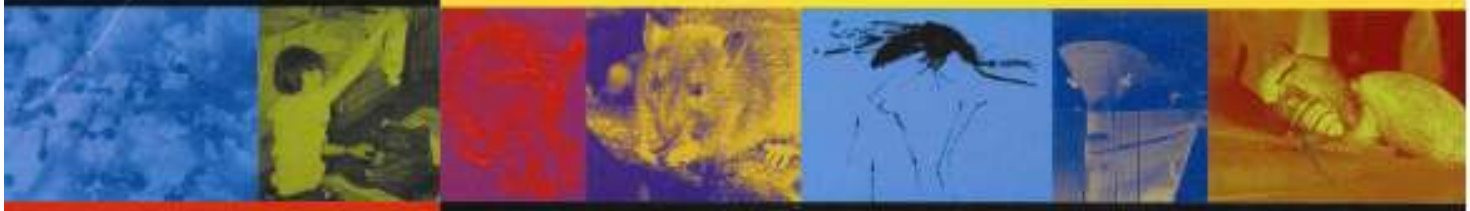
THE GLOBAL INVASIVE SPECIES PROGRAMME

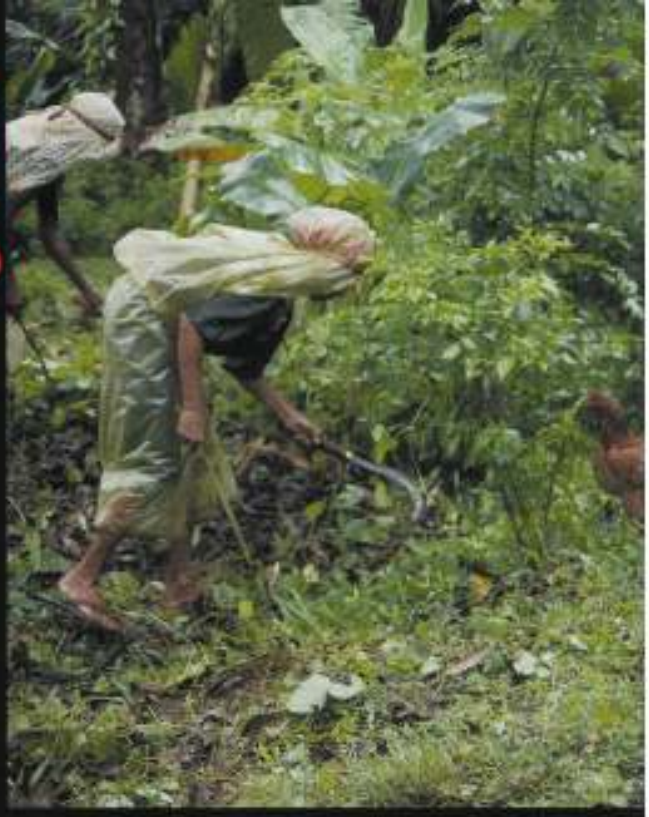


Human beings and natural ecosystems worldwide are under siege by a growing number of destructive invasive species.

Industry

Eurasian zebra mussels, a leading cause of industrial damage in Canada and the U.S., blanket the walls of this water treatment plant.

Agriculture



Indian farmers spend countless hours cutting back Mikania, an invasive South American weed also known as "mile a minute."

Modern modes of international transport of goods, as well as the increased volume of international trade, pose a multitude of new threats for introducing harmful alien species.

Human Health + Safety

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An international team of biologists, natural resource managers, economists, and policy makers is now being organized to prepare a global strategy for addressing the invasive species problem.

The team's goal is to enable local, national, and multi-national communities to draw on the best available tools to improve pest prevention and control systems immediately, and to identify priorities for the development of new tools needed to achieve longer term success.

Despite over a century of organized work on pest prevention and control, the world community today lacks many of the essential technical tools to overcome this problem. Moreover, many of the tools that do exist are not fully accessible to all nations.

Effective action against the spread of pests requires global cooperation, and this can only happen when all nations are equipped to participate.

With this in mind, the Global Invasive Species Programme (GISP) will:

