FARMING SYSTEMS IN NAMIBIA
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With major contributions by
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FARMING SYSTEMS
IN NAMIBIA
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More Namibians depend – directly or indirectly – on farming than on any other economic activity or land use. However, rather little information on agriculture reaches the grassroots people in the country. As a result, most people are unaware of the variety of farming activities. Some people would say that farming is dominated by cattle ranching; others would consider that sheep farming in southern Namibia to be the main form of agriculture, for example. There is also little appreciation of the diversity of farming methods used in the northern communal areas, or that freehold farms are increasingly being used for a variety of economic purposes. One consequence of a lack of information on farming is that development programmes may be designed for particular farming systems but are then inappropriately targeted at others.

The Namibia National Farmers Union (NNFU) has commissioned the production of this book with several aims in mind. First is the need to describe and emphasize the variety of farming systems: their main features, strategies, practitioners, distribution, challenges and dynamics. A second and resulting goal is to better inform decision-makers, development specialists, agriculturalists, and resource managers about the diversity of farming practices. Third, is to improve awareness of environmental, historical and economic features that affect farming, and provide baseline information for other purposes, including research, management, coordination and planning. Fourth, this book will be useful for education and training, and will be of interest to the general Namibian public.

Finally, I hope that the book will help improve existing and future development projects. These include programmes that focus on rural and economic development, decentralization and natural resource management. Government ministries and agencies, trade unions, community and political leaders, and development agencies must be challenged to do a better job of managing our resources and agriculture. This has to be: for the sake of present Namibians and for those who follow in our footsteps.

Dr Nickey Iyambo
Minister of Agriculture, Water and Forestry
FARMING SYSTEMS IN NAMIBIA
Farming is mainly about the production of food, and other commodities such as medicines, cotton and fuel. It is an enterprise that developed only as recently as about 11,000 years ago when the first grasses and animals began to be domesticated as wheat, rice, cattle and sheep, for example. Our world has been very different ever since because of four fundamental changes caused by farming. First, the availability of surplus food enabled some members of society to do things other than hunting and gathering. By eating food produced by farmers, they no longer had to use all their time in pursuit of their own fare. From the ranks of the non-farmers emerged scholars, craftsmen, and a host of other innovators who took the first steps towards developments that we now take for granted: writing, metalwork, science and technology. Much of what characterizes modern civilization would not have developed without agriculture. Everyone would still be foraging for wild animals and plants.

A second major change was the formation of urban centres when non-farming members of the population congregated in large villages, towns and cities. This is now where the vast majority of people in the most developed societies live, all their food being delivered by a handful of farmers. For example, farmers make up less than 5% of all people in Western Europe and the United States of America.¹

Third, populations grew rapidly because people were nutritionally healthier and survived longer. The growing number of consumers, in turn, led to farmers improving their skills to supply more food. Other plants and animals were domesticated, and the most productive of them were bred selectively. The process of specialization continues, and modern equipment and fertilizers now contribute to yields many times higher than those without these new inputs. Agriculture evolves, and it does so quickly.

Fourth, farming societies became powerful, using new technology to expand and dominate other societies. That power gave rise to differences in development between one society and another, between the haves and the have-nots. In short, the most powerful, numerous and innovative societies developed because of agriculture.²

Farming has thus forcefully shaped human history over the past 11,000 years. But what of Namibia, where agriculture has only been practiced during the last thousand years or so? How has farming changed, and what sections of Namibian society are hunter-gatherers, pastoralists, crop producers or beneficiaries of surpluses produced by others? What kinds of agriculture may help us escape poverty? Can we produce surpluses that are simply edible, or can they be sold to generate money to buy food grown by other people, perhaps in other countries? And setting ourselves higher goals: how can Namibia secure enough surplus food to have time and energy for technological and economic development? These are big questions. This book focuses on more modest questions, such as: How do Namibians farm and what factors influence agriculture? But without addressing the smaller questions, it may take much longer to get at the bigger challenges.

¹ Farming is often characterized by a mix of traditional and modern practices.
Farming systems in Namibia was also compiled to illustrate the variety of agriculture. Many of us assume that the kind of farming we see near our homes to be typical of agriculture throughout the country. Likewise, we may think that the farming systems of today are those of the past, and they will be the ones that feed us in future. This is not so. If this book has been written in 1950, it would have contained two chapters not included here, one on dairy farming and another on Karakul farming. A digression on this.

The recent history of Namibian agriculture can be sketched in three periods, starting with the phase of German administration from 1892 to 1915. Policy and practice focused on attracting and establishing German settlers who would be productive and develop the country into being as self-sufficient for its food needs as possible. Much effort was placed on the production of diverse foods, on experimentation, and support for farmers. Most farms produced enough vegetables, fruit, butter, milk and meat to meet their own needs. In short, farming practices aimed to produce a variety of products, as did the country as a whole. Butter was exported on a large scale; an average of over 4,000 tons was exported each year between 1935 and 1958.

