
Agricultural policy in South Africa

- A DISCUSSION DOCUMENT —

Ministry for Agriculture and Land Affairs

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FOREWORD

—A vision for agriculture—

Agriculture in South Africa has a central role to play in building a strong economy and, in the process, reducing inequalities by increasing incomes and employment opportunities for the poor, while nurturing our inheritance of natural resources. To achieve this is a formidable challenge to the Government, and in this policy document we explain how we intend to meet the challenge.

Our task is to establish an environment where opportunities for higher incomes and employment are created for resource-poor farmers alongside a thriving commercial farming sector. To do this, we have set three major goals for policy reform:

- to build an efficient and internationally competitive agricultural sector
- to support the emergence of a more diverse structure of production with a large increase in the numbers of successful smallholder farming enterprises

- to conserve our agricultural natural resources and put in place policies and institutions for sustainable resource use

The changes we foresee for the sector are part of broader processes of rural development, which include land reform, investment in water supply and transport infrastructure, and improved social service delivery. They are intended to make a major contribution to achieving the aims of the Reconstruction and Development Programme (RDP). Evictions of people living on the land, farm murders and abuses of farm workers characterise the instability deep-seated in the rural areas. A prosperous agriculture, based on cooperation and collaboration, will play a part in removing instability and fear.

These changes are also part of a process of freeing the economy from business-inhibiting aspects of regulation and state intervention. In the agricultural sector we are already seeing a positive response in terms of production and export performance, and in competition in supplying farm requirements and marketing.

Farmers have made great progress towards reduced reliance on state subsidies and towards sourcing the services they need from the private sector and from farmer organisations. The focus of future Government funding for services for commercial farming will be on public goods that are needed for efficient growth by the sector, such as rural infrastructure, basic research, and epidemic and pest control. We will also be looking for higher levels of cost recovery for services provided by the Government.

Large-scale established agriculture has the potential for increased levels of employment and for improving the welfare of farm workers. Encouragingly, many individual commercial farmers have shown in recent years that they can play a constructive role in facilitating and supporting land redistribution projects, which will contribute to social stability and safety in rural areas.

We also foresee a much larger role in future for small and medium-scale commercial farming, based on family-managed farms producing largely for the market, investing in their land, using improved inputs and hiring labour.

Although the rate of urbanisation is accelerating in South Africa, large numbers of our people will—by circumstance or choice—remain in rural areas even if they have to struggle to make a decent living there. For the poorer rural households, which derive only a small part of their income from farming, we expect to see increases in production of food for their own consumption, and occasionally entry into local markets to sell surplus produce. The extreme poverty and food insecurity of most of these 'subsistence' households can only be addressed by a broad-based effort to improve their employment and self-employment opportunities; but for many, increased production from small gardens, animals and trees is critical to helping them out of poverty and onto the path of self-reliance.

Our land and agriculture policies are thus designed to accommodate this diversity of production in order to reverse the destruction of black farming in South Africa that occurred as a deliberate act of policy over the past century. There is much evidence from Africa and other parts of the world that small and medium-scale farming can be highly efficient, can compete successfully in

national and international markets, and can create more employment. This creates a major challenge for all in the sector to ensure that new entrants into agriculture have access to the productive resources and services needed for success. In future, much greater priority in allocating public funds for the sector will be given to promoting new entrants, supporting the rural poor and providing services that assist their upliftment.

Ensuring that we manage our inheritance of natural resources with care, so that it provides livelihoods for present and future generations, is the responsibility of all. Those who use land and water must have the incentives, resources and knowledge to use them wisely. We are removing many of the policy distortions that have damaged the soil and depleted the water resources, and we are creating the conditions for successful farming in the belief that the profitable use of natural resources is a necessary condition for taking care of them. We will provide support to community-based natural resource management, and we will use regulations where necessary to prevent abuse.

An important part of our reform of the sector lies in the international and regional arenas. We see a sector that is more intensively engaged in international trade, accelerating exports and competing effectively with imports, where the only protection will be provided by justifiable tariffs and necessary phytosanitary and other controls. We have completed policy adjustments to align South African agriculture with the new world trading order, and we are active in international fora to promote further international trade reforms. We will continue to press for more equitable access for our products to the European Union (EU) and other international markets. Within the Southern African region, we are making progress towards implementing the Southern African Development Community (SADC) free trade protocol, in the belief that greater two-way trade in agricultural products will contribute to growth and development in the region.

The role of the Government in agriculture will be based on working as partners with others, including the private sector, farmer unions, and voluntary organisations. We will promote competition among producers, processors and service providers. We will use regulations selectively but firmly in the public interest to ensure that abuses, including the abuse of monopoly and the abuse of our natural resource base, are avoided; and we will use targeted programmes as cost-effective means of achieving equity and anti-poverty objectives.

Intense competition among alternative claims on the public revenues means that if we are to be able to continue to make a strong claim for spending on agriculture, we must be able to show that we seek and obtain value for money. We need to ensure not only that funds are used only for high priority purposes, but also that the most efficient ways are found to achieve our aims. Where we decide that the Government should fund a particular service, our approach will be to encourage the most cost-effective suppliers of that service, and we will be prepared to outsource service provision in a transparent manner to achieve this. There can be no assumption that a public-sector organisation has a permanent monopoly of the role of service provider: this right must be earned through effective performance.

The past few years have seen rapid change in the farming sector. It is very encouraging to see the dynamism and adaptability shown by so many in the sector; by new farmers who are taking up the challenge; by established commercial farmers who have responded rapidly to radical changes

in the established order; by the private sector, large and small, which is undertaking new functions for new types of clients; and by staff of national and provincial agriculture departments who are closely involved in this process of change.

Much remains to be done to achieve this vision for agriculture. All participants in the sector have a shared task, and success will be to the great benefit of all citizens. This policy document provides a framework of credible and consistent policies, which allows us to move together towards the future with confidence.

Derek Hanekom

MINISTER FOR AGRICULTURE AND LAND AFFAIRS

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Acronyms

ACB Agricultural Credit Board

ARC Agricultural Research Council

ARDC Agriculture and Rural Development Corporation

AWLC Agricultural Water Liaison Committee

CMA Catchment Management Agency

CSIR Formerly known as the Council for Scientific and Industrial Research. Now the organisation is simply registered as CSIR

DACST Department of Arts, Culture, Science and Technology

DTI Department of Trade and Industry

DWAF Department of Water Affairs and Forestry

EU European Union

FACIA Food and Agricultural Commodities Inspection Agency

FAF Financial Aid Fund

FSA Food Safety Attributes

FTA Free Trade Area

GATT General Agreement on Tariffs and Trade

GDP Gross Domestic Product

GEAR Growth, Employment and Redistribution

GSP General System of Preferences

IAC Irrigation Action Committee

IDC Industrial Development Corporation

IQTR In-Quota Tariff Rate
MFN Most Favoured Nation
NAMC National Agricultural Marketing Council
NDA National Department of Agriculture
NGO Non-governmental Organisation
NHFC National Housing Finance Corporation
OBP Onderstepoort Biological Products
PDA Provincial Department of Agriculture
PDFC Provincial Development Finance Corporation
RDP Reconstruction and Development Programme
RFI Retail Financial Intermediaries
SACU Southern African Customs Union
SADC Southern African Development Community
SAGIS South African Grain Information Service
SANAT South African Network of Animal Traction
SMME Small, Micro and Medium Enterprises
SPS Sanitary and Phytosanitary
TBT Technical Barriers to Trade
VPH Veterinary Public Health
WAU Water Users' Association
WTO World Trade Organization

SECTION 1

The goals of agricultural development

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1.1 AGRICULTURAL POLICY IN PERSPECTIVE

The development of agriculture in South Africa is often viewed solely as the technical advance, in this century particularly, of large-scale commercial farming specialising in crop and animal

production according to the prevailing natural resources and climatic conditions, and taking advantage of both abundant low-cost labour and opportunities for mechanisation. The proponents of this view believe that agriculture can only contribute to the economy through a concentrated production structure such as the one currently existing. Accordingly, they believe that smaller and medium-scale agriculture, based upon diversified production, family labour and lower technologies, has little to offer in terms of aggregate production and incomes from farming.

Yet the current dominance of the modern large-scale and technically successful farming model must be seen in the context of a century of policy measures which seriously distorted agricultural development in South Africa. This dominant model has some undeniable advantages, but in a country with high unemployment and food insecurity, it has serious limitations. In future, both efficiency and equity will call for a much greater diversity of farm sizes and technology in the sector, with large-scale commercial farming coexisting with small and medium-scale production.

The origins of policy distortions

In the latter part of the nineteenth century, African family farming successfully responded to the increased demand for agricultural products from the new mining towns and the major towns of the English colony of Natal. In 1860, over 80 % of the nearly half million hectares of white-owned land was farmed by African tenants. African owner-operated or tenant farming proved to be at least as efficient as large-scale settler farming based on hired labour. African farmers adopted new agricultural technologies, entered new industries and competed successfully. In fact, white farmers argued that because of labour shortages, they could not compete with their African counterparts who had lower costs. Competition from black transporters of agricultural produce was also deemed unfair by white transporters.

Critical to this African success was the unwillingness of the Government to intervene in markets, and the implicit support for African farming from land companies and big landowners who earned rents from African tenant farmers. This changed, however, after 1913 when the Natives Land Act segregated Africans and Europeans by designating about 8 % of the country's farm land as reserves, which became the only areas that could legally be farmed by Africans. The aim was to create surplus labour for the mines and the white agricultural sector. At a stroke, it also eliminated competition from black farmers.

At about this time, white farmers also started receiving substantial support in the form of subsidies, grants and other aid for fencing, dams, houses, veterinary and horticultural advice, as well as subsidised rail rates, special credit facilities and tax relief. The Masters and Servants Acts of 1911 and 1932, designed to increase the supply of cheap labour, further worsened the plight of farm workers who were prohibited from breaking contracts or changing employers.

Over the following half a century, the support system for white farmers was steadily strengthened. Over 80 Acts of Parliament were passed rendering assistance to the commercial farming sector, particularly in marketing. In the 1950s the Agricultural Credit Board (ACB) was established to give loans to farmers who were no longer found adequately creditworthy by commercial institutions. Infrastructure was built, strong support services were established and assistance was provided through the Land Bank for the acquisition of land for farming by whites.

The white commercial agricultural sector responded positively, with substantial output increases. Farmers were protected from foreign competition, subsidies continued, and producer prices, which were largely controlled, were frequently above world-market levels.

The costs of distortions

Although these policies encouraged technical advance and increased production, they also had high social, economic and environmental costs. Foremost among these was high capital-intensive production in the presence of widespread unemployment. Favourable tax treatment of capital equipment, combined with negative real interest rates, encouraged overmechanisation and the shedding of labour. Further, it led to expansion into environmentally fragile areas. Guaranteed maize prices led to large stretches of marginal land in South Africa being planted to the crop, leading to costly programmes in the 1980s to induce farmers to switch from maize to other products.

Until about 1970, the total number of farm employees in South Africa steadily increased, but the impact of favourable credit and tax policies encouraged the substitution of labour by capital. Farm employment declined by almost 3 % per annum between 1970 and 1980. Meanwhile, in the homelands, pressure on arable and grazing land continued to increase.

The system of supports and subsidies of the period became increasingly burdensome to a Government already constrained by international financial sanctions and disinvestment. From the 1980s, there was an erosion in direct Government support to agriculture, which accelerated in the 1990s with the removal of the barriers between black and white farmers and the creation of a less dependent and more market-driven agricultural sector.

Policy reforms

A great deal has already been accomplished over the past few years in eliminating the inefficiencies that have characterised large parts of the sector, in particular the inequality and insecurity in landownership and the distortions in price and other signals to the sector.

Land

As a result of decades of dispossession and racist land laws, land distribution in South Africa is among the most highly skewed in the world, with large capital-intensive farms dominating much of the rural areas. The result is that only 28 % of South Africa's rural population (a large proportion of whom are farm workers and their dependants) live on 88 % of the agricultural land. Thus the remaining 12 % of agricultural land supports 72 % of the rural population in the overcrowded former homelands which lack the infrastructure for successful agriculture.

In the face of this, the Government has introduced a market-based land redistribution programme, which provides grants and technical assistance to the landless poor. Several mechanisms have been used to date to enable prospective purchasers to acquire land - from direct purchase to a variety of equity schemes. The Government has also introduced a programme of tenure reform which aims to bring all people occupying land under a validated

system of landholding. The Government has also initiated a programme of restitution of land, which involves returning (or otherwise compensating victims of) land lost since June 1913 because of racially discriminatory laws. Legislation was also recently approved to protect vulnerable occupiers of land (which the occupiers do not own), including farm workers. The Extension of Security of Tenure Act addresses the relationship between occupiers and owners, as well as the circumstances under which evictions are permissible, and the procedures to be followed.

Marketing

Formerly controlled markets have been radically deregulated. At the end of 1996, the Marketing of Agricultural Products Act (Act No. 47 of 1996) was passed, providing for certain limited interventions such as registration and information collection. It also provides for the collection of levies in very exceptional cases where proposals for their utilisation need to be fully justified in terms of improved market access, the promotion of marketing efficiencies, the optimisation of export earnings, and the enhancement of the viability of the agricultural sector. By early 1998, all control boards had ceased operation, and their assets were transferred to industry trusts which will provide services such as market information, export advice, and product development. Price controls were removed and single-channel markets disappeared with the abolition of control boards.

As a result, many new small, medium and large-scale enterprises have entered the domestic and export markets which offer good prospects for future job creation and marketing services to new farmers. A futures and options market in agricultural commodities has been established since 1995 and is playing a central role in price stabilisation. A shift in relative prices has led to a marked increase in the production of crops for export, especially fruit and vegetables and, to a lesser extent, animal production. During the difficult 1997/98 season, food price inflation has been moderate while producers have received favourable prices, suggesting greater efficiencies in the marketing system. Finally, South Africa now ranks with countries such as New Zealand and Australia which have the lowest levels of market distortions. This enables the country to face future reforms to world markets with confidence, and places it in a good position to apply pressure for further reforms through such fora as the Cairns Group which South Africa recently joined.

Finance

The Government has taken a number of measures to restructure rural financial markets with the objective of building, from the bottom up, a system of financial services that provides much broader access for all. Simultaneously, as part of wider macro-economic reforms, subsidies on interest rates have been removed. The Strauss Commission, who examined all aspects of rural finance, made recommendations for further improvements to rural financial markets including a new role for the Land Bank, which is now being implemented. The ACB, which provided cheap credit to large farmers and support through rollovers of loans to highly indebted farmers, has now ceased its operations.

The tax treatment for agriculture has been amended so that, for example, capital purchases can now only be written off over three years rather than in one year as in the past. This reduces the implicit subsidy for capital equipment and is intended to favour job creation. The National Department of Agriculture (NDA) has taken steps to eliminate funding of many activities such as subsidies for fencing, the installation of irrigation facilities and the establishment of on-farm infrastructure.

The Government has also altered its policies on drought relief. In the past, policies tended to weaken farmers' inclination to adopt risk-coping strategies, with a consequent reliance on high-value, high-risk monocultures. The culmination of this tendency was the 1992/93 drought-relief programme which provided R3.8 billion to consolidate and write off debts of commercial farmers. In future, drought will be recognised as a normal phenomenon and farmers will be encouraged to adopt low-risk technologies, rather than plant drought-susceptible crops and maintain inappropriately high numbers of livestock in areas prone to drought.

1.2 AGRICULTURE IN THE ECONOMY

Against this background, the challenge is to establish policies which will ensure that agriculture contributes to the national economic policy objectives articulated in the RDP, and now encapsulated in the Growth, Employment and Redistribution (GEAR) strategy. These objectives are: economic growth; reducing income inequalities, especially along racial lines; and eliminating poverty. The purpose of agricultural policy reforms, articulated in the Foreword and in 1.5, is to ensure that agriculture contributes to these national objectives through the following:

- an increase in agricultural productivity and output which will enhance the sector's contribution to national economic growth
- an increase in the incomes for the poorest groups in society, through the creation of opportunities for small and medium-scale farmers to raise their production for own consumption and the market
- the creation of additional employment opportunities in agriculture
- an improvement in household food security through expanded production and a more equitable distribution of resources.

National income statistics suggest that the sector presently accounts directly for some 4 to 5 % of the Gross Domestic Product (GDP). Two points need to be made. Firstly, agriculture's contribution to the overall economy is much greater than is suggested by the quoted figures of its share in the GDP. A closer examination of agriculture's role, especially during droughts or periods of exceptionally favourable rainfall, suggests that its contribution is more complex.

Droughts and low yields negatively affect the national GDP by as much as 0,5 to 2 %. This is a very high figure for a sector which is apparently playing a relatively small role in the economy. Agriculture's strong indirect role in the economy is a function of backward and forward linkages to other sectors. Its purchase of goods such as fertilisers, chemicals and implements forms backward linkages with the manufacturing sector while forward linkages are formed through the

supply of raw materials to industry. About 66 % of agricultural output is used as intermediate products in the sector. These linkages augment the sector's contribution to the GDP.

Secondly, international comparisons suggest that the decline in agriculture's apparent share in the GDP has been more dramatic than is warranted by South Africa's level of development. This has been due to inappropriate policies that have inhibited small scale black agriculture from contributing to total output. There is thus the possibility that agricultural output could be increased if this resource could be fully harnessed.

In terms of export earnings, agriculture contributes about R10 billion annually. The share of agricultural exports in the country's total exports had increased from about 8 % or less before 1994 to almost 10 % by 1997, an impressive performance given the size of South Africa's total exports of minerals and other products. The share of processed agricultural products within the country's total agricultural exports has also increased, namely from 34 to 50 %, further strengthening the linkage to the industry.

Agriculture is therefore a crucial sector and an important engine of growth for the rest of the economy. Moreover, its potential for further growth is substantial because the results of past policy distortions are being addressed. In particular, the recent growth in the production of poultry (which has overtaken red meat), eggs, fruit and vegetables is an indication of the success of policy reforms, and in all of these products the labour requirements suggest advantages to small scale producers if capital and market access constraints can be overcome.

Thus the promotion of productive small and medium-scale producers, coexisting with large-scale producers, would help realise potential, while contributing to the Government's objectives of black empowerment, poverty elimination and a reduction in inequalities.

1.3 AGRICULTURE, RURAL POVERTY AND FOOD SECURITY

While past policy has contributed to rural impoverishment, new policies will create the opportunity for reforms which will enable agriculture to make a much larger contribution to poverty alleviation and enhanced national and household food security in future.

An estimated 16 million South Africans are living in poverty, with its incidence highest in rural areas and among female-headed households. It is estimated that 72 % of poor people live in rural areas, and that about 70 % of rural people are poor. The rural concentration of poverty should not detract attention from urban poverty. The point is, however, that poverty in rural areas is associated with agricultural policies which persistently marginalised small scale black farmers as their access to resources such as land, credit and technical know-how was curtailed.

Food insecurity, defined as a lack of access to adequate, safe and nutritious food, is closely associated with poverty. It can ultimately only be addressed as part of a broader attack on poverty, which will include direct employment, income and welfare measures.

While there is adequate food at national level, some 30 to 50 % of the population has insufficient food, or is exposed to an imbalanced diet, as a result of low incomes. Emphasis will therefore be placed on food security at household level. Programmes will be examined in terms of their direct as well as indirect contribution to household food security through their impact on rural incomes and the distribution of those incomes. Increasing the production of small scale farmers will improve the availability and nutritional content of food, and hence food security generally among the poor. A large proportion of the rural black population consists of women, and those of a working age, in particular, outnumber men. With the incidence of poverty highest in female-headed households, all programmes will be examined to ensure that women at least have equal access and that programmes are targeted at them.

Rural households

However, to determine policy priorities to address poverty and food insecurity, and to assess the role that agriculture can play in the national effort, it is necessary to understand how people in rural areas create livelihoods. Poor rural households combine their resources in a variety of ways to enable them to maintain a minimum living standard. These livelihood strategies include agricultural production, off-farm wage labour, small and micro-enterprise activities, claims against the state (e.g. pensions) and reliance on social networks. Poor people have few opportunities for economic activity. For example, in 1993 it was estimated that only 26 % of rural African households had access to land for cultivation and that regular wages were the primary source of income for only 32 % of the poor. The central challenge for agriculture in poverty alleviation and food security for the rural population is therefore to contribute to improved livelihoods and employment.

One of the encouraging developments in recent years has been the growth in support for home gardens, especially in peri-urban and urban areas, where small plots, of vegetables in particular, can contribute significantly to both livelihoods and nutritional standards. The involvement of NGOs and sponsorship of the private sector are welcomed by the Government. However, much more needs to be done, especially among the poor in rural areas, to stimulate home gardening. Extension services have a major role to play in promoting production and, at the same time, encouraging suppliers of seed, tools and production requirements to devote more attention to this currently neglected section of the economy. The contribution that own production can make to alleviating rural poverty is restricted, however, by factors such as the availability of land, the difficulties of obtaining water, or a lack of family labour. Employment opportunities therefore remain the most critical issue for many rural households.

Formal agriculture provides employment (including seasonal and contract employment) for about 1 million farm workers, albeit often at very low incomes. In addition, the smallholder sector provides full or part-time employment for at least a further 1 million households. Thus some 2 million households derive some or all of their income from agriculture. This represents about 10 million people or almost 25 % of South Africa's population. Furthermore, while farming is an important direct source of employment in the economy, these figures underestimate its significance, as they ignore the employment effects of agriculture's linkages with the rest of the economy. For example, agro-processing and the food industry generally are major sources of employment.

