and their responses are shown in Table 7.3 on the next page.

When asked about their prior occupations, 66.7 percent of the respondents said they had been employed as labourers on white farms and 25 percent only did odd jobs mainly in Johannesburg. With limited education and total lack of tertiary education, it is not surprising that the majority of the contractees were only labourers and did odd jobs. Only 8.3 percent were employed in the tertiary sector as clerks.

Table 7.3: Prior occupations

Occupation	Percentage
Labourer	66.7
Odd jobs	25.0
Clerk	8.3

The majority (58.3 percent) had been in their previous occupations for 21 to 30 years, 33.3 percent had worked for their former employers for 11 to 20 years. Only 8.3 percent had been with their previous employers for a period exceeding 40 years.

7.3.2.2 Number of years in farming

The farmers were asked how long they had been farming and their answers are summarized in Table 7.4 on the following page.

Half of the respondents (50 percent) had been farming on their own for 21 to 30 years, 16.7 percent had been on their own for 11 to 20 years, and another 6.7 percent had been farming independently for 31 to 40 years. A further 16.7 percent had been farming on their own for a period of between one and ten years. These contractees clearly had long experience in farming (83.4 percent had experience ranging from 11 years to 40 years). However, it must be remembered that while contractees were working for the white farmers they were also doing their own farming in the village.

Table 7.4: How long have you been farming?

Number of years	Percent
1 – 10	16.7
11 – 20	16.7
21 – 30	50.0
31 – 40	16.7

7.3.2.3 Record keeping

The farmers were asked if they kept records of their farming activities and their answers are summarized in Table 7.5 below.

Table 7.5: Record keeping

	Percentage
Yes	75.0
No	25.0

Three-quarters (75 percent) of the interviewees kept records of their farming operations. This record keeping was mainly because their financiers required them to keep records. Failure to do so made accessibility of production loans even more difficult. Only a

quarter (25 percent) did not keep records. These were probably the illiterate or semi-literate contractees.

Only 8.3 percent were intercropping, saying it all depends on the year – if around January one realises that crops are going to be poor, then one can plant sunflower. The outright majority (91.7 percent) were not intercropping, some maintaining that cultivator can destroy the intercropped crops. Sunflower was preferred (it was said to be heat, cold, and drought resistant), beans and maize were intercropped with groundnuts. Advantages of intercropping were said to be raised production and that beans add nutrients to the soil.

7.3.2.4 Number of years in contract farming

The farmers were asked how long they had been involved in contract farming and their answers are summarized in Table 7.6 below.

Table 7.6: How long have you been contracting?

Number of years	Percent
1	25.0
2	25.0
3	50.0

Only a quarter (25 percent) had only been contracted to the New Nut Company to grow groundnuts for a year. A further 25 percent had been contracted for a two-year period. Half (50 percent) of the respondents had been contracted for a three-year period. These percentages reflect the fact that the New Nut Company was still relatively new in the business. Mr Bothma had said that he had stated the Company three seasons earlier.

Only 16.7 percent had contracted to grow groundnuts on 100 ha or less. Another 16.7 percent had contracted 300 ha and more. A quarter (25 percent) had contracted 201 to 250 ha. A sizeable percentage (41.7) had contracted to grow groundnuts on 101 to 150 ha. The amount of land that was under contract was far bigger than the average landholding in Ditsobotla and Molopo. This perhaps has to do with the fact that there were very few alternative jobs in Setlagole (and these are for professional or skilled people) as the village is further away from towns than the other places where the interviews were conducted. Therefore many people might have moved to the towns to look for jobs and in so doing offering their lands for sharecropping.

When asked why they had entered into contract farming all the respondents said they decided to enter into 'contract farming' because of lack of funds as Agricor was no longer giving them production loans. The issue of production loans has been mentioned earlier. Many black farmers were unable to access the production loans either because they had no security against the loan or because the farmers had previously defaulted on loan repayments.

The great majority (91.7 percent) did not use any production loans for the 1998/99 season. These were most probably the farmers who defaulted on their loan repayments. Only 8.3 percent had been given a production loan - R200,000.00 and had only R32,000.00 outstanding.

7.3.2.5 Changes in the lives of the farmers

The farmers were asked if their lives had changed since they entered into contract farming and their responses are summarized in Table 7.7 on the next page.

Table 7.7: Changes in the lives of the farmers

Change	Percent
Improved	66.7
Worsened	16.7
Remained the same	16.7

A small percentage (16.7 percent) claimed that their lives had neither improved nor worsened since they had started contracting. This lack of improvement was mainly due to local drought, had it rained their lives would have improved. Another 16.7 percent said that their lives had worsened since they had started contract farming. This was attributed to drought and the fact that Agricor used to supply them with all the inputs, but they were now receiving only groundnut seeds, no maize seed, nor diesel, nor fertilizer. These farmers who either saw their lives worsening or remaining the same combined contract farming with their ordinary farming practices. Mr Bothma had said that his contractee farmers were diversifying their production. So it is likely that when the contractees' normal farming did not do well the farmers were cushioned with earnings from contract farming.

The majority (66.7 percent) said their lives had improved since they got involved in contract farming. This was due to the fact that it was difficult to farm from own pocket, and that Agribank no longer gave them production loans. These farmers were obviously happy that the New Nut Company provided them with groundnuts seed and pesticides, so they did not need to buy the seed and pesticides up front. Provision of seed might seem negligible considering all the agricultural inputs the farmer needs to grow his crops; but to a small-scale farmer, who struggles to access loans, that supply of seed means a lot.

However, the contractees said because of drought it seemed as if their lives had worsened.

The overwhelming majority (91.7 percent) had been planting less since they had started contracting due to lack of rains and lack of funds. It was therefore expensive for them to buy the other inputs from their own pockets. By planting less the contractees were referring to planting less of other crops, not specifically groundnuts, as they were diversifying their produce. It has to be remembered that the founding of the New Nut Company coincided with an *El Nino*. It therefore meant that drought conditions were experienced in the region, hence the contractees had been cultivating fewer fields.

Only 8.3 percent had been planting more since they got involved in contract farming. They had been planting more in order to make more profit. These were the contractees who had contracted more than 300 ha of their land to the New Nut Company. The groundnuts would be more drought-resistant as Mr Bothma had said they needed only 200 mm of rainfall per *annum*. The average annual rainfall in Setlagole is 450 mm.

7.3.2.6 Prices paid by New Nut Company

The farmers were asked if they received higher prices from the New Nut Company than the market prices and their responses are shown in Table 7.8 on the next page.