South African influences from 1920 to 1990 changed the complexion of Namibian agriculture. The country became something of a fifth province, its agricultural policies often tailored to the needs of South Africa. Farmland was used for the resettlement of landless whites from South Africa. Diversity of production was replaced by monoculture. The vibrant dairy industry was replaced with by beef production. Most importantly, Namibian farmers could not compete with cheaper imports from South Africa because of the huge growth of production by South African agriculture. Other than beef and mutton, Namibian had little to sell in South Africa, and access to markets elsewhere in the world was limited.

The third period is that of sovereign Namibia, from 1990 onwards. Much has been done to rekindle the self-sufficiency encouraged by the Germans, and to protect Namibian farmers and associated industries from competition. Namibian export produce has been promoted, particularly to markets beyond South Africa. There has been a resurgence in the production of a variety of crops (Chapter 7) and major efforts have been made to bring new commodities of indigenous plants and animals into production (Chapter 8).

Two messages should be clear from this short history. First, that farming systems can change rapidly, and second that they can change in response to internal policies and external forces.

WHAT IS A FARMING SYSTEM?
The Food and Agriculture Organization (FAO) suggests the following:

“A farming system is defined as a population of individual farms that have broadly similar resource bases, enterprise patterns, household livelihoods and constraints, and for which similar development strategies and interventions would be appropriate.”

The definition seems applicable, both to conditions in Namibia and the aims of the book, which are to describe the diversity of farming and be able to target measures that improve agriculture. The idea of a system implies two conditions. First, that activities are inter-connected to form an enterprise of integrated components. The system becomes greater than the sum of its parts. A second condition is that people, farms and their practices fit clearly into distinct categories; in other words, into one farming system or another.

There are slight problems with both conditions. Namibia is both a developing and rather arid country, which creates a substantial degree of vitality and diversity. Most people living on farms have a variety of incomes and relatively few farmers or farms focus on one commodity. Only some incomes are derived from agriculture, and farmers frequently add new economic activities to their income base. All this makes it hard to see how different activities are integrated. It also makes it harder to fit people and farms into the pigeonholes required of the farming system approach.

But there are obvious differences in how people farm, and many activities are indeed integrated. The concept of systems also gives us useful labels. Four major farming systems have been recognized here (Figure 1). Other people might have distinguished more. However, differences between the four are likely to remain fairly constant, whereas differences between what might be called sub-systems are more fluid. Most of the so-called sub-systems are related to land tenure and the consequences of segregation and discrimination, particularly between communal and freehold farms (see page 13). Those old divides are fast being bridged or changed in complexion.

The systems on which the book focuses are more associated with commodities and ecological factors than the socio-economic criteria often used to distinguish farming systems. However, social and economic conditions are extremely variable, even within one local group of farmers, and circumstances change. The book is also aimed at more general readers than people who analyze farming systems in detail.
THE FOUR MAJOR FARMING SYSTEMS ARE AS FOLLOWS:

<table>
<thead>
<tr>
<th>Farming system</th>
<th>Main commodities</th>
<th>Land area</th>
<th>Use of production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-scale cereals and livestock (Chapter 4)</td>
<td>Mahangu, sorghum, maize, goats and cattle</td>
<td>Small exclusive farms and open grazing in communal land in the northern regions</td>
<td>Domestic consumption supplementing incomes from non-farming activities</td>
</tr>
<tr>
<td>Cattle ranching (Chapter 5)</td>
<td>Cattle</td>
<td>Large freehold farms, exclusive farms in communal land, and in open grazing in northern Kunene</td>
<td>Beef, mainly for commercial sale to South Africa, Europe and Namibian consumers</td>
</tr>
<tr>
<td>Small stock (Chapter 6)</td>
<td>Sheep and goats</td>
<td>Large freehold farms and open grazing in communal land in the southern and western regions</td>
<td>Mutton and goats for commercial sale to South Africa and Namibian consumers</td>
</tr>
<tr>
<td>Intensive agriculture (Chapter 7)</td>
<td>Maize, wheat, grapes, ostriches, olives, dates, pigs, dairy products, vegetables and fruit</td>
<td>Small farms, mostly irrigated, throughout the country</td>
<td>Commercial sale to export markets and Namibian consumers</td>
</tr>
<tr>
<td>Natural resource production (Chapter 8)</td>
<td>Indigenous fauna and flora, and landscapes</td>
<td>Mainly in conservancies, game farms, community forests, parks and reserves.</td>
<td>Commercial sale to Namibian consumers and for export through tourism</td>
</tr>
</tbody>
</table>