Generally, the number of jobs created per unit of investment is higher in agriculture compared to other sectors. This implies that growth in agricultural output overall has a greater impact on employment creation. Yet in recent years, South Africa has witnessed a decline in full-time agricultural employment. Current legislation to improve security in employment has not yet created the desired improvement in labour relations and employers' investment in labour skills which, in due course, are expected to raise employment levels in agriculture.

Small scale farming

The concept of small scale agriculture in South Africa is laden with subjectivity and has been associated with non-productive and non-commercially viable agriculture. In recent years, some effort has been made to find a socio-economically accurate definition of a small scale farmer that was relevant to South Africa. An appropriate definition would then enable the Government to make black farmers the target of various support measures that would improve their access to resources, thus redressing the inequities created by past apartheid policies. The problem is that black farmers are not a homogeneous group and a number of them cannot be defined as small scale, whether 'small' refers to land size, income or labour utilisation.

The question is whether a precise definition of small scale farmers is required. The reality faced by small scale black farmers is recognised. In general, most black farmers, whether small scale or not, have limited access to land and capital, and have received inadequate or inappropriate research and extension support. This has resulted in chronically low standards of living and reliance to a greater or lesser extent on subsistence production. To achieve the Government's objectives of black empowerment and poverty alleviation, policy must address problems faced by black farmers in general and resource-poor farmers in particular.

Furthermore, increasing productivity in small scale agriculture will have significant broader economic benefits. Sustained and significant growth in employment and livelihoods in agriculture is unlikely to be achieved from formal wage employment alone. The rate and extent of development in a more diversified farm sector, but especially in small scale agriculture, will determine such growth.

There is considerable international evidence of the efficiency and labour intensity of small-farm agriculture in a wide variety of agro-ecological circumstances. While this may not necessarily apply in all parts of South Africa, small scale farming generally means that labour is substituted for machines. Therefore production outlays that would have been allocated to paying interest, loan repayment and depreciation costs on machinery, are instead paid as wages to labour, or earned as self-employment incomes by family farmers. In addition, small-farmers tend to make crop choices different from those made by large farmers. In particular, they tend to allocate more of their land to staple foods, vegetables, and drought-resistant crops that are less risky and also more labour intensive than the monocrop agriculture favoured on large farms.

Small-farmers, on international evidence, also tend to use their land productively for larger parts of the year than large-scale farmers. In particular, small-farmers' access to family labour often encourages them to make year-round use of available irrigation water. Finally, small-farm production is indirectly labour creating as well, because it results in income flows to low-income

rural dwellers who tend to purchase services, building materials and consumer goods from local small scale rural services and industries.

Food security at national level

South Africa has been meeting its food consumption requirements with domestic production for most items in most years. Projections show that the growing population, increases in income levels, and changes in preferences will lead to an increased demand for food, particularly for wheat, dairy products and meat, with a slower growth in demand for maize.

In aggregate, together with regional and international markets, this gives a buoyant picture of demand for the sector, with major opportunities for producers. The Government's approach is to promote comparative advantage and the efficient use of productive resources, encouraging the development of regional and international trading links, for exports as well as imports, as required.

Regarding food imports, South Africa's port facilities for the bulk handling of grains are adequate for the country's presently envisaged import requirements. However, the capacity is not without limitations especially when the SADC's requirements have to be met. These will, however, be partly met through developments to other ports in the region.

Agriculture in the region

The economies of the region are mostly dominated by agriculture. South Africa apart, agriculture employs 70 to 80 % of the total labour force and contributes about 35 % of the region's GNP and 30 % of its foreign earnings. The present flow of trade between the Southern African Customs Union (SACU) and the rest of the SADC countries, shows that SACU has a surplus of agricultural exports over imports to the other countries with the exception of Zimbabwe. Growth in agriculture, fostered by the move toward a free trade area and by internal market reforms in South Africa and in some of our neighbours, will serve to broaden and support trade and economic development in the region.

1.4 GOVERNMENT, MARKETS AND THE PRIVATE SECTOR

The role of the Government in agriculture is to create an enabling environment for the development of the sector in such a way that the overall economic, social and environmental objectives described above can be achieved. There are three aspects to this approach:

- establishing principles for Government support for agriculture
- building partnerships with the private sector and farmer organisations
- establishing accountability for services.

The role of the Government in regulating the market and determining agricultural product prices has been greatly reduced, which clearly enhances the competitiveness and efficiency of the sector. However, failures still occur in the ways in which some markets operate, which affect small scale farmers in particular, and their access to production requirements and credit as well as to markets for their produce.

The direct subsidisation of the costs of farm inputs and of loans will not be Government policy. Such subsidies have distorting effects and cannot provide a basis for sustainable incomes from farming. Only in exceptional cases will the Government consider providing financial support to farmers. In such cases assistance will be provided to fulfil clearly defined objectives, will be carefully targeted and will have time limits. For example, selective support to encourage new investments in agriculture among land reform beneficiaries and other small scale producers could be considered.

An essential function of the Government will be to supply 'public goods' such as basic agricultural research, market information, appropriate legal regulation and environmental protection (Box 1). In short, the Government will intervene where a public good can be achieved by its actions, which would not be achieved by decisions taken by the private sector and individual farmers. Furthermore, all activities undertaken in the sector, whether they be regulatory or of a support nature, will be examined to determine if they best fit into the public or private domain, or can be achieved by a public/private partnership.

The Government itself will undertake only those activities for which it has the expertise and resources, to provide a better quality service than could be provided by contracting out. Even in areas of strategic importance, consideration will always be given to outsourcing if it is most cost effective to do so, and if the quality and reliability of the function is not compromised by purchasing it from sources outside the Government.

In supporting agriculture, the Government is keenly aware of the contribution that the sector as a whole can make to enhance the effectiveness of its support. Partnerships will be sought with input suppliers, cooperatives and other farmer organisations, commodity organisations, financial institutions and others in seeking mechanisms to support policy objectives. The trusts established after the closure of the control boards are a particularly important form of partnership to promote market access and encourage new entrants to particular commodity production. The Government will also encourage the development of different forms of farmer organisations and, where appropriate, the development of private suppliers, and assist these in providing the services which their members require from the Government.

BOX 1. MARKET FAILURE AND GOVERNMENT INTERVENTION

Market failures occur when costs and benefits that guide individuals/private sector differ from those that are economically optimal for society as a whole. This can result, for instance, from: private investors being unable to obtain benefit from certain investment because they cannot stop 'free-riders'; individuals/companies having incentive to impose costs of pollution to others;

and information not being equally available to buyers and sellers of particular goods or an over-concentrated market.

The effects of market failures may include, among others:

- The private sector under-investing in some goods and services which are needed for sustained growth, such as basic research and infrastructure.
- Buyers of seed or agro-chemicals running the risk of buying sub-standard items.
- Environmental damage, especially to common property.

In such cases of market failure, Government may intervene in several ways including:

- Investing in rural infrastructure
- Regulating to counter pollution of water-courses or other environmentally damaging practices
- Assisting with funding research into untraded or non-hybrid crops or into farming systems or resource conservation where private sector organisations find it difficult to realise a return
- Reducing anti-competitive behaviour
- Regulating to reduce risk in food safety
- Funding services and regulation to minimise threats of epidemics among animals.

The Government will also seek to strengthen the efficiency of service provision by targeting those most in need of support, principally the resource-poor and emerging farmers. Where Government-funded services are to be delivered, the Government will look for the most efficient service provider, whether public, private, NGOs or farmers' own organisations. Where a good case can be made out for outsourcing services, this will be done.

In addition, it is the Government's intention to apply the principle of user payment to those who can afford to pay for publicly provided services and where the costs of collection can be justified by the likely revenues. In future, the Government will only provide free services if there is a convincing argument for doing so. It will seek to recover at least part of the costs of activities such as meat inspection or soil testing that benefit individual producers.

1.5 ACHIEVING SUSTAINABLE, EQUITABLE AND EFFICIENT AGRICULTURAL DEVELOPMENT

The Government's intention is to ensure that agriculture is able to contribute to achieving national economic and social objectives, as described above. The strategy is therefore to reform policy to achieve three strategic aims. These are:

Making the sector more efficient and internationally competitive (see section 2)

This will be achieved by continuing the process of market deregulation while assisting farmers to address some of the challenges of a deregulated environment (section 2.1). It also involves negotiating reductions in protectionist measures in trade policies as well as taking steps to encourage export competitiveness (section 2.2); and reviewing the regulatory structure to ensure

that it promotes efficiency and competition while retaining its essential functions of protecting producers and consumers from hazards and abuse (section 2.3). Efficiency objectives also require new approaches, on the part of the Government, in assisting farmers to cope with risks, such as drought, inherent in agriculture (section 2.4).

Supporting production and stimulating an increase in the number of new small, small scale and medium-scale farmers (see section 3)

This will be achieved by initiatives in six areas. Steps will be taken to strengthen the agricultural research system to make it more responsive to a wider range of farmers (section 3.1); a number of measures will be instituted to improve the effectiveness of publicly financed extension services to ensure that research and technology developments are more accessible to smaller-scale farmers (section 3.2); efforts will be made to improve the accessibility of rural finance (section 3.3), and to stimulate the growth of farmer organisations able to provide effective services to their members (section 3.4); special measures will be instituted to assist livestock farmers, particularly in communal areas where new approaches to range management are necessary (section 3.5); and finally, initiatives will be taken to restructure existing agricultural parastatals to improve their usefulness to small scale farmers and to stimulate private investment in rural areas (section 3.6).

Conserving agricultural natural resources (see section 4)

Agricultural conservation policy will mainly focus on water, land use and biodiversity. Regarding water, new approaches to irrigation development and management, designed to ensure more efficient use of water in agriculture and its more equitable distribution, will be adopted (section 4.1). With regard to land, the policy is to design measures which will contribute to the sustainable use of agricultural natural resources, while recognising that the responsibility for such use lies with farmers and their communities. Specific steps will be taken to initiate a national land care programme (section 4.2). In respect of the conservation of plant and animal species and the protection of endangered ecosystems, the principal emphasis will be upon meeting internationally agreed standards and commitments and translating these into national programmes (section 4.3).

SECTION 2

Building a competitive and efficient agriculture

[2.1 Reforming domestic markets](#)

[2.2 Stimulating international trade](#)

[2.3 Managing risk](#)

[2.4 Ensuring effective regulation](#)

2.1 REFORMING DOMESTIC MARKETS

Background

Since 1996, the Government has put considerable effort into the revision of agricultural marketing policy. The reason for this is that efficient, flexible and accessible agricultural markets are central to achieving its objectives of creating jobs and generating incomes, contributing to foreign exchange earnings, providing a spatial balance between rural and urban areas, providing food for all at affordable prices, and strengthening linkages with the industry. Furthermore, at that time the marketing system was characterised by high levels of state control, concentrated ownership by a small number of vested economic and political interests, and the exclusion of black people and those farming on a smaller scale. Aside from this, the system was widely criticised for giving only weak incentives for economic efficiency. Overall, it was not compatible with the principles of the RDP and GEAR, nor was it compatible with the agricultural sector the Government envisages in this paper.

In radically reforming the system the Government has two aims:

- increasing efficiency and productivity
- increasing opportunities for access to markets for small and medium-scale farmers

The reforms are now nearly complete in that the Government has created a new framework for the activities of all players in the market. What is now needed is a sustained effort by private-sector individuals, companies and farmer organisations, backed by the Government, to take advantage of the new opportunities for market development.

The changes have been based on the recognition that a market-orientated agricultural sector will be more dynamic and efficient, as it will give space for increased participation by new types of farmer, and will become internationally competitive. Agriculture's contribution to the GDP and employment growth will be maximised, the marketing margins between producers and consumers will be minimised, and the scope for cross-subsidisation of producers by consumers will be limited to explicit and visible policy instruments such as tariffs. The Government is confident that the private sector, including cooperatives and other farmer organisations will, with encouragement from the Government, be better able to undertake the functions that the control boards previously carried out. This will open up many opportunities for new entrants in trading, processing and transport in rural areas.

The Marketing of Agricultural Products Act, 1996 (Act No. 47 of 1996)

The Act, which came into effect in January 1997, is based on the view that state intervention in agricultural markets should be the exception rather than the rule. The Act does provide for a certain number of limited interventions, which include the collection of levies, the conducting of pools, the keeping of records and returns, export controls and compulsory registration. However, when any intervention is proposed, it must be demonstrated that one or more of the aims of the Act will be promoted without food security or employment being affected negatively. Furthermore, any proposed intervention in terms of the Act must be subjected to a consultative process involving the National Agricultural Marketing Council (NAMC). By early 1998, the control boards dealing with maize, sorghum, oilseeds, wool, meat, wheat, cotton, mohair, lucerne, citrus, deciduous fruit, dried fruit, milk and canned fruit had all been closed (except for residual legal and technical functions).

The response to these changes has been very encouraging. After a period of uncertainty which many in the sector understandably found unsettling, there is clear all-round determination to make the new arrangements work and to take advantage of the opportunities they create. The following are some of the recent developments:

- As a result of deregulation, a futures market in agricultural commodities was established by the private sector to provide producers, processors and traders with a means to manage their price risk. This new mechanism has already shown its worth, notably in enabling maize-market participants to adapt successfully to the difficult market conditions of 1997/98. The evidence of its success has been the very rapid growth during the same year of the volume of trade in maize futures, the introduction of maize options and wheat futures, and proposals to extend the facility to other commodities. This, together with other innovations to provide depth and stability to the new marketing dispensations, is fully in line with the Government's strategy for the sector.
- Commodity-specific trusts have been established with the assets vested in former control boards. The aims of these trusts vary in detail, but there is a firm expectation on the Government's part that they will provide effective support for research, information services, improved market access for new entrants into the sector, export advice and product development. The trusts, which consist of Government appointees and different stakeholders and hold funds on behalf of industries, will largely obviate the need for additional levies. However, in exceptional circumstances, trusts may apply to the Minister for the right to raise levies to supplement their income. Approval for any levies will depend in part on the trusts' record of effectiveness in fulfilling their mandate.
- As the control boards have closed, so their former agents, the cooperatives, have experienced increasing competition. While many cooperatives have responded successfully and are increasing their turnover, others have not, as farmers have bypassed their pools and dealt directly with processors and traders, the number of which has grown. Farmers are increasingly erecting on-farm storage facilities to take advantage of seasonal price differences, although the actual capacity of these facilities is still modest.
- Growing competition is also evident in fruit exports, where until very recently new exporters had been allowed only a limited share of overseas markets. Now, however, many trading operations are gearing up to provide farmers with alternatives to the established exporters.

Overall, the present arrangements provide a clear and consistent framework within which producers, processors and consumers can act and invest with confidence. However, there are still concerns that call for close monitoring and possible actions by the Government. They are:

Competition

The South African economy in general can be described as highly concentrated, both horizontally and vertically, particularly at those points of agricultural commodity chains that interfaced with control boards and their marketing arrangements. As the marketing arrangements for various commodities become less regulated, there is a danger that the potential benefits of deregulation may be counteracted by market concentrations that were nurtured by the control-board system. The Government will, therefore, monitor the impact of market concentration on the efficient performance of deregulated agricultural markets. Where problems are identified, the Government will have the option of utilising competition legislation under the DTI, or taking sector-specific initiatives.

One area of concern could be the bulk storage and handling of grains and oilseeds. Between the mid-1950s and the mid-1980s, a bulk storage infrastructure with highly concentrated ownership, particularly at local level, was built up as an integral part of the statutory marketing systems for grains and oilseeds. Some 70 % of the silo capacity in the country is owned by three organisations. At present, as the markets for grains and oilseeds adjust to deregulation, the market for bulk storage and handling appears to be working reasonably well. This is particularly true of the market in silo receipts, which allows access to the storage capacity to a wide range of producers and processors. However, it is important for the efficient and equitable working of the market that bulk silo facilities owned and operated by cooperatives and former cooperatives be made available to all potential customers (farmer members, farmer shareholders, other farmers, traders and processors) on the same terms. Concentrated ownership of bulk silos should not become a means for controlling or manipulating one or more of the physical grain markets by, for example, pricing access to silo infrastructure in general, and tradable silo receipts in particular, in a discriminatory or oligopolistic manner.

Prices

Input and output prices are now, and will continue to be, determined by market forces, and the Government will not intervene directly to influence them. Producers, processors and consumers are expected to take their own measures to manage price risk. The exception would be where the Government may use tariffs to provide a reasonable level of protection to domestic producers. This issue is discussed in section 2.2 below. The Government may also take action when this is necessary to ensure price competition in a situation where one or more market players are abusing a monopoly position.

Market access

One of the main reasons for promoting greater flexibility and diversity in the marketing system is that it will become better able to provide the types of market services needed by new entrants into agriculture. The Government is confident that over time this will prove to be the case,

especially to the extent that rural areas will be well served by transport infrastructure that will permit the low-cost and reliable movement of freight. In some parts of the country, such infrastructure will be one of the main determinants of the adequacy of market facilities.

Nevertheless, there will still be real and perceived cases where new entrants to agriculture will be faced with problems of market access. It is important to understand the real nature of the problem in order to determine whether a response by the Government is appropriate and, if so, what form it should take. Problems of market access arise when producers, or groups of producers, face high transaction costs as a result of missing or incomplete markets. Thus, given the established market prices for commodities that they produce, or would like to produce, the resultant net farm-gate price makes production of that commodity an unviable proposition. When the problem is broken down to its constituent parts, it becomes clear that market access problems arise from one or more of a very long list of difficulties faced by the farmer.

Transaction costs impact on three factors that can contribute to viability: the net farm-gate price per unit, yields, and input costs. A low net farm-gate price may be the result of, *inter alia*, excessive per unit costs in getting the product to the market. These costs may result from low volumes, long distances, poor infrastructure, poor quality, marketing at the wrong time (perhaps because of a lack of information or credit), distance to the closest processor, or poor contacts. Input costs may be high because of difficulties in accessing credit, the distance from the source of farm inputs, poor infrastructure (physical and trading), or the use of production systems which are unduly reliant on off-farm inputs. In their turn, input costs affect the rate at which farmers adopt new technologies, and hence the yields they achieve.

It follows that different root causes of market access and profitability problems may justify different responses by the Government. The Government may facilitate the development of alternative institutions that will break down barriers to participation. It may also reduce transaction costs through the provision of infrastructure, information, training and research. The danger is that because the symptom is often quoted as the problem, efforts may be concentrated on the treatment of that symptom, rather than on confronting the root causes. If the underlying causes are ignored, it will be difficult to distinguish between situations where Government assistance is justified, and where not. The implication is that market access is a problem where generalisation is unhelpful. Problems may be specific to a location, a commodity and/or a group of producers and the problem should therefore be handled in a disaggregated manner.

Market information

Market information is crucial to the proper functioning of any market. It promotes efficient arbitrage between markets, which is to the benefit of both consumers and producers, and the efficient allocation of productive resources. It improves the bargaining power of producers when dealing with traders and processors, and it reduces transaction costs by reducing risks.

In a deregulated market, certain types of market information will be adequately and reliably provided by the private sector. However, where there is no obvious reliable source of price information, the Government will take steps to give assistance. For example, information concerning utilisation, imports and exports of agricultural commodities used to be readily

available from control boards. Where the closure of boards has left an information gap, new initiatives have been launched, such as the South African Grain Information Service (SAGIS) which collects figures on the consumption, importation and exportation of maize, winter grains, sorghum and oilseeds. Applications are being made in terms of the appropriate sections of the Marketing of Agricultural Products Act to oblige those who store, trade and process such commodities to submit the appropriate information on a monthly basis. Funding of SAGIS, and similar initiatives for other commodities, is likely to be reliant primarily on allocations from the various grain and oilseeds trusts, and secondarily on levies. The Government recognises the importance of these initiatives for the efficient and transparent functioning of the market.

Other information that is of particular importance with regard to the operation of the market relates to domestic production, and consumption, imports and exports by month. The National Crop Estimates Committee, coordinated by the Department of Agriculture, is responsible for estimates of area, by province, planted to a particular crop and for regularly updated estimates of the expected crop size by province. It is very important that information on crop estimates should not only be objective and unbiased, but should also be perceived to be such. The Government will ensure that the composition and operations of the National Crop Estimates Committee enhance its reputation for accurate and objective estimates. The Government will also put in place additional mechanisms to report on the commodities where existing arrangements for the collection and reporting of market information are inadequate.

Marketing information and small and medium-scale farmers

The Government recognises that one of the legacies of apartheid policies is missing or incomplete markets in areas where black farmers are located. This results from, among other things, unequal access to marketing information. Furthermore, international experience, obtained particularly from structural adjustment lessons, shows that adherence to the market, without paying attention to the constraints smaller farmers face, can lead to these farmers being further marginalised and income disparities being accentuated.

Government policies are addressing the marketing information problem for small and medium-scale farmers in a number of ways.

The Government believes that deregulation of agricultural markets will go a long way to improve small and medium-scale farmers' access to marketing information. As the policy environment becomes conducive to small scale production, and when these farmers are less excluded from existing marketing arrangements, it is likely that traders will provide more information to farmers to stimulate the volume of their trade. Institutional innovation involving producer and trader organisations, such as cooperatives, will also contribute to providing information. The Government's role will be to help build capacity in these organisations to enable them to meet the needs of their members (see section 3.4).

More specifically, the Government will ensure that appropriate institutional arrangements are in place for collecting, analysing and disseminating information to small and medium-scale farmers. The focus will be on information enabling farmers to make better decisions regarding what to produce, when to harvest and sell and where to sell. This will include information on:

- product requirements, quantity, quality and presentation
- market size
- input and producer prices and trends
- supply and demand trends
- marketing costs, including transport costs

In order to ensure that the Government's role and responsibilities in relation to market access and market information are most effectively organised and properly resourced, new initiatives and procedures and their organisational and resource implications are being investigated.

