DINNER ADDRESS : WHAT ABOUT THE FUTURE OF AGRICULTURE?

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INTRODUCTION

The theme for this 37th Ordinary General Meeting of the Fertilizer Society of South Africa is very relevant and has given each excellent speaker the opportunity to express their view on issues that will play an important role in determining the future progress of both the agricultural sector and the fertilizer industry. It is therefore a great pleasure and honour to be here tonight and to address you at this august gathering of leaders in the agricultural and associated fields. The importance of the meeting today and the dinner this evening is emphasised when one looks at who is present here. It is an honour to be associated with all of you. I would like to take this opportunity to thank those of you who I have had the pleasure of being closely associated with for all the support and the assistance that I have received over the years. May this association continue and may we all still in our own peculiar way continue to serve agriculture.

As a former leader in agriculture and now a common or housefly type farmer - the individual who in practice is at the receiving end of any policy changes, be it political or economic - I thought it appropriate to pose the question - what about the future of agriculture?

I will attempt to explore this question along the lines of the subjects that were discussed today as well as adding some of my own thoughts.

At the outset, however, I would like to say that the principles that apply to the general economy also apply to the same degree to agriculture. One cannot get away from this fact and therefore it is necessary that any analyses that are done of the present agricultural situation must take cognisance of this fact. In spite of the fact that the relative role of agriculture in its contribution to the GDP is decreasing, agriculture will still play a major role in the economy. It is also true that the weal and woe of agriculture probably affects the economy more than any other contributing industry to the GDP.

In my address I will be taking a global view. I have found that farmers the world over basically speak the same language and that there is consensus on a great many things. Taking a global view also avoids the sensitivities which are involved with terms such as white and black farmers, large and small scale farmers and developed and undeveloped farmers.

A NEW MANDATE FOR AGRICULTURE

Societies the world over are seeking new paths towards more favourable and equitable development. Farmers offer such society a new direction.

With the right policy framework, agriculture is set to make a unique and central contribution towards a more sustainable society. It can assure the continued development of a food and raw material system that is environmentally sound, productive and profitable, meeting the needs of a rapidly expanding world population. It will encompass the conservation of the rural environment with its wildlife habitat and genetic biodiversity. It can provide renewable raw materials for industrial and energy use. It will ensure the viability and vitality of the rural areas.

Farmers hold the key to solving many of societies environmental problems. Unleashing the productive potential of one-quarter of the world's population occupying much of the world's habitable land, is an exceptional force for development. With a concerted approach such as, (1) government in constructive partnership, (ii) agro-industry and research in open consultation, and (iii) dialogue with groups active in rural areas, agriculture is ready to assume a leadership role.

As a structural force, farmers' organisations represented within organised agriculture, are indispensable players in a new mode of sustainable development for the 21st Century.

FARMERS' REQUIREMENTS

Sustainable Farming Methods

Despite the many functions agriculture as a whole provides society, its primary function and responsibility, is to produce sufficient food to feed the world's population.

Agriculture has an exclusive dependence upon, and

intimate relationship with, natural resources. Farmers must maintain a positive balance with their environment to ensure production on which their immediate livelihood depends, and for the long-term survival of farming as an economic activity. They therefor wholly support sustainable agricultural practices and are willing to adapt their farming methods, provided these fulfil three key requirements:

- **A profit for the farmer:** Agriculture must be considered first and foremost as an economic activity, because only an economically viable agriculture will be capable of achieving the objectives of environmental sustainability.
- **Ecologically sound:** Agriculture should be carried out without damaging possibilities for future farming or farmers, and without damaging others' interests or natural resources. In many cases, agriculture is the sole means for environmental recovery, with a substantial capacity for reversing environmental damage.
- **A vibrant rural economy:** The success of any sustainable agricultural system must be viewed in the context of strengthening rural communities, providing economic opportunities and ensuring a balanced development between rural and urban areas.

