

## DETERIORATION OF AGRICULTURAL SUPPORT SERVICES

### Introduction

South Africa, like many other developing and developed countries, is experiencing increasing pressure to reduce government spending, particularly in the fields of agricultural extension and research. Eicher (2002)<sup>1</sup> quotes South Africa's new agricultural strategy<sup>2</sup>, which reports that "support services to farmers in the former homeland areas have all but collapsed", and this in spite of the dramatic transformation from a dualistic service to one that is strongly focused on the previously disadvantaged small and subsistence farmers. With the shift towards the emerging or subsistence farmers, most Provinces have scaled down or discontinued their service delivery to the white commercial farmers. South Africa's international obligations and commitments also contributed to the reduction of domestic support measures.

It is now widely accepted that effective service delivery institutions play a very crucial role in getting development going. Mabeza-Chimedza (2000) states that the institutional failure is one of the greatest contributory factors to the lack of growth in Africa's smallholder agricultural sector. Delgado (1998) and Thomson (1998) reiterate that without transforming these institutions no amount of investment in this sub-sector is going to bring about the desired growth in productivity. It is vital that policy reform strategies should address critical questions of institutional failure. Institutions have to be viewed like a system, that is, they have to adopt an approach that integrates the delivery of goods and services. Such system should include the Department of Agriculture, Agricultural financial institutions, Research institutions and other relevant institutions. The public monopoly model of service delivery has proved inadequate and unsustainable (Mabeza-Chimedza, 2000).

This section attempts to answer the question how and why have agricultural support services deteriorated with an emphasis on agricultural extension, agricultural research and domestic support measures.

### Agricultural extension services

South African agricultural extension programme was introduced with objectives that range from the effective transfer of technology to the building up of strong rural organisations which can exert influence over future research and policy agendas, and also take and enforce collective decisions over natural resource management in order to promote more sustainable agricultural development. It involves offering advice, helping farmers to analyse problems and identify opportunities, sharing information, supporting group formation and facilitating collective action. The programme aimed to deliver information and new technologies to farmers in order to raise production as well as feeding back information on farmers' constraints and potentials, to encourage relevant research. It can also introduce the research system to innovations by farmers.

<sup>1</sup> C.K. Eicher, (2002). Mozambique: Draft review of the implementation of the Extension Master Plan and Proposals for Improvement. Report prepared for the National Directorate of Rural Extension, Ministry of Agriculture and Rural Development, Maputo, Mozambique, July 31, 2002.

<sup>2</sup> Department of Agriculture, 2001. *The Strategic Plan for South African Agriculture*. Pretoria: Department of Agriculture.

Currently, the total number of extension personnel in South Africa amounts to 3 034 of which 79.9 percent are in the three provinces of Limpopo, Eastern Cape and KwaZulu Natal. The total agricultural extension budget amounts to R1.21 billion (Düvel, 2002)<sup>3</sup>. Countrywide the personnel costs amount to 73 percent of the total extension expenditure and 27% covers the operational costs. However, there is a discrepancy in the budget allocation among the provinces. For example the Limpopo province gets about 52 percent of the total extension budget while the rest has to share the remaining 48 percent.

Countrywide, the extension service delivery has collapsed due to lack extension resources and poor training of extension personnel and as a result the support to agricultural extension programme has deteriorated. Due to high number of the extension personnel, there is too much expenditure of extension budget on salaries and very little on extension resources. Düvel (2002) argued that insufficient and/or lack of extension resources, such as extension or teaching aids, office accommodation and equipments, transport, etc, are significant constraints to extension delivery. Extension or teaching aids appear to be lacking in Mpumalanga, while office accommodation and equipment is a concern in KwaZulu-Natal. The bigger provinces with more extension staff, particularly Eastern Cape and Limpopo, have more constraints with transport and with awarded kilometres. The latter appears to be particularly serious in Limpopo and Mpumalanga.

Furthermore, it is argued that insufficient training of extension personnel is another factor constraining extension delivery. This is because most of the extension officers in SA have been trained as farmers given the fact that they have never taken extension as a course. International experience indicates that a higher level of training and skills is needed if extension staff are to collaborate effectively with farmers, applying technical knowledge to site-specific socio-economic and agronomic conditions, rather than delivering pre-packaged messages. Agents also need training in participatory methods of working with farmers. Some of these additional costs can be offset by reductions in the number of staff needed, as farmers themselves take on more responsibilities, and the economies of "distance" methods (using mass media and modern information technology) are more fully exploited.