The fifth is not farming, but mainly a production system. Its inclusion in a book on agriculture may be surprising. However, Natural resource production amounts to a way of obtaining economic benefits using methods that have many similarities to farming. Moreover, these new incomes often complement or exceed those from farming, and a good deal of farmland is now being used for game and trophy hunting and tourism. The resources are also increasingly managed and harvested, and the first steps are being taken towards selection and a measure of domestication of some indigenous plants and animals.
Farming is a big enterprise in Namibia. More land is used for agriculture than any other activity; thus about 64 million hectares or 78% of the country is used for farming while the remaining 22% consists of national parks, game farms, urban areas, mineral concessions and areas too dry or remote to be used for agriculture. Almost 1.2 million people in about 206,000 households live on farmland, which is many more than in any other economic unit. Most of them also derive some income from agriculture, but only about 95,000 households obtain incomes largely from farming. They make up 27% of all households in the country.5

Despite the high proportions of farmland and households living on farms, agriculture contributes a comparatively low percentage of Namibia’s Gross Domestic Product (GDP). The whole agriculture sector, which includes processing, made up 5% of GDP in 2004, ranking sixth after government and retail trade; and manufacturing. The proportionately low agricultural capacity as a result of aridity and poor soils; small market demands within Namibia and elsewhere for Namibian products; the lack of market development in most communal areas; and the relatively low value added through local processing. For example, the processing of meat contributes only 0.5% to GDP, whereas fish processing provides 2.4%.

The value of exports has also dropped as a consequence of the stronger South African Rand, to which the N$ is tied. Thus, the total value of Gross Agricultural Production in 2002 was N$2,275 million, N$2,054 million in 2003 and N$1,878 million in 2004. Of the total production in 2004, 76% came from the freehold sector and 24% from communal areas. Meat products (59%), cereals (14%), grapes (5%) and dairy products (3%) contributed most to Gross Agricultural Production (Figure 2).

About 3.8 million Karakul were farmed in 1975. Numbers began to drop in the 1980s as a result of reduced demands and prices for pelts (see page 18). The decline continued over the past 15 years, dropping from about 1 million in 1990 to some 183,500 in 2005. The numbers of other livestock have not changed dramatically, although populations in the middle 1990s were some 10% lower than at the beginning and end of the decade. That slump was due to a succession of years of low rainfall, which culminated in a severe drought during the summer of 1995/1996. Over the past 15 years, cattle numbers have varied between about 2.1 and 2.5 million, sheep between 1.9 and 2.7 million, while the total population of goats has varied between 2.0 and 2.6 million (Figure 3).

Figure 4 provides perspectives on levels and changes in the production of beef, small stock (mutton and goats) and cereals. Small stock is the only product to have changed significantly during the past 15 years, having risen from about 1 million carcasses sold in the early 1990s to approximately 1.4 million in the last few years. The number of cattle sold each year has varied between about 200,000 and 400,000. The lowest

### Table 1: Estimates of the Number of People, Goats, Sheep and Cattle, and Area in Each Farming System

<table>
<thead>
<tr>
<th>Farming system</th>
<th>People</th>
<th>Goats</th>
<th>Sheep</th>
<th>Cattle</th>
<th>Area (hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-scale cereals and livestock</td>
<td>960,000</td>
<td>950,000</td>
<td>44,000</td>
<td>600,000</td>
<td>5,500,000</td>
</tr>
<tr>
<td>Cattle ranching</td>
<td>106,000</td>
<td>800,000</td>
<td>300,000</td>
<td>1,400,000</td>
<td>31,500,000</td>
</tr>
<tr>
<td>Small stock</td>
<td>67,000</td>
<td>650,000</td>
<td>2,100,000</td>
<td>180,000</td>
<td>27,000,000</td>
</tr>
<tr>
<td>Intensive agriculture</td>
<td>40,000</td>
<td>-</td>
<td>-</td>
<td>5,000</td>
<td>40,000</td>
</tr>
<tr>
<td>Total</td>
<td>1,170,000</td>
<td>2,400,000</td>
<td>2,444,000</td>
<td>2,185,000</td>
<td>64,040,000</td>
</tr>
</tbody>
</table>

Figure 2. Percentage contributions to the Gross Agricultural Production of N$1,878 million in 2004.6
production figures for both cattle and small stock were recorded in 1997 when farmers built up their stocks following losses during the preceding years of low rainfall. These figures are for so-called ‘formal sales’, the great majority of which take place south of the veterinary cordon fence (see page 20). The formal sales are of animals that are reported to, and recorded by the Meat Board as slaughtered or exported live to South Africa. Livestock sold to informal butcheries in the communal areas are thus not reported or included in these production figures.