Where additional demands are made on farmers, there should be recognition that this will involve increased costs to farmers. These costs must be properly recompensated to facilitate the transition to new farming methods and to cover any loss of property or of income through restrictions on natural resource use. Furthermore, farmers' productive assets must be protected against damage from external pollution.

Farmers' livelihood depends on the long-term productivity of their land. Farmers use external inputs - chemical or biological - to sustain this productivity: enhancing nutrient efficiency, replacing those lost through the biological cycle, controlling pests, weeds and fungus. With a sound knowledge of crop, soils and climatic conditions, accompanied by good farming practices including efficient water management, farmers minimise the risks these inputs might cause to the environment. Effective use of irrigation water, chemicals and fertilizers will lead to lower costs of production and improved agricultural sustainability.

Continuous research is necessary to minimise input use and to create new safe systems for pest and weed control. These findings have to be speedily communicated to the farmer. Educating farmers in the safe use of farm inputs is essential.

Based on environmental and economic arguments, as well as sound biological principles, farmers support the trend towards greater reliance on biological control and higher levels of on-farm and site-specific management. This is especially true for developing countries, where promotion and greater use of biologically orientated systems can lead to reduced costs and risks associated with the use of chemicals.

SECURE LAND TENURE

Good land stewardship is closely tied to ownership. Over the centuries, under the right conditions, the family farm has provided the foundation stone for productive agriculture, the sustainable use of natural resources, and stable rural communities. To effectively fulfil this role, farmers need explicit institutional rights - especially clearly defined property and user rights. These must be secure, take into consideration traditional rights, be protected by existing and future legislation, and be actively enforced by governments.

APPLICATION OF BIOTECHNOLOGY

Farmers for centuries have been selecting and breeding both crops and livestock for specific characteristics such as productivity and the resistance to climatic stresses and diseases. Biotechnology accelerates this process. It can be targeted not only towards increasing productivity, but also on limiting environmental damage from farming practices especially in drought-prone or fragile areas, reducing the use of pesticides and other potentially harmful inputs, on improving the choice and quality of foods available to the consumer and supplying raw materials for industry.

The use of technologies on the intrinsic qualities of agricultural products and raw materials will face increasing scrutiny. Consumers must be confident of the high safety of modern farming techniques which are neither harmful to the health of animals nor diminish the quality or safety of their products. Ethical issues as well as matters of animal welfare need systematic monitoring, as do the wider implications of techniques such as genetic engineering on plant and animal biodiversity.

Farming systems incorporating such technologies need to be carefully designed, developed and implemented with regard to the safety and well-being of farmers, consumers and the environment. For this reason, greater farmer involvement in research is necessary to orientate its direction and ensure that it is addressing their actual needs. This can be achieved through farmer participation in programme formulation

and evaluations, and through the co-ownership of research findings.

CONSERVERS OF BIODIVERSITY

Apart from a steady supply of food and feed, farmers, for generations, have been the conservers of the world's plant and animal genetic material. For this service to society, they have received no direct benefit. In addition, farmers have carried out the role of managers of natural resources, providing attractive country landscape, recreation and leisure facilities and preserving wildlife habitat.

If society requires access to these genetic resources for their medicinal and productive potential, this must be balanced by the recognition that farmers and rural communities, especially in developing countries, be rewarded for their contribution on conserving biodiversity. As conservers of biodiversity, farmers should be compensated for their stewardship. There rewards should be no less than those received by plant breeders and other agents involved in the commercial development of genetic material.

Patents on biotechnology should ensure exemption of the countries which provide the basic genetic material in order to protect the rights of the farmers who have produced the variety.