The extension services will also be expected to play a significant role in disseminating such information. Section 3.1 outlines the reform of policy on the provision of extension services. The envisaged reorientation of extension workers will include training in advising farmers on marketing their commodities, and helping farmers to understand marketing costs and margins.

2.2 STIMULATING INTERNATIONAL TRADE

Introduction

Agriculture in South Africa is emerging from a history of protection and subsidisation (described in section 1) which affected the structure, efficiency and competitiveness of the sector. Our strategy for achieving our set objectives of making agriculture more efficient, creating jobs and opportunities and using resources sustainably, is based on an outward-looking approach. In this approach the global village is seen not only as a market for output, but as a tool for effecting efficiency by exposing our producers to international competition.

The objectives of the agricultural trade policy are to enhance and maintain market access for agricultural products and ensure that the sector contributes to its full potential to the export growth target aspired to in GEAR. To achieve the GEAR objectives, a 10 % export growth rate per annum by the year 2000 was set as target. Agricultural exports are critical to the achievement of this target since their contribution to total export earnings is substantial. Although they showed a declining trend moving towards less than 8% of total export earnings in the late 1980s, this trend was reversed. By 1996, agricultural exports were contributing over 10 % of foreign exchange earnings despite the declining share of the sector in the GDP. The potential for export growth in this sector exceeds the targets set in GEAR.

Vision for agricultural trade

The agricultural trade policy vision applies to the whole of South African agriculture, which includes diverse producers and agro-industries. For the purpose of this policy, agriculture includes primary agricultural products and agro-industrial products.

The Government's vision is to increase market access for the country's agricultural products, and to see an increase in the supply of highly competitive South African agricultural goods in international and domestic markets. This will ensure that agriculture makes an optimal contribution to economic growth, food security and job creation, and contributes substantially to the reduction of income disparities.

To achieve this vision, policy must create an environment in which the sector can exploit comparative and competitive advantages and be highly competitive at regional and international level. This will require effective use of the World Trade Organization (WTO) framework to eliminate market access barriers set up against South African agricultural exports, and to protect local agricultural industries against unfair trade practices.

In the context of this policy paper, static comparative advantage is defined by broad national resource endowment, including soil, climate and water. Dynamic comparative advantage is based on infrastructure, skills and technological innovations built through a policy regime. On the other hand, competitive advantage is based on individual entrepreneurial ability to capitalise on the existing static and dynamic comparative advantage.

Within the agricultural sector, the main objective of trade policy reform is to sustain the integration of the sector in the global economy in order to encourage internal and external competition and allow greater access to markets, technology and capital for South African agriculture. Effective participation in the WTO to press for global reforms of agricultural trade is critical to the achievement of agricultural trade policy objectives.

To achieve this, the Government will pursue the following strategic objectives:

- *Maintaining and improving market access*—Sustainable liberalisation and benefiting from competitiveness depend on access to markets. The Government will continue to work to ensure that market access barriers are minimised and, where possible, removed effectively and timeously.
- *Protection against unfair trading*—International agricultural trade is still characterised by unfair competition despite measures taken by the WTO. South African producers must be protected against unfair trade practices on the part of their competitors.
- *Tariffication and tariff policy*—As a signatory to the Uruguay Round, our tariff policy must be within the disciplines of the WTO Agreement. Hence tariffs will be the main instrument for protecting the agricultural sector against unfair competition.
- *Structural adjustment facilitation*—Policy must, as far as possible, provide a soft landing for those subsectors forced to shift production due to liberalisation.
- *Sanitary and phytosanitary measures*—In pursuance of market access, the objective of policy will be to ensure that adequate SPS measures are in place to ensure compliance with internationally agreed standards.
- *Monitoring implementation of the WTO Agreement and the effects of globalisation on agriculture*— Achieving the objectives set out above will require extensive monitoring of international trade practices and implementation of the WTO Agreement by competitors.
- *Coordination of Government efforts in managing agricultural trade*—Efficiency will be improved through better coordination of the management of agricultural trade among the relevant Government departments.

The Government will address these issues by means of three policy instruments, namely trade diplomacy, tariff policy and export promotion.

Agricultural trade diplomacy

The global trend now is to engage in trade diplomacy to secure improved and equitable market access. Trade negotiations have increasingly become an important tool for opening up markets for South African agricultural products. Thus trade diplomacy is an integral part of agricultural policy designed to promote competition and efficiency.

In the period since April 1994, South Africa has been granted a number of nonreciprocal trade concessions by developed countries and regions. Most notably, South Africa has been included in the General System of Preferences (GSP) of the United States and the European Union (EU). These concessions, though welcome, are of minor significance. Market access impediments can only be resolved through continuing substantive negotiations.

Future negotiations will take place within the following framework:

- *At the WTO*—South Africa is actively engaged in the multilateral system which sets rules and systems guiding negotiations at bilateral levels.
- *In Southern Africa*—The SADC Trade Protocol adopted at the Maseru Summit in August 1996 will eventually determine the nature of trade agreements within the region. This will influence the SACU agreement currently being renegotiated and any bilateral agreements with countries in the region.
- *EU and USA*—Negotiations are currently taking place regarding a trade agreement with the EU. The agricultural sector will also press for trade benefits from the Bi-National Commission with the USA.
- *Elsewhere*—The general policy principle will be that no agreement will exclude the negotiation of other agreements. The Government will seek other agreements on agriculture, where benefits are expected to be high. This includes agreements with regional organisations such as Mercosur or the Indian Ocean Rim.

Trade diplomacy involves reciprocal obligations. While seeking improved access to foreign markets for its producers, South Africa will also be required to offer concessions in terms of improved access to its market. Firstly, agriculture will have to play a significant role in prioritising sought-after partners where negotiated agreements will be necessary. Secondly, complex trade negotiations demand a clear understanding of the interests of the agricultural sector so that appropriate tradeoffs are agreed to. There is a need for a detailed analysis of the threats facing South African producers from international competition and of the impediments to their participation in the global market place.

The policy considerations and commitments arising from this framework are as follows:

Multilateral agreements under the WTO

South Africa's membership of the WTO offers both opportunities and constraints. The Agreement on Agriculture defines commitments for the sector, to be implemented in equal

annual instalments over a six-year period starting in 1995. These commitments relate to export subsidies, domestic support, and market access. Each member's specific commitments are contained in country schedules appended to the Marrakech Agreement. South Africa's commitments are summarised in Box 2.

BOX 2. SUMMARY OF SOUTH AFRICA'S COMMITMENTS UNDER THE WTO

EXPORT SUBSIDIES—Subsidies paid in respect of agricultural products in the 1986/1990 base years must be reduced per product by 21% in quantity terms and 36% in outlay terms. South Africa's total export subsidy outlay commitment in 1995 was R842 million which must be reduced to R570 million by the year 2000. With the termination of the General Export Incentive Scheme in July 1997, export subsidies are now zero.

DOMESTIC SUPPORT—Government's support to the agricultural sector which could have an effect on production and trade is to be reduced by 20% in total terms from its 1986/88 base. In value terms, domestic support commitment was R2.4 billion in 1995, to be reduced to R2.0 billion in the year 2000. The commitments for 1995 and 1996 were met.

COMMITMENTS TOWARDS REMOVING BORDER PROTECTION—These are in two parts:

Tariffication—All nontariff border measures to be converted to tariffs which must be bound against increases. Bound tariffs to be reduced on average by 36% and at least 15% per tariff line over the implementation period.

The simple average of South Africa's base rate tariffs is 70% compared to 39% as the average final bound rate. An examination of our Uruguay Round schedules indicates considerable variation in the base rates for different products—from 0% to 1 494%. Those products with the highest base rates will decrease by a higher rate than those with more modest base levels, thereby achieving the average reduction required over the implementation period. The tariffication of import permits was implemented relatively smoothly during 1995, with applied levels of tariff generally lower than the ceilings represented by the commitments.

Market access—Current market access opportunities to be maintained and improved, and where imports of a product are insignificant, minimum market access opportunities equal to 3% of domestic consumption growing to 5% over the implementation period must be provided at a lower inquota tariff rate (IQTR).

Fifty-three product categories have minimum market access commitments. In 1995, tariff quotas were opened at the IQTR not higher than 20% of the relevant bound tariff rate for approximately half of the 53 product categories. In most other cases, the applied rate was below the IQTR thereby obviating the need to administer a quota. Total agricultural imports have grown at a faster rate than agricultural exports in the 1990 to 1996 period.

SANITARY AND PHYTOSANITARY (SPS) MEASURES—South Africa is bound by the SPS

Agreement which is based on the principle that only scientific base measures are justified. It is also bound by disciplines placed upon technical barriers to trade and the protection of intellectual property, which aim for greater predictability, fairness and transparency.

South Africa's priority is to ensure compliance with agricultural commitments in the WTO. However, many concessions were made during the Uruguay Round to agricultural lobbies in developed countries, and a relatively high level of support remains. South African producers and exporters are left at a distinct disadvantage as are a number of other less developed agricultural exporting countries. The Government will therefore be seeking the following in the next round of negotiations:

- further reductions in export subsidies and domestic support measures
- further reductions of tariff escalation and tariff peaks and the removal of any other barriers to agricultural exports
- a framework for dealing with agricultural concerns of developing countries

Trade negotiations have increasingly become an important tool for opening up markets for South African agricultural products. The effective use of trade diplomacy requires strategic direction and management, as well as coordination of activities around negotiations to ensure that all are seeking to achieve the same objectives. Agriculture is committed to playing an active role in future negotiations and specifically in the new round of agricultural trade negotiations scheduled to commence in 1999/2000. To this end, the Government will set up an interdepartmental committee that will forge agreement among the relevant Departments regarding South Africa's priorities in the next round. The NDA will play a leading role in this regard considering the complexity of issues and the likely importance of the sector in the next round. At sector level, the NDA will effectively deliberate with industry representatives in order to prepare sharply defined objectives and appropriate negotiating strategies.

In addition, the NDA will develop mechanisms for monitoring implementation of the agreement by our competitors. Capacity will be developed to debate and articulate implementation problems faced by South Africa, and recommend the necessary policy changes when required.

SADC and regional arrangements

A strategy for balanced development in the region and a collective approach for seeking market access outside the region, will benefit both South Africa and its neighbours. Since the April 1994 elections, South Africa has therefore been involved in negotiations regarding possible trade agreements within the Southern African region. The process of greatest significance for agriculture will be that envisaged by the SADC Trade Protocol for the establishment of a Free Trade Area (FTA) within eight years. A precise definition of the FTA and the process of establishing it will be determined in various rounds of negotiations.

The protocol allows for a significant element of asymmetry in trade liberalisation, which means that South Africa will open up its markets at a faster rate than other SADC members. Thus the formal outcome as well as the timing of the implementation of the obligations will favour the

other SADC members. It is expected that the protocol will lead to the removal of customs duties on substantially all current trade within ten years.

The most prominent demands to date from SADC partners for greater access to the South African market have focused on industrial products such as clothing and textiles. However, many SADC countries enjoy comparative advantages in agricultural products. An expected outcome is an increase in imports of primary agricultural products from the region into South Africa, and shifts in production patterns due to comparative advantage.



Its provisions in relation to trade in agricultural products are:

- elimination of import duties (South Africa will scale down tariffs over a period of five years, while the other members of the SADC will scale down tariffs over a period of eight years). All products will be included in the phasing out of tariffs and tariff reduction will be on a linear basis. Specific protocols will be designed for sensitive commodities for specific periods of time.
- elimination of export duties
- elimination of non-tariff barriers
- no quantitative import restrictions
- no quantitative export restrictions
- no limitation on transit trade
- anti-dumping measures in conformity with WTO provisions may be implemented
- safeguard measures may be applied if imports cause or threaten to cause serious injury
- existing preferential trade arrangements may be maintained or new ones entered into if not inconsistent with the provisions of the protocol
- most favoured nation (MFN) treatment should be accorded to member states
- imports should comply with rules of origin as stipulated in protocol

South Africa is also committed to other arrangements in the region. Firstly, in the Southern Africa Customs Union (SACU) Agreement, provision is made for the free movement of products produced within the common area except where:

- new industries are protected through the imposition of additional duties. This concession will only be granted for a period of eight years with the consent of all contracting parties.
- imports and exports are prohibited on the grounds of economic, cultural or other reasons. However, this prohibition cannot be used to protect a contracting party's own industry against similar products produced in the common customs area.

Secondly, a number of bilateral agreements have already been concluded in the region. The Government will aim to finalise and implement an agreement with Zimbabwe. Currently a number of agricultural products can be exported from Zimbabwe to South Africa free of duty subject to an import permit issued by the NDA. Agreements exist with Malawi in terms of which all goods produced or manufactured in Malawi may enter South Africa free of customs duty, and with Mozambique according to which specific products and quantities may be imported into South Africa subject to tariff rebates. In all these agreements the NDA will establish effective

mechanisms for monitoring agricultural trade resulting from the agreements and their impact on our sector. An agreement is also being negotiated between Zambia and SACU.

European Union

In future, South Africa's trading relationships with the EU will be of great importance to the agricultural sector. The EU rejected South Africa's request to be included in the trade chapter of the Lomé Convention. South Africa is therefore currently engaged in negotiations with the EU with a view to establishing a free trade agreement. The Government's aim is to negotiate greater access to the EU market and remove the discrimination which South African producers currently face.

It appears that the terms of the agreement, as far as agriculture is concerned, may fall well short of what is satisfactory to the sector. The Government will, however, persist over time in arguing the case for improved access for all agricultural products to EU markets.

Cairns Group

To strengthen the diplomatic approach to opening up trade, South Africa joined the Cairns Group in April 1998. This is a lobby group consisting of agricultural exporting countries with relatively low levels of domestic protection. It operates on an informal basis without disciplinary procedures or strict rules and takes a consensual approach to decision making. This disparate group's strength lies in the fact that through collective action it has more influence and impact on agricultural trade issues than its members have individually. Its principal lobbying is directed towards major trading countries with continuing domestic agricultural protection.

The Government's intention is to use this platform to negotiate for further liberalisation of international agricultural markets. The Cairns Group's collective experience in trade negotiations and resources such as research into agricultural trade policy issues and monitoring of agricultural legislation of the 'majors' are of obvious relevance to South Africa. Since June 1997, the Geneva-based coordination of activities of the Group have been a useful supplement to South Africa's capacity in this field.

This section has emphasised the importance of trade diplomacy in agricultural policy. The effective use of trade diplomacy requires careful planning not only of the negotiations themselves, but also of the development of specific agricultural subsectors. Box 4 outlines some basic guidelines that will be followed by the NDA in all negotiations.

BOX 4. POLICY GUIDELINES FOR NEGOTIATIONS

The particular objectives of each negotiation must be clearly specified but ultimately all negotiations will seek to achieve:

- greater market access for South African agricultural products than would be available within the WTO arrangements.
- fairer conditions for trade through the reduction or elimination of tariffs facing SA goods and

elimination of subsidies that reduce South Africa's exports through unfair trade. This will include a) removing unfair activities and other administrative mechanisms that impede market access, b) removing unjustified technical barriers to trade, including those relating to biotechnology, and c) ensuring that the system of international trade procedures and dispute settlement works effectively for agricultural commodities

- domestic policy objectives. In the final analysis, market access is a means to an end, not an end in itself. The impact of an agreement on the RDP objectives of reducing income disparities, creating employment, enhancing growth and improving quality of life must be clearly demonstrated.

Negotiations will be based on:

- background work based on rigorous analysis of the competitiveness and potential of sectors of agriculture as well as the impact of an agreement. To this end, a study of South African agricultural structure and competitiveness is being carried out in the Minister's Office which will provide a baseline. This study will be broadened to include characteristics of agricultural subsectors and how these change and affect the objectives above. Such information must be kept in a database and must be updated continuously. Negotiation mandates must make reference to this database and a full report showing how agriculture will change in the course of the implementation of the agreement will be prepared.
- timely consultations with affected groups and progress reported regularly through structures such as the Agricultural Trade Forum. The Parliamentary Portfolio Committee will also be kept informed of all developments.

Tariff policy

Tariffs will be applied as an important component of specific strategies for enhancing competitiveness and creating jobs through trade-based mechanisms such as liberalisation. Two strategic objectives of the agricultural tariff policy are therefore to protect domestic agriculture and to facilitate structural adjustments within the sector. It is not Government policy to use customs tariffs as a means for generating revenue.

Various policy instruments will be applied to achieve these objectives. In terms of 'ordinary' competition, ordinary duties will be applied. Ordinary duties are limited by negotiated agreements and obligations enshrined in the WTO. The tariff equivalents set through the process of complying with the WTO commitments represent the maximum level of tariff that can be levied, and these are bound against increase. Agricultural products were tariffed by 1996, thus setting ordinary duties. WTO rules also require that the bound tariff levels be reduced by specified percentages over the periods indicated in the agreements. South Africa's tariff commitments are presented in Box 2.

As a matter of policy, ordinary duties will be constantly reviewed to ensure that tariff levels applied are consistent with the stated policy objectives of making agriculture efficient and competitive. The margins existing between bound and applied are critical if ordinary duties are

to be used to influence the restructuring process. Tariffs will be kept under review to ensure that they are both in line with policy and simpler to administer.

In addition, variable import charges can be applied to certain agricultural imports. In this instance, import duties are linked to a target variable—in most cases price—and altered as the variable fluctuates. The variability of such duties has to remain within the bound ceilings. Such a price band scheme can be operated to reduce price variability of certain commodities rather than to increase protection. This is a useful tool for minimising the variability of food prices.

Tariff quotas are used mostly in trade agreements and are therefore country and product specific. However, because of the Most Favoured Nation (MFN) rule, it is becoming progressively difficult to use them. The only General Agreement on Tariff and Trade (GATT) legal tariff quotas are the market access quotas.

Protection against unfair external competition is a major concern of both the Government and the farming sector. The GATT Agreement, 1994, Article VI makes provision for countries to eliminate injury to local industries demonstrably arising from dumping or subsidies, by imposing antidumping and countervailing duties respectively. Three factors need to be established before such duties are levied:

- 1 that dumping has occurred and to what extent. This means the dumping margin must be established
- 2 that as a result, an industry suffers material injury
- 3 that injury in (2) is a direct result of the dumping.

The Agreement on Agriculture also makes provision for Governments to impose additional tariffs on products over and above the bound levels, to deal with a surge in imports as a result of a drop in prices if:

- an industry finds itself threatened by imports and cannot withstand competition from the imported product from its own resources
- ordinary duties, antidumping and countervailing duties are not justified
- the duty will eliminate the injury or will allow the industry to cease production of the product in such a way as to cause the least disruption, thereby affording the opportunity for alternative employment of resources, especially labour

The critical issue for policy is the use of trade remedies where local industries suffer injury due to unfair practice. The use of these remedies, however, must be within the strict WTO disciplines, which makes them complex mechanisms. Nevertheless, it is policy to strengthen the use of these remedies and reduce reliance on ordinary duties to deal with unfair trade practices. Agriculture will work with the DTI to design agriculturally defined guidelines on the use of anti-dumping, safeguards and countervailing duties. Such systems will not be burdensome, but predictable and able to respond swiftly to problems that arise.

Import regulation and border control

Tariff policies are only as meaningful as the systems put in place to regulate and control the flow of imports. Agricultural trade requires well-qualified and vigilant personnel at the ports of entry.

The two principal problems are underinvoicing and misidentification. Since almost all tariffs are raised on the transaction value of a shipment, underinvoicing is a means of illegally underpaying the required tariff. Misidentification occurs when a shipment is declared as something which it is not, and where distinctions between 'commodities' are very subtle, so that customs officials are unable to differentiate between them.

In both cases, the onus lies with the administration to be vigilant about these problems, and to take severe action. Better training, more agents, improved incentives, and more efficient recording and checking systems are needed. The Department of Agriculture will work closely with the South African Revenue Services regarding the effective implementation of tariff policy.

Export facilitation

The importance of export growth to South Africa's development strategy cannot be overemphasised. While an enabling trade-policy environment is a critical element of an export-led growth strategy, the increased level of competition in the global economy demands that Governments design measures to improve the competitive edge of their own producers. Vital elements of a competitive sector include the transmission of information on subjects ranging from market locations to packaging, labelling and meeting certain technical requirements; the provision of quality control services; and the development of infrastructure. Although marketing is generally a private-sector function, the Government can also play a key role in facilitation.

The main problems faced by exporters are a lack of information and of skills, inadequate access to financing, and poor infrastructure. Some of these fall in the 'public good' category, and Government efforts to assist the private sector in dealing with these problems will improve the competitiveness of the sector. The Government will therefore use non-trade-distorting mechanisms to assist in providing an environment conducive to export growth. This will include better use of 'green box' measures in agriculture. Such measures will be made more effective by:

- Strengthening the focus of the following existing 'green box' measures on export production and marketing:
 - research and extension (see section 3)
 - provision of training facilities and courses focusing on, amongst others, developing export marketing expertise
 - pest and disease control (see section 2.3)
 - inspection services (see section 2.3).
- Ensuring that the farming sector and agro-industries have fair access to DTI measures such as:
 - the Export Marketing and Investment Assistance Scheme
 - shipment financing through the Credit Guarantee Insurance Corporation
 - export promotion support through trade fairs, trade missions and diplomatic missions.
- Implementing new measures for promoting exports. These measures will include:
 - market development support—the Government will provide assistance to the agricultural sector to develop markets. It will, for example, facilitate the sector's participation in trade missions, exhibitions, fairs and other activities that increase international awareness of South African agricultural products.
 - market readiness support—the Government will, for example, facilitate the availability of market intelligence and market information based on publicly and privately funded research into

market and global trade trends research.