Cereals consist largely of mahangu (64% of total production) and white maize (28%), with smaller volumes of wheat (6%) and yellow maize (3%), all harvested from cultivated land covering 305,000 hectares on average. The total annual production of these cereals has averaged 98,800 tons over the past 15 years, while an additional average of 174,000 tons has been imported each year to meet Namibia’s requirements for cereals. White maize has made up 45% of imports, wheat 28%, and yellow maize 26%. Small quantities of mahangu have also been imported in recent years, but these made up less than 1% of imported cereals.
While agricultural practices are moulded by constraints and opportunities offered by the physical and biological environment (see Chapter 3), farming systems are shaped most strongly by a range factors associated with people. Farming is, after all, largely a human endeavour that depends on the know-how of people as farmers, and on the demands and tastes of consumers of agricultural products. These are immediate effects, but there are also broader historical, social and economic factors that have substantial impacts on farming. Some influences play stronger roles than others, depending on the farming practice, area of the country, prevailing government policies, market forces and international trade linkages. Some factors are direct; others are more subtle or indirect. And yet other influences are rooted in the past, and it is with aspects of history that the chapter begins.

RIGHTS AND RESPONSIBILITIES OVER LAND
Much of Namibian society consists of two halves: urban and rural, traditional and modern, and the poor and well-to-do. Another split that has profound historical origins is between communal and freehold tenure land. From the earliest days of colonial government and control, Namibia was divided into areas reserved for different indigenous ethnic groups and those allocated for the exclusive use of settlers; Germans at first, then South Africans and other whites. A variety of laws enforced the ethnic separations over the years, and generally expanded areas reserved for freehold settlers.

Although all land in tribal areas was formally owned by the state, little was done to develop or to manage these so-called homelands. Education, health, water, roads, veterinary and other services were supplied to a minimal degree. Local control of the land was largely left to traditional leaders who allocated residential, cultivation, grazing and gathering rights to people. By independence in 1990, approximately 36% of Namibia consisted of what had been ethnic homelands and 43% was freehold land for commercial farmers. The remaining 21% was state land, mainly reserved for conservation or mining concessions.

The homelands were immediately designated as communal land at independence (Figure 5), with the specific purpose of ensuring that those areas – with their pastures, soils and other natural resources – would be available to those in need, particularly to poorer people unable to acquire farmland elsewhere. However, much of the freedom of access to land is now gone, as described below.

<table>
<thead>
<tr>
<th>Use and ownership</th>
<th>Area (square kilometres)</th>
<th>Percent of Namibia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freehold farming and tourism</td>
<td>356,533</td>
<td>43%</td>
</tr>
<tr>
<td>Communal open access farming</td>
<td>263,832</td>
<td>32%</td>
</tr>
<tr>
<td>State protected areas</td>
<td>137,212</td>
<td>17%</td>
</tr>
<tr>
<td>Communal exclusive farming</td>
<td>35,602</td>
<td>4%</td>
</tr>
<tr>
<td>Other government or parastatal</td>
<td>15,827</td>
<td>2%</td>
</tr>
<tr>
<td>Resettlement farms</td>
<td>7,731</td>
<td>1%</td>
</tr>
<tr>
<td>Urban areas</td>
<td>7,275</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>824,011</td>
<td>100%</td>
</tr>
</tbody>
</table>

A good deal of Namibian farming depends on hard, time consuming manual labour, much of which is supplied by women.
Areas of the country allocated for freehold farms were first systematically surveyed before each farm and its title was sold to a farmer. By 1964, most of the farms had been established.1 Owners of the freehold farms enjoyed considerable support from the government, both through direct assistance – such as subsidies, extension and veterinary services – and indirectly as a result of the development of transport, marketing and other services.

By contrast, people in the homelands faced several major constraints that influenced farming practices and systems before independence. Many of the difficulties now remain in the communal areas, the following being most limiting:

1. Given the high density of people historically forced to live in many of these areas, most farm enterprises are confined to pieces of land too small to make a decent living, or to ever make a profit that might be used to improve living standards. Most families therefore go to great lengths to obtain other, non-farming incomes, which causes a drain on farm labour (see page 34).

2. Areas outside the small enclosures of fields are known as the commons, offering resources to be used by everyone, but managed by no one!2 This had led to a classic example of the ‘tragedy of the commons’, where wealthier farmers use and/or enclose increasing areas of the commons. This leaves poorer farmers with little, in effect gradually squeezed into greater reliance on the meagre resources inside their own tiny enclosures. The poor get poorer, while other people exploit natural resources maximally and destructively.

3. Farmers have no permanent or legal tenure over land allocated to them. As a consequence, they have little access to credit such as bank loans. In the absence of legal ownership, farmers also have limited incentive to develop their farms.

Exactly opposite conditions held, and continue to hold on freehold farms. The owners have secure tenure, and do not share or compete for natural resources outside their farms. They can borrow money to invest in their farms and their livestock can be exported as disease-free produce. Most importantly, their farms are large enough to generate sufficient produce to make most of their enterprises economically viable.