EDUCATION AND EXTENSION

In many regions of the world, there is a pressing need to transform agriculture both quantitatively to feed growing populations and qualitatively in order to preserve the natural resource base. Furthermore, structural changes which lead to crop diversification and increased market orientation, require farmers to have new skills and techniques in all elements of the production chain, both on and off farm, as well as in non-farming activities. Ongoing education, training, information and extension are therefore essential. Such services should be under the control of farmers and funded where possible, by both government and farmers. They should aim to foster an entrepreneurial spirit among farmers, encouraging them to identify their own problems and areas of action.

The sharing and exchange of knowledge, ideas and information and the transfer of environmentally friendly and appropriate technologies to all farmers and their families are effective means by which farmers' organisations can support each others' efforts.

VIABILITY OF THE RURAL AREAS

Unique Value System

Agriculture is the heart of the rural economy. Its contribution to a sustainable society goes far beyond producing food and raw materials. Rural areas provide society with a different value structure which is the basis for a whole culture and way of life. Deep rooted traditions underpin the stability of rural areas and contribute to a rich rural heritage and cultural diversity, including traditional mechanisms for processing agricultural food products.

There is a natural complementary and interdependence between the economies of the rural and urban areas. It is therefore essential to reinforce the economic, social and ecological balances between these two areas.

Prime natural resources must be protected from the pervasive spread of urbanisation and transport systems. The potential of rural areas should not be despoiled by factories and services that - because of their intrinsic environmental unsoundness - are unwanted in the urban areas.

Poverty in Rural Areas

Farmers are often found amongst the poorest sector of the population, their income insufficient for themselves and their families, let alone to invest in sustainable farming methods. The disruptive impact of rural exodus, urban explosion and migration is likely to become even more acute if the economic basis for the development of agriculture and the rural communities is not assured.

Poverty reduction lies in creating conditions and providing infrastructure that enables farmers to make the most effective use of their assets in the most productive way. This is true for all poor farmers in developing or industrialised countries alike. It is not that they cannot handle their resources efficiently, but that they do not have access to the means - physical, financial or technological - to permit them to do so. Economic distortions - especially through taxes on agricultural products and support to urban development, have resulted in farmers being exposed to the costs and largely excluded from the benefits. The removal of such policy bias, and of institutional distortions, are prerequisites for the increased viability of the rural areas.

Woman farmers

Women the world over are in the forefront regarding environmental protection and management of natural resources. They also have good knowledge on how food consumers act and therefore they play an important role in influencing consumers and public opinion

on environmental issues. In many developing countries, women are the major food producers and managers of the natural environment. Yet because of their status in society, their needs as farmers are largely overlooked.

Society must acknowledge the contribution of women farmers and be sensitive to their needs. Women must be integrated into the mainstream, with the same rights, opportunities and access to inputs and education as men. Farmers' organisations are there to ensure that women have a voice and are enabled to play an active role in the decision making process.

Young Farmers

Policies must be encouraged to ensure young farmers have the opportunity to enter agricultural production because they have limited access to capital which makes it more difficult to survive in a market environment.

Sustainability in Renewable Resources

No contribution can be greater to more environmentally sound development than the sustainable and diversified use of agricultural products as renewable raw materials for industry and energy. This sector offers considerable possibilities for the future, whether this be for the production of bio-energy, for the manufacture of bio-degradable packaging, or for many other non-food uses.

Whether these are energy specific or multipurpose crops, plant residue, forest or wood products, growing biomass helps mitigate environmental effects by absorbing carbon dioxide from the atmosphere. At the same time, it can be used to regenerate degraded land, is ecologically safe, and has enormous employment potential.

However, the successful implementation of a bio-energy strategy as one example, cannot be left to market forces. It will require that account be taken of the environmental benefits and costs of non-renewable energy. It will also require co-operation among countries to set regulatory frameworks fully supported by policy and technical interventions of the international community. The dynamic potential of biomass energy and the many other uses of agricultural inputs for industry - in terms of the environment, development and employment - must be put in motion. Farmers' organisations are positioned at the forefront of this drive.