- support to lower transaction costs—in public expenditure deliberations on infrastructure, a case will be made for developing infrastructure for agriculture, including roads, water supply, electricity and telecommunications. The Departments of Agriculture will seek partnerships with local authorities to ensure the provision of infrastructure that will lower transaction costs for farmers.

Conclusion

This section of the policy paper has outlined important elements of an agricultural trade policy conducive to:

- stable and affordable supplies of agricultural commodities for the domestic market
- the expansion of market access for our exports.

Deregulation has created an incentive structure that will stimulate and reward investment not only in domestic and export markets but also in the ancillary industries. It is envisaged that the role of the Government will in future pertain particularly to trade diplomacy and to providing an efficient regulatory framework.

2.3 ENSURING EFFECTIVE REGULATION

Introduction

The deregulation of domestic agricultural markets and the liberalisation of international agricultural trade have increased, rather than diminished, the need for a framework of standards for the quality and safety of both inputs into crop and animal production and outputs from such production. Effective measures are needed to maintain such standards through, for example, the prevention and control of epidemic diseases and effective inspection and diagnostic services.

Regulatory services must:

- ensure that South Africa's consumers of food have confidence in its safety and, where appropriate, its declared nutritional attributes
- promote an understanding and the implementation of internationally agreed sanitary and phytosanitary (SPS) measures. This will include protecting South African exporters from the unjustified use of such measures and other TBT which restrict access to export markets
- ensure that measures are in place which protect agricultural workers and their families from health risks arising from the handling and use of inputs, and producers from unnecessary risk in procuring requirements such as planting material, breeding stock and agro-chemicals
- protect farm animals from inhumane treatment

In striving to achieve these objectives, the Government wishes to ensure that regulations are not used to erect unfair barriers to those who wish to enter into agricultural production and commerce, and do not, therefore, put limits on competitiveness. Wherever appropriate, the costs

of regulation should be borne by those producers who benefit directly from such measures, and the Government will investigate the most cost-effective ways of implementing regulations.

Export competitiveness and sanitary and phytosanitary (SPS) measures

All countries maintain health and sanitary regulations for exports, imports and domestic products. An SPS measure is applied by a country to protect the life or health of people, animals and plants from risk arising from the entry, establishment or spread of pests, diseases, and disease-carrying or disease-causing organisms. This requires regulation, which includes laws, processing and packing regulations and labelling requirements. Box 5 shows the quality attributes for all food products. Under the WTO only the Food Safety Attributes (FSAs) are considered SPS measures.

BOX 5. QUALITY ATTRIBUTES

1. Food Safety Attributes (FSA)

- Foodborne Pathogens
- Heavy Metals
- Pesticides Residues
- Food Additives
- Naturally Occurring Toxins
- Veterinary Residue

2. Nutrition Attributes

- Calories, Fat and Cholesterol
- Carbohydrates and Fibre
- Protein
- Vitamins
- Minerals

3. Value Attributes

- Purity
- Compositional Integrity
- Size
- Appearances and Taste
- Convenience of Operation

4. Package attributes

- Package
- Materials
- Labelling

The responsibility for setting food safety standards and enforcing them lies with the Department of Agriculture and other Government institutions, particularly the Department of Health. In carrying out these functions, the Government and/or its agents will adhere to scientifically justifiable measures, and SPSs will not be used as disguised trade restrictions.

As a general principle, SPSs will be enforced in accordance with the provisions of the SPS Agreement and other international conventions. (South Africa is a signatory to the following agreements: Codex Alimentarius Commission, International Plant Protection Convention, International Office of Epizootics and International Institute of Agricultural Co-operation.) The relevant international standards, guidelines and recommendations of the Codex Alimentarius will be used as quantitative benchmarks. The NDA will ensure strong participation from the agricultural sector (including legal and scientific contributions) in the body's international standard-setting activities.

The enforcement of SPS measures will be based on the assessment of risk. Inspection is required in order to establish the processes and production methods used as well as the scientific evidence and prevalence of specific diseases or pests. The inspection function is provided not only to enforce standards for domestically produced commodities destined for exports and local consumption, but also to protect exporters against unfair standards set by importing countries.

Technical Barriers to Trade (TBT)

Where measures go beyond required SPS standards and are used for protecting industries by the elimination of import competition, they become TBTs. South Africa is a signatory to the Agreement on Technical Barriers to Trade and will use this agreement and its trade remedies as instruments to fight an attempt to restrict its exports through technical barriers. The Department will ensure that standards applied to this country are non-discriminatory and transparent and do not restrict trade more than is necessary.

Inspection

The Government is responsible for setting standards and it must also take responsibility for an effective inspection system that enforces compliance with a large variety of commodity-specific and country-specific regulations. However, the Government may choose to outsource the delivery of some of the inspection functions where it has confidence in the existing private-sector institutions.

With the increased use of SPS and health standards to restrict trade, and the increase in trade as a result of globalisation, it is now of critical importance to tighten and improve the provision of inspection services. Several pieces of legislation exist and are administered through different Government Departments and Directorates. A lack of coordination of inspection activities and duplication have reduced efficiency and negatively affected delivery.

The removal of interdepartmental duplication in areas such as enforcement, risk management, laboratory services, information systems and communication will lead to a more efficient utilisation of scarce resources. The Minister of Agriculture has therefore appointed a team to

review organisational options and examine the feasibility of a Food and Agricultural Commodities Inspection Agency (FACIA).

Animal improvement

Animal production includes a wide variety of activities—from large-scale extensive beef, wool, mutton and mohair production to intensive dairy, pig and poultry systems. The purpose of regulation in respect of breeding is primarily to support the industry through steps which encourage investment in improved stock and provide confidence for those engaged in the purchase and sale of breeding stock. The limitations of the previous Livestock Improvement Act, 1977 (Act No. 25 of 1977) were that it:

- restricted the importation of genetic material to registered stud breeders
- protected the local artificial insemination industry and put restrictions on the local collection and sale of semen
- provided insufficient control over embryo collection and transfer activities
- did not allow equal access to information and to genetic material for smaller, disadvantaged stock owners.

A new Animal Improvement Act will remove such distortions, and ensure that importers and breeders' suppliers of genetically superior animals and genetic material are bound by essential standards that will ensure that the standard of genetic material used in South Africa is sufficient to maintain or improve production efficiency. The Bill proposes to retain certain valuable regulatory aspects of the existing Act, such as the identification and use of genetic material that could be used to the advantage of the national herd; the provision of animal reproduction services; and the establishment and maintenance of animal breeders' societies. However, the Bill also makes provision for the following important changes:

- deregulation of the artificial insemination industry
- permission to import or export animals or genetic material
- protection of South Africa's indigenous and locally-developed livestock breeds
- registration of embryo collectors

Animal registration

The benefits to livestock owners of a system of registration, identification and performance monitoring of animals have largely been confined to the white commercial sector. The costs of this system have increasingly been borne by livestock owners, through registration by breeders' societies, for example, and through charges for the cost of services rendered by the Stud Book and Livestock Improvement Association.

The widening of benefits to emergent farmers and stock owners in commercial areas is now a Government priority. It would be unproductive to expect such an expansion of services to take place on a cost-recovery basis, in the short term at least, but there are considerable benefits to stock owners in having a national system of registration and information (on, for example, fertility, milk and wool production and growth). These benefits include better price realisation, more security against stock theft and better take-off management through performance monitoring. Such a scheme has been initiated in some parts of the country, particularly the Northern Province, and the Government will extend the scheme as rapidly as resources allow.

Animal welfare

The responsibility for animal welfare services has been transferred from the Department of Justice to the Chief Directorate Veterinary Services of the Department of Agriculture. This has been done to facilitate the rendering of a humane and effective animal welfare service; provide for the recognition by registration of *bona fide* welfare organisations; and the setting of minimum standards for services and for the training of inspectors. In terms of policy, the focus will be upon promoting humane behaviour to avoid unnecessary pain and distress to animals, rather than on individual acts of cruelty.

Legislation and codes of conduct to be developed in this area will draw on international experience in the field of animal welfare and animal rights, while taking cognisance of the specific challenges raised in South Africa with regard to cultural diversity and poverty. The agricultural aspects of new legislation will deal with ceremonial or religious slaughter, experimentation with animals, the transport of animals, their treatment at abattoirs and their export for breeding and slaughtering purposes. Regulations on the latter will be aimed at achieving a balance between the enforcement of transport conditions which minimise stress and discomfort, and the legitimate interests of producers attempting to gain access to the lucrative market of the shipment of live animals.

A proposal is also being considered for the establishment of an Animal Welfare Committee to advise the NDA on animal welfare matters.

Animal disease control

The Constitution provides a framework for the Government's livestock and animal health services. Animal health control and diseases are listed as a concurrent national and provincial competency. A number of veterinary-related spheres of the Government have also been listed as provincial and local competencies. They include veterinary services (excluding regulation of the profession); facilities for the accommodation, care and burial of animals; the licensing and control of undertakings that sell food to the public; municipal abattoirs and pounds.

The Animal Diseases Act of 1984 (Act No. 35 of 1984) emphasises the threat that infectious animal diseases and parasites pose to the agricultural sector in South Africa, and the Southern African region as a whole. The Act now needs revision, however, to bring it in line with the Constitution and to clarify provincial and national responsibilities.

It is proposed that under the Animal Health Bill, the NDA be made responsible for the coordination of all aspects of animal disease control and eradication throughout the country. This would involve setting standards for the control of notifiable diseases in animals (including game), which are applicable to all the provinces.

The legislation will authorise the Government to:

- coordinate and maintain a competent epidemiological database and information system of notifiable disease surveillance, based upon disease-incidence reporting and supported by field and laboratory testing
- develop programmes in consultation with provincial Governments and private agricultural stakeholders to contain and eradicate diseases which may pose a threat to the national economy
- set standards for routine control measures for those notifiable diseases and parasites which are the agreed responsibility of the provincial Governments, and institute effective monitoring procedures to ensure compliance with those measures
- adopt quality control measures for the regular accreditation of all laboratories offering veterinary testing services.

Veterinary medicines

The supply of safe, productivity-enhancing and internationally acceptable veterinary medicines is essential for the development of the livestock industry. Currently, there are several restrictions on effective supply, which the Government is seeking to remove. There are many animal treatments or medicines, including certain food supplements, which can be sold by any registered supplier under the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act of 1947 (Act No. 36 of 1947). However, there is also a category of veterinary medicines which cannot be dispensed without professional diagnosis and which is controlled by a separate Medicines Control Act administered by the Department of Health.

The limitations of this system are that conflicts can arise over the appropriate regulatory mechanism to be used; that inadequate attention may be given to the specific issues relating to agriculture in considering the registration of new veterinary medicines and the regulations concerning their use; and that insufficient attention is given to the need to establish a properly regulated distribution network which serves livestock owners in poorer areas.

New legislation, and measures being taken by the NDA, are intended to address these limitations. A South African Medicines and Medical Devices Authority, which will establish a Veterinary Medicines Standing Committee, is being proposed to Parliament. The Committee will be responsible for making recommendations on registration and regulations which will require the approval of both the Minister of Health and the Minister of Agriculture. The latter will also make an appointment to the Board of the Authority. As part of the Act to establish the Authority, stock remedies will be removed from the 1947 Act, thereby consolidating responsibility for veterinary medicines and providing a scientific expertise and an effective inspectorate through the Authority.

The Standing Committee recommendations will be expected to facilitate the accessibility of veterinary medicines (though regulations on the licensing of dealers and re-packing of smaller quantities, for example), but the task of developing veterinary medicine services will remain the responsibility of the National Department, Provincial Departments and the industry itself. Particular attention will be paid by the Government to the training of veterinary assistants so that more diagnostic services are made available and more treatments can be undertaken in rural areas, with refrigeration and other facilities made more widely available by commercial suppliers.

National food safety

The Government is responsible for all food and food-related safety, SPS quality control measures. National food safety legislation will be tabled in terms of the 'public health' item in Schedule 4 of the Constitution to assist the Government in exercising this responsibility.

The hygienic production of food of animal origin is a Veterinary Public Health (VPH) concern. Meat hygiene legislation is currently controlled under the Abattoir Hygiene Act (Act No. 121 of 1992), and the new Meat Safety Bill will cover all animal slaughter facilities of a commercial nature. However, VPH also covers milk hygiene (which falls under the Department of Health and local authority jurisdiction) as well as eggs and fish (which lack a proper VPH policy framework at present). As a consequence, VPH matters will be brought under the National Food Safety Act.

National food safety legislation will:

- consolidate current legislation on food control and administration pertaining to the production of food from plant and animal origin
- expand the role of veterinary services and plant and quality control to complement public health measures in consultation with the Department of Health and provincial counterparts
- empower the Department of Agriculture, in consultation with the Department of Health, the provinces, the private sector and NGOs, to set minimum SPS standards for food safety and trade-related requirements
- provide for a Food and Agricultural Commodities Inspection Agency (see above) which will monitor uniform compliance with sanitary control measures
- recognise the responsibility of the provinces to legislate and provide for the required VPH services, in accordance with the nationally established minimum norms and standards
- incorporate the Meat Safety Act previously enacted
- ensure that standards for abattoirs are not unduly stringent as long as they do not compromise public health

Plants and plant quality

The aim of policy regarding plants and plant quality is not only to ensure that the agricultural industry is provided with a consistent and transparent service that allows for the application of known standards, but also to instil confidence in South African plant products in international markets. The Government would like to change the perception that this is a policing function into an awareness that it is a facilitating service for the industry. Legislation on plants, seeds, plant

protection and plant quality control is necessary for both farmers and consumers, and is becoming increasingly important in the field of international trade where SPS and TBT measures, if inadequately managed, can seriously jeopardise export prospects.

The main legislation currently in place covers:

- plant improvement, giving legal recognition to propagating material which meets purity and germination requirements
- plant breeders' rights, providing protection for those engaged in developing improved plant varieties and allowing them to derive financial benefits from their efforts
- plant protection, giving powers to prevent the importation and spread of plant pests and diseases
- product standards, covering the sale and export of all agricultural plant products

In the area of product standards, the Government has already delegated certain functions to industry-based organisations so that they will carry out some of the tasks of regulation.

In future, the assignment of such functions will be determined by the Food and Agricultural Commodities Inspection Agency (FACIA). The underlining principles will be the integrity of assignees in both the domestic and international arenas; the need for an efficient and economic delivery system; and transparency and other criteria that may emanate from South Africa's membership of conventions. To improve efficiency and sustainability of these services the Government will charge fees to those who benefit from them.

The establishment of FACIA will inevitably require a review of existing legislation. Most of the legislation pertaining to food safety, standards and technical inspection for SPS and TBT, will be consolidated and amended according to objectives and principles that govern the inspection agency. This legislation includes the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990).

2.4 MANAGING RISK

Introduction

Considerable uncertainty and risk is attached to farming. Agriculture in South Africa is inherently more risky than in many other countries because of low average rainfall, and the wide variability in rainfall both between and within seasons in most parts of the country. In addition to the risks associated with drought, farmers are also confronted by a range of other hazards, including hail, fire, pests and diseases.

In the past farmers have relied upon Government relief programmes as a means of coping with these risks, especially drought. These programmes have, amongst others, reduced farmers'

willingness to take other measures to avoid risks, as all such measures entailed costs. Farmers have often also been encouraged to use technologies which are unsuited to areas prone to drought, and harmful to the environment in bad years, in the expectation that they would receive assistance in the event of their crops failing.

The role of the Government

The Government will no longer provide drought relief as in the past. Instead, it will promote other options for reducing risk. All risk-reducing measures entail costs, which can be borne either by farmers or by the Government. Whereas in the past there has been a strong reliance on the state, the role of the Government will now be to reinforce farmers' ability to deal with risk in a sustainable manner. This will reduce dependency and environmentally damaging cropping and other land-use practices.

Thus the overall change in the orientation of policy will put the responsibility of coping with drought back into the normal production system. This will cause farmers to exercise greater prudence and make themselves less vulnerable to the effects of drought.

The role of the Government is to assist farmers' own efforts to cope with various risks and, where possible, to take steps to reduce the likelihood of risk. This involves four separate tasks:

- promoting, through research and extension, technologies and practices which serve to reduce risk to farm incomes
- providing timely information on climate and market trends which could assist farmers in avoiding risk
- taking preventative action regarding major epidemics and hazards which fall outside the scope of individual farmers
- providing information and, where appropriate, facilitation to ensure that farmers are able to take advantage of taxation measures and insurance services which are available to cope with severe income shortfalls

Research and extension

Farmers can choose between crops, livestock and technologies which differ regarding their susceptibility to drought, disease and infestation, and regarding the costs of preventative measures such as dipping and spraying. Research will be aimed at supporting the development of more robust technologies as well as preventative measures to reduce risk.

Farmers do not always choose less risky technologies, as has been proved by the widespread replacement of robust food crops such as sorghum and millet by maize. The Government will therefore support research to improve the yield and robustness of all staple-food crops, rather than simply of those requiring relatively high external inputs.

The reorientation of research in South Africa is aimed at, amongst others, understanding the constraints and risks faced by the most vulnerable farmers, and at strengthening their ability to deal with risk in a variety of ways. This will include research and extension regarding a broad

range of techniques, including low-input systems to reduce vulnerability, water harvesting, fodder enhancement, and farming systems more generally.

Diversification of production systems as well as sources of income for the farm household will reduce risk levels. Risk-minimising measures will include minor steps such as staggering the planting dates of the same crop to reduce the liability of complete crop failure due to the pattern of intra-seasonal rainfall, and major initiatives such as developing a range of crops, livestock and off-farm activities. Research and extension will support a wide variety of possibilities, depending on farm circumstances.

Information

The Government has the responsibility and the opportunity of greatly improving farmers' access to information, for example information on market trends and advances in research, as well as improved climate forecasts, and also of ensuring that the information is accurate and useful.

The NDA and provincial departments will also play a major role in the development of data collection, monitoring and assessment measures as part of a national early-warning system for disaster management under the Department of Constitutional Development.

Pests and diseases

Government measures to control epidemic diseases which threaten farm livelihoods were discussed in the previous section. As far as migratory pests are concerned, the Government is principally concerned with flying locusts and swarms of redbilled quelea.

The Government cooperates with local communities in locust-breeding areas to control this pest. Some 40 million labour days were financed in 1997 to assist in a campaign which prevented the depletion of some 9 million tons of pasture. The Government will continue controlling quelea swarms with explosives and chemical treatments but, as in the case of locust control, attention will increasingly be paid to establishing new SADC-wide instruments now that the functions of the SARCCUS subcommittee on migratory pests have been transferred to this larger organisation.

Taxation

Agricultural taxation compensates farmers to some extent for the measures they take to reduce the impact of disasters on farm income. Currently, special tax measures are available to farmers in the following cases:

Firstly, the Income Tax Act of 1962 stipulates that where a farmer has sold livestock on account of drought, stock disease or damage to grazing by fire or plague, and purchases replacement stock within four years, such purchases may be counted as a deduction in the year of purchase. The effect is to smooth taxable income.

Secondly, the Tax Act stipulates that if a farmer disposes of livestock due to drought, and deposits the proceeds with the Land Bank, the deposit will not be deemed as part of the gross revenue for the year. Thirdly, the Act allows deductions for certain drought-related expenditures. Fourthly, the Act makes provision for certain expenditures which relate to income (not capital), such as the allowance for interest on loans or bank drafts to be deductible from income.

These four provisions go some way towards assisting farmers in reducing their vulnerability to droughts. However, it is notable that livestock farmers rather than cultivators receive much greater benefits, even though dryland crop farmers are more vulnerable to drought.

One option would therefore be to extend the provisions to all tax-paying farmers, so that they may save in good years as a deduction before the estimation and taxation of total revenue, and will be taxed in the year in which such savings are drawn down (when income will be lower, so that average long-term taxation is reduced a little on average, but the main effect is delayed taxation).

The Working Group on Drought and Disaster Management, established by the Minister in 1997, claims that such a measure is likely to have two additional effects that would probably raise overall taxation. Firstly, it is likely that more farmers will register for taxation thereby broadening the potential revenue base. Secondly, there will be a strong incentive for farmers to save (and eventually pay some tax) rather than reduce tax liability through the purchase of unnecessary or expensive equipment and vehicles. The Group also says that there would be no need for the Government to establish and manage a stabilisation fund, although most funds are set up in this way (such as the Canadian Net Income Stabilisation Account).

Insurance

For insurers, covering drought damages also requires exceptionally high standards of assessment and inspection, resulting in high operating and administration costs. As for farmers, in the past particularly there was a feeling that drought insurance was overpriced given the fact that the state would generally be expected to respond to their demands in times of extreme stress.

However, the removal of *ad hoc* Government assistance alone will not cause a large number of farmers to take out policies from private-sector insurance companies based purely on commercial principles. In these circumstances the Working Group feels that it should be considered providing a targeted subsidy on insurance premiums to smaller farmers, especially those unable to benefit from any tax measures due to relatively low incomes.

South Africa's earlier attempt to broaden access to drought-inclusive crop insurance was not particularly successful, however. Private insurers launched a scheme in 1979 whereby the Government subsidised 25 % of the crop insurance premia for special comprehensive policies offered. In the first year of its operation, around 12 000 policies were issued, with uptake being particularly poor in high-rainfall areas. The number of subscribers dropped every year after that. In the last year of the Government's involvement, 1986, less than 2 000 policies were written. The scheme carried on for several more years without the Government's involvement, and then ceased altogether.

The major problem with the scheme was the low participation rate, which apparently resulted from an inadequately developed pricing structure, an insufficient subsidy and, as mentioned above, the disincentive posed by the existence of other avenues for getting drought assistance from the NDA.