Only 8.3 percent of the interviewees said New Nut Company offered them prices that were higher than the market prices. A further 8.3 percent said they were not sure whether they received higher prices, but said they were sure that they received a good price. Almost all (83.3 percent) said they received prices equivalent to the market prices. Most contracting schemes offer their contractees prices that are above the market prices. However, the overwhelming majority of the New Nut Company contractees indicated that they received prices equivalent to the market prices. It is most probable that these farmers were not aware of the advantages, such as higher profits, they ought to enjoy by contracting their land to the New Nut Company.

Table 7.8 Prices paid by the New Nut Company

Prices	Percent
Equal to market prices	83.3
Higher than market prices	8.3
Not sure	8.3

The farmers said New Nut Company only gave loans for planting. They also said they could have been receiving more, but the surplus went into repaying the loans. Most contract farming schemes also help the farmers with all agricultural inputs – diesel, fertilizer, seed, herbicides, weedicides, *etc.* However, the New Nut Company only provided groundnut seed. The contractees said that the advantage was that seed was provided interest free.

When asked where they had heard about the New Nut Company, half of the respondents (50 percent) had heard about the New Nut Company in the tribal meeting, 41.7 percent said the Company had found them in the village. Only 8.3 percent said they had been delivering groundnuts there before they had started contracting.

7.3.2.7 Problems with the New Nut Company

The farmers were asked if they had any problems with the New Nut Company and their answers are summarized in Table 7.9 on the following page.

Almost all the farmers (83.3 percent) said they had no problems with New Nut Company. They said the only problem was when one did not repay his loan. It was only then that the Company would take steps – but not in a harsh way and one would have to agree to new

repayment terms. As it was stated earlier, the contractees were only content that they do not have to pay for the seed up front, let alone have it interest-free.

Table 7.9: Problems with the New Nut Company

	Percent
Yes	16.7
No	83.3

Only 16.7 percent said they had problems with the Company and it was that the Company only gave groundnuts seeds and no other inputs. This was despite Mr Bothma claiming to have a harmonious working relationship with all his contractee farmers. However, all the respondents were happy with the New Nut Company as it was better than paying cash to buy seeds and because they received good prices. The farmers claimed to receive better prices, although the majority had indicated that they received prices equal to the market price (see table 7.8).

Contrary to all farmers being happy with the New Nut Company, 33.3 percent of the interviewees said they were intending severing their relationship with the Company. This was due to their dissatisfaction with the fact that New Nut Company did not provide other inputs except groundnut seeds; and some were awaiting Land Bank approval for membership. Mr Bothma had claimed to have never lost a single contractee and he was apparently going to lose some of the contractees at the end of the production season.

Two-thirds (66.7 percent), however, had no intention of quitting New Nut Company because they lacked funding to farm from their own pocket. The majority had not got

production loans for the season under study. The New Nut Company, by providing them with seeds and pesticides interest-free for a year, actually came to their aid.

The majority of the respondents had other important sources of income: 58.3 percent had livestock, 8.3 percent were shopkeepers, another 8.3 percent owned a small mill. Setlagole is a dry land farming area, so the farmers were dependent on the rain to water the crops. These farmers cannot afford to buy irrigation equipment. The fact that droughts are endemic in this region forced the farmers to look for alternative sources of income. Only 25 percent had no access to other sources of income.

7.3.3 Land tenure

The next few questions established the farmers' access to land. The questions asked included if the farmers were "landowners", if they accessed sharecropping land, and the total hectares involved.

7.3.3.1 Landownership

The farmers were asked if they "owned" the land that they cultivated and their answers are summarized in Table 7.10 below.

Table 7.10: Landownership

	Percent
Yes	83.3
No	16.7

The great majority (83.3 percent) of the respondents "owned" the land because they were born in Setlagole and therefore had the right to communal land. The issue of where a person was born was raised earlier, as it is crucial to acquiring the land within the community. Therefore, the remaining 16.7 percent who did not own the land were born outside Setlagole.

Half (50 percent) "owned" less than 50 ha, 33.3 percent owned 100 ha or more. Most of the land that the farmers held was land that had been inherited from their fathers. It had been stated at the beginning of chapter 6 that according to Batswana customs, only males are eligible to inherit the land. Only 16.7 percent of the contractees held no land.

7.3.3.2 Size of sharecropping land

The farmers were asked how big their sharecropping land was and their responses are shown in Table 7.11 below.

Table 7.11: Size of sharecropping land

Size of land	Percentage
100 ha and less	0.0
101 ha - 200 ha	16.7
201 ha - 300 ha	33.3
301 ha – 400 ha.	16.7
400 ha and more	33.3

The important source of land for the local farmers was sharecropping and the fields were in Setlagole, Madibogo and Disaneng. A third (33.3 percent) of the respondents had access to 200 to 300 ha of sharecropping land, another 33.3 percent had access to 400 ha or more of sharecropping land. A small percentage (16.7 percent) had access to 101 to 200 ha and another 16.7 percent were sharecropping 301 to 400 ha.

The farmers who were sharecropping were those who, by village standards, were wealthy. It was for this reason that the farmers had large tracts of land, far bigger than their own, under sharecropping (50 percent of the interviewed farmers held less than 50 ha of land). Sharecropping was also the invaluable way in which the farmers who had been born outside Setlagole could earn a living since they could not "own" the land in Setlagole. They could not also buy the land as the land is "owned" communally, therefore there is no title deed to the land.

7.3.3.3 Preferred land tenure system

The farmers were asked which land tenure system did they prefer and the responses are shown in Table 7.12 below.

Table 7.12 Preferred land tenure system

Land tenure	Percentage
Private or freehold	83.3
Communal or tribal	16.7

Private or freehold tenure system proved to be a favourite among the respondents, as it was preferred by 83.3 percent. Reasons advanced included among others, that they would be able to work freely, planting and harvesting at own their own time without having to worry about someone else's livestock eating your crops; one could improve one's land; other land tenure systems are not profitable; livestock camps can be rotated; and one farmer claimed that he had had a farm but it was repossessed when the ANC came into power. He said the former Bophuthatswana era was better as they used to plant annually. His main complaint was that he did not receive production loans.

These were the farmers who aspire to be commercial farmers. They have grown tired of all the negative aspects of communal farming and would like to change to a system they deemed more efficient. They had worked in white commercial farms and had seen the advantages of commercial farming. Setlagole is also not far away from these commercial farms, so they continued to see their white counterparts having better opportunities and advantages over them.

Only 16.7 percent preferred the communal or tribal land tenure system. The reasons put forth were: old age, they could not afford to buy their own farms and they could therefore also not afford to take a loan. These were farmers who showed less keenness to farming. They might have been farming only to make ends meet, not showing eagerness to do much better than they had been doing.

7.3.4 Farm resources

The next questions determined the farm resources that the farmers have available to them in their farming practices.