### **Veterinary services**

The political system of South Africa that changed in 1994 also lead to a profound debate on the role that a state should play. In this process of changes in roles and responsibilities, one frequently asked question is which institution will provide or lead to an optimal delivery of a particular service, public or private institution? The provision of veterinary services is one area that is included in these debates. In establishing the appropriate roles for the public and private sector in the livestock services industry, it is necessary to obtain a clear understanding of the economic nature of each service. Not only will the economic nature of the service determine whether private delivery will be feasible, but also whether private provision will results in a socially optimal level of supply. This involves the identification of various areas that constitute the veterinary services. In most production system the veterinary

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<sup>3</sup> G.H. Düvel (2002). Towards an appropriate Extension Approach for South Africa. Unpublished report, University of Pretoria, South Africa, December 2002.

service cover three broad areas; animal health care, production and public health. According to Gros (1994)<sup>4</sup> animal health services consists of preventative (e.g. tick control) and curative care, as well as the delivery of veterinary pharmaceuticals. Production services on the other hand, are more specifically geared to increase the production of individual animals and herds; they include services such as artificial insemination to achieve genetic improvements.

Animal health care delivery alone involves a wide range of activities, some of which have private good attributes, while others may best be defined as having public good ones. In the veterinary service area some aspects (i.e. curative services and drug sales) exhibit private good characteristics; thus, other things being equal, if delivered by the private sector an economically optimal quantity is likely to be provided. Curative care is, however, only an imperfect private good. It can be argued, especially where contagious diseases are involved, that all producers benefit when one of their neighbours' animal is cured of a disease. If left untreated such disease could spread to other animals. Hence there is a spill-over effects of externality in such cases.

On the other hand, other aspects such as preventative and promotive services are at best public goods that will likely be underprovided unless undertaken by an entity other than the private sector. Thus, the privatisation of public goods especially those involving preventative and public health services is likely to result in significant market failures. The only way such goods can be optimally provided is if some kind of public institution assumes responsibility for service delivery. For instance, although it is a traumatic decision, the killing of Foot and Mouth disease infected animals in KwaZulu Natal offers some positive externalities particularly to the other provinces in South Africa and elsewhere. In addition, the vaccination of animals is undoubtedly within public interest since it reduces the risk of disease occurrence.

Until 1998/99, in South Africa's developing areas animal health services (e.g. tick control) were provided at highly subsidized charges or "free of charge". For instance, in the former Venda homeland it costs the government R12.00 and communal farmers R1.00 to dip a head of cattle per year (Randela, 2000)<sup>5</sup>. Under government service, it was compulsory by law for farmers to take their animals for dipping at stated intervals. The main reason for the construction of dip tanks in the former homelands was because of the outbreak of East Coast Fever (ECF) whose control was dependent on the control of tick vector. After the eradication of ECF dipping continued to offer the following public services:

- Disease surveillance – the physical concentration of cattle at dip tanks was used by the state to perform compulsory cattle inspection in respect of controlled disease such as Foot and Mouth diseases.
- Extension- dipping at communal dip tanks was also seen as an opportunity for effective extension, education, training, practical demonstration and the collection of census data (tally recording).

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<sup>4</sup> G.J. Gros (1994). *Of Cattle, Farmers, Veterinarian and the World Bank: The Political Economy of Veterinary Services Privatisation in Cameroon*. *Public Administration and Development*, 14: 37 – 51.

<sup>5</sup> R. Randela (2000). *Socio-Economic Impact Analysis of Disease Control Programmes with special reference to Ticks and Tick-Borne Diseases*. Unpublished MSc Thesis, University of Pretoria, South Africa.

The abolition of dipping subsidies by the state in the late nineties deprives both the farmers and the state of the services formerly offered by the dip tanks. It is hardly possible to perform diagnostic testing in respect of controlled diseases such as brucellosis in the absence of the communal dipping set up. In addition the costs of performing extension as effectively without this opportunity is enormous and is beginning to render extension unaffordable and unachievable. The principle of "pay for services" is a good principle, but not necessarily of first priority in the complicated field of dipping, especially in controlled areas.

Certain regions, particularly those that are susceptible to Foot and Mouth diseases are divided into veterinary zones and livestock and livestock products do not move freely from one zone to the other. For instance, the former Venda homeland is divided into three veterinary zones, namely the Red line, Yellow line and the Open area. The latter two areas are generally known as non Foot and Mouth disease area while the former is very much susceptible and vulnerable to Foot and Mouth disease (area closer to Kruger National Park). Cattle moving from the Red Line area have to quarantine for 21 days before moving to the Yellow Line area wherein they are monitored and inspected for Foot and Mouth disease. Again if they still have to move from the Yellow line area to the Open area they are still subject to quarantine.