If the Government is to consider attempting anew some form of subsidised, drought-inclusive insurance scheme, it must be mindful of South Africa's own past experience, as well as that of other countries where similar schemes have been attempted with generally disappointing results. Of greatest importance is that the participation rate must be significant, so that the risk-pooling function of the scheme can be fully realised.

SECTION 3

Supporting agricultural production

[3.1 Strengthening agricultural research](#)

[3.2 Reforming agricultural extension](#)

[3.3 Deepening agricultural development finance](#)

[3.4 Encouraging co-operatives and farmer organisations](#)

[3.5 Supporting livestock farmers](#)

[3.6 Restructuring the agricultural parastatals](#)

3.1 STRENGTHENING AGRICULTURAL RESEARCH

Introduction

An effective research system is an essential component of any country's agricultural sector. In South Africa, the generally strong performance of the commercial agricultural sector in recent decades owed much to the high levels of public and private investment in research, with estimates of exceptional rates of return of between 30 and 50 % in some field crops and horticulture. This record of success is, however, the result of research aimed almost exclusively at the requirements of large-scale white farmers. Very little effective research has been directed towards small scale, resource-poor producers in the black communities. Furthermore, the research system has operated in an environment in which subsidies encouraged the development of capital-intensive, high-input farming.

The Government will ensure that public spending in research is geared towards investigating methods to attain broad policy objectives. In general, agricultural research must lead to the development and sustained utilisation of agricultural science capacity to increase the biological

potential of plants and animals, and to improve the economic management and use of natural and human resources on which the realisation of this biological potential depends. While agricultural research systems in South Africa have, to some extent, been successful in achieving this, the challenge is to make the production technologies that are the output of such research, applicable to the needs and resources of small scale, disadvantaged farmers.

Research and broad agricultural policy

Within the context of overall agricultural policy in this document, a number of challenges have been raised. An effective research system is critical in that it must find ways for the Government to cope with these challenges. It is Government policy to strengthen the linkages between research and agricultural policy. The following illustrates how research is expected to link up with the main elements of agricultural policy:

Trade and marketing—Agricultural research must focus on biological potential, but also on value-adding processing technologies. Given the Government's export-oriented growth strategy, agricultural research can play a major role in opening up new opportunities through research on non-traditional crops. It can lead to improved technology which will enable us to exploit comparative and competitive advantages. Thus, in research, attention must be paid to trade-related product development which ranges from product improvement, improving durability either for travel or for shelving, to product presentation and packaging. Such research is critical to increasing the volume and value of trade in agricultural commodities.

Food security and drought—It is urgent that research must be carried out into systems which will increase food production by food-insecure households in risk-prone agro-climatical environments.

Extension—Research must result in increasing the efficiency of input use and sustaining the resource base. To this end the research system must be strongly linked to technology dissemination, which will have to move away from simple message systems to participatory approaches.

Policy objectives

Against this background, the reform of agricultural research policy will be aimed at:

- reorientating applied research to a considerable extent towards the requirements of small scale, resource-poor farmers, with a stronger emphasis upon extension (see next section) and farming systems research
- continuing to provide public funding for research into areas such as food safety, public health, environmental protection and the more basic science of plant and animal improvement and protection
- providing stronger incentives for the private industry to invest in agricultural research, recognising that farmers themselves and input suppliers are already major contributors to applied or productivity-related research

- establishing stronger mechanisms for the sharing of information among all components of the research system, public and private

The research system

The Government funds some 70 to 80 % of all agricultural research in the country. Until 1990, most research was done within the Department of Agriculture's 11 institutes to the benefit of white farmers. These well-funded and well-maintained research facilities were then handed over to the Agricultural Research Council (ARC). The ARC receives about 60 % of the public funds allocated for agricultural research and development. The balance of public funding goes to universities, the Department of Agriculture, the Foundation for Research Development, the CSIR, the Protein Research Trust, and the Water Research Commission.

The ARC was established in terms of the Agricultural Research Act, 1990 (Act No. 86 of 1990) and reports to Parliament through the Minister of Agriculture. The ARC has focused almost entirely on managing its own capacity, organised into some 16 research institutes, most of which do research on commodities. Some 70 % of the ARC's funds comes from a Parliamentary grant, a further 20 % comes from National or Provincial Departmental grants, and the remaining 10 % is provided by the private sector through research contracts.

Agricultural research is also carried out at seven universities (Natal, the Free State, Pretoria, Fort Hare, the University of the North, University of Zululand, and Stellenbosch). Although these universities employ 11 % of professional staff qualified to do agricultural research, they have accounted for less than 4 % of the funds spent on research. Given the strong support available to researchers at universities, for example their access to social science departments and their ability to link research to training, a strong case can be made out for increasing the relative share of funding going to universities.

Much of the research in the private sector is near-market or development work determined with the help of farmers and their associations. In the past, the research was almost entirely focused on the commercial sector although some results have been useful to small-farmers. The sugar industry, for example, finances all its own research and is developing a strong profile among smallholder producers. Private-sector research employs some 850 scientists or technologists.

Research focus and institutional arrangements

Numerous reviews of South Africa's agricultural research systems have identified the need to set research priorities to ensure that public expenditure in research helps the Government to meet its objectives. While priorities set for research in agriculture in the past were supportive of apartheid policy objectives, it has not been easy to reorientate these priorities to fit in with the new dispensation. Such reorientation requires major institutional transformation.

The allocation of resources for all research institutions and hence the ARC is the responsibility of the Department of Arts, Culture, Science and Technology (DACST). In carrying out this function, DACST seeks to ensure that each organisation within the National Systems of Innovation meets the broad national objectives. In this regard, its policy is that future funding of

the ARC will depend on whether its activities and competencies support the RDP principles as well as sectoral policies which are set out in this document. It is therefore of critical importance to the state Departments of Agriculture that the ARC should be a responsive institution for delivering new technology and empowering farmers and scientists from all sectors of society, in order to retain its access to public funding.

Focusing agricultural research on the needs of small scale, resource-poor farmers has fundamental implications for the future structure of the ARC and its relations with extension and farmers/clients. It also has profound implications for all professional staff in the research system, many of whom have little knowledge of small scale farmers' needs and other research methodologies such as participatory research.

The Government would like to see a strong ARC, which is constantly seeking ways of increasing productivity in agriculture. It is therefore interested in transformation of the organisation in a manner that will ensure excellent services and sustainability. To this end, a new Board that was appointed in 1997 has already begun developing a vision for the institution. Particular attention is given to the needs of resource-poor farmers, improving the linkages to sources of knowledge outside the ARC, and the dissemination of research results.

Research priorities

In allocating public funding, the Government will increasingly give priority to the needs of small scale, resource-poor farmers and will consequently focus on the following areas:

- Land care, and soil and water management. The soil and water resources in the former homelands have not been properly described or mapped. This places an important constraint on development planning. The rates of soil erosion in the former homelands are up to five times that of commercial agriculture. Because of common property regimes, these areas require particular attention, especially regarding research on soil erosion and water conservation
- Livestock management systems. Although the former homelands occupy only 13 % of the agricultural land in this country, they carry some 30 % of the livestock. Special programmes to understand these farming systems are needed in order to improve fertility and off-take, and avoid stock losses during winter. Rangeland management is also an important research component
- Integrated farming systems, especially mixed cropping in small-farm systems. A better understanding is needed of the interaction between plants and animals in small scale agriculture, the economic returns from mixed systems and the trade-offs between risk and incomes. This might include research on animal traction, non-chemical fertilisation and other systems which fall under the general description of low external input agriculture
- Adaptive research regarding small scale staple crops, animal production, industrial crops (e.g. cotton, fibres) and fruit and vegetable production. Key constraints facing small scale producers must be identified, and adaptive research done to overcome these problems. This may be in the areas of plant breeding, pest and disease control, fertility and associated issues
- Irrigation farming. Many of the irrigation systems in the former homelands are unproductive compared to commercial schemes. Research to understand the constraints facing irrigation farmers, including tenure issues and institutional arrangements, could significantly improve the productivity of these systems

- Land reform programmes. Land reform is a key Government intervention. The impact of land reform on the household income of participants, as well as on the environment, requires research. In many land reform projects the issues mentioned will have to be dealt with, and this requires liaison between those concerned and researchers
- Environmental issues, including environmental pollution, pesticide residues, invasive plants and water utilisation issues, are also given high priority in Government policy as they are of national concern and require more attention

Research funding

Internationally, there has been a fundamental change in the way agricultural research is funded. Most countries have experienced substantial cuts in their research budgets and South Africa has had the same experience from the beginning of the 1997/98 fiscal year. This has a number of implications for funding of research in all the relevant institutions.

Given the declining level of research funding, there is an increasing need to better target existing research expenditure and create incentives for the private sector to fund research. Better targeting in its turn, requires clear policy priorities. Efficiency can be improved by streamlining research, reforming management and incentive systems and involving a broader range of institutions in the research process. Box 5 shows new international trends in research funding and shows diversity not only in funding, but also in the institutions carrying out research. While the flow of funds for research from the private sector to public research organisations (national agricultural research institutes and universities) is not a new phenomenon in South Africa, the level of that funding has been very small in relation to total investment in agricultural research. The transformation of the research system will have to include the possibility of allocating some funds to non-traditional organisations such as NGOs, which may be better placed to carry out small scale agricultural-related research.

BOX 5. NEW PERSPECTIVES ON NATIONAL AGRICULTURAL RESEARCH SYSTEMS				
Research funding	Public sector	Private sector	β	Priorities and funds
	Ministry of Agriculture, others â æ	Agribusiness, foundations, farmers å â		
	Public goods	Private goods	β	

Research execution	Research institutes, universities $\hat{\alpha}$	Agribusiness, NGOs $\hat{\alpha}$	β	
	Extension—diverse Public-private mix $\hat{\alpha}$			
	Farmers		$\hat{\alpha}$	

In addition, the Government will require research institutions to be accountable not only to those who directly fund them, but also to the clients who are beneficiaries of the 'public good' element of the research. To this end, research institutions will be reviewed periodically by DACST and the NDA. Such reviews will include evaluation by peers and clients. This will ensure that the ARC, for instance, will become increasingly accountable to its clients.

Accountability will also be strengthened as more and more research is funded by the private sector. Global trends show that private-sector investment in agricultural research and development is increasing, particularly research focused on the development, production and distribution of products and services that lend themselves to commercialisation. Industry groups also allocate funds to the production of biotechnology products, animal genetic stock, food and food-processing machinery and equipment. There is much scope in South Africa for extending the role of the private sector in research. The establishment of trusts in agriculture will also increase private-sector funding of research. This will go a long way towards ensuring accountability.

3.2 REFORMING AGRICULTURAL EXTENSION

Introduction

Agricultural extension bridges the gap between available technology and farmers' practices through the provision of technical advice, information and training. Without these, farmers' ability to adopt new technologies and plant varieties, which would benefit their production and incomes, would be limited. Such extension takes many forms. South African farmers receive much of their advice and information from other farmers and/or private input suppliers, and

many also benefit from radio and television programmes, agricultural trade magazines, shows, demonstrations and, of course, opportunities for training.

For many small scale and resource-poor farmers, public extension represents the main source of information on improved technology. It also provides access to other opportunities for agricultural progress through links to training, research, sources of input supplies and, possibly, markets.

Field-level Government extension staff are also a source of:

- information for the Government itself, particularly its research establishments, on the productive performance and potential of farmers and the ways that research in particular should respond to farmer requirements
- assistance to smaller-scale farmers to organise themselves into groups, where appropriate, to gain access to finance and other production requirements, and to market their produce through group action
- assistance to rural communities seeking to better manage local agricultural natural resources through new forms of organisation, such as livestock associations, water-user associations and land-care groups (see later sections)

Policy objectives

Agricultural improvement in South Africa, especially among small scale and resource-poor farmers, therefore requires a major effort to improve the quality of extension services available to farmers. This effort will consist of four main components.

Firstly, the nature of demand for extension services will be reviewed and current training of extensionists to meet such demands will be reassessed. A programme for retraining extensionists will also be initiated. Particular attention will be paid to the need for more specialised extension staff in areas such as irrigation agronomy, small-stock production and agricultural business development.

Secondly, initiatives will be taken to improve the linkage between research institutions and field level extensionists, with researchers becoming more involved in updating extensionists and extensionists contributing to the design of research programmes. Particular attention will be paid to establishing programmes of applied research into small scale farming systems where extensionists will be expected to enhance researchers' understanding of such systems.

Thirdly, priority will be given to investigating more effective ways of delivering extension under varying circumstances. Emphasis will be placed on farmer participation, linking extension to farming systems research and coordinating training with farm visit schedules. Pilot projects will be undertaken involving contracting arrangements with non-Government agencies and the seconding of public extension staff to private organisations (including cooperatives) involved in service delivery.

Fourthly, steps will be taken to ensure that all Government-supported measures to improve farmers' access to knowledge through direct contact extension, publications, the mass media, agricultural shows, and field days, are cost effective and properly coordinated. Particular attention will be paid to the potential of the mass media given the growing availability of television, radio and video in the rural areas.

The legacy of extension

Today's public extension services resulted from the merging of two services: one that rendered services to white farmers and one that served farmers in the homelands. The former comprised relatively small numbers of generally well-qualified staff, often university graduates. The latter comprised large numbers of less qualified staff.

The number of publicly paid extension staff in South Africa (including in heavily overstaffed Development Corporations) is approximately 10 000. This figure includes extension officers previously employed by homeland Governments, who are now working for the provincial Departments of Agriculture. Direct Government expenditure on extension has been estimated at R515 million per annum. This is high by most countries' standards. It is roughly equivalent to 2,4 % of the agricultural GDP compared to 1,04 % for the average African country, 1,2 % for Latin America, and less than 0,5 % for Europe and North America. Advisory services are also provided to commercial farmers by the private sector, including cooperatives, input suppliers, commodity organisations and farmer unions. It is estimated that the services provided by the private sector are at least as large as those provided by the public sector.

The 'white' public extension service was highly effective until the mid-seventies when commercial farmers found that the more specialised advice they needed could be better provided by the private sector. Also, in the eighties, the public extension service appears to have increasingly focused on administrative tasks such as assisting farmers with subsidies for fencing, soil conservation, irrigation, drought relief, as well as credit through the ACB.

The earlier success of this service was related to the relative homogeneity of the approximately 60 000 clients, which meant that the extension agents knew who they were trying to serve and what they were trying to achieve. This service was well focused and well resourced and the officers were well trained. By contrast, extension workers in the homelands were generally not well trained. As a result, today most of these workers are well aware of the small impact they have on agriculture.

Training apart, there are many reasons why the extension services to small scale farmers have not been as effective as would have been expected given the amount of money invested. Rendering services to small scale farmers is certainly more difficult given the heterogeneity of the clients, the lack of communication between senior and junior staff and the urban background of many extension agents. Of crucial importance has, however, been the lack of accountability to farmers. In addition, there has been no clear vision of what the publicly financed extension service was trying to do and for whom. The public extension service that used to serve the

homelands was generally neither focused nor targeted. The aim of policy, therefore, is to create an effective extension system that delivers a useful service to farmers.

Given this legacy and the fact that the Government is already spending a significant amount of money on public extension services, the aim of policy is to create an extension system that uses existing resources effectively to deliver a useful and efficient service to farmers.

The requirements for effective extension management

Targeting—In order to make extension effective, staff at provincial level will in future cooperate with farmer representatives such as farmer unions, farmer associations, commodity organisations, university groups and NGOs, to determine the target of the extension. This will entail determining what support the different groups of farmers need. Departments will then decide on the kind of extension services for the various groups.

Emergent and small scale farmers will be the main targets of direct extension. Subsistence farmers and food-deficit households also need to receive advice, and special programmes, using the mass media to a greater extent, will be drawn up to reach these groups.

Accountability—In most public extension systems worldwide, extension agents tend to be more responsive to their supervisors than to farmers. At present, incentives encourage this situation since good performance is rewarded by promotion or preferment by managers whose offices are often located far from farmers. The system is not responsive to the needs and opinions of farmers themselves. True accountability exists when an extension agent is hired and paid according to the farmer's evaluation of his or her services. Such evaluation is easily ensured where the farmer pays directly for the service.

Most disadvantaged farmers in South Africa cannot afford to pay directly for extension from their own resources. The question is how such accountability can be achieved within a public extension service. The conclusion of many countries is that only limited improvements can be brought about in the context of the publicly provided service and that other solutions have to be found.

Another way to increase accountability is to establish partnerships with the private sector. With partnerships, additional funding is obtained by the private-sector partner sharing in the cost of services to clients. For example, the Government could pay the extension agent and a cooperative could provide transport and management. The use of pilot projects in decentralisation is discussed below.

Proportion of budget allocated to salaries—Some provinces spend up to 95 % of their budgets on salaries. This clearly makes for an ineffective service as there is little left to pay for transport, training, communications, etc. Budgets should be reviewed to find means to better allocate resources between staff salaries and recurrent costs so that no more than 70 % of the total budget is used for salaries.

Incentives—Within the context of a service that is more cost conscious and more performance orientated, it is imperative to design a system of incentives to reward performance. It is important that the clients, in the first place, monitor performance in view of specific targets.

Gender—Significant proportions of small scale farmers, possibly the majority, are women. The vast majority of public extension agents are men. Experience in other countries suggests that, in general, women farmers are less often visited by extension staff than men farmers. The gender issue will receive special attention in the design and implementation of research and extension programmes.

The extension support programme

The programme has been designed as a collaborative partnership between the nine Provincial Departments of Agriculture and the NDA. The programme has three components, namely: (a) improving research-extension links;

(b) training and retraining of extension staff; and

(c) a new approach to the delivery of extension

(a) Research-extension linkages

While there are examples of the successful transfer of technology to small-farmers, linkages between research and extension (and training) have generally been weak. It is essential that researchers should devote much more time to getting to understand small-farmers' problems, working with them to find solutions, and collaborating with extension officers to determine methods of disseminating the results of their research. To this end, a much more pronounced approach to Farming Systems Research and Extension (FSR-E) will be considered. This will enable researchers to involve farmers in the adaptation of technologies under field conditions so as to maximise benefits to farmers.

FSR-E is particularly important in South Africa as there is often a misconception that small farms are essentially large farms albeit on a reduced scale. In any farm business production decisions are based on resource availability. Due to differences in access to resources, choices regarding technology differ significantly between large and small_scale farmers. Thus the most economic use of land and labour for a large-scale farmer might be extensive grazing. However, for a small scale farmer under similar conditions but with greater availability of labour and different consumption requirements, it may be economic to construct and maintain water conservation works to allow some cropping, such as animal fodder cropping for stall feeding, as is done successfully in the drier regions of India. Many similar labour-intensive technologies are well suited to small scale farmers, but totally unsuitable for large-scale producers.

The approach to be adopted will consist of several components:

- Within selected pilot areas there will be a diagnostic stage, carried out in collaboration with the farmer, to assess the social, economic, technical and environmental constraints and

opportunities faced by the farmer; a design stage in which possible interventions are identified; and a testing stage on farmers' fields.

- At national level there will be workshops, involving research institutions, provincial departments and others with professional interests, on the current strengths and limitations of extension messages for small scale and resource-poor farmers. From these discussions, research priorities will be determined.
- At provincial level, attention will be paid anew to strengthening adaptive research capacity.

(b) Training and retraining of extension staff

Agricultural training is provided by a variety of institutions in South Africa. Currently over 5 000 students are studying at tertiary agricultural institutions: 67 % at universities, 9 % at technikons, and 24 % at agricultural colleges. The student profile has changed substantially over the past three years and will continue changing to be more representative of the rural sector in South Africa; at present some 60 % of the students are white and about 50 % women. A crude supply-and-demand analysis suggests that the supply of students is adequate to meet the demand. The key issues are now to upgrade the skills of the 2 400 extension staff employed by the Government and to improve the quality and relevance of training provided by some institutes so that farmer know-how will be improved.

Upgrading of existing Government extension staff—Not all existing staff will be retrained. Training should be given to staff who are motivated and who have the energy to inspire farmers, listen to their problems, and seek solutions. In some instances, it may be decided that a reduction in staff numbers is appropriate so that more funds will become available for the operation of the extension service (e.g. to pay for vehicle maintenance costs, telephones and other services) and to pay for training of the remaining motivated staff. Clearly it would be better to have a small but effective service rather than a large service that can achieve little because of budgetary constraints. In short, the retraining of staff will be aimed at achieving maximum impact.

Many staff that are currently employed have been trained for conditions and clients very different from those they now have to deal with. There are two categories of staff:

- the more technically trained staff from the former white Departments, whose social and business skills to deal with the new target groups of farmers are limited; and
- extensionists from the homeland departments who have a general knowledge and can communicate with the farmers but have limited technical skills.

Training must fall into two categories:

- The first category is basic (or generic) training. For example, all staff may need training in participatory approaches and in determining farmers' needs. Similarly, all technical staff may benefit from further training in communications skills.
- The second category is technical training. This training will pertain more directly to identified needs (poultry farming, irrigation agronomy, etc.).

Farmer training—Training of farmers at training institutes is extremely costly per beneficiary and unsuitable for family farm operators. Nevertheless, there will be instances where intensive training and visits to research sites and progressive farmers' fields are warranted, e.g. where farmers are embarking on irrigation farming with high investment costs or on the production of high-value crops such as fruit and vegetables for the market. It is recommended that PDAs draw up comprehensive training programmes for extension staff and selected farmers.

