

# AN AGRICULTURAL PERSPECTIVE ON INVASIVE SPECIES

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## INTRODUCTION

Secretary Babbitt, Under Secretary Dunn, Minister Kasrils, Minister Moosa, distinguished guests, ladies and gentlemen. I am delighted that we have reached this milestone event today - which provides us, as different, yet complimentary line departments, as well as two governments - under the auspices of the South Africa USA Bi-National Commission the opportunity to discuss our experiences and concerns with regard to invasive alien species.

One of the biggest threats to the sustainability of agricultural practices is that of invasive alien species. Alien plant species are like a two edged sword for the agricultural sector. On the one hand we have used them in the development of new varieties and products in agriculture. On the other hand we find that they have the potential to threaten our biological diversity, agricultural production, status of our natural resources and as a consequence agricultural economic development.

## CHALLENGES TO THIS WORKSHOP

An important challenge for us as governments lies in pooling our knowledge in the development of improved protocols for the identification of potential invasive species. Early detection and rapid action can, as in the case of the milk snail, *Otala lactea* in the Western Cape, lead to the eradication of dangerous invasives. The exchange of pests between the USA and South Africa will continue to provide opportunities for collaboration. These can lie in the field of biological control as in the past in the case of black pine aphid control by means of parasites imported from the USA, and of olive scale in California by parasites imported from South Africa.

It is my hope that today and in the deliberations tomorrow we can, as this collective of stakeholders, find ways and means to improve on this collaboration in the interest of managing the delicate balance between facilitating the use, and ensuring the eradication of alien invasive species.

Due to the negative tendencies associated with their movement across borders - our experience shows that their presence in a country can also be used as a barrier in the trade of its products to countries where they are not present. One tragic example cited to me by my specialists is that of the *phylloxera* outbreak that destroyed the Cape wine industry in the last half of the 19th Century. The culprit bug had its origins in a small sucking insect that I am told first occurred on the roots of vines native to America but which subsequently found their way to South Africa through Europe. The tragedy in this invasion was that it led to the collapse of the wine industry at the time. Other examples may be cited - but what is common to most is that these pests find their way across our borders through a variety of means - some controllable others not. Furthermore, historically the movement of pests was linked to the migration of different communities in their search for trade and or new opportunities to farm and live.

It is my understanding that since the 19th Century, we have, as different countries and collectively found ways in which we can better manage the response to the movement of pests. South Africa, as you know, subscribes to the International Plant Protection Convention and has comprehensive legislation aimed at preventing new pests gaining access to the country. This does not mean we have everything ideally under control. We are challenged by the reality of long land borders, increased traffic in the free flow of goods and services associated with a free market system. As well as the increasing intensity of regional and

international trade. All these make it difficult to manage as witnessed by the recent discovery of the larger grainborer on our border with Mozambique and the outbreak of the Russian wheat aphid.

## **SOUTH AFRICA'S STRATEGIC RESPONSE**

Our response as a country can be classified as three distinct strategies. First of all we have in place legislation that assists in the control of alien species by ensuring they are declared as such and implicitly that means it is illegal to maintain these on your property. Secondly, through research and collaboration we endeavor to find means of prevention and control. Thirdly, and one which is gaining increasing attention, as it is often people who are both the agents of transfer but can also be the agents of removal.

### **Conservation of Agricultural Resources Act**

As part of the national efforts aimed at gaining control of invasive alien plants, my own department has initiated a revision of the regulations governing the management of proclaimed weeds in terms of the Conservation of Agricultural Resources Act. In the first place, drawing on recent experience, we are proposing the addition of several new species known to be serious threats to our ecosystems to the existing list. More importantly, we have proposed bold new steps to deal with species that have commercial or ornamental value, but at the same time are serious weeds. The species include important timber trees such as pines and wattles, species that have food or fodder value (such as mesquite) and important ornamental species.

Under the new regulations, people will be permitted to cultivate these species on demarcated areas for commercial gain, but will be required to take steps to prevent spread from these areas. The species will also be regarded as weeds outside of demarcated areas, and landowners will be required to take steps to control the species where they occur on their properties.