7.3.4.1 Machinery

The farmers were asked if they owned farming machinery and implements and their responses are summarized in Table 7.13 on the next page.

All the respondents had an average of two tractors, some owning up to five tractors. Also, they all had ploughs, planters, trailers, and boreholes. Therefore, the farmers had the most basic farming equipment. However, some farmers who owned more than one tractor, had some of these tractors in non-running conditions. Also, the models of the tractors that the farmers used were, by and large, old.

Table 7.13: Ownership of machinery

	Percent
Yes	100.0 percent
No	0.0 percent

7.3.4.2 Labour

The farmers were asked if they hired both seasonal and permanent labourers and their responses are summarized in Table 7.14on the next page.

The respondents provided permanent employment to some of the locals: 16.7 percent employed two or less people, another 16.7 percent employed six to eight people, and 25 percent employed three to five people permanently. About half (41.7 percent) of the respondents had no full-time employees. In such instances, the farmer undertakes the farm labour himself. A majority of the respondents (83.3 percent) undertook work on the farms driving tractors to plough and plant and when delivering their produce. Only 16.7 percent did not do any work on their farms due to old age and poor health. The number of permanent staff was generally smaller compared to the seasonal staff. The reason for this was that the farmers were trying to keep their operational costs low.

Table 7.14: Farm labour

Permanent		Seasonal	
Number	Percent	Number	Percent
2 and less	16.7	10 and less	0.0
3 – 5	25.0	11 – 20	16.7
6 – 8	16.7	21 – 30	66.7
None	41.7	31 and more	16.7

The respondents also provided the local inhabitants with seasonal employment: the majority (66.7 percent) employed 31 to 40 people; 16.7 percent employed 41 and more people and a further 16.7 percent had 11 to 20 seasonal workers. This seasonal employment was a vital source of income to many rural households. In some of the households no one was employed, others were dependent on migrant labour remittances which often take long to arrive, and other households depended on the civil pensions the elderly members of the family received monthly. The seasonal labour opportunities the farmers provided, therefore, came as a temporary relief to many rural families.

Two-thirds (66.7 percent) of the respondents said a workday for their workers lasted for eight hours and the remaining 33.3 percent said their workers worked for ten hours a day. This was contrary to my observations whereby tractor-loads would be seen coming into the village after the sun had set.

The majority (66.7 percent) of the seasonal employees were employed for four to six weeks, and 33.3 percent were employed for three weeks or less. The length of seasonal

employment was therefore contingent upon how much land the farmer had cultivated. The more land the farmer cultivated, the longer the period of seasonal employment, and the converse was also true.

All the respondents were unanimous that farm labour was readily available in Setlagole because of the high unemployment rate in the area. People needed food, white farmers were retrenching their labourers, because white farmers were not paying the labourers as much as they promised, and farm labourers were available. Setlagole is approximately 70 km away from the nearest town, Mafikeng, therefore very limited urban functions could be performed in the village. The bulk of the inhabitants of Setlagole, therefore, had to perform primary functions to earn a living.

7.3.4.3 Number of cattle

The farmers were asked the size of their cattle herd. Their answers are shown in Table 7.15 below.

Table 7.15: Cattle quantity

Number of cattle	Percent
20 and less	16.7
21 – 39	58.3
40 – 59	25.0

As mentioned earlier, livestock constitute an important source of income for the farmers. Slightly more than half (58.3 percent) of the respondents owned between 21 and 39 head

of cattle, 25 percent owned 40 to 59 cattle, and 16.7 percent owned 20 or less cattle. They also owned some goats, sheep, and chicken. Chicken were said to belong to spouses. Less favoured were pigs and horses. None of the respondents owned donkeys.

A great majority (83.3 percent) of the interviewees kept livestock so that it could be sold in order to help to buy the inputs when the ploughing season starts. Only 16.7 percent of the respondents kept livestock as a source of food. None of the respondents kept the livestock to be used as draught power. One respondent even claimed to have last seen animals being used as draught power in the 1960s.

All the respondents pointed out that their livestock grazed in the communal grazing fields. This was the only way that the farmers could graze their livestock since they were staying in communally owned land. As a result, the farmer could not apportion a piece of land exclusively for his livestock to graze on.

About half (41.7 percent) said they managed their livestock through herd-men and 58.3 percent said their livestock management was through herd-men and kraaling. Herd-men were very vital in herd management as the cattle grazed on communal land. If the cattle were without the herd-man, very often they strayed into the fields and ate the crops. The owner of the herd would then have to pay for the damage his herd caused. Also, when the livestock was without the herd-man, it was more susceptible to being stolen.

7.3.5 Natural resource use

The next questions determined the natural resources used by the farmers. The questions asked included what types of crops did the farmers grow, what was the percentage of the land that they had cropped, the number of different fields, the total size of the lands that they cultivated, *etc.*

7.3.5.1 Types of crops grown

The farmers were asked which crops did they grow and their answers are summarized in Table 7.16 below.

Table 7.16: Types of crops grown

Crops	Percent
Maize and groundnuts	66.7
Maize, groundnuts and sunflower	33.3

Many of the respondents (66.7 percent) grew maize and groundnuts and 33.3 percent grew maize, groundnuts, and sunflower. It has already been stated that maize is the staple food in South Africa and that often groundnuts were planted as they were perceived to be more drought-resistant than maize. It was for this reason that groundnuts were planted when the rains were late. Some of the farmers also planted sunflower. These were farmers who wanted to earn extra income since the price of sunflower tonne is generally higher than that of maize. A tonne of white maize was paying between R 440 and R 555, whereas a tonne of sunflower was paying between R900 and R1000 (see 6.8 Yields, in chapter 6). The problem with sunflower, however, was that birds were feeding on it.

All were diversifying their crops. The farmers were not restricted to planting groundnuts because they were contracted to the New Nut Company. They planted maize (their staple food) and sunflower because they could generate more income from sunflower. The problem with sunflower, however, is that birds feed on it. Also, Setlagole is generally located in a maize-producing area of South Africa.

The farmers said that crops did not grow well if the same crop was planted continuously over the years. They said an advantage of diversifying the crops was that soil nutrients are improved. A third (33.3 percent) said they varied the crops every second year, another third varied the crops every year. Few (16.7 percent) varied their crops every three years, and a further 16.7 percent varied their crops at 2:1 ratio. Therefore, there were no consistent intervals of varying the crops planted by the farmers.

7.3.5.2 Percentage of land cropped

The farmers were asked what percentage of the land did they crop and their answers are shown in Table 7.17 below.