Training institutions and quality—Many institutions are involved in agricultural training. There is undoubtedly a need to rationalise the supply of training courses. To this end, pilot schemes undertaken together with consortia of training institutes will be encouraged. This is already happening in the Free State and KwaZulu-Natal, where an attempt is being made to link extension, research and training according to the USA Land Grant model. This could lead to the achievement of several objectives: institutions could reach agreements amongst themselves to each specialise in its respective areas of strength thereby allowing savings and avoiding duplication; and cooperation could be promoted between extension, research and training, which has been lacking in the past.

A major impediment to the involvement of training institutions in the design and presentation of tailored short-term courses is their inability to keep funds for such courses. Methods to change this situation will be investigated. For example, if necessary, the status of some of the institutions could possibly be changed to enable them to retain funds so that there is an incentive to run additional courses.

(c) Delivery of improved extension services

The key to effective extension is accountability. Farmers themselves should help decide about the kind of extension support they need and who should give it. International experience has shown the benefits of giving farmer associations and/or local councils the responsibility of hiring extension staff. Another way to increase accountability is to establish partnerships with the private sector as this sector's focus is always on the client. This more pluralistic approach will require testing different organisational structures. Approaches in other countries have included extension staff being hired by farmer associations or local Governments (Colombia); outsourcing (Venezuela and Chile); and complete privatisation (New Zealand, the UK and Holland).

At present the privatisation model is not suitable for South Africa, but implementing some of the other models may give scope for considerable improvements. A model suited to one province or one type of farmer may not be suitable for other provinces or all categories of farmers. The intention is therefore to put different models on trial in the provinces and to monitor the results carefully, to determine which is best for replication on a larger scale.

No extension can be effective without a proper knowledge of the clients and their needs. It is therefore envisaged that the provinces should carry out a detailed needs assessment in a few selected pilot areas. Subsequently each pilot area should generate a detailed extension plan providing the following information:

- a precise definition of the clients
- client numbers

- clients who will be targeted by each extension agent
- objectives for the different groups of clients
- other relevant issues identified in the assessment

The assessment of needs and of the farmers targeted in each area, will be used to draw up a detailed plan for delivering extension in each area. The next step will be to establish full accountability. In some areas Departments of Agriculture and farmer groups could cooperate in planning and assessing the work of individual extension officers. However, based upon experience in other countries, more direct methods to achieve accountability could be attempted, for example seconding an extension agent to a local authority who will cooperate with farmers and farmer organisations to establish an extension plan and performance criteria. Similar arrangements could be established with cooperatives, NGOs or other organisations who could share in the costs of transport and facilities.

Public-private partnerships and outsourcing are additional ways of increasing accountability. While the Government takes responsibility for establishing the policy framework and paying for the service, the other party could manage and provide the service. Thus local councils or farmer associations could hire extension staff with funds provided by the Government. NGOs, cooperatives, universities and other organisations could also be contracted to provide extension to farmers. In addition to giving farmers much more say in what they want, outsourcing could increase specialisation (for example, it may be better to hire a breeders' association or private specialist agency to provide support than to use a generalist), and effectiveness in the use of scarce Government resources (when, for example, a cooperative provides transport at its own expense). Accordingly, the following pilot projects will be considered:

- Advertising for service providers wishing to deliver carefully specified extension services. This would result in contracts between the province and private consultants, who may be either cooperatives, NGOs, universities or other relevant private-sector institutions. This might include a number of models with different types of service providers in different situations using public-private partnerships.
- Advertising for such service providers, but using a more decentralised model according to which the province would make funds available to, for example, a district or local authority. The district or local authority would then select and recruit the service provider. The contract would thus be between the local authority and the service provider.
- Linking extension with a research or training institution by, for example, contracting out extension to the ARC or a university (the Land Grant model) to ensure close links with and support from the research institution.
- Requesting farmers to pay a small/token contribution towards the cost of extension.

Public-private partnerships can benefit both parties. For example, if a cooperative considers employing extension staff to work with new farmers on a trial basis, it might be willing to do so with the Government paying half the salary of the extension agent and the cooperative paying the other half. Alternatively, the Government might pay the salary and the cooperative could provide transport and management. In addition to cooperatives, other parties such as NGOs and/or input suppliers might be willing to provide extension to target farmers on a partnership basis. For NGOs, cost-sharing is probably the most appropriate form of partnership. In the case of

companies, the partnership is more likely to involve measures to reduce the commercial risk to input suppliers in the rendering of services to new customers.

3.3 DEEPENING AGRICULTURAL DEVELOPMENT FINANCE

Policy objectives

Effective and widespread financial services are essential for agricultural development in any country. At present in South Africa, such financial services are inaccessible to large numbers of small and resource-poor farmers. These farmers are therefore dependent on family loans and other informal means of saving and borrowing, none of which is able to provide the level and reliability of finance required for seasonal requirements or longer-term farm investment loans.

The role of the Government in promoting the availability of financial services is twofold:

- To seek ways of addressing the difficulties faced by small scale and resource-poor farmers in obtaining access to formal financial markets. This includes the difficulties faced by lenders in providing such services in areas of relatively low individual capital demand and high transaction costs.
- To ensure that measures which assist poorer farmers to gain access to credit and other financial services do not inhibit the development of commercial, competitive financial services in the rural areas.

Government intervention in the rural financial sector will mainly be in the form of support for viable and sustainable solutions to the difficulties faced by financial institutions in providing credit and savings where there is a general lack of collateral and where transaction costs are high. Proposals therefore focus particularly on measures to reduce both transaction costs and the high risk of lending.

These proposals were made by the Strauss Commission on Rural Finance Services, who set a number of principles for such measures. The Commission stressed that:

- the ability to repay is the key criterion for the granting of credit
- Government departments have not proved to be effective agents for the delivery of financial services either in South Africa or internationally
- strategies must be highly pluralistic as generalised solutions imposed from the top are subject to high rates of failure
- the approach of different development finance institutions must be coordinated

Existing agricultural and related financial institutions

In the past, the Government established the Agricultural Credit Board (ACB) to cater for the resource and debt needs of the weaker commercial farmers. The ACB provided credit at well below market rates. It was funded by the Agricultural Credit Fund, which was replenished annually from the NDA's budget. In line with the recommendations of the Strauss Commission, the ACB was closed in 1997.

The Strauss Commission also proposed that the Land Bank be the leading implementing institution with respect to agricultural finance. The Land Bank is somewhat akin to institutions recently established by the Department of Trade and Industry (DTI) and the Department of Housing to serve clients in their respective sectors, i.e. with regard to small, micro and medium-scale enterprises (SMMEs) and housing. Each Department has established a wholesale financial institution charged with the design of appropriate programmes and instruments to improve access to finance for SMMEs and low-cost housing, respectively.

The clients of these institutions are retail financial intermediaries (RFIs). They include parastatals, NGOs, local authorities and private-sector institutions. In the case of the Land Bank, its clients are the cooperatives, commodity organisations, marketing boards and private farmers. The most marked differences between the Land Bank, and KHULA and the National Housing Finance Corporation (NHFC) are that the Land Bank is an established institution with a long and, in terms of its past mandate, successful track record of lending to commercial farmers; it is also both a wholesaler and retailer of funds. The last point implies that, in the case of the Land Bank, care must be taken to minimise possible conflict of interest with other retailers such as commercial banks.

While the ACB and the Land Bank have historically served only white commercial farmers, black emerging farmers have been served by Provincial Development Finance Corporations (PDFCs) such as the KwaZulu Finance Corporation, Agriwane, the Agricultural Development Banks of Ciskei and Transkei, and the Agribank of the North West Province. Evaluations of the PDFCs show that their outreach has been poor and their costs extremely high.

The availability of credit

The Land Bank is the leading agency in making access to credit more widely available. It is undergoing a major internal transformation to consolidate its existing client base and establish special measures to serve the resource-poor—directly or through intermediaries—with credit and savings facilities. To this end, it is adapting many of its products to the needs and resources of its new clientele. In particular, new farmers with limited proven ability as farmers or with limited collateral, will be able to obtain access to small loans on a step-up basis. Thus farmers will receive increasingly larger loans on the basis of repayment record.

Incentives for the timely repayment of loans will consist of interest rebates and more favourable credit ratings allowing future loans at lower interest rates. Various techniques will be used to reduce transaction costs and thereby keep the rate of interest as low as possible, but all

transactions will be conducted on a financially sustainable basis. A range of further initiatives is being planned to make various forms of financial products available for small-farm projects, and to enable farm workers to gain a greater stake in the farms where they are employed.

Cost of credit

The interest rate charged on loans to farmers must reflect market rates and must not be lowered by direct subsidies. There are several arguments against the direct subsidisation of loans, based upon international as well as South African experience:

- Intended beneficiaries are rarely the recipients of the subsidies; the subsidies tend to benefit the richer members of the community.
- Organisations that receive loan subsidies tend to treat their clients as beneficiaries. This attitude, and the tendency of clients to perceive subsidised programmes as Government welfare programmes, means that there is little imperative to repay.
- It is economically rational that subsidised loans are the last to be repaid.
- Subsidies distort investment decisions leading to inefficient use of inputs or land.

Given that institutions need to be financially sustainable, the interest rate must cover the inherently high cost of each envisaged transaction. Other measures for lowering transaction costs will be considered to ensure that the costs of credit are not prohibitive.

Collateral

One of the major barriers to lending to poor farmers has been their inability to provide suitable collateral. In fact, much international experience indicates that mortgages on land are not a particularly useful or cost-effective way of insuring against default. The use of land as collateral remains problematic due both to the complications of land-tenure systems and the expense of realising this form of collateral in the case of default. Moreover, banks may not feel able to sell land in a default situation.

In Latin America and other parts of the world, moveable assets are increasingly being used as an effective means of collateral. Moveable assets of this nature are now being used by the Land Bank to secure loans (e.g. the cession of crop proceeds and off-farm fixed assets). Additional options will be explored over time to further expand the use of moveable assets as collateral.

Lending risk insurance

Insurance/guarantee schemes are financial mechanisms to facilitate and encourage formal-sector lending to target groups by insuring repayment of some portion of the losses on guaranteed loans. The Land Bank is currently in the process of developing a Risk Insurance Fund in which high-risk borrowers contribute to offset bad debt.

This may not, however, be sufficient to cover risks adequately, and the Land Bank may therefore also examine the scope for the introduction of a guarantee scheme, modelled on KHULA, which both reduces risks to potential lenders and contributes to the lowering of transaction costs. Such a scheme could be funded by using some of the ACB funds that have been allocated to the Land Bank, and by using the Risk Insurance Fund.

Institutional support to retailers

It will not be possible to establish a widely accessible and sustainable financial system without entrepreneurs that have adequate skills and a network of retailers who can channel credit funds and facilitate rural savings. Both KHULA and the NHFC have found that the dearth of financial intermediaries is the main obstacle to outreach. As in the case of these institutions, it would be justifiable to introduce time-bound measures to reduce transaction costs and provide other institutional support, to encourage the establishment of retailers in previously underserved areas, and to support the introduction of innovative programmes and products.

Such support could be managed by the Land Bank, either directly or through the creation of a trust or a Section 21 company. Such a separate arrangement would have the advantage of separating out the loan functions and decisions that would be managed by the Land Bank, from decisions about which retailers should receive grant support for institutional development. Finance from the Land Bank could be made available from the ACB repayments and commercial banks could also be encouraged to contribute.

Financial services cooperatives

A particular interest of the Government is in supporting the development of financial services cooperatives, sometimes referred to as Village Banks. There are already a large number and variety of local financial arrangements for savings and loans, including some well-established schemes, such as the Small Cane Growers' Financial Aid Fund (FAF) which provides facilities to some 45 000 farmers. In the North West Province there are also joint pilot projects with Village Banks registered as financial services cooperatives. These are exempted from the Bank Act and are registered under the Co-operatives Act, 1981 (Act No. 91 of 1981).

The evolution of local clubs and associations into financial cooperative societies is (as with any development of the FAF scheme or replication of the Village Bank programme) ultimately the decision of the organisations themselves. The Government sees its role as providing technical assistance and reviewing legal impediments which may inhibit the development of financial services cooperatives. The Government will also support steps by such cooperatives to federate or otherwise organise themselves on a wider representative basis.

The role of the National Department of Agriculture

Most of the activities at national level to build up a viable rural financial system centre round the Land Bank and its ability to restructure itself and to provide a range of services to the sector. However, the NDA will play a major role in establishing overall legal and policy guidelines, and

in providing, where necessary, regulations and national guidelines for the operation of a rural financial system within the framework set on the basis of the Strauss Commission's recommendations.

The NDA will also be responsible for the establishment of an effective system to monitor and evaluate the effectiveness of the rural financial system. This will require monitoring of both beneficiary individuals and institutions, for example, to ensure that any institutional support is being used effectively and that lessons learnt are passed on to other parts of the system.

3.4 ENCOURAGING COOPERATIVES AND FARMER ORGANISATIONS

Policy objectives

The objective of Government policy is to enhance the development of all farmers, including marginalised groups and women. Policy is not, as a matter of course, aimed at farmer organisations as such. In addition, the Government will not provide special financial benefits or subsidies to farmer organisations as in the past. Farmers joining organisations should do so because it is in their economic interest, not because it provides privileged access to public funds. However, in order to achieve the RDP objectives of poverty alleviation, empowerment and economic growth, the role of civil and private-sector organisations must be recognised and encouraged.

Furthermore, the Government has a major task of facilitating the provision of services to farmers. These services include providing training and extension, veterinary services, infrastructure (provision and maintenance), market information and financial services. In most cases it is not possible for the Government to deal with farmers on a one-to-one basis. Thus farmer groups offer a contact point for the Government to provide such services.

The specific objectives of the Government are therefore to:

- provide a policy environment that encourages the spirit of selfreliance among farmers
- amend legislation so that it is more conducive to the development of new organisations, particularly cooperatives
- collaborate with existing cooperatives, commodity organisations, input suppliers and agricultural unions to help develop the structures and membership of small farmer organisations

Background

Farmer organisations play an important role in agricultural development. Such organisations, ranging from informal groups in villages to highly sophisticated formal organisations such as business cooperatives, contribute to the economy and the economic welfare of farmers. The interest in cooperatives and other forms of farmer organisations stems from the perception that they are able to provide benefits that would be difficult to secure from individual efforts.

The actions of small farmer groups contribute to agricultural production in a variety of ways. The most common is sharing of labour during land preparation and harvesting in particular. Local

arrangements also exist for savings and social welfare, to assist farmers during times of distress. In more recent years, a large number of garden clubs and similar groups who provide a centre for marketing activities and the management of communal facilities, water, etc., have been established. Such informal groups cannot normally assist farmers in fully developing their potential, however, and often formal organisations are necessary if farmers, as a group, wish to trade, enter into contracts and invest.

Farmers attempt to establish, or seek to join one or more organisations for different reasons. In the main, they hope to reap certain benefits leading to increased profitability and security of incomes. They maintain that their collective efforts should be able to address individual needs such as access to information, markets, finance and production requirements.

The current situation

There are three main levels of organisations representing farmers. In the first instance there are farmer associations, commodity groups and cooperatives operating at the grassroots level. They assist farmers with collective marketing, land care, access to land, extension, access to information and other services. These organisations are often organised into two-tier structures, such as regional or provincial unions, which provide a wider range of services. At the third level there are apex organisations, such as national unions or federations, which are essentially amalgamations of farmer associations. These organisations are advocacy groups who mainly deal with policy issues.

Owing to the legacy of the past, a dual system of farmer representation has evolved. Until recently agriculture was dominated by a network of powerful organisations representing about 55 000 large-scale white farmers. In the past, relations between organised farmer constituencies and cooperative organisations on the one hand and the Government on the other hand were extremely close and the two parties were interdependent. Communication that existed between the state and organised agriculture was mutually beneficial and resulted in strong organisations representing the interests of one section of the farming community. Cooperative legislation and agricultural marketing policy in particular reflected this close link between organised agriculture and the Government. One of the consequences is that the responsibility for cooperative registration is still a function of the Department of Agriculture.

On the other hand, black farmer organisations are much less strong as a result of neglect by the Government, a low resource base and organisational difficulties. Many cooperatives and farmer organisations in this sector have little capacity to serve their members, which is why a considerable number have not survived for long.

Cooperatives: the policy legacy

Experience in South Africa and elsewhere suggests that excessive Government involvement can lead to the creation of monopolies, as was the case with cooperatives which in the past served only white farmers, or to failures as in the case of the former homelands. In most developing countries, cooperatives have been used to carry out Government programmes, especially those pertaining to loan services and input distribution.

The promotion of cooperatives by Government officials took the initiative away from the members. The reluctance, and sometimes inability, of members to take charge of the affairs of their organisations gave the Government reason to interfere in the daily affairs of cooperatives. Because cooperatives in these circumstances ceased to be member-led, self-administered, collective business organisations, they came to be considered by rural populations as Government institutions, and this contributed to their failure. In future, the Government will strive to facilitate development without interfering directly in the affairs of cooperatives.

It is not the Government's objective to promote cooperatives as a particular form of farmer organisation. However, support for farmer organisations in general will be provided through, for example, extension services, the Land Bank as well as the Directorate Cooperatives. Farmers themselves will have to decide on the most appropriate form of organisation to serve them, including trusts, clubs, and closed corporations as well as cooperatives.

Challenges facing farmer organisations

The success of a farmer organisation can be judged by its membership and the usefulness of its services. Its success also depends on the extent to which it is able to deal with external and internal constraints. External constraints are, for example, an unfriendly legal and policy environment and excessive Government involvement.

Farmer organisations are private organisations, and therefore excessive regulation tends to stifle their activities. Where legislation is necessary, such as in the case of cooperative registration, onerous requirements can hamper their development. The Government's objective is to create a policy environment that encourages the spontaneous establishment of farmer organisations and this will be reflected in a new Co-operative Act.

Internal constraints, such as limited operational capacity and limited member participation, also prevent farmer organisations' development. Organisations serving historically disadvantaged farmers lack resources and do not have the reserves and income-generating capacity of their large-scale counterparts. Outside assistance in the area of strategic business planning can assist in solving these problems. This is especially important in the registration of cooperatives.

Member participation is crucial to the survival of farmer organisations. Active member involvement is necessary for institution building at all levels, particularly at local level. Transparency and accountability in membership control is the most outstanding feature of successful cooperatives. Poor education and illiteracy in rural communities often contributes towards dominance of more powerful, better-educated individuals and a breakdown of organisational democracy. Training should therefore not be limited to management, but must be extended to ordinary members so that they can make decisions and check on the performance of management.

The role of the Government

Different support strategies are required to deal with the inequalities which stem from past policies and the resultant dualism. In addition to land dispossession, which inhibited the

development of small scale farmers, there was also substantial disparity in the attention devoted to large-scale and small scale farmer organisations. The Government is seeking to accelerate the development of the small scale sector, and to encourage farmer organisations so that they can play a role in this regard. To achieve this, policy in the following areas will be addressed:

Legislation

Farmer organisations as private-sector institutions operate more effectively and efficiently in a less-regulated environment. With regard to legislation, a distinction is made between advocacy groups on the one hand and business organisations such as cooperatives on the other. No legislation pertaining to advocacy groups will be instituted. Specific legislation for cooperatives is necessary, however, because they constitute a type of business organisation that transacts business with third parties. Legislation is also necessary to bestow legal persona on cooperatives and to regulate relations between them and other entities.

Existing cooperative legislation is restrictive and not especially supportive of new cooperatives. The objective of legislation will be to provide an enabling framework for cooperative forms of enterprise. Existing cooperative legislation will be amended in order to make it more facilitative. Registration requirements will make cooperatives more accessible to farmers, but will also ensure that new cooperatives have reasonable business prospects and are not registering simply in the expectation of receiving Government grants or subsidies.

Support

The development of successful farmer organisations requires the allocation of resources in such a way that a balanced development of support structures and incentive policies is achieved. The point of departure in determining support and incentives is an analysis of the management constraints to development. The Directorate Co-operatives will develop and facilitate cooperative support programmes—including training—aimed at increasing the capacity of these organisations. (See also Financial Services Cooperatives under 3.3.) The Directorate will not normally be directly responsible for such support programmes, as it will delegate training and technical assistance to organisations with a good record of supporting farmer organisations. Such support will be given to all forms of farmer organisations, including those who have yet to decide whether they want to become cooperatives or establish some other business entity, such as a closed corporation or trust, or those who to continue functioning informally.

In preparing new cooperative legislation, a distinction will be drawn between the function of registering and supervising cooperatives and the function of developing cooperatives. Legislation on registration will cover all types of cooperatives. Consideration will be given to locating the Registry elsewhere in the structure of the Government (for example, alongside the Registry of Companies). The development function would therefore be devolved upon the particular sector within which cooperative development functions so that the Departments of Agriculture will be responsible for agricultural cooperative development.

Development partnerships

Existing cooperatives provide technical, financial and managerial services to smaller-scale farmers in a number of ways. In many cases such support is provided from the income of larger, well-established cooperatives. The Government welcomes this, and expects to see such support provided on a larger scale given the considerable assets and influence over agricultural business that cooperatives have acquired over a long period of Government support. In future, the Government will collaborate with established cooperatives to encourage growth in their institutional support activities, and to review any obstacles or restrictions experienced by new customers or potential members in working with larger business corporations with particularly powerful positions in local markets. Such partnerships could assist, for example, in developing market infrastructure, such as subdepots, improved market information and access to auctions, storage and other facilities.