These steps should not be viewed as threatening to the many stakeholders who have considerable interests in these species. On the contrary, they represent an honest attempt to find an equitable sustainable solution to an environmental problem of enormous proportions. This government is fully supportive of the commercial ventures based on these species, and it recognizes the important contribution that they make to the South African economy and the welfare of its people. However, it is equally true that this welfare is under threat from the significant impacts of alien invasive plants, and that we must face up to, and deal with this problem.

We nonetheless recognize that a comprehensive national strategy, supported by all relevant departments, and underpinned by new, consolidated legislation, will have to be developed as a matter of urgency - this process may indeed benefit from the outcomes of this workshop.

### **Research and Collaboration**

Research into biological and other mechanical control options has become increasingly important in his war against invasive species. We recognise that as a developing country with many demands on its public goods budget - the temptation to write off scientific research as an expense ignores its potential for reducing the burden of control down the line. We have found - for example in recent years that where there is a common problem - joint work and collaboration can lessen the burden. Furthermore, we find that we need to be careful to ensure that unnecessary duplication of research does not occur.

As part of our African Renaissance initiative for example, we have already identified where we think collaboration could be of value on a continental scale. This would be in the control of water hyacinth - the world's worst aquatic weed that occurs in African countries except Namibia, Lesotho and Botswana. On Lake Victoria alone, its effects on agriculture, power generation, fisheries, transport, recreation, water supply and trade have been devastating.

Now, co-operative research between USA laboratories in Florida and Argentina and South Africa's Plant Protection Research Institute is already underway.

As a result, an African Water Hyacinth Initiative has been proposed in collaboration with the Inter-African Phytosanitary Affairs Council of the OAU, and has elicited wide interest. It seeks to provide a clearinghouse for information and technology and to prevent duplication of research. Where for example it is clear that insect quarantine facilities are extremely expensive to build, maintain and operate - we have proposed that as South Africa has a number of excellent quarantine research facilities - they could be utilised for the screening of natural enemies of water hyacinth to be released in other African countries. This would have the effect that down the line we do not need to worry as much about cross border movements of the water hyacinth.

### **Biological control**

There is also an impressive track record with regard to the use of biological control on the African continent. There have been 103 biocontrol agents that have been released in South Africa against 46 weed species; of these, 22 weed species are now under complete or substantial biocontrol. Exchange of scientists, training courses and effective control, drawing on an impressive pool of local expertise, will be outcomes of the initiative. This same approach could be followed with other invasive species in Africa, including major problems such as *Chromolaena* and *Lantana*. Already successful projects such as those aimed at controlling *Azolla*, *Sesbania punicea* and others could also be expanded to other countries.

### **Public Awareness**

Finally - Chairpersons - a brief word on the challenges of public awareness. South Africa has, in the past few years, had very successful public awareness campaigns on the Land Care Programme and the Working for Water Programme. For these to be successful - a lot of work has gone into the development of options and actions, which can usefully engage the public in feeling they are part of the solution. This calls therefore for a sustained research investment agenda for all countries into the development of public goods knowledge, which can be applied to manage the control of alien species.

A second dimension of the South African experience was how we have successfully designed the awareness and eradication programmes within the context of public works programmes. In this way we are able to provide temporary relief for those people who are out of work and who managed to learn whilst working. The long-term benefits of this approach need to be assessed and evaluated against world experience in more commercially oriented interventions.

### **CONCLUSION**

The above experiences must of course be evaluated in the context of this workshop and new ways of doing things - in a better way and collaboratively be sought. Our Government is dedicated to the sustainable utilisation of our agricultural natural resources. In this we are also committed to partnerships that support the exclusion of alien invasive species from South Africa and its neighbours, and the control of these species if and when they occur within our borders. I would therefore like to conclude, Chairpersons, with my very best wishes for a successful workshop, and to express the hope that the outcomes will be to the benefit of all countries present here today.

I thank you for your attention.