Table 7.17: Land cropped

Percent of land	Respondents (Percent)
25 and less	41.7
26 – 50	16.7
51 – 75	16.7
76 – 100	25.0

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The combined effects of drought and lack of production loans are marked by the fact that more than 40 percent (41.7 percent) of the respondents had only cropped 25 percent or less of their fields. The issue of accessibility to production loans has been discussed several times in this dissertation. Clearly a loan programme funded by the government is necessary. Only 25 percent had cropped 75 to 100 percent of their fields. Just 16.7

percent had cropped 26 to 50 percent of their land and another 16.7 percent had cropped 51 to 75 percent of their land.

All the respondents were earning good money in an average year in their farming practices. However, judging from their lifestyles, it seemed most of the money went into repaying production loans or was spent on non-agriculture related activities.

A third (33.3 percent) harvested between 1001 and 2000 bags, 16.7 percent harvested 2001 to 3000 bags and 50 percent harvested above 3000 bags. During an exceptionally good year, 33.3 percent harvested 2001 bags to 3000 bags and 66.7 percent harvested above 3000 bags. During an exceptionally bad year, more than half (58.3 percent) harvested less than 1000 bags and 41.7 percent harvested between 2001 and 3000 bags. A bag of groundnuts was paying R 85.50 in the 1998/99 season.

7.3.5.3 Total land (own and sharecropping) under the farmers' control

The farmers were asked what the total size of the land under their control was and their responses are summarized in Table 7.18 below.

Table 7.18: Total land under the farmers' control

Land size	Percent
500 ha and more	16.7
401 ha – 500 ha	33.3
301 ha – 400 ha	25.0
201 ha – 300 ha	25.0

The respondents were in control of large tracts of land: a third (33.3 percent) had access to between 401 and 500 ha of land. A quarter (25 percent) had access to 201 to 300 ha and another 25 percent accessed 301 to 400 ha. Only 16.7 percent could plant more than 500 ha. It is worth noting that these total hectares were made up of different fields. Also, the farmers did not "own" some of the land as it was sharecropping land. Earlier, it was pointed out that the wealthy farmers acquired sharecropping land in order to increase the size land that they cultivated.

7.3.5.4 Number of fields

The farmers were then asked what the total number of the different fields that they cultivated was and their responses are summarized in Table 7.19 below.

Table 7.19: Number of different fields

Number	Percent
1 – 10	16.7
11 – 20	33.3
21 – 30	33.3
31 – 40	8.3
41 and more	8.3

A third (33.3 percent) of the respondents had access to 11 to 20 fields, another 33.3 percent accessed 31 to 30 fields, 16.7 had access to one to ten fields, 8.3 percent accessed 31 to 40 fields, and a further 8.3 percent had access to more than 40 fields. The more affluent farmers could afford to rent more land through sharecropping, hence some of the farmers controlling up to more than 41 different fields. The many different fields could

also be sign of land hunger among the farmers. The farmers were using in a communally "owned" land and were thus unable to access more land as they had already been apportioned their own pieces of land or had inherited the land from their parents.

All the respondents said the fields were in different areas and all had their boundaries unmarked. It has already been stated that the land was communally owned. Therefore marking the land by fencing, for instance, would be a costly venture for the farmers as the land was not privately owned. The farmers who tried to fence their land could also be met with a strong resentment from other members of the community who traditionally moved livestock to graze on the fields after harvesting.

Wood is the natural resource mainly used for fencing by the respondents: three quarters (75 percent) used wood for fencing their homes and the remaining 25 percent did not use wood. The trees were readily available, so they were cut and used as fence poles. The farmers mainly used wood for kraaling.

Wood is an important source of fuel to 83.3 percent of the respondents. Only 16.7 percent pointed out that they did not use wood as fuel. Although most of the houses in Setlagole were electrified, many respondents continued to use wood as fuel for heating and cooking. This could be attributed to the farmers' households trying to save on their electricity bills.

Only 33.3 percent said they gathered wild foods (fruits, berries, *etc.*) for household consumption. The gathering of wild fruits is a time-consuming and a laborious task. It was for this reason that only a third of the farmers were collecting wild fruits. Another reason could be that skills of identifying edible wild fruits have been lost as young boys and girls spent most of their time in school instead of looking after the cattle and collecting firewood in the bush as was formerly the practice.

7.3.6 Fertility strategies

The next questions determined the fertility strategies employed by the farmers in their farming practices. The questions included whether the farmers undertook fertility management on their fields, whether they fallowed the land, and the costs thereof.

7.3.6.1 Fertility management

The farmers were asked if they undertook fertility management on their fields and their responses are shown in Table 20 below.

Table 7.20: Fertility management

	Percent
Yes	100.0 percent
No	0.0 percent

All the interviewees were undertaking fertility management by applying fertilizer although they said it was expensive (R79.00 to R91.00 per bag) Fertilizer brand names used were 3.2.0, 3.2.1, KAEL and lime. The farmers knew that they could not apply one fertilizer brand name to all types of soils. They thus applied the different brand names to different types of soil, according to the suitability of the soil. None of the farmers applied cattle manure on the fields as a fertility management strategy as it would be a laborious task and the fields were far from the kraals. The farmers normally keep cattle in kraals at night so that they may not be stolen.

Three quarters (75 percent) of the respondents said that they left the crop residue on the fields for livestock to feed on, as the land was communally owned, and due to a shortage of pastoral land. Only 25 percent said that they cut the crop residue. The farmers left the crop residue on the fields because they did not have the machinery to cut and grind the maize stalks. It would also be a task that would require labour, so the farmers preferred to leave the crop residue on the fields in order to keep operational costs down.

Almost all of the respondents (91.7 percent) pointed out that they were rotating their crops. Only 8.3 percent indicated that they never rotated their crops. Crop rotation is believed to be good in improving the quality of the soil. Consequently, the majority of the farmers were aware of the advantages of rotating their crops. They were also farming in an environment-friendly manner as continuous cultivation of the same crop could lead to soil degradation.

Only 16.7 percent indicated that they were purposely leaving the land fallow, without the constraints of drought or finances. Generally, when the land is left fallow, it is because the farmer cannot afford to cultivate the land or the farmer is confronted with a drought year. Although the percentage of the farmers who fallowed the land purposely was small, it is a step in the right direction and one can only hope that the other farmers would copy from them and allow the soil to recoup its nutrients naturally.

Another soil improvement strategy is the planting of legumes. Most of the farmers (58.3 percent) indicated that they were planting Nitrogen fixing crops like beans, although minimally. Many farmers were aware of the fact that planting beans can help improve the fertility of the soil. The beans were, however, cultivated mainly as a source of food for labourers. Just over 40 percent (41.7 percent) of the respondents never cultivated nitrogen-fixing crops.

Of the fertility strategies mentioned above, 91.7 percent of the respondents agreed that fertilizer was the most effective. Some farmers claimed to have never used cattle manure

on their fields. Only 8.3 percent said there was a minimal difference among the various fertility strategies.