For most people, communal tenure has been constraining. However, for others it has offered opportunities, especially in making possible the demarcation and establishment of about 1,000 large farms.3 Most are at least several thousand hectares in size, and all the farms have essentially been acquired for free. The process of establishing them began when several hundred farms were allocated to selected individuals during the 1960s, 1970s and 1980s. This was part of an effort by the pre-independence administration to encourage commercial farming in communal areas. The acquisition of new farms has since skyrocketed, especially over the past 10 years, when many large farms were acquired through allocations made by traditional leaders or councils, or by claiming land informally. These are sometimes called ‘illegally fenced’ farms in the north-central regions, but such connotations are not applied to similar farms in other communal areas. Cattle and goats are kept on most of the farms, some of which farmed actively and commercially, while others serve more as personal investments.

The focus here has been on how farming has been influenced by different tenure systems, which developed partly as a result of past discrimination. That bias had many other impacts on farmers and, again, many continue to influence farming practices. For example, most farmers in communal areas have had limited or no education, and little access to information and technology to benefit their enterprises. Their marketing opportunities remain constrained by poor infrastructure and access to markets. By contrast, the majority of freehold farmers are relatively well educated, often have access to efficient marketing channels, and benefit from services and infrastructure developed years ago. Perhaps the most valuable of these is the extensive network of gravel roads, which give farmers quick access to facilities in towns and allow their livestock to be trucked to markets within a short time. Communal farmers had, and still have, limited access to good transportation.

**OFF-FARM INCOMES**

Ideally farms should be independent, standing alone as economically viable enterprises free of external support or other means. However, most Namibian farms are not that fortunate, for example because they are too small, shortages of rain result in poor yields, the soils have few nutrients or market prices are low. These constraints are most severe in communal areas, where the majority of farmers and their dependants need to turn to off-farm sources for additional income and valuable safety nets. For instance, the average value of food produced by
Figure 5. Namibia is a patchwork of different land tenure and usages (above). Administratively, the country is divided into 13 regions (below). Rural areas in the southern regions are much more sparsely populated than in the north.
most farmers in the Small-scale cereals and livestock farming system amounts to less than N$5,000 per year. By comparison and on average, over three-quarters of all their cash and income in-kind is derived from sources unrelated to their farms (see page 39). Salaries, business earnings, pensions and remittances are the most important incomes. A family member who is a teacher might have an annual income of between N$40,000 and N$60,000, and social pensions (now at N$4,440 per year) often exceed the value of produce on the smallest farms.

Many freehold farmers likewise depend on non-farming incomes to a greater or lesser extent, especially those now earned increasingly from tourism, trophy hunting and game meat sales on many farms (see Chapter 8). Depending on their level of development, these enterprises may add substantial amounts to a farm’s annual income. For example, the value of each oryx, hartebeest, kudu, wildebeest and warthog as a trophy animal ranges between N$1,000 and N$4,000, figures that are comparable to the unit sale values of cattle sold as weaners and oxen.

Major developments on farms belonging to wealthy owners of both freehold and communal farms are usually funded from external sources. Many of these people are colloquially known as ‘weekend farmers’ who use savings from other business enterprises to build up their herds or buy expensive stud bulls, for example (about one quarter of all freehold farms are owned by weekend farmers). Freehold farmers also enjoy access to loans. While these external loans might be repaid from farm profits over a number of years, the key point is that off-farm financing is usually required for any substantial development on a farm. Profits from farming are usually too low to save enough for capital improvements.

A consequence of all this is that the size of a farming enterprise is usually directly related to the size of its off-farm incomes, especially so in communal areas. The greater the total income of a household, the larger the household, the more labour is available, the bigger the fields or livestock holdings, and the more protected households are against losses caused by drought, pests and dips in market prices. More capital is also available for improvements or development.

With many farmers increasingly obtaining other incomes, it is tempting to argue that farming is becoming more of a subsidiary economic activity, perhaps as part of the social and economic movement of people away from farming and rural areas towards wages and business in urban areas. This may often be true, but it also suggests the potential for greater integration between farming and non-farming activities.

For example, farmers might become more involved in agribusiness, adding more local value to their primary products. And it points at opportunities for farms to be used in more diverse and profitable ways.

MARKETS

If this book had been written in 1975 it would have included coverage of another farming system. This would have been for the roughly 3.8 million Karakul sheep which supplied a lucrative export market with pelts. Production peaked with the sale of 4.3 million pelts in 1975 when Karakul pelts were in high demand by the fashion industry. But as demands and prices dropped, the number of Karakul sheep declined rapidly, reaching a low point of some 183,500 sheep in 2005. However, recent years have seen prices increase, and the industry looks as if it will begin to regain ground.

