

# Scientists call for urgent research into 'real' impacts of invasive species

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Invasive alien species are those that occur outside their natural range and threaten the existence of native plants and animals. They can be plants, animals or microorganisms that are introduced intentionally for economic or agricultural purposes, or accidentally, through tourism, travel or trade, or when domestic animals become feral.

As well as drawing attention to the rising cost of invasive species on a global scale –estimated at US\$1.4 trillion in damage – GISP stresses that too much emphasis has been placed on the problems faced by the agricultural sector in developed countries rather than in developing countries and on the “full range of environmental, social and economic costs.” The report also emphasises that due to the lack of knowledge and research available on the severity of individual pests and the options for best controlling them, policy makers are being left in the dark.

Dennis Rangi, Chair of GISP says:

“With the increase in global trade, invasive species are gaining more and more prominence around the world. However the level of awareness amongst decision-makers, and in particular those in developing countries is still relatively low. “

He goes on to say that to enable informed policy making on the prevention, eradication and control of invasive species, it is critical that studies are expanded to show the extent of the problem and in particular the impact that these weeds, pests and diseases have on people’s lives. He

says “numbers are not enough; decision makers need to know the tangible effects invasive species are having on the individual farmers and their crops.”

To help address the issues, GISP and one of its lead organisations, CABI, has undertaken a number of case studies of problem invasive species in Africa – a country with a current lack of analysis. As well as highlighting the overall economic damage to the affected countries, the studies show the estimated monetary loss to farmers, the cost of prevention and control and the potential consequences if action is not taken.

CABI is world-renowned for its extensive work in working with countries to help prevent and control invasive species. As well as advising on how to control invasive weeds and pests using a complementary array of pest management approaches, CABI specialises in natural control methods. This focuses on finding and developing natural enemies from the species’ country of origin and introducing them to the environment where it has invaded. One example is the *Rastrococcus mealybug* which devastated mangoes in West Africa. CABI introduced a highly specific wasp from Asia, which proved extremely effective in controlling the mealybug. Natural control methods for other weed species such as *Mikania micrantha* and Water Hyacinth have also been successfully used.

Among GISP’s case studies is the Triffid weed (*Chromolaena odorata*), a plant native to the Americas which has severely impacted natural areas in Africa and reduces crop productivity in agriculture and grazing. In Ghana the study showed that the weed occupies 59% of all arable lands, and in Ubombo, South Africa it reduces the grazing capacity of animals by 150%. Effective control would see an increase in production by 34% and a gain of US\$25.6 per hectare for each farmer.

Another example is the Larger Grain Borer which has been recorded in over 18 African countries. The Borer is a major pest of staple food in Africa, especially farm-stored maize and cassava. By studying the Borer, GISP reported that “its impact is greatest in rural, small-holder farming systems where yield losses range from 23-60%.”

Sarah Simons, Global Director of Invasives Species at CABI concludes:

“By concentrating on a number of specific problem weeds in Africa, we are able to identify the effects they have on a country’s overall economy and also on the farmers and their families. This sort of information is essential if governments are to understand the extent of the problem and develop effective strategies to tackle them.”

To read the report please go to [www.cabi.org/files/EZines/E%20Shots/gispeconomicstudies071607.pdf](http://www.cabi.org/files/EZines/E%20Shots/gispeconomicstudies071607.pdf)

Source: CABI

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