All agreed that fertilizer was easily accessible locally (in Setlagole) and in nearby Madibogo, about 17 km away. Again, all applied fertilizer annually on their crops in order to obtain better production.

7.3.7 Degradation

The next questions established whether the farmers experienced problems with soil degradation. The questions included whether the farmers had problems with water erosion or wind erosion and whether they had problems with soil crusting or nutrient loss.

7.3.7.1 Water erosion

The farmers were asked if they had problems with water erosion and their answers are summarized in table 7.21 below.

Table 7.21: Problems with water erosion

	Percent
Yes	66.7
No	33.3

Soil degradation was a major concern for the respondents as 66.7 percent pointed out that they experienced gullying problems on their fields and only 33.3 percent claimed to have

never experienced the problem. The gullying implies that the farming methods the majority of farmers use are questionable. It could be that they were not using contour bunds, terraces, waterways, contouring, *etc.* to combat this problem. The farmers were also experiencing gullying because Setlagole falls under the area in which rainfall occurs mainly in heavy thunderstorms.

All farmers claimed to have no problem of rilling. The reason for this is that the Central District is generally flat to undulating. So in Setlagole the terrain is by and large flat, with the undulating terrain found to the eastern parts of the Central District. It was for this reason that the farmers did not complain of rilling.

However, 83.3 percent indicated that they had a problem of wind erosion, as their fields are often rippled (*toewaai*). Generally, the soil in the Central District is sandy and subject to wind erosion, hence the majority of farmers complained about wind erosion. They maintained that the problem was negligible because they knew how to deal with it – by drawing the cultivator over the fields. Only 16.7 percent claimed they did not experience wind erosion.

Almost all the interviewees (91.7 percent) experienced crusting or compaction of the soil in the fields. This was a result of lack of rain and, consequently, plants did not grow well. The average annual rainfall in Setlagole is 450 mm. The farmers, however, said they had the equipment to loosen the ground. Only 8.3 percent said they did not experience the problem.

Regarding the problems with nutrient loss, the respondents were equally divided. Half (50 percent) said their soil had lost nutrients over the years because: plants were no longer growing well; they never got the expected tonnage; wind was blowing away fine, rich soil; too much rain was washing down fertilizer and weeds made use of available nutrients. Another half (50 percent) said their fields were not losing nutrients as they got almost similar averages during the rainy years. However, none of the farmers from both camps indicated that they took soil samples from their fields and sent them for scientific

testing on nutrient loss. All the farmers used non-scientific methods to determine whether or not they experienced nutrient loss on their fields. Therefore their conclusions are questionable.

7.3.8 Rates of change

The next questions established the rates of change in the farming practices of the farmers. The questions included how big an area they had when they started farming and how big an area they presently cultivated, what crops did they cultivate, when did they start farming, what crops were they presently cultivating, how soil degradation was then and now, and whether they used fertilizer in the past.

7.3.8.1 Field sizes

The farmers were asked how big their fields were when they started farming and how big they were presently. Their responses are shown in Table 7.22 below.

Table 7.22: Field sizes

When starting farming	Percent	Presently	Percent
0 ha – 39 ha	50.0	149 ha or less	8.3
40 ha – 79 ha	41.7	300 ha – 449 ha	33.3
More than 150 ha	8.3	450 ha – 499 ha	33.3
		500 ha and more	25.0

When looking at the rates of change of farming practices over the years, 50 percent of the respondents started with small fields (0 to 39 ha), 41.7 percent started by cultivating 40 to

79 ha and only 8.3 percent started by cultivating more than 150 ha. Presently 33.3 percent had access to 300 to 449 ha, another 33.3 percent accessed 450 to 499 ha, 25 percent accessed 600 ha and more, and 8.3 percent had access to only 149 ha or less.

The present land sizes that the farmers were controlling illustrate the keenness and eagerness by the farmers to farm. Presently, 91.7 percent of the farmers were cultivating 300 to more than 500 ha, yet when the farmers got into farming 91.7 percent were cultivating 79 ha or less. In order for the farmers to cultivate these relatively huge plots, they had to get into sharecropping.

All the interviewees started by cultivating maize only. Most of the farmers when they started farming were also working elsewhere. It could be that when they got involved in farming they cultivated maize only so their families would not go hungry, as maize is the staple food. Today, 50 percent of the respondents are cultivating maize and groundnuts, 33.3 percent are cultivating maize and groundnuts, and 16.7 percent are cultivating maize, groundnuts and sunflower. Presently all the farmers are diversifying their produce. With experience in farming, the farmers came to realize that there were other crops that were paying better than maize, and they also realized that there were other crops which were more drought-resistant than maize. So in drought years the farmers had the option of cultivating more drought resistant crops such as groundnuts and sunflower.

Two-thirds (66.7 percent) indicated that when they started farming soil degradation was a serious problem. The remaining 33.3 percent said degradation was never a serious problem when they got into farming and that it was getting worse. They were, however, able to overcome it by cross planting. Once again, the farmers never used scientific methods to determine the extent of degradation when they started to farm. The farmers could probably not even afford to undertake such scientific methods even if they were aware of them as the majority of them had worked as labourers on white farms and some of them only did odd jobs.

Almost all (91.7 percent) indicated that they used fertilizer when they started farming and only 8.3 percent did not apply fertilizer in their first year of farming as it was not as readily available then as it is today. Even when they were poor, the farmers were able to buy fertilizer and applied it to their fields. The majority of farmers have therefore always been aware of the importance of maintaining the soil nutrients.

7.3.9 Farming activities

The next questions determined the farming activities of the farmers. The questions included in which months did the farmers start to plough, plant, weed, and harvest.

7.3.9.1 Cultivating time

The farmers were asked when normally did they start to cultivate and their answers are shown in table 7.23 below.

Table 7.23: Cultivating time

	Percent
November	66.7
December	33.3

Ploughing for 66.7 percent of the respondents began in November, although some indicated that the ideal time would be mid-winter and others said October would be ideal. The reason many farmers ploughed in November was because it was the start of the rainy season in the central South Africa. The remaining 33.3 percent were ploughing in

December because they were sharecropping and had to wait until the "landowner's" livestock ceased grazing the fields. Two-thirds (66.7 percent) started planting in December and 33.3 percent planted in November. With planting fertilizer was simultaneously applied.

All the respondents were weeding their fields in January. Around this time the crops that were planted a month or two earlier have emerged from the soil, hence weeding takes place. Three quarters (75 percent) applied pesticides in December and 25 percent applied the pesticides in January. The former would be the farmers who planted in November whereas the latter would be those who planted in December.