3.5 SUPPORTING LIVESTOCK FARMERS

Objectives

Livestock in South Africa represent a valuable asset to large numbers of poor people, yet currently this asset does not deliver the material benefit to its owners that it is capable of. It is Government policy, therefore, to address the factors which currently constrain increases in productive output from animal ownership in small scale and traditional livestock production areas, and design policy which will:

- lead to more efficient and sustainable management of land under the control of livestock owners
- improve the effectiveness of support services, particularly those pertaining to animal health, animal nutrition and the marketing of cattle, small stock and poultry
- enhance the overall productive potential of animals, including their use as draught animals and for soil enrichment

The existing situation

Livestock farming in the small scale sector is *technically* very inefficient. Reproduction rates are low, the control of important parasites is patchy, and supplementary feeding is virtually unknown. Livestock and crop production are practised in isolation from each other, despite the fact that many households have their own stock and produce crops. Manure accumulates to nuisance levels in the kraals, and crop residues are used in an unsystematic way in the fields as part of the common property resource. There is thus considerable scope for raising rural incomes through improvements in livestock productivity. Efforts to enhance household and social welfare through livestock improvement will provide multiple benefits if the livestock systems are dealt with as part of the whole farm system, with cropping and livestock activities being integrated.

However, traditional livestock farming systems differ across South Africa. In the eastern and southeastern regions, cattle herds are firmly locked into systems of use by the household, with very few animals being available for disposal on the formal market. In the north and west of the country, cattle are actively traded, up to 12 % being disposed of on the formal market. While cattle are not traded actively in the east and southeast, small stock and their fibre products are. This variability means that, within broad policy, local approaches are likely to result in greater benefits than the blanket programmes of the past.

Range management

For the greater part of this century, up to the beginning of the nineties, the 'problem' of livestock in the former homelands was defined in two ways. Firstly, it was said that stock 'encumbered the earth' in excessive numbers, producing almost nothing in the way of material benefit. The approach to livestock was described as a tragic waste of valuable resources, yielding nothing to its owners in exchange for the damage the stock was causing to the environment. Secondly, it was said that excessive stock populations in the former homelands were degrading the rangeland resource and were a threat to the sustainability of the grazing system. It followed that the departure point of rangeland development strategies was severe de-stocking. This approach has been increasingly challenged with evidence of the important economic role of cattle in milk provision, exchanges, and securing capital.

The first point of departure in developing policy is, therefore, the realisation that the existing herds of livestock are not an intractable problem irreversibly damaging the environment, but the foundation of the real economy of large portions of the rural population. To propose drastic reduction in their numbers without substituting an alternative is to propose the further impoverishment of an already poor society. Similarly, it is clear that past notions of biologically assessed carrying capacity and stocking rates are not a sufficient guide to policy. Instead, more attention will now be paid also to the sustainability of stocking rates in the context of the wider economic role of cattle in traditional systems.

To ensure the sustainability of rangelands, institutional arrangements to facilitate the collective management of common property resources are necessary. This includes an agreed set of rules and the structure and sanctions to enforce them. In the case of a grazing resource, the rules would include the qualification for use of grazing land; the total number of stock to be allowed; and the means of enforcing rules.

Serious concerns relating to environmental degradation remain. Recognising that stocking rates are an economic as well as a biological variable, does not remove the anxiety that existing stocking rates can cause degradation of the grazing resource. Where this is happening, it is incumbent on the Government to intervene to secure the sustainable use of the resource for the benefit of future generations. However, this is much less necessary than has been supposed in the past.

A currently accepted definition is that the resource is degraded when it has been altered to the point where recovery of the original condition is no longer economically feasible. Savannah

vegetation is better able to recover from heavy use than is often assumed, and only a small part of the important grazing resources of South Africa would fall into this definition of 'degraded'. However, there is still insufficient knowledge relating to thresholds beyond which recovery is not economically feasible.

In the higher rainfall areas, particularly in the highly dissected landscapes of the eastern seaboard, gully erosion is sometimes the final point of sustained heavy grazing pressure, and in semi-arid regions there is evidence of localised extinction of palatable perennial species after prolonged heavy grazing. However, most rangeland is inherently resistant to degradation and recovers well after heavy use, if rested for the minimum of a growth season. Thus there is also a need to review the practice of insisting upon the use of multiple paddocks in a system of imposed rotational grazing.

These changes in the understanding of range management profoundly affect the design of policy. The rigid prescriptions of the past on stocking rates, rotational resting and the need to protect grass from grazing because of sustainability requirements have been considerably loosened. This means that regimes which are less demanding to manage can be encouraged with the formation of groups or associations of stock owners to manage their group interests. These groups are fundamental to any efforts to support livestock production.

Cattle

Cattle account for between 80 and 90 % of the asset value of livestock in the small scale sector. The most important policy initiatives required are in the areas of health, nutrition and marketing.

The past involvement of the Government has had a pervasive and destructive effect on the initiative and enterprise of cattle owners to manage their own interests. The public sector's assumption of the responsibility for animal health and marketing are the most important anomaly. Public-sector intervention removed the need for cattle owners to organise and, as a consequence, there is a paucity of associations to attend to cattle owners' interests. There are very few associations in existence which could assume responsibility for those activities which are essentially the responsibility of the owner, but which because of the small size of individual herds, can be more efficiently undertaken in groups.

The highest priority with regard to cattle is the improvement of animal health. This includes the control of ticks to prevent tick-borne diseases, prophylactic inoculations, and the treatment of illness and injury. Of these, tick control is generally more efficiently provided for by collective action, whether by the group management of dip tanks or the group purchase of materials for individual treatment with hand sprays or pour-on treatments. All other treatments are more efficiently performed by the individual farmer.

Chronic subclinical malnutrition is, in the absence of disease, the prime cause of low productivity in cattle. This in its turn is attributable to the lack of any organising institution. In contrast to the collective action required to improve nutrition from grazing, each owner has the option of providing supplementary feed for his or her own cattle. This is not widely practised.

Options include feeding from preserved crop residues, growing improved pastures on the owners' arable land, and the purchase of supplements.

In the past the Government provided a marketing service at the cost of individual effort and the involvement of the private sector, except as contracted auctioneers. Most of all, the service was not financially sustainable as the deterioration in the condition of the sales pens and the abandonment of some of them attest.

Because of the active interest of the private sector which is evident in the form of buyers and auctioneers, transferring responsibility for the marketing of cattle to owners probably presents the least difficulty. Organising market days where numbers justify this, will require collective action, and dealing with travelling buyers individual action.

The reduction of Government involvement in the areas of animal health and marketing cannot be achieved in too short a time without jeopardising the sector, but setting up competent cattle-owner associations to take over the collective interests previously administered by the Government is a prerequisite for the long-term sustainability of livestock improvement. They would take responsibility for the organisation of tick control; obtaining acaricides, remedies and prophylactic injections; liaison with the private-sector suppliers of these commodities; marketing; and management of the common grazing resource.

These associations would be the basis for the internal management of the herds and the point of liaison between cattle owner and the public and private sectors. Altogether, their functions would make them one of the most important economic structures in the rural areas and the foundation of the livestock economy.

Small stock

Small stock are kept in all parts of the country but achieve importance in terms of formal marketing only in the Eastern Cape. In this province, wool and mohair are significant contributors to the rural economy and are growing in importance. Small stock do, however, play a valuable role in all rural communities because of:

- (a) their low cost, which makes accumulating herds easier for the poorer groups;
- (b) their small size, which means that they are easily disposed of when slaughtered; and
- (c) the ease with which they can be marketed to meet minor cash demands.

The particular importance of small stock is that they offer the marginalised members of the community a means of support, and security against total destitution.

The policy priorities with regard to small stock are disease and pest control, extension and marketing. Small stock are affected acutely by an array of diseases and parasites which significantly reduce productivity if not controlled. Indigenous flocks enjoy a degree of resistance in that, when affected, they do not necessarily die, and could even show spectacular improvements if treated. In the case of sheep scab, however, there is no resistance and the disease does present a real threat to the wool industry where it is left unchecked. The point of departure for improving the small-stock sector therefore is the control of key diseases,

particularly bluetongue; the reduction of internal parasites; and, in the case of wool sheep, the elimination of scab.

The health and welfare of small stock, particularly in the subtropical areas, depends on a routine of dosing and dipping. Doing this effectively requires, firstly, that the owner must be aware of the effect of diseases and parasites and, secondly, that the control methods must be understood. With important exceptions, the general experience in the small scale sector is that diseases and pests are viewed as unavoidable hazards of small-stock production. With the exception of the Eastern Cape, there appears to be a lack of trained extension staff dealing with small stock. A prerequisite for improvement in the sector is therefore that specialist advisory services should be introduced or strengthened.

The marketing of live animals or meat is fully catered for on the informal market, which is very well developed, particularly on the periphery of towns. The option of using the formal market through market days or abattoirs is available to anyone wishing to participate. No intervention in this market is proposed.

In the Eastern Cape, fibre production is a significant activity and has the potential to expand in output and improve in value. The inputs needed to enable direct marketing are improved shearing, classing and packaging of the fleece. These require rudimentary buildings for shearing and classing, and wool presses for baling the wool, as this is required for delivery to the auctions.

In the marketing of fibre products, the formation of wool and mohair growers' associations will be a priority for the small-stock advisory service. These associations will be the means of securing shearing facilities, skilled classing of wool and proper packaging for the market for their members.

Game ranching

The game-ranching industry has shown substantial growth over the past few decades, to the point where it is currently estimated that game is ranched, either alone or in combination with livestock, on some 8 000 ranches covering approximately 16 million ha. The industry has grown largely in response to new levels of demand for game products ranging from hunting trophies, skins and horns to meat, especially venison, and live sales. In addition, value has been added by the provision of tourism facilities.

The Government recognises the contribution made to rural economies by this form of land use, and will ensure that the same set of research, extension and veterinary considerations applicable to other sectors of the livestock industry will be applied to game ranching. It is also expected that the industry itself will devote more of its growing income to research and conservation.

Poultry

Poultry are kept throughout the rural areas and constitute a significant portion of the animals kept by poorer households for consumption and marketing. They have the singular advantage of being able to provide producers with regular significant cash incomes, and therefore fit in well with the

increasing need for alternative sources of income for rural people. Even more so than the small-stock sector, poultry production has been market driven with limited support from the Government. Production systems run the range, from household flocks, small scale broiler or egg production to sophisticated production in specialised housing. The demand for poultry products in the rural areas is substantial - quite adequate to support local marketing enterprises. Policy requirements in the field centre on extension and the provision of small hatcheries. The ARC's Fowls for Africa programme is a significant contributor to the drive to expand household poultry keeping in the rural areas. It provides training, adapted genetic material, access to supplies and health care.

Access to day-old chicks is a particular problem for poorer poultry keepers. Part of the solution would be the establishment of numbers of small scale hatcheries, dispersed in the rural areas and serving local rural markets. There are already many experienced small scale producers of broilers and eggs in the rural areas who are equipped for production and have established their supply networks. They will be encouraged to make the technological advance necessary for the production of day-old chicks. They will require training and support for some time while they are gaining experience, as well as affiliation to an initiative such as Fowls for Africa or a commercial supplier of suitable birds, to obtain a supply of either hatching eggs or mother laying stock.

Animal traction

Animals were the source of traction throughout South Africa up to the 1930s. By the end of the Second World War, the process of converting to mechanical traction on commercial farms was well under way, and by 1960 animal traction was a rarity on the larger farms. Animal traction remained common in the smallholder sector, however, until the expansion of the development corporation system in the fifties and early sixties. One of the first acts of all the development corporations was to provide tractors for hire to small scale agriculturists at heavily subsidised rates. Because the tractors were initially so widely available at so low a cost, mechanisation penetrated deeply into small scale agriculture and animal traction was neglected.

There is now recognition that animals provide appropriate draught power for the small scale sector. The cost of contractor ploughing is very high relative to the value of food crops and animal traction has begun to reassert itself as an economical and efficient alternative to mechanisation. This process has been strongly supported by the South African Network of Animal Traction (SANAT) which, with minimal resources, has succeeded in stimulating interest in animal traction to a marked degree. The National Department of Agriculture has now established a working group to examine the revival of animal traction.

The main elements of a new approach to animal traction are:

- research into the needs of small-farmers with particular emphasis on ploughing requirements and the optimal combinations of animal and mechanised draught power
- the development of harnesses and other equipment for tillage, weeding, transport, etc., which are affordable and humane
- extension training courses

The establishment of animal draught centres is also being considered.

3.6 RESTRUCTURING THE AGRICULTURAL PARASTATALS

Introduction

One of the consequences of past interventionist policies in South African agriculture has been the establishment of a large number of agricultural parastatals. There are now some 400 Government-financed bodies engaged in providing agricultural services at both national and provincial level or, in the case of a number of Government-owned farming projects, directly engaged in production and marketing.

While some of these parastatals have contributed to agricultural development in South Africa, this contribution has often involved high subsidisation and operating costs that are unwarranted given the relatively small number of farmers served. Furthermore, many of the parastatals have proved ineffective, especially in the former homelands where technical and economic considerations were frequently absent in the design of individual projects, and large-scale overstaffing was allowed to continue.

Policy objectives

The overall aim of Government policy is to withdraw from direct involvement in agricultural production and to encourage the private sector to expand to provide the services that farmers require. In particular, this means that the Government will:

- seek to transfer to the private sector those activities and businesses that serve no purpose in remaining under public control
- encourage local communities to assume responsibility and eventually ownership of agricultural projects currently managed by parastatals or Departments of Agriculture
- restructure remaining parastatals and state-owned projects to provide realistic prospects of securing financial and economic viability
- close those enterprises that have no prospect of achieving viability

The current position

Agricultural parastatals operate at national and provincial levels. At national level they comprise the Agricultural Research Council, Onderstepoort Biological Products (OBP), the Land Bank and Abakor. The Industrial Development Corporation (IDC) also owns a share of a number of agricultural companies in partnership with the private sector, and owns and manages some enterprises, mostly through Sapekoe Estates. At provincial level, parastatals comprise development corporations, such as the ARDC in the Northern Province, and finance institutions

such as Agribank in the North West. In some instances, institutions are dedicated to agriculture while in others agriculture is served by multisectoral institutions such as the KwaZulu-Natal Finance and Investment Corporation.

Some of these parastatals offer agricultural support services while others are directly involved in agricultural production, from the management of large commercial enterprises to small schemes involving local producers.

National agricultural parastatals—The Land Bank and the ARC are discussed elsewhere. As far as Abakor and the OBP are concerned, the Government is examining options for their restructuring and possible privatisation. In the case of Abakor, this means examining whether privatisation of the individual abattoirs will be more viable than privatising the company as a whole, and how empowerment and efficiency objectives can best be achieved. In the case of the OBP, the production of vaccines is an essential service, and it will be necessary to identify an investor who can bring in capital and technology, management expertise and access to new markets. The Government will retain partial ownership.

Provincial parastatals—These usually have a specific history, having been associated with homeland Government. Many are ineffective or mismanaged, or unpopular with those they are meant to support. In these cases, the Government supports their closure if careful analysis shows that they cannot be reformed, or if there is no longer a need for them. The sooner such decisions on closure are made, the more likely it is that assets can be transferred to beneficiary groups, and that employees can be integrated into new, productive enterprises.

Government-owned agricultural projects—In general, these projects exist where the Government has purchased farms as going concerns, or where special projects have been created to assist in addressing issues like rural unemployment. Experience has shown that the costs of these projects far outweigh the benefits. The Government will therefore only consider new projects after very careful evaluation, and Government policy in general will be not to establish any new Government-owned and Government-run agricultural enterprises.

Where a provincial Government is managing projects, a first step in the reform will be to transfer the management to a corporation or a management agent. In general, however, the Government's objectives will be to transfer ownership to land reform beneficiaries or to commercial interests as quickly as possible. The aim will be to enhance the Government's land reform objectives by transferring operations to historically disadvantaged farmers or farm workers where this is feasible. In more technologically complex operations, support from management organisations or private-sector partners may be needed. In the case of irrigation schemes, support could be given by specialist extension officers.

One approach to larger projects is to redefine them as independent companies, whether owned by the Government or by corporations, so that it can be expected from them to at least break even. This makes taking decisions on their future more transparent. A problem with subsidiary companies is that they do not have any contractual agreement with the Government in terms of acquiring their land, so that they are not in a position to borrow against their assets. This could be

rectified by transferring ownership of the land to the company, in which the Government holds a share.

The process of transformation

In general, the provisions of the National Framework Agreement between the Government and trade unions will apply to state-owned agricultural projects. Thus unions will be consulted on restructuring, and proposals for restructuring will be considered at both provincial and national levels.

Three categories of people may be affected by restructuring:

- workers employed on projects
- farmers who are active on the project
- surrounding communities

All three categories will be consulted in developing a restructuring plan.

The restructuring will operate within a set of principles. The first principle is that assets should be sold at market value, and where this cannot be determined, at productive value. Improvements like buildings should be considered, and loose assets such as irrigation pumps should be valued and sold. Where communities have no means to purchase such assets, the Government will consider taking an equity share (to the value of the assets) in the new enterprise. The Government will only hand over assets where the beneficiaries have established a reasonable degree of local agreement over the future of the land and assets, and where there is a sound business plan to support the new venture. This will usually entail the creation of a partnership between the community and the worker enterprise and some private-sector investor support organisation or management agency. While the Government may facilitate this arrangement, it will not be responsible for creating this relationship, else the dependency that often exists between communities and the Government, and which the restructuring seeks to break, will be perpetuated.

A second principle of restructuring is that it must benefit the local people. Thus projects will not be sold by open auction, but rather offered to local stakeholders. The holding period may therefore be very costly to the Government, and restructuring will consequently be done as speedily as possible.

A third principle of restructuring is to stimulate the local economy through viable enterprises. Government projects may suppress the local economy, and unviable projects should be shut down, however much they appear to contribute to the welfare of the small groups of their workers. Transfer payments to workers on unviable projects do not stimulate the local economy. The sooner unviable projects are shut down, the more potential there will be for releasing funds for reinvestment.

At the outset of restructuring, infrastructure or project assets may be dilapidated. Communities may demand that Government refurbish projects before handing them over. In general, it is better for the Government to hand projects over sooner rather than later and make funds available for

refurbishment by the new owners. In general, this will apply only to those projects such as irrigation schemes where the Government will not be selling the land to communities. Where projects are being sold, the state of the assets will be taken into account in the price of the land.

The Government has no fixed preference regarding the organisational form of new purchasers. It could be farmers wanting to split the asset up for the farmer settlement, a worker cooperative, worker equity scheme, or community-based enterprise. It could also be an individual purchaser or black empowerment group, where the restructuring would achieve empowerment objectives rather than the redistribution of assets locally. Decisions about restructuring projects will be in the hands of a local restructuring authority, appointed by the provincial Government but with representation from the national Government and from unions. This is the model adopted by the Eastern Cape Government.

The authority's decision as to who are eligible to purchase will probably be based on:

- the principle that those most directly involved, the most needy, and the community as a whole, should benefit
- the complexity of the management of the project, and whether the necessary skills and economic resources can be mustered by the potential beneficiaries

Other factors that must be considered include the degree of labour intensity of the project and its overall potential to contribute to economic development.

SECTION 4

Conserving agricultural natural resources

4.1 Enhancing efficiency in irrigation

4.2 Promoting sustainable resource use

4.3 Meeting international obligations

4.1 ENHANCING EFFICIENCY IN IRRIGATION

Introduction

The determination of national water policy is the responsibility of the Department of Water Affairs and Forestry (DWAF) which has to deal with competing needs for water in the economy and society as a whole. More than 50 % of water in South Africa is already used for irrigation

but the demand for more water from urban and industrial users is growing rapidly. Limited water availability suggests that at most an additional 200 000 ha could be brought under irrigation. This would bring the area under irrigation to 1,5 million ha representing 8 % of the area suitable for arable farming. Clearly, there is comparatively little scope for further irrigation development in South Africa. Nonetheless, the scope for better utilisation of existing infrastructure is sufficient to warrant detailed consideration of irrigation policy.

The four principal challenges for irrigation policy are therefore:

- rehabilitation of existing irrigation schemes, particularly those in the former homelands
- determination of the development of new irrigation capacity on the 200 000 ha
- establishment of effective institutional arrangements for implementing policy
- increased efficiency of water use

Irrigation policy and agricultural policy

Irrigation management is the application of technology to allow greater control of water use in order to increase productivity. Irrigation policy is therefore intrinsically linked to water policy. The White Paper on National Water Policy for South Africa and the National Water Act, 1998 (Act No. 36 of 1998) make provision for water to be protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner to the benefit of all people. This provision has implications for the development of irrigation works and the application of water in agricultural production.

To recap, the overall objectives of agricultural policy reform are to create opportunities for smallholder and resource-poor farmers; improve efficiency and therefore competitiveness of the sector; and to utilise resources sustainably. Fulfilling these objectives is fundamental to the sector's contribution to GEAR and will require an irrigation policy that allows for the efficient utilisation of water. To be consistent with water and agricultural policies, irrigation policy has to address equity, efficiency and sustainability concerns.

Water is the most valuable of agricultural inputs. Its allocation to different farm activities must be efficient and guided by economic considerations. In the past, Government policies encouraged farmers to invest in capital-intensive infrastructure, including irrigation works which had the effect of reducing labour demand and the production of water-intensive and often inappropriate crops. International evidence suggests that the efficient utilisation of water requires the development of valuations that reflect its opportunity cost. Low-cost or zero-cost water leads to the production of water-intensive crops that would not be competitive if water were to be valued at its opportunity cost. When the cost of water reflects its opportunity cost, farmers respond by shifting production to more water-efficient activities. Evidence in countries such as Chile shows that efficient water-pricing systems have led to the production of higher-value crops.

Until recently, most established farmers in South Africa obtained water either in terms of allocations from the DWAF, court orders or 'traditional' access. Under the new water legislation a system of licensing will, in time, be introduced to regulate the access of all users to water resources. As competing uses for water resources increase, the cost of water to the end users,

including farmers, will inevitably increase. This means that agriculture must change to more rational, economic and sustainable cropping and water-use patterns.