Farmer Owned Businesses

The future of the rural areas depends to a large degree on a healthy local economy. Tomorrow's rural economies will need a successful farming sector on which to thrive, diversify and play their part in maintaining the countryside. Farmer owned businesses such as agricultural co-operatives and farmers' associations can invigorate the rural environment. These contribute both income and stability to the rural population by providing essential services to the rural areas, providing environmentally sound inputs, generating employment opportunities, and encouraging agro-processing which raises the value added going directly to the farmer.

Such businesses also provide farmers with the vital link to the market place. The stronger this link, the greater is the influence and control the farmer has, not only over his own income and strength in the market place but also in his ability to guarantee the consumer food safety and quality throughout the food chain - from farm inputs to processed products.

Rural Alliances and Partnerships

Rural areas in many parts of the world can no longer live by farming alone - more broad based rural policies are necessary to underpin a mixed rural society. Agricultural policy and rural development strategies are needed to meet the complex and varied needs of the rural areas.

Farmers can no longer work in isolation from other groups active in the rural areas. Stronger links and partnerships must be forged between farm, business, community and environmental leaders. The new alliances thus formed at local and regional level will provide an impetus for collaboration. Greater trust and increased dialogue will help to articulate agriculture and other activities, creating synenergy in the rural areas. Small scale enterprises can also make a significant contribution to creating new employment opportunities for the rural economy.

TRADE AND THE ENVIRONMENT

Adjustment and Change

Farming the world over is undergoing profound changes. Structural adjustment programmes, the liberalisation and opening of markets, redirection in agricultural policy resulting from internal reform, or regional and international agreements, are affecting the way in which farmers are earning their income.

The increasing internationalisation of agriculture means more open borders and a greater exchange of commodities. Since many farmers - even small scale

- depend on export markets for their income, investment in rural infrastructure must be maintained despite budgetary constraints. Effective trade promotion depends on efficient marketing channels and flow of information. Fair terms of international trade must exist between industrialised and developing countries. If agricultural trade is to depend on market forces, farmers must have equal access to markets. Barriers to developing country imports have to fall especially with regard to processed and semi-processed products, where the greater value-added is gained.

More open trade policies are relevant to developing countries only in as much as they contribute to alleviating poverty and environmental degradation.

World Trade Organisation

An important step towards more clearly defined regulations between trade and the environment has been established with the creation of the World Trade Organisation. Among its activities is to:

- encourage governments to establish measures consistent with existing international standards and guidelines;
- develop ecologically agreed international standards;
- develop comparative standards because of the widely varying natural conditions under which agriculture operate.

Since environmental, sanitary and phytosanitary regulations will play an increasingly prominent role in agricultural trade, it is essential that farmers and their organisations have an input into the process.

DIVISION OF RESPONSIBILITY

To achieve a more sustainable outlook for society will require co-operation across the different sectors of society; farmers, agro-industry, research and development, and consumers.

Farmers' Organisations

Farmers' organisations are collaborating to build up consensus to create the necessary framework for their own key contribution to sustainable agricultural development. Farmers as an organised body, are mobilising their collective strengths and capabilities in the following ways:

- acting as catalysts for change, supplying the vision and effective leadership needed to accomplish set goals; providing within their organisations, structures through which to manage change, and creating mechanisms to overcome concerns of grassroots membership;
- assuming greater responsibility for sound management of natural resources by: improving and increasing services to members in the field of extension, education, information and advice;
- generating a commitment to, and a sense of responsibility for sustainability both nationally and internationally;
- taking initiatives and encouraging joint action among farmers to identify environmental problems and to adjust farming practices;
- actively seeking improved communications and constructive dialogue with government and other sectors of society, especially consumers, to find solutions;
- promoting and supporting co-operative and collective marketing projects to enhance the value of farm produce and returns to farmers;
- creating strong and effective movements for the empowerment of farmers from grassroots to national level; being actively involved in research direction and orientation to ensure that farmers' needs are prioritised and accurately targeted.