Harvesting takes place in winter: 41.7 percent harvest in May/June, 25 percent in June, 16.7 percent in May and another 16.7 percent in July. May, June, and July are the winter months in the Southern Hemisphere. Harvesting takes place in these winter months because the crops ought to be dried out before they could be marketed. The dry air of winter is good in drying out the crops.

None of the farmers were able to store their produce for lack of storage facilities. These farmers are not large commercial farmers. The building and buying of storage facilities are beyond their financial reach. The difficulty in accessing loans by small farmers has been highlighted in this thesis. Also, the farmers may not have seen the need to have storage facilities as they market their crops immediately after threshing. Another reason is that storage facilities, in terms of silos, are readily available in Madibogo (about 17 km away) and in Kraaipan (about 40 km away).

Over 40 percent (41.7 %) marketed their produce in July/August. Another 41.7 percent marketed in May/June, and 16.7 percent marketed in June. The marketing of crops takes place in the winter months very soon after harvesting. Marketing has to take place in these months as the farmers had no storage facilities for the crops.

CHAPTER 8

CONCLUSION

Agribusiness has been around since World War II. Agribusiness includes (1) firms and industries that produce and sell services for use in farm production and (2) firms and industries that buy, store, and process farm commodities and distribute them to domestic and export markets (Seitz *et al*, 1994). As a result, there has been growth in employment opportunities in agribusiness industries, while in the farm sector employment opportunities are decreasing.

In the Third World agribusiness means that agricultural production increasingly resembles industrial production in its application of technology in control of nature, increase in productivity, and in the use of wage labour (Burbach and Flynn, 1980, cited in McFadden, 1986). Agribusiness is now so firmly established in the economies of Africa that African governments today are finding it difficult to do without agribusiness corporations.

There is no doubt that the black small-scale farmers of Ditsobotla and Molopo are involved in agribusiness. They all buy diesel, fertilizers, insecticides, and seed – often from cooperatives. The farmers also buy spare equipment parts or new machinery and service these machines at the cooperatives. They often deliver their produce to the cooperatives and some were even members of powerful cooperatives such as NWK. In so doing, these small-scale farmers completed a very important link in the agribusiness chain.

Sadly, all were at the bottom end of the agribusiness chain as farmers or producers. None were at higher levels such as distribution and processing, where there is often more money as value is added with each higher step in the agribusiness chain. However, there was eagerness and willingness among the black small-scale farmers of Ditsobotla and Molopo to get involved in the processing of agricultural products. The research findings

suggest that government and extension officers still have a lot of work to do in order to raise this eagerness among farmers to process the agricultural commodities. This comment is especially true for Ditsobotla.

South African agriculture has in recent years seen more emerging black commercial farmers coming into the fold. Before the 1990s, black agriculture in South Africa had largely been perceived to be subsistence and white agriculture had been and continues to be commercial. It is, however, worth noting that towards the end of the 19th Century black farmers were producing more per hectare and were planting more land than the white farmers.

The dawn of democracy in 1994 again raised the agrarian question in South Africa: would black farmers remain small-scale peasant farmers or would they opt to be large-scale commercial farmers? Levin and Weiner (1994) point out that in 1994 two broad policy perspectives dominated land reform policy in South Africa, (1) the ANC's RDP programme that favoured transfer of land from the inefficient white-dominated large farm sector to all those wishing to earn a living from agriculture in a more sustainable agricultural system, and (2) the World Bank's Rural Restructuring Programme that favours (a) land restoration and restitution, (b) land redistribution, (c) market forces to facilitate land acquisition and redistribution, and (d) state land to be sold or given to the needy groups such as labour tenants or victims of "betterment planning".

Levin and Weiner (1997) point out that surveys by the LAPC in 1995 had shown that the desire by black South Africans to farm was very high. For example, the need for farming land in the Eastern Cape was 70 percent, 70 percent in the Western Cape, 78 percent in the Northern Cape and 76 percent in Gauteng. The percentage of aspirant farmers was, therefore, high in various provinces of South Africa.

On the question of whether the small-scale farmers would opt to be large-scale commercial farmers or remain small-scale farmers, the farmers in Ditsobotla and Molopo were unanimous that they wanted to be large-scale farmers. Constraints that often

accompany communal landownership led to the black farmers opting for freehold landownership. It was also significant to note that many of the farmers had once worked in the white farms. So what they learned on white farms and their experiences on white farms and the experiences on their own farms enabled them to make an informed decision on which farming system was more viable.

Contract farming has been around since the 1950s and it is an attempt by processing industries to raise the level of integration between the production and marketing of farm produce. Little (1994) notes that contract farming has been perceived as (1) a possible solution to Africa's agrarian crisis, (2) a tool for improving food security, (3) a platform for encouraging regional development, and (4) a mechanism for new land settlement programmes.

Contract farming is a new means by which agriculture is industrializing and restructuring (Little and Watts, 1994). Initially, contract farming was developed for export commodities like sugar, tea, and vegetables. Contract farming has been known to improve grower incomes, employment opportunities, and food security.

Black small-scale farmers in Ditsobotla and Molopo were involved in 'contract farming'. Although there were no written agreements, the farmers entered into contracts to plough, plant, and thresh for one another. They also got into contracts with surrounding white farmers as was evident in Nooitgedacht where a local black farmer had hired a combine harvester from a white farmer.

A contract farming relationship exists between peasant farmers in and around Setlagole and the New Nut Company. The New Nut Company offers groundnut seed interest free to farmers who then have an obligation to plant groundnuts on their fields and to deliver all their groundnut produce to the New Nut Company.

The great majority of farmers are happy in their relationship with the New Nut Company. They point out that although the company does not supply other inputs like diesel,

fertilizer, and maize seed; getting groundnut seed is better than paying from their own pockets. Moreover, farmers claim to receive competitive prices.

From what has been gathered from the farmers in Ditsobotla, Molopo, and Setlagole, there is overwhelming evidence of agribusiness, project agriculture, and contract farming. The farmers are keen and willing to take their businesses a step or more higher. The government has put almost all the necessary policies and support structures in place. What is lacking is the delivery part.

The two hypotheses of this dissertation have been proven correct. The first hypothesis states that black small-scale farmers in Ditsobotla and Molopo are buying their agricultural inputs from agribusiness enterprises like NWK. The research findings have shown that the majority of farmers, if not all, used fertilizer, seed, insecticides, and diesel. All these inputs were generally bought from cooperatives that have been located in towns close to the farmers. A small percentage of farmers also bought the threshing machines from the cooperatives. By simply buying agricultural inputs and machinery from the cooperatives the farmers integrated themselves into an agribusiness chain.

The second hypothesis states that black contractee farmers to the New Nut Company are content with their relationship with the New Nut Company. The black contractees experienced many problems, chief of which was their communal land tenure system. The communal system limits contractees freedom of when to plant, what to plant, and caused difficulties in accessing loans from major financial institutions, as the farmers held no title deeds to the lands they were cultivating.