Currently only 30 % of irrigated areas are planted to high-value crops, horticultural crops particularly. The overall effect of past policies, which led to the construction of current irrigation systems, with free or low-priced water, and with controlled (and relatively high) output prices, was to reduce the efficiency of irrigation. Agricultural policy reforms, together with implementation of the National Water Act, are designed to improve efficiency so that scarce water is used on high-value, often labour-intensive crops.

Water-use efficiency may need to be supported by a system of tradable water allocations. For example, if any farmers on an irrigation scheme were able to save water, they would be able to sell it to neighbours who may want to use more water than they have been allocated. In the past some farmers held water rights which they failed to utilise. In future, if allocations can be traded, farmers would be encouraged to let other users have access to their water thereby encouraging greater efficiency in water use and greater overall investment in agriculture.

Objectives of irrigation policy

The objective of irrigation policy is the equitable and efficient utilisation of water to increase agricultural productivity and maximise the sector's contribution to the reduction of income inequalities and national output growth. Irrigation policy will therefore aim to:

- provide an incentive framework to improve the efficiency of irrigation
- develop criteria to be applied in the development of new irrigation capacity, which will address the inequalities resulting from past policies and open up irrigation possibilities to new farmers
- provide for the self-management of irrigation schemes
- provide for training and extension to ensure that farmers have the know-how to use water efficiently, and access to appropriate irrigation technology

Irrigation frequently involves high-cost systems which, if not used to their best advantage, can result in high levels of indebtedness. It is therefore imperative that when new farmers invest in irrigation, they do so on schemes that are economically viable. Consistent with the overall agricultural policy principles in this document, there will be a move away from Government-owned irrigation schemes to farmer-operated projects, where farmers take responsibility themselves for such investments. As a general rule, such projects will have to be financed from loan capital, and banks will only be willing to finance profitable projects thus ensuring viability. The role of the Government could be to provide guarantees to ensure that small scale producers, with poor access to credit, can afford access to irrigation, thus reducing the inequalities currently inherent in irrigation distribution.

Box 6. current distribution of irrigation capacity (1998)

15 000 medium and large-scale commercial farmers irrigate around 1,2 million hectares divided into:

- 450 000 ha—private schemes developed by owners to extract water directly from weirs, boreholes and farm da

- 400 000 ha—irrigation board schemes which are privately managed but frequently were developed with Government assistance
- 350 000 ha—Government schemes which were built and operated by the Government. Operating costs are charged to users
- 50 000 ha—distributed among 40 000 small-scale farmers. These schemes are operating below capacity and will be expanded
- a small hectareage of micro-scale schemes with gardens and community plots

Two key instruments contained in the National Water Act will be applied. These are water charges and redefined water-use allocations. The challenge for policy will be to design implementation mechanisms that allow for orderly structural adjustment as farmers shift to more efficient activities.

Water pricing—Farmers will have to pay for water to ensure its efficient and sustainable utilisation. For water charges to be an effective instrument for achieving agricultural policy objectives, charges will have to be based on the opportunity cost of water. Calculations to determine this cost will require substantial input from Departments of Agriculture. This will ensure that water charges are set at rates that encourage more efficient agricultural production.

In all catchments, sufficient water must be set aside to provide for basic human needs and to ensure environmental sustainability. Once this has been done, a tender procedure may be introduced for new users to reflect the 'market value' of water in the area and to promote efficient allocation. In catchments where the demand for water already exceeds the supply, a charge may be levied on existing users to reflect the scarcity value of water, thereby promoting water efficiency. For high-priority uses and the resource poor, the Government may utilise its option to buy water rights from existing users and then notify farmers that their licences will be modified.

The DWAF has introduced a pricing system for water that, by the end of 2001, will cover the full management costs of Government water schemes (excluding those in the former homelands) plus a surcharge to cover any operating costs during times of drought or future upgrading costs.

Using the contributions from the Departments of Agriculture towards establishing economic pricing of agricultural water, the DWAF will make the final decision as to the total charges to be fixed in a particular area or scheme after having factored in operational and some capital costs. Overall, determination of water charges will be done in consultation with Provincial Departments, Water User Associations (WUAs) and other concerned parties. Differential water pricing will be considered to reflect the financial situation of the resource poor. However, in all cases, the opportunity cost of water has to be known so that the extent to which the Government will subsidise the resource poor can be established and monitored.

Water allocation—In future, access to water will be obtained through authorisation or a licence. Licences will be valid for a specific period, from 5 to 40 years, with provision for these periods

to be extended by means of regular reviews, or, more likely, they will be valid for an indefinite period subject to a fixed notification period. In issuing authorisations the need for security and predictability of water allocations will be recognised. In general, the issuing of water licences will be based on participatory decision-making processes led by the DWAF, with the involvement of the Departments of Agriculture, local Governments and community organisations.

Institutional arrangements

Under the National Water Act, the DWAF is responsible for a national water strategy, for determining reserves, decisions regarding inter-basin transfers, and the integrated catchment management of water. Responsibility for the allocation and delivery of water and its management on a catchment basis, will, within the framework of DWAF's national water resources strategy, be delegated to Catchment Management Agencies (CMAs) and Water User Associations (WUAs). CMA boards will reflect a balance of interests of existing and potential users, local and provincial Governments and environmental interest groups. WUAs will manage water on behalf of their members on a local basis.

Implementation and capacity—It will be a major task to:

- (i) establish CMAs and WUAs;
- (ii) hand over schemes to users (both Government schemes and those in the former homelands);
- (iii) assist the resource poor to ensure that they are properly represented in these organisations; and
- (iv) provide technical support to farmers. Much of this will fall to the PDAs working with staff of the DWAF.

Elsewhere in the world, experience has shown that it takes many years before WUAs are ready to manage their own affairs, including assuming responsibility for the maintenance of irrigation infrastructure. Both the DWAF and PDAs will play a crucial role in assisting WUAs to take over the management and ownership of Government-owned schemes, and the commitment of staff on a long-term basis will be necessary.

The Government will divest itself of irrigation schemes and transfer their operation and management to the land users. This process has already started and includes the restructuring and transformation of parastatals in the former homelands. Each scheme will be examined individually to determine its financial and economic viability as described in section 3.6.

At the same time, aspiring small scale irrigators (groups and individuals) frequently turn to Provincial Departments for permission, advice and assistance to obtain access to water. It is to be expected that farmers will continue to seek such assistance, first under existing institutional arrangements and then from CMAs and WUAs once these have been set up. These farmers are likely to need considerable support from the Government to ensure that they are able to gain equitable access to water resources.

The Provincial Departments will, therefore, continue to receive requests for providing technical assistance regarding (a) the engineering aspects of the on-farm layout of irrigation and drainage systems and (b) the agronomic aspects of irrigation. There are now less than 40 agricultural engineers in the Provincial Departments and few specialist irrigation agronomists. There is, however, scope to contract out more of these services, despite a general shortage countrywide of irrigation agronomists.

Without adequate support, irrigation farming is a difficult proposition for newer farmers. Most Provincial Departments do not have the capacity or resources to deal with the tasks enumerated above. It will therefore be necessary to prioritise tasks and to identify staff (in and outside the Department) who can give assistance with these tasks. In particular, the provinces will need to prioritise schemes for divestiture and transformation and start with these, ensuring that they are economically viable and sustainable. A number of technical staff will also have to be identified for intensive short-term training in irrigation agronomy and in the operation and maintenance of schemes.

New irrigation schemes and financing—The Government will not, as a rule, develop new water schemes. Rather, such schemes will be financed, owned, maintained and operated by WUAs. To assist resource-poor farmers in financing new schemes or extensions to existing schemes, the National Water Act makes provision for financial assistance in accordance with specific criteria.

If farmers lack finances to, for example, refurbish or construct a small irrigation canal, or if they do not have an allocation of water, they will have to request the Government to determine the proposed scheme's financial viability, technical merit, design, etc. Such requests will be considered on an inter-departmental basis. The office of the PDA will assist farmers in this regard. If the request can be dealt with at provincial level, for example when the case does not present difficulties and there are no problems with water allocations, the Provincial Irrigation Committee will handle it. If not, for example if substantial state financing is involved or if there is insufficient water for allocation, the Irrigation Action Committee (IAC) will forward the request, with its recommendation, to the Agricultural Water Liaison Committee (AWLC).

The IACs and the AWLC will be responsible for developing decision-making procedures and criteria, which will provide quick and efficient responses to requests. The AWLC will play a supporting role by updating, coordinating and disseminating national norms and standards to reflect lessons that have been learnt. This clarity is important so that provincial staff and farmers will fully understand steps that will be taken to assist the resource-poor (a) in gaining access to a water allocation when, for example, they are not in a position to bid for water at an auction, and (b) in gaining access to Government financing for, amongst others, the construction of irrigation canals to link them to existing networks. The IAC/AWLC may require and specify the scope of a feasibility study before approving a project and may recommend financial support for such studies. The establishment of a WUA is a prerequisite for Government-supported irrigation development.

4.2 PROMOTING SUSTAINABLE RESOURCE USE

Principles of policy

Three broad principles govern policy on the agricultural use of natural resources. Firstly, it is the government's responsibility to promote the sustainable use of natural resources in agriculture, ensuring that resources are used within their capacity for renewal, maintaining and enhancing the ecological integrity of natural systems, and minimising or avoiding risks that will lead to irreversible damage.

Secondly, the primary custodian of the land is the resource user whose actions have an impact upon the environment. Thus the Government will design policies and enact legislation that will strengthen the rights of land users and facilitate their assumption of responsibility for the conservation, sustainability and maintenance of biodiversity. This is an important part of Government policy in the LandCare Programme, which is discussed below.

Thirdly, those responsible for all forms of environmental damage should pay the costs of remedial measures in respect of the impact of such damage on the environment and human health. It will be required of land users whose activities may have an impact on the environment to institute measures to prevent pollution and environmental damage.

Challenges

The main factors threatening the sustainable use of natural resources in agricultural production are the following:

- Degradation of the natural resources occurs in varying degrees on arable and grazing land irrespective of the sector or form of land tenure. Degradation processes expose the soil surface, deplete fertility, cause soil erosion and inefficient use of water.
- Rapid population growth, widespread poverty in rural areas, unequal access to and control over resources, and overcrowding in the communal farming sector have a negative effect on the sustainable use of the natural resources.
- Technologically related problems that contribute to resource degradation are chemical pollution, on-farm and off-farm, caused by high external input farming systems and waste products generated by industrial, mining and intensive farming operations. Inadequate adaptation of farming practices to prevailing environmental conditions is also a cause for concern.
- Farmers and extension workers are currently poorly served by conservation advisory services. In addition, there is a fragmentation of environmental responsibilities caused by programmes being scattered among several Government agencies.
- In most of the rural areas of South Africa there is no effective zoning of land use. Overall, large areas of agricultural land are lost to other uses every year. Land with high agricultural potential needs to be retained for agricultural purposes, when it is economically rational to do so, because of its scarcity and value as a national asset.
- Rural policies have, in the past, supported high external input and technically advanced commercial farming operations, but neglected the advancement of small scale farming. Care will be taken that these imbalances do not lead to further unsustainable land use.

In a water-scarce country like South Africa, it is obvious that the water resources must be used with great care. Not enough attention has been paid by the Government to the promotion of farming methods that enhance soil and water conservation, whether in dryland crop production, irrigation farming or in the use of natural vegetation for animal production. Such methods will receive special attention in publicly financed research (see section 2.2).

The role of the Government

Any transformation in resource use will be a long-term process. However, the Government will initiate programmes and policies that will:

- ensure a broad appreciation of the conservation and sustainable use of natural resources which will, in its turn, lead to increased soil protection, soil fertility and water-use efficiency, and reversals in degradation
- ensure coordination and collaboration, in the support of conservation, between relevant role players at Governmental, non-Governmental, local, provincial or national level
- ensure that incentive structures for agriculture do not undermine, but instead support sustainable resource use
- integrate production and conservation in farmer support services.

In particular, the National and Provincial Departments of Agriculture, in cooperation with other role players, will actively promote the formation and growth of a community-based LandCare Programme, creating a conservation ethic by means of education and the monitoring of sustainable land management. The core element of the LandCare Programme will be that it will encourage people to take responsibility for their own environments with the support of the Government at national and provincial level.

The NDA will also take the lead in a programme of legislative reform that will lead to the amendment to or replacement of the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) to ensure accordance with new policies on sustainable resource use. The Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947) and related legislation will be reviewed to protect the health of humans and prevent pollution of the natural environment.

The subdivision of Agricultural Land Act, 1970 (Act No. 70 of 1970) was recently repealed so that there is no unnecessary impediment to the development of a more diverse farming structure in the country and so that agricultural land is more productively utilised. One of the purposes of the Act was to prevent the use of high potential agricultural land for other purposes. The Government believes that neither an environmental nor an economic case can be made out for such protection. In some circumstances the use of agricultural land for ecotourism, for example, leads to improved resource management both in terms of biodiversity and sustainable economic benefits such as employment.

It remains important, however, that proper attention should be paid to land-use planning and that short-term commercial interests should not compromise the future of efficient and sustainable agriculture. The provisions of the Development Facilitation Act, and provincial ordinances

dealing with agricultural land use, will be reviewed and, if necessary, strengthened to ensure appropriate levels of protection of agricultural land.

The NDA will continue to implement appropriate measures to control migratory pests while ensuring that ecosystems are not endangered and the pollution of water resources is prevented.

Under the LandCare Programme, the Government will promote and support farmers' efforts to rehabilitate degraded land following economic assessment. The Government's priority will be to maintain the productivity of arable land and rangeland which still provide yields that accord with its natural potential, and only invest in the restoration of degraded areas where this is economically justifiable.

The use of incentives to promote sustainable resource use will be balanced against the basic principle that farmers must take primary responsibility for conservation. Current tax incentives to promote soil conservation which are in conflict with this principle will be withdrawn. The Government will undertake a more detailed analysis of incentives to promote sustainable resource use by small scale resource users at or near subsistence level, who are often forced to use marginal land and, in the process, damage their resources.

Taking into account all these measures, and incorporating activities which are in accordance with international conventions described in section 4.3, the NDA will prepare environmental implementation and management plans as required under draft legislation on national environment management. Such plans will also indicate the contribution to environmental sustainability of extension services reform, changes in agricultural research policy and management, and support for various forms of local resource management groups which are described elsewhere.

The LandCare Programme

The LandCare Programme is directed towards the conservation of agricultural natural resources and the avoidance of activities which put in jeopardy the sustainability of agriculture or which, as a result of agricultural actions, cause wider environmental damage. The programme is also directed towards providing employment for the rural poor as conservation objectives are being pursued.

The programme thus provides a focus for a large number of existing projects which have been undertaken by provincial departments, NGOs, farmer organisations and local resource user groups. It will cover the activities of large-scale farmers, small scale private farming, land reform programme beneficiaries, and communal agricultural and grazing land users. Different components of the LandCare Programme will apply to each of these resource-user categories.

Programme components

The LandCare Programme of the Government is expected to form, in due course, the basis of a public/private partnership in a movement similar to that established in Australia. In the shorter

term, however, the Government intends to provide impetus to this movement by means of a programme consisting of five components.

Public Works for Resource Conservation—For each province the major concerns regarding sustainable resource use will be identified and specific projects developed to address these concerns. Examples of such concerns are soil and veld degradation, soil acidity, bush encroachment and invader plants. The projects will comprise the erection of physical works geared towards job creation and poverty relief, whilst contributing to the rehabilitation of degraded resources. The development of skills and promotion of a conservation awareness will be important elements of this programme component, which will be linked to similar initiatives such as the Working for Water Programme and the National Action Plan to Combat Desertification.

Capacity building—This component will consist of building upon existing community-based national resource management through the training of leaders, assisting group formation and developing the skills of extension staff and others engaged in resource conservation and community action.

Public awareness and education—This component will be a programme aimed at resource conservation education, which will include contributions to curricula in schools and colleges.

Policy and legislation—This component will review all existing regulations and financial support measures affecting resource conservation. This will be done to establish a regulating and incentive framework that provides non-distortionary support for conservation and effectively discourages practices which damage agricultural natural resources.

Research and evaluation—This component will include the establishment of an inventory of agricultural resource conservation works and projects, and the evaluation of progress and obstacles. It will assist in the design of research and technology in support of conservation.

Implementation

The programme will be centrally coordinated and funded. Provinces will be responsible for implementing programme projects. An efficient and effective delivery system, possibly using regional coordinators or managers, will be needed. In the first phase, there will be central funding for provincially implemented projects in support of the programme components. A national programme manager will be appointed.

4.3 MEETING INTERNATIONAL OBLIGATIONS

The agricultural use of natural resources tends to modify natural ecosystems, and the cultivation of areas previously covered by natural vegetation may constitute a threat to remaining natural areas and the maintenance of biological diversity. Particularly vulnerable areas in South Africa are those expanses with erratic and low rainfall where a balance between climatic conditions,

vegetation cover and fauna has evolved over centuries. If these areas, mainly used for grazing purposes and animal production, are not used wisely, the process of desertification is bound to continue.

Wetlands are also under threat—the lush vegetation and presence of wild life invite exploitation. They are damaged and irreversibly changed if not protected. Wetlands are not abundant in South Africa but the existing ones represent the last vestige of wild life sanctuaries and biological purification systems incorporated in catchments.

South Africa subscribes to a number of international agreements aimed at promoting the conservation and sustainable use of threatened environments. The lead agency to give substance to these international conventions is the Department of Environmental Affairs and Tourism, but the agricultural sector, because it is concerned with about 80 % of South Africa's land surface, is undoubtedly the major role player in the implementation of whatever measures may be necessary to prevent major environmental disasters.

Apart from these international commitments, the Government will also continue to act to prevent the introduction of potentially harmful alien species and to eradicate and control existing weeds and invader plants which threaten ecosystems.

Desertification

South Africa is a signatory to the Convention to Combat Desertification and is obliged to develop and implement national, regional and subregional action programmes, as described in the annex specific to Africa. As part of the preparatory work, an assessment of land degradation is at present being undertaken and a long-term desertification audit is being conducted.

The rangelands in the arid and semi-arid areas of South Africa (comprising the Nama and Succulent Karoo Biomes; the dry North and North-Western Savannah Biome; and pockets of dry areas in the Valley Bushveld of Natal and Eastern Cape) are prone to overgrazing and consequent vegetation degradation which invariably leads to a significant reduction of ground cover, bush desertification, a change in species composition and a reduction of grazing capacity. It has been found that indigenous breeds, as well as indigenous wildlife species are often more efficient users of grasslands than larger-framed exotic breeds, and particular attention will be paid to improve range management by utilising such breeds as well as the indigenous wildlife species (see also Biodiversity below).

Pristine grassland, although situated in more favourable climate areas, is also subject to overutilisation, which leads to a reduced vegetation cover. Overgrazing in the eastern Highveld has reduced the vegetation cover of extensive areas from 60 to 70 % to less than 30 %. Secondary effects include decreased water infiltration, soil compaction and soil loss through wind and water erosion.

Areas classified as marginal arable land due to erratic rainfall and other climatic factors, are also prone to desertification if corrective measures are not applied. Conservation measures will entail

encouraging the conversion of marginal arable land to planted pastureland and adaptation of the grazing capacity to prevailing climatic conditions and production potential.

Wetlands

South Africa is a signatory to the Ramsar Convention on Wetlands. Protected area status in terms of this convention has been given to twelve sites in South Africa.

Policy on, and regulation of, the use of wetlands fall mainly in the realm of environmental and nature conservation. However, in accordance with the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983), there are control measures governing certain agricultural activities. A land user may not use the vegetation in a wetland in such a manner that it causes deterioration; cultivation and drainage of wetlands are not permissible; the flow pattern of water may not be changed; and permission must be obtained to burn wetland, and this will only be given under special circumstances.

Despite existing legislation and efforts to pay special attention to wetlands, abuse and pollution still occur. The Government therefore intends to initiate a programme that will afford greater protection and status to wetlands.

Biological diversity (biodiversity)

South Africa is a party to the Convention of Biological Diversity and the Government is obliged to ensure that national implementation of the Convention is in accordance with the three main objectives, namely the conservation of biological diversity; the sustainable use of the animal and plant genetic resources; and the fair and equitable sharing of benefits arising from the use of genetic material.

The Government will strengthen on-farm conservation and management of plant genetic resources in a number of ways which will contribute to the livelihoods of poorer farmers especially. These include:

- improved linkages between *ex situ* and *in situ* conservation, including greater utilisation of landraces from *ex situ* collections, where they meet farmers' needs
- promotion of on-farm seed production, and support for farmer-to-farmer seed exchange mechanisms
- recognition of Farmers' Privilege (i.e. the retention of harvest material for re-use as propagating material) as an integral component of seed production systems in terms of the Plant Improvement Act, 1976 (Act No. 53 of 1976)
- the introduction of an intellectual property rights regime for farmers, which will establish systems of benefit sharing in recognition of farmers' contribution to plant improvement

The NDA will participate in the Government's attempt to fulfil its obligations. It will also help to ensure that benefits from the use and development of South Africa's genetic resources serve national interests; support the introduction of appropriate legislation and the establishment of institutional structures to control access to South Africa's indigenous genetic resources; help ensure continued access to sources of genetic material for food and agriculture; support the

development of a comprehensive strategy and programme for the conservation and sustainable use of genetic resources in South Africa; and, finally, introduce any necessary statutory measures to support efforts to restrict the destruction of endangered species, scarce habitats and ecosystems threatened by extinction by the use of land for agricultural purposes.