Responsibility of Governments

- To provide a stable macro-economic, regulatory and agricultural policy framework so that farmers have the necessary to produce and plan for the longer term;
- To remove domestic direct and indirect taxes on agriculture which distort prices and production in favour of other sectoral interests;
- To foster an environment conducive to the formation of autonomous, representative farmers' organisations to articulate needs, speak for their members, channel information and are regarded as full partners in the establishment and implementation of rural development strategies;
- To facilitate the formation of farmer co-operatives and other joint business enterprises, in order for them to raise capital, undertake production and invest in other sectors in the food chain;
- To ensure a co-ordinated approach to rural development policy in so far that the aims and administration of different schemes by various government bodies are integrated, consistent and complementary;
- To ensure that farm policy does not impose change to new conservation requirements faster than technical innovation and financial possibilities permit;
- To establish working procedures with farmers' organisations on ways to identify environmental problems, standards to be reached, available solutions, time frames, and areas of research to support the development process;

- To urge, where necessary, multilateral agencies to provide client orientated support aimed at arresting and rectifying declines in the natural resource base;
- To recognise that providing incentives for voluntary action by farmers is a more effective policy tool than prescriptive regulation;
- To work towards harmonising certification procedures for chemical products used in agriculture and prohibiting the export to developing countries of those products which have been found scientifically unsafe in industrialised countries;
- To develop a coherent countryside planning legislation and investment policy that focuses on the specific needs of the rural areas;
- To maintain their commitment to support agricultural research, especially as moneys expended on research, training and extension fall into the "green box" category of support to agriculture under the GATT agreement;
- To provide the necessary fiscal stimulus for the development of renewable energy technologies and industrial uses for agricultural products.

Responsibility of Agro-industry

- To ensure the highest quality of inputs, which are safe for both the producer and the consumer;
- To undertake research aimed at the development of inputs which minimise damage to the environment;
- To reorientate research and development programmes to take advantage of the environmental benefits of the recycling of resources;
- To adapt inputs for specifically defined ecological regions;
- To make available to farmers understandable information about new technologies, and their impact on the environment and food quality;
- To improve training programmes on the proper handling of pesticides;
- To ensure that chemicals found scientifically unsafe in industrialised countries are not dumped on developing country markets.

Responsibility of Food and Fibre Processing Industry

- To maximise the use of locally produced food and raw materials to stimulate production;
- To promote investment in, and the development of the rural areas, to create a dynamic local and domestic market.

Responsibility of Agricultural Research

- To establish closer working links with the farming community in order to ensure that the needs of farmers are correctly addressed;
- To ensure that adequate research is undertaken in such areas as small grains, indigenous crops and livestock, fragile, marginal or less productive land and mixed farming systems, and that the needs of small scale and resource poor farmers are addressed;
- To form strategies which assist in the more rapid and clearer dissemination and adoption of research, and which foster a closer association between researchers, extension agents and farmers.

Responsibility of Consumer Organisations

- To endeavour to better understand and inform the public, of the nature of farming and the constraints under which farmers work;
- To acknowledge the services rendered by farmers in the management of natural resources, and the protection of the environment;
- To accept that certain changes towards more sustainable agricultural methods and conservation practices could lead to higher costs for food production.

CONCLUSION

By virtue of its numerous vocations, agriculture is, and will remain, indispensable for the economic, social, physical, environmental and cultural well-being of societies into the 21st century. Through their economic strength and social cohesion, farmers can bring into play all the resources of the rural environment to work towards more sustainable development for the future. Through active collaboration, the farmers of the world will accomplish the broad sweep of objectives included in the new environment and development agenda. Farmers' organisations in South Africa are positioned to play a leadership role in steering society in this direction. When one therefore asks the question — what about the future of agriculture? – I can confidently answer that if all these conditions can be met, and I see no reason why they cannot, then the future of agriculture is secure.