The New Nut Company offered the farmers groundnut seed interest-free for a year on condition that the farmers delivered all the produce to the New Nut Company. Although the farmers were not offered other inputs like diesel, herbicides, and fertilizers, they are happy that they did not have to pay for the groundnut seed up front. They were at least able to plant groundnuts rather than not plant at all. On top of that, groundnuts were paying a better price per tonne than the staple maize that many farmers prefer to plant.

The main objectives addressed by this dissertation were (1) to look for the ways in which buying arrangements and contracts are established between agribusiness and producers, and how these were perceived by agribusiness and producers respectively, (2) to find out if small-scale farmers were aware that they could add value to their produce by processing, (3) to investigate contract-threshing relationship among black small-scale farmers in Ditsobotla and Molopo, and (4) to investigate the farming inputs employed by the black small-scale farmers in Molopo and Ditsobotla.

With respect to the first objective, this dissertation has clearly demonstrated that the farmers were buying production inputs and machinery from the cooperatives. All the respondents were using fertilizer and commercial seed and many were using herbicides. Many cooperatives have been located closer to the farmers. The farmers were, however, not happy with the buying arrangements as they were often refused loans, or if they were awarded loans, they got them late. The farmers were often unable to buy as much production inputs as they would have desired, thus partial cultivation of their lands. The farmers were, however, able to obtain diesel from filling stations with which arrangements had been made with the loan provider.

Concerning the second objective, the Ditsobotla farmers' desire to get involved in processing was satisfactory. However, their counterparts in Molopo had a strong desire to process. Some of the farmers even claimed to have received training on processing methods. This goes on to show that the farmers in Ditsobotla and Molopo were aware that they could make more money by processing their produce.

The farmers in Ditsobotla and Molopo were also involved in contracting. They were able to enter into 'contracts' with the "landowners". This was necessitated by the fact that often the farmers had little land at their disposal. The farmers were also able to do contract-threshing for the other farmers who did not have threshing machines. Although no formal contract was signed, this could be regarded as a 'contract' since it was established on mutual trust.

With regard to the third objective, the research findings have clearly demonstrated that considerable degree of contract-threshing existed in Ditsobotla (35 percent) and in Molopo where 50 percent of the respondents were engaging in contract farming. The percentages of contract-threshing in Ditsobotla were lower than one would have expected. That could be attributed to the fact that the farmers who owned threshing machines could have been avoiding clashes with farmers who owned no threshing machines as contract-threshing was based on a gentlemen's agreement, no contracts were signed.

The other reason that could be attributed to 'low' percentages in contract-threshing in Ditsobotla could be the fact that many farmers owned threshing machines. The farmers bought threshing machines cheap from neighbouring white farmers when white farming industrialized.

In connection with the last objective, this dissertation has shown that black small-scale farmers utilized agricultural inputs such as diesel, fertilizers, seeds, and herbicides. The farmers preferred using fertilizers annually and understand that fertilizers help to improve the quality of their soils. The farmers also prefer to purchase commercial seed annually, rather than rely on seed stored from the previous harvest. The farmers were aware that if they used stored seed when planting they would obtain a low output.

General lessons to be learnt from this dissertation are (1) there is land hunger among black small-scale farmers. This is evident from very high rates of sharecropping in Ditsobotla and Molopo, (2) small-scale farmers are able to effect the economies of scale through contract farming, machine rentals, and obtaining credit through cooperatives (3) small-scale farmers are involved in agribusiness through buying agricultural inputs and machinery from the cooperatives, and (4) contract-farming is an important vehicle through which small-scale farmers can cultivate their lands. Many farmers are not receiving production loans. Companies such as the New Nut Company are helping the farmers to earn a living by providing groundnut seed to the farmers interest-free for a year.

It is hoped that this dissertation will contribute to land reform options that face South Africa. The ANC policy clearly states that it prefers a land reform programme that will take away the land from the inefficient, debt-ridden and white-dominated large farm sector to all those wishing to earn a living from agriculture in a more sustainable agricultural system. Yet, these research findings have shown that the overwhelming majority of farmers preferred to be large-scale commercial farmers, a system that the ANC is against. Some farmers had once worked on white farms. They have come to realize that commercial farming was more efficient than their communal peasant farming.

Secondly, it is hoped that this dissertation will contribute towards enlightening the farmers about processing options. The farmers, particularly those in Ditsobotla, were by and large not interested in processing. It is hoped that policy makers and extension officers will take it upon themselves to ensure that farmers are made aware of the importance of processing and that they could make more money in this higher step in agribusiness than simply farming.

Lastly, it is hoped that this dissertation will make a valuable contribution towards the literature on relationships between producers and small-scale peasant farmers. Much of the literature on agribusiness is on First World countries where large-scale commercial farming is largely practiced. The relationship between small-scale peasant farmers and agribusiness does not feature very much in literature. Therefore, it is hoped that this dissertation will add to the relatively small pool of literature on the relationships between agribusiness and small-scale producers. It is, however, acknowledged that this work is not an end in itself. More research on this topic will need to be carried out.

The following actions are, therefore, recommended: firstly, the government needs to speed up the process of land reform and redistribution so that the peasant farmers can get more access to land, South Africa must avoid the Zimbabwean model of land reform (invasion of white farms).

Secondly, the issue of only males having access to land has to be revisited as women also have keen interest in farming. Women are often left in charge of farming activities where spouses are migrant workers. Even where women are staying with spouses, they do more work in the fields than men as it has been shown in the Kenyan tea contracts.

Thirdly, the idea of black emerging farmers being allocated smallholdings has also to be revisited as the majority of the farmers this study has covered have clearly shown a keen interest to be large commercial farmers. Therefore, the government and other interested parties should level the playing field by making land and financial aid accessible to emerging black commercial farmers.

Fourthly, the cooperatives should be sold to black economic empowerment groups in order to redress the injustices of apartheid. It would not be fair to black farmers if all the cooperatives are to be owned only by whites. Therefore, black economic empowerment should not only be targeted at large corporate enterprises, but also to all sectors of the economy.

Fifthly, cooperatives should engage their members in contract farming in order to raise productivity and to better the standard of living of their members. This task should not only be left to small private companies like the New Nut Company, but large cooperatives like NWK, SWK, *etc.* should also be involved.

Lastly, the New Nut Company should look at the possibility of providing its contractee farmers with other inputs like diesel and fertilizer. It has already been stated several times in this dissertation that many farmers struggle to obtain production loans. Therefore, it is sensible that if New Nut Company should offer its contractee farmers other inputs the company will receive more production output.