Currently some of the fence demarcating some of these areas have been flooded (year 2000 floods), making the region more vulnerable to the outbreak and spread of Foot and Mouth diseases should it occurs. Compounding the regions' vulnerability to Foot and Mouth disease is government withdrawal of subsidies from small scale cattle farmers leaving little incentive for these farmers from participating in ticks control at dip tanks where other services such as disease surveillance, extension, tally recording (statistics) and inspection were provided.

The other contentious topic closely related to the above debate is investment in disease research and development. Animal health control in its various forms is an integral part of animal production system. Diseases occurrences are dynamic and frequently change, new and more effective drugs, *etc.* need to be developed. Research and disease control are to be treated as productive factors that are complementary with other factors in the production sectors. It is in the long-term interest of South Africa to invest in disease research and technology.

Moreover, research and development is an important avenue of growth in the livestock sector. Recent emphasis placed on the role of the small farmer requires public sector investment to provide services that are essential if he/she is to compete with large-scale enterprises in animal production. Thus, government should play an active role in agricultural research and development with more emphasis on disease surveillance and diagnostics. There is no an incentive for a private institution to provide a good that has public attributes. Again, there is no incentive for individuals to pay for the provision of public goods since the benefits derived from such goods or services do not accrue to an individual person. With this in mind, the research capacity of certain institution e.g. Onderstepoort Veterinary Institute of the Agricultural Research Council need to be strengthened both financially and otherwise since most of its services provided have public good attributes.

A fundamental requirement for the national and international control of animal diseases is the provision of a comprehensive system of disease surveillance and disease reporting. There is a great need for improved disease surveillance in South Africa as evidenced by the recent outbreak of Foot and Mouth disease in Kwazulu-Natal.

### **Agricultural research**

In 1994 the political system of South Africa changed fundamentally. Of direct relevance to the national agricultural research system were the subsequent changes in provincial structures, the decision that agricultural research and extension will be a shared competency between the provinces and the national government, and the changes in agricultural and national science research policy. This transition has had dramatic effects on R&D providers. The Agricultural Research Council (ARC), which is the principal agricultural research entity, has had to cope with the following: (i) rapid decline of government support, (ii) farmers and value adding industries were not used to or geared to pay and (iii) the restructuring to downsize and access new clients and business to successfully align with the new funding model and government priorities. Public sector financing still remains the most important source of funding, but this has come under severe pressure in recent years. For instance, parliamentary grant funding to the ARC has decreased by 12%, in nominal terms, from 1996/97 to 1999/2000 financial year. This drop in core government funding and changes in leadership has led to a large exodus of researchers out of the main agricultural research provider, i.e. ARC.

Previously agricultural research in the provinces was funded according to the priorities set out in the agricultural development programs of the provinces. The establishment of the Provincial Departments of Agriculture (PDAs) followed by major restructuring initiatives has led to breakdown of this practice as it deviated fundamentally from the formula guidelines of 1996. Provincial R&D capacity dwindled and in some cases ceased.

During the transition period, all regional research stations, except one, were transferred to the PDAs to conduct adaptive research. During this time no system was put in place to coordinate the activities performed by the national agricultural research and the PDAs. In addition, extension service is a function primarily performed by PDAs and there is a weak link between research and extension. Recently the ARC has provided increasing support to the provinces.

Compounding the problem is that with declining public funding, scientific research, services and maintenance related to National Repositories and Facilities have, overtime, moved from the relevant line department (i.e. National Department of Agriculture) to the science councils and a growing emphasis on the generation of external income projects have placed increasing pressures on funding, maintenance and expansion of fundamental resources required for National Repository and Facilities. If this continues and it is expected from the ARC to fund the National Repository and Facilities from the parliamentary grant (PG), the PG will mainly be used for this purpose and other important agricultural research priorities will be severely affected. It is argued that the funding of these aspects should not be part of

ARC's normal core funding, but that they should be funded separately on an agreed formula by the relevant line department (ARC, 2001).

Currently there is very little co-ordination in setting research priorities in agriculture between the different role players. Universities, the ARC and the PDAs hardly collaborate in research and often compete for research funds. The established National Agricultural Research Forum will endeavour to improve this situation. A decision must therefore be reached on the amount that should be allocated to partnership initiatives. Typically the international benchmark for this is roughly 10-25% of what is spent on the operational cost of research. In order to ensure that monies are not entrapped in overheads and salaries, a further rule that needs to be implemented is that spending on overheads and salaries should not exceed 70% of the total budget (ARC, 2001).