This is the most dramatic Namibian example of how markets can affect farming systems, but the prices of all commodities are seldom stable for long. For example, the spot price for a ton of white maize was N$1,319 in February 2004, a year later in February 2005 it was down more than half to N$535, and then up again to N$598 in February 2006. Each farmer thus continually has to assess local and international markets that are complex and dynamic, responding by selling or – where possible – holding back stock as demands change, prices of competitive goods rise or fall, and transaction costs disappear if electricity costs escalate substantially, as is widely predicted.

One lesson to be learnt from the Karakul industry’s misfortunes is that the sale values of fashionable products are less secure than those of staple foods. As human populations grow, so do demands for basic meats and cereals. For instance, the global consumption of meat rose steadily from about 135 million tons in 1960 to about 230 million tones in 2000. Fashions are fickle; staples are stable!

Without doubt, however, the greatest need is for markets to be available or accessible in the first place. The most severe marketing difficulties faced by Namibian farmers are the following:
1. Most farms are located far from markets within Namibia or export destinations in South Africa and elsewhere. The effect of this is that the prices of farm produce have to be high to cover the transport costs of both inputs and outputs over these distances. Similarly, perishable goods can only be moved if costly cooling or other special storage facilities are available. Of course, consumers are reluctant to pay such high prices and competitive farmers closer to the market can offer their produce more cheaply.

2. The Namibian market is tiny because of the country’s low population of about 2.1 million people in 2006. The only possibly lucrative markets are in urban areas, most of which are small. Windhoek was the only city with more than 200,000 residents in the year 2000. Only Rundu, Oshakati and Walvis Bay had more than 40,000 people, while all other urban areas had fewer than 30,000 residents. By contrast, most major cities elsewhere in southern Africa have more customers than the whole of Namibia.

3. The majority of Namibians are relatively poor. The local purchasing power of the average consumer of farm products is thus limited, and it is mainly aimed at staple foods.

4. Many markets are closed to Namibian farmers because of import tariffs or restrictions imposed by other countries, subsidies that prevent competitive trading, or limits on exports imposed by the Namibian government. These are discussed in the following section, but the most severe barrier within the country is the veterinary cordon fence spanning the breadth of Namibia (see Figure 7 on page 20). While livestock products south of the fence may be exported because they come from a zone free of contagious diseases, the products of about 1 million cattle and 1.4 million goats north of the fence may only be exported under strict conditions. These are so cumbersome and costly that very little produce leaves the northern zone. The risk of foot-and-mouth disease and lung sickness spreading to other countries is the major reason for these conditions. The Directorate of Veterinary Services is now exploring ways of moving the cordon fence northwards to include more northern farmers in the ‘disease-free’ zone.

5. Prior to independence, relatively little effort was made to develop markets for Namibian produce. There was also a particular lack of market-related investment in the communal areas. Indeed, it can be said that policies were often driven by motives to integrate Namibia’s economy into that of South Africa. A major challenge has thus been to disentangle the agricultural economy from that of South Africa.

6. While farming in Namibia is not easy, it is also expensive and farmers demand high prices for their goods. Unfortunately for Namibians, many other farmers in other countries work under easier conditions and have their produce subsidized by their governments. Imported food is thus often cheaper, of better quality, and can be delivered more reliably than that grown locally. As a result, international competition can be a major constraint to the marketing of local agricultural produce.

INTERNATIONAL TRADE

Imports serve to provide agricultural products that the country cannot produce, while exports earn revenue from sales to foreign markets. Most cross-border sales are organised by private traders, but all governments exercise controls and enter into agreements to protect or enhance the value of farm produce in three principal ways:

- By promoting exports, and therefore local production.
- Through restrictions on imports to protect and support local production against foreign competition.
- By limiting the export of raw products to encourage local processing.

Exports are mainly promoted through trade agreements that aim to give exporters free, cheaper or preferential access to markets in countries with which Namibia has links. Namibia is party to many southern African and international trade agreements and communities: the Southern African Development Community (SADC) Free Trade Agreement, the Common Market for Eastern and Southern Africa (COMESA), the European Union - African, Caribbean and Pacific countries (or Cotonou) agreement, the Common Monetary Area and the World Trade Organisation. As a member of the Southern African Customs Union (SACU), Namibia also benefits from participation in the SACU/Mercosur agreement with Argentina, Paraguay, Uruguay and Brazil, the SACU/European Free Trade Association (EFTA) agreements, and negotiations to establish free or preferential trade agreements with China, the USA and India. Namibia has a free trade agreement with Zimbabwe and is negotiating a preferential trade agreement with Angola.
Although free trade agreements are designed to encourage the free flow of goods and services, the interests of each member country have to be safeguarded. This is why it normally takes so long to reach trade agreements. As a small country, Namibia has to protect itself from dominance by economically powerful trading parties who often are in stronger positions to promote their interests. This is the case with South Africa, by far Namibia’s biggest trading partner. Namibian exports of agricultural goods to South Africa amounted in value to about N$2,379 million in 2005, while Namibia imported agricultural products worth N$2,222 million from South Africa.\textsuperscript{11} Beef, mutton and goats are the main food exports to South Africa, whereas Namibia, imports most of its high value, processed agricultural products, sugar and staple foods in the form of maize, wheat and rice. The other major market destination for Namibian farm produce is the European Union, the main exports being beef, mutton, table grapes and dates. The current value of food exports to the European Union amounts to about N$1.1 billion annually.