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APPENDIX 1

AGRIBUSINESS QUESTIONNAIRE

SOCIO-ECONOMIC DETAILS

Name

Age

How long have you been farming?

Have you ever worked on a white farm?

What relations do you have with white farmers?

Do you (or your spouse) have any off-farm income

If yes, from where?

Do you use off-f arm income to supplement farming cash flow?

LAND

Are you a land-owner?

If yes, how many ha. ?

Are you a sharecropper?

If yes, how many ha.?

How do you pay the land-owner?

Given an opportunity, would you opt to be a large commercial farmer?

Why?

Are you affiliated to a farmer's union?

Who is bargaining on behalf of black farmers?

FARM RESOURCES

How many threshing machines do you own?

What is the make/model of your machine?

Where did you get the money to buy the machine(s)?

Are they all in a working order?

Where did you buy them?

For how much?

Where do you service them?

If make profit would you buy your own threshing machine?

Why?

What labour do you use to reap the fields?

How (much) do you pay the labourers?

CONTRACTING

Are you a contract-thresher?

How do you charge?

Approximately how many ha. does your machine thresh each year?

How many people are needed to operate a threshing machine?

State their roles.

What crops does your machine thresh?

FERTILITY STRATEGIES

Are you applying fertilizers on your fields?

Do you apply herbicides on your fields?

Where do you buy fertilizer and herbicides?

Where do you buy your diesel?

Do you use new variety seeds when planting or do you use maize from the previous season as your seed?

CROP RESIDUES

What do you do with the maize husks after threshing?

If used as livestock feed do you compact them and store for future needs?

What do you do with cobs?

What do you do with the maize stalks?

YIELDS

How is this year's production compare to last year's?

What price does Sebowana pay per tonne of maize and different is it from Central Primary Cooperatives'?

EXTERNAL HELP

Are you aided by Agricor/Agribank/ Department of Agriculture?

In what way do the cooperatives (Central Primary Cooperatives) help you?

Noord Wes Kooperasie?

Would you process (e.g. peanut butter, sunflower oil) if exposed to relevant technologies?

What?

Why?

APPENDIX 2

THE NEW NUT COMPANY

COMPANY BACKGROUND

When was the company started?

Who owns the Company?

Are there any branches of the company elsewhere?

What is the total tonnage received last year?

What is the target for this year?

How many employees does the company have?

How many seasonal labourers does the company employ?

How much do you pay them?

Are there more women than men?

Are you not contemplating using machines for harvesting?

Are there any other crops that the company is contracting?

CLIMATIC CONDITIONS

Are the climatic conditions around Setlagole suitable for growth of groundnuts?

What average rainfall does one require to grow groundnuts?

What is the average for Setlagole?

CONTRACTING

Are there different types of groundnuts you are contracting?

Who is your market?

Do you export?

Do you process the groundnuts?

How many contractees do you have?

How many of them are commercial farmers?

How many are small-scale farmers?

Do you predetermine prices, planting, weeding, harvesting *etc.*?

Are all the contractees from around Setlagole?

Are there any women contractee farmers?

How many blacks?

How many whites?

What is their average landholding?

CONTRACTEE FARMERS

Would you say that you have a harmonious relationship with all the contractees?

Are your contractees diversifying their produce?

Is there any formal contract that is entered into?

What happens to the contractee in a year of poor harvest?

How sustainable are your contracts?

What are the main problems encountered by the contractees?

How do you pay the contractees?

Do you offer prices higher than the market prices?

How do you invest in your contractees?

Are you providing the contractees with the inputs?

Do you offer financial credit?

If so, how much?

Do you loan them the machinery?

If so, state the machinery?

Are the contractees honest in delivering their output to you?

Do you have extension officers?

If so, how often do they visit the contractees?

APPENDIX 3

LIVELIHOOD SURVEYS OF NEW NUT COMPANY CONTRACTEES

SOCIO-ECONOMIC DETAILS

Name

Age

Sex

Position in the household

Education

Did you receive any formal agricultural training?

Have you ever worked on a white full-time?

If yes, for how long?

What work did you do?

Why did you leave this job?

What is your official status in the community?

How long have you lived here?

If born elsewhere, state the place and why did you relocate?

OCCUPATION

State your prior occupation.

Where?

What kind of job did you do?

Do you keep records of your farming operations?

Do you intercrop?

If yes, give details of the crops.

What are the advantages of intercropping?

How long have you been contracting?

How many ha.

Why did you decide to contract?

Did you use a loan for your farming in 1998?

Would you say that your life has improved or worsened since you started contracting?

Why?

Have you been planting less or more since you stated contracting?

Why?

Do you receive prices higher than the market prices?

From whom did you hear of the New Nut Company?

What are your main problems with the New Nut Company?

Are you happy contracting with the New Nut Company?

Are you intending quitting the New Nut Company?

Why?

What is your other income that is most important?

LAND TENURE

How many hectares of land do you own?

How many hectares of sharecropping land do you have access to?

Which is your preferred land tenure system?

FARM RESOURCES

Do you own farming machinery?

If yes, give details.

Do you use permanent or seasonal labour?

How many hours per day do your labourers work?

Is labour readily available?

How many cattle do you own?

Any other livestock?

NATURAL RESOURCE USE

Crops grown

Which crops are grown? (are you diversifying?)
Why?

Variations between the years?

Why?

What is the percentage of the land cropped?

Yields

From an average year

During an exceptionally good year

During a poor year

Land

Total ha.

One area, separated areas

Number of different fields

Field boundaries : unmarked, wire fence, bush *etc.*

Use of natural resource

Building: wood, e.g. for fencing (segotlo)

Fuel-wood

Gathered foods e.g. fruits, berries *etc.* for subsistence, commercial sale

FERTILITY STRATEGIES

Do you undertake any fertility management on your fields (to maintain the 'goodness of the soil' or 'growing power of the soil')

Follow up with asking specifically about:

Use of crop residues

Application of artificial fertilizers (brand names)

Crop rotation

Fallowing

Nitrogen-fixing crops (e.g. beans)

Foe each ask about:

The cost involved

Access

Frequency of actions

Ask about soil fertility strategies on garden by house e.g. household compost

DEGRADATION

Do have any problems with water erosion (gullying, rilling etc)?

Do have any problems with wind erosion (ripples, exposed tree roots *etc.*)?

Do have any problems with crusting or compaction of the soil?

Do have any problems with nutrient loss?_____ and why?

RATES OF CHANGE

Now I want to look at changes over time… how things have changed since you have been here…

Field sizes_____ and numbers _____

Crop types

Degradation

Fertility strategies

FARMING ACTIVITIES

When do the following activities take place:?

Ploughing

Planting

Weeding

Fertilizer application

Pesticides application

Harvesting

Storage

Marketing