### **Domestic support measures**

South Africa, as one of the founder members of the General Agreement on Tariffs and Trade (GATT), became a full member of the World Trade Organization (WTO) in 1995. Since then the agricultural sector was affected as SA also committed herself to rules and policies of the WTO, more especially those described in the amber box of the Agreement of Agriculture (AoA). Amber box policies covered all domestic support measures considered to distort production and trade except those in the blue and green boxes. These include measures to support prices, or subsidies directly related to production quantities. These supports are subject to limits: "de minimis" minimal supports are allowed, i.e. 5% of agricultural production for developed countries and 10% for developing countries. The WTO members that had larger subsidies than the de minimis at the beginning of the post-Uruguay Round reform period are committed to reduce these subsidies.

The Uruguay Round (UR) of multilateral trade negotiations in 1986 brought some rules that apply to all the members including South Africa, as the first attempt to liberalize world agricultural trade. The UR agreement required members to:

- ✓ Eliminate all quantitative restrictions, establish, bound, tariff-based protection and reduce existing border protection (1986-88 base period) by 36% on average over a six-year period and to open tariff products (in products previously subjected to non-tariff barriers) to guarantee existing or minimum access for at least 3% to 5% of domestic consumption. Special safeguards are allowed for items with past quantitative restrictions provided their potential use is notified. The Agreement defined both price and quantity safeguards.
- ✓ Reduce certain domestic subsidies by 20%, and
- ✓ Reduce, from a 1986-90 base period, the value of mainly direct export subsidies by 36% and the quantity of subsidized exports by 21%.

South Africa committed herself to these international obligations and implemented successfully all the UR rules on agriculture as follows:

- The introduction of the new Marketing of Agricultural Products Act in 1996 resulted in the elimination of all marketing boards, the removal of price regulation and single channel markets by the end of 1997. This led to the

reduction of the domestic support measures to the WTO acceptable levels in 2000.

- Export subsidies were removed in July 1997 by the termination of the General Export Incentive Scheme, except for sugar, on which an industry funded export subsidy remains in effect.
- Import permits, prevalent in the past, have now been replaced by import duties. This has already improved access to the South African market.

The new Doha Round of multilateral trade negotiations, as adopted on 14 November 2001 in Qatar, will build on the previous work of the UR and without prejudging the outcome of the negotiations members committed themselves to comprehensive negotiations aimed at:

- Substantial improvements in market access.
- Reduction of, with a view to phasing out, all forms of export subsidies.
- Substantial reductions in trade-distorting domestic support.

South African agriculture is thus now generally free from trade distorting support measures. Apart from the fiscal constraint that limits the extent to which she can support farmers, current policy is predicated on the view that trade liberalisation will encourage efficient utilisation of our scarce resources. Government strategy for growth and distribution is based on this liberalisation approach. Improved market access for our products is key strategy for SA's agricultural development. South Africa's interest has shifted to actively pursue further liberalisation of global markets and the removal of trade distorting domestic support and export subsidies by our competitors.

### **Sanitary and Phytosanitary (SPS) measures**

SPS are an integral part of the current agricultural agreement of the World Trade Organisation. In terms of the WTO rules South Africa is expected to comply with both import and export measures governing international trade. Import control is vital for the prevention of the introduction of foreign pests and disease into the country. This is achieved, inter alia, through pest risk analysis. SPS measures encapsulate factors dealing with issues affecting human, animal and plant health and their lives. The enforcement of these measures ensures that both plant and animal health is protected. Some of the imported products are subject to quarantine test to avoid the importation of exotic organisms and diseases that may adversely affect local production and global market share.

The Plant Health and Quality Directorate of the National Department of Agriculture (NDA) dealing with the regulatory and other services is expected to perform 24 hours services in certain border posts e.g. Beit bridge. However, this is constrained by lack of staff personnel.

### **Conclusion**

This section attempted to answer the questions how and why have the agricultural support services deteriorated with a focus on agricultural extension services, veterinary services, agricultural research and domestic support measures.

Countrywide, the extension service delivery has collapsed due to lack extension resources and poor training of extension personnel. Due to the abolition of dipping subsidies by the state in the late nineties, it is impossible for extension officers to deliver veterinary services to rural households. As a result, this causes extension services to unaffordable and unachievable.

Parliamentary Grant funding to the ARC has also deteriorated because of the government's new funding model, which emphasises that all the research councils should generate extra income from external projects. South Africa's international obligations also led to the deterioration of all domestic support measures that are considered to distort production and trade according to the WTO. Insufficient and/or lack of personnel staff also make it impossible to ensure better implementation of the WTO's SPS agreement. In light of the above, one could conclude that international pressure and budgetary constraints are the main reasons behind the deterioration of the agricultural support services.