The second way of supporting local interests is to impose import tariffs or quotas.\textsuperscript{12} Imported goods are then more expensive or at least competitive with prices demanded by Namibian producers, thus protecting local investments and encouraging production. For example, as a partial result of tariffs placed on imports of horticultural foods in 2003, Namibian farmers now produce more than 20\% of the fruit and vegetables consumed in Namibia. Previously, the figure was less than 7\%, the remaining 93\% being imported.

The Namibian government has also limited the import of maize and wheat flour to sustain farming and milling industries in Namibia. For similar reasons, there is an intention to restrict mahangu imports and to fix producer prices at levels that are higher than international prices. These kinds of controls may seem justified in promoting Namibian produce. But there is an equal need to encourage Namibian farmers to be competitive and efficient, and not to depend on protective measures. Since cheaper products can often be imported, Namibian consumers may pay unnecessarily high prices, especially if local processors monopolize the market.

Thirdly, the government may limit exports of raw products with the aim of promoting local processing, thus creating Namibian industries, jobs, and adding greater value to the original produce. For example, current regulations dictate that only 15\% of all mutton may be exported live to South Africa. The remaining 85\% must be slaughtered and processed in many secondary agricultural industries that process and package foodstuffs, such as these dates.
Namibia before being sold elsewhere as packaged or processed meat. Another benefit is that skins of these animals become available for local tanning and sale.

GOVERNMENT SUPPORT
Governments throughout the world often provide considerable support to farming. Namibia is no exception. As described previously, the greatest assistance was given to the more formal, commercial or freehold sector before independence. Since then much support has shifted to farmers in communal areas where the stated aim of government is to reduce poverty.

Other important policy goals pursued in the past 16 years are to promote rural development, and to boost food security, which aims to ensure that each household can meet its nutritional requirements. It is the Ministry of Agriculture, Water & Forestry that provides most direct support to farmers, while other assistance comes from the Ministry of Trade & Industries and several statutory organisations: the Meat Board, Agronomy Board, Karakul Board, Meatco and the Agricultural Bank of Namibian (known as Agribank). Finally, the government is redistributing freehold farms to previously disadvantaged Namibians, this policy being implemented by the Ministry of Lands & Resettlement.

Funding and subsidies
In 2004, Namibian farmers owed an estimated N$1.4 billion that had been loaned by a variety of banks. Approximately 35% had been loaned by commercial banks and the remaining 65% by Agribank. The government established this parastatal to provide affordable loans through several financing systems. Figures in the table below reflect Agribank lending as it stood in 2004:

<table>
<thead>
<tr>
<th>Type of lending</th>
<th>Number of clients</th>
<th>Amount owed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long term loans to freehold farmers, largely to buy farms, livestock and capital equipment and make fixed improvements</td>
<td>1,193</td>
<td>N$209.8 million</td>
</tr>
<tr>
<td>Medium term loans to freehold farmers to buy livestock, implements and vehicles</td>
<td>1,116</td>
<td>N$363.3 million</td>
</tr>
<tr>
<td>Short-term loans for crop production</td>
<td>160</td>
<td>N$49.5 million</td>
</tr>
<tr>
<td>Affirmative Action Loan Scheme and North-South Incentive Scheme for previously disadvantaged Namibians to buy freehold farms and livestock</td>
<td>570</td>
<td>N$488.6 million</td>
</tr>
<tr>
<td>Loans to build housing for farm workers</td>
<td>180</td>
<td>N$13.9 million</td>
</tr>
<tr>
<td>National Agricultural Credit Programme for smallholder farmers on communal land to pay for fencing, irrigation, equipment and draught animals</td>
<td>6,866</td>
<td>N$124.2 million</td>
</tr>
<tr>
<td>Loans for the purchase of tractors providing ploughing services for small-scale farmers</td>
<td>235</td>
<td>N$30.5 million</td>
</tr>
</tbody>
</table>

A variety of other services are subsidised. Livestock are vaccinated in the northern communal areas, and water is supplied to farm animals through pipelines and boreholes, pumps and troughs. However, communities are now starting to manage and pay for water.

As a parastatal, Meatco (the Meat Corporation of Namibia) is run entirely on a commercial basis. Its services in the northern areas operate at significant losses, however. The losses amount to a cross-subsidy because they are recovered from levies on meat bought from farmers to the south. Although government-owned irrigation schemes are now run as commercial operations on a contract basis, the government paid the considerable development costs that went into them. Similarly, the government will pay a major proportion of the development costs of the new Green Scheme irrigation farms. The Ministry of Lands & Resettlement provides resettled farms with considerable subsidy assistance, mainly in the form or implements and housing.

Information: Advisory services, research and training
The Ministry of Agriculture, Water & Forestry delivers a range of advisory and training services to farmers through its extension offices, agricultural development centres and veterinary extension centres.

More formal training for degree and diploma purposes is provided at the University of Namibia, the Ogongo and Neudamm Agricultural Colleges and at five training centres across the country (Figure 6). Agricultural research is conducted at 15 research farms stations and by staff at the Windhoek head office.
Newcastle disease in poultry and ostriches.

Figure 7. Infrastructure and service points for livestock farming. The Directorate of Veterinary Services concentrates on the control of scheduled diseases that pose a threat to the commercial sector and its export markets. Scheduled diseases include foot-and-mouth disease, lung sickness (contagious bovine pleuro-pneumonia), anthrax, brucellosis and trypanosomiasis in cattle, sheep scab in sheep, African swine fever in pigs, and Newcastle disease in poultry and ostriches.

The veterinary cordon fence separates animals to the south from potential infections of lung sickness and foot-and-mouth disease in the north. No livestock or meat is allowed to cross to the south of the fence unless it has been through quarantine procedures. Regular inspections are done in the surveillance zone to check for diseases.
Marketing and processing
Most government support for marketing and the processing of farm products is provided through its parastatals. The Agronomy Board was established in 1985, and currently focuses largely on horticultural crops, white maize and wheat, promoting their production and processing, and controlling imports. It has also begun promoting mahangu production and milling following the considerable attention given these aspects in recent years by the Ministry of Agriculture, Water & Forestry. Trade in livestock and meat products is mainly promoted by the Meat Board, which was formed in 1935. The Karakul sheep industry is supported in a similar way by the Karakul Board, established by the government in 1982.

Meatco’s main role is the processing of meat products, which is done at abattoirs in Katima Mulilo, Oshakati, Okahandja and Windhoek, and at a tannery north of Windhoek. This is a government owned company that should function profitably, but also help develop the livestock industry, particularly in communal areas. Although it has traditionally concentrated on slaughtering and selling beef, Meatco now has 50% local ownership of a South African company – Just Lamb – which slaughters small stock at the Meatco abattoir in Namibia.

Namibia’s total slaughtering capacity for beef at the Meatco and other smaller abattoirs amounts to 210,000 animals per year. The average number of cattle slaughtered between 2000 and 2004 was 179,376, representing 85.6% of capacity. The slaughtering capacity for small stock is 1,216,110 animals per year, while the average number slaughtered each year was 473,366, making up 35% of capacity. The biggest small stock abattoirs are those of Farmers Meat Market in Mariental, Namibia National Meat Producers in Aranos, the Ostrich Products Namibia in Keetmanshoop, and Just Lamb/Meatco in Windhoek.

NON-GOVERNMENT SUPPORT
Farmers themselves have established various unions, associations, co-operatives and forums to support their interests. The two farmers unions – the Namibia National Farmers’ Union (NNFU) and the Namibia Agriculture Union (NAU) – respectively, represent the interests of communal and freehold farmers. They were also established along obvious colour lines, mainly as a result of Namibia’s political circumstances. However, the division between communal and freehold farmers is increasingly blurred and the NNFU now also plays a role in representing large-scale or freehold farmers. Most people hope that the two unions focus more on development, processing and marketing issues than on their political bases. Many local farmers’ associations and other groupings have been formed since independence in several communal and freehold areas. Some of these have been effective while others have stopped functioning. Several multi-purpose co-operatives provide a range of services to their members including the commercial supply of equipment, materials, seed, fodder and fertilizers. Agra is the biggest of the co-operatives.

The Namibia Stud Breeders’ Association provides registration, performance and evaluation services to almost all cattle, horse, sheep and goat breeders. A total of 364 registered breeders currently breed about 47,000 registered animals. A Karakul Producers’ Association represents the interests of Karakul farmers. Trading is the focus of the Agricultural Trade Forum of Namibia, an umbrella organisation that speaks for the private sector on matters of external trade. More broadly, farming interests are of importance to the Namibia Chamber of Commerce & Industry (which mainly represents the manufacturing, industrial and trade sector), the National Trade Forum of Namibia (which fosters public-private partnership in matters concerned with trade), and the Namibian Manufacturers Association (a private sector grouping which represents certain food processing and packaging companies).

The veterinary control point at Oshivelo, one of five gates used to limit the spread of diseases which would jeopardize the export of Namibian meat.