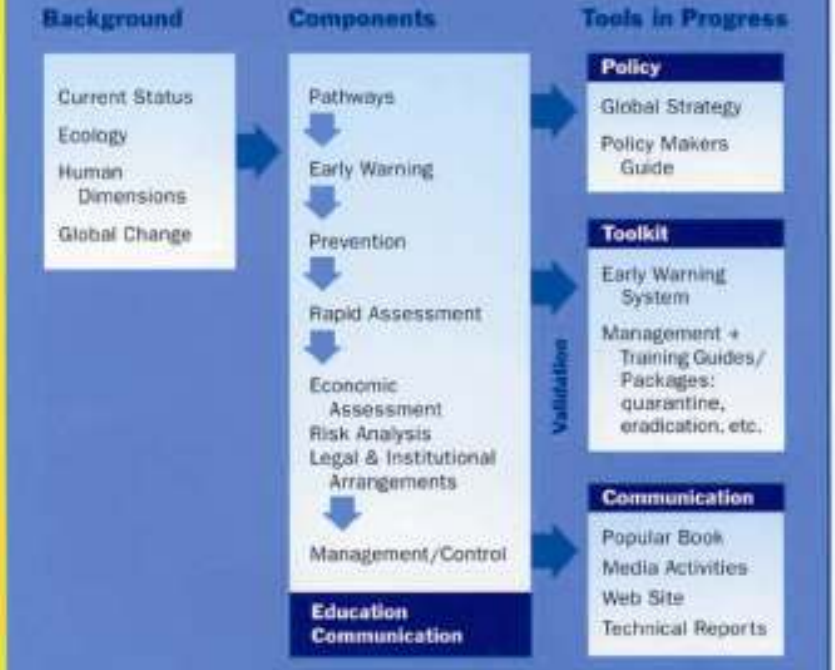
1) assemble the best information and approaches for prevention and management,
2) disseminate them in the form of databases, manuals and capacity-building training programs to governments and communities, and
3) lay the groundwork for new tools in science, information management, education, and policy that must be developed through collaborative international action.

Project leaders in eleven topic areas will work with international teams to complete these tasks. The results of this work will be disseminated via published reports, international meetings, and especially through a new network of information exchange and training to be developed as part of this project.

Project Outline

"Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species."

Article 8H, Convention on Biological Diversity, 1994

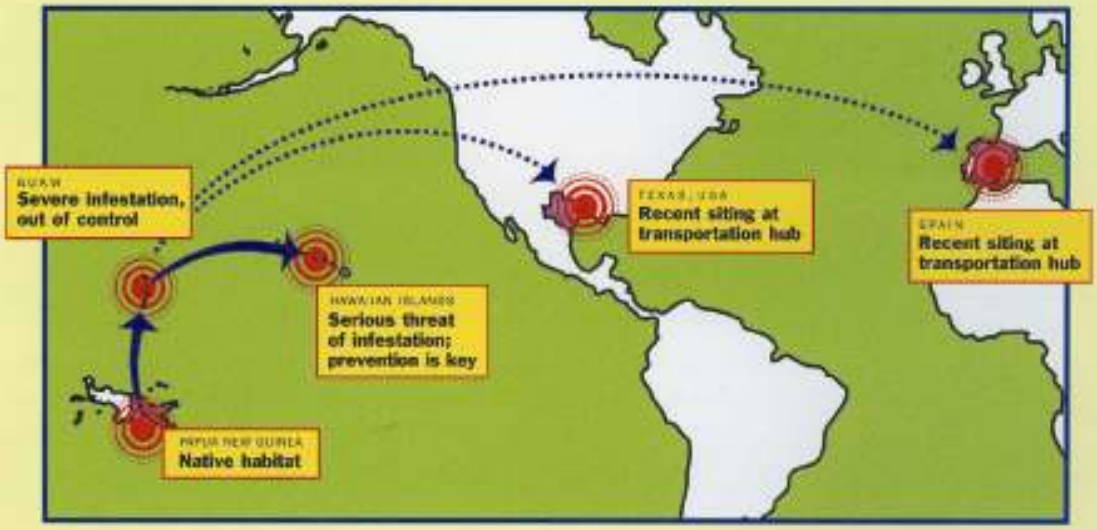


The Programme will assemble the best available data on the background of the problem and the components of an effective solution, then produce a set of tools to help all nations meet their alien species challenges.

A Promising Model of Prevention: Stopping the Brown Tree Snake

The brown tree snake, a nocturnal reptile native to Papua New Guinea, was accidentally introduced to Guam in the 1940s. It is now a devastating and uncontrollable pest, having wiped out Guam's native bird population. On the human level, this snake causes weekly power outages and poses serious health risks.

As a hub of Pacific travel, Hawaii is under constant threat of invasion by alien species. Guam's brown tree snake poses the most urgent threat; therefore it is the object of Hawaii's most visible prevention strategies. While not foolproof, they offer a model for developing tools to apply on a global level.



Prevention tools at work in Hawaii

1. Planning + Information Exchange

- Integrate planning across entire range of invasive brown tree snakes, addressing shared research needs, coordination of prevention operations, collaborative funding strategy.
- Provide print and internet access to shared information on biology of pest, status of invasion, pathways, control methods, new research, and relevant political developments.

2. Public policy

- Coordinate policy efforts of all government and private agencies involved in snake prevention.
- Secure regulatory changes to designate brown tree snake as a pest-prevention priority.
- Secure funding for complete inspection of Guam carriers upon departure from Guam and arrival in high-risk ports, and for other critical prevention operations and research.

3. Field Training

- Train all quarantine officials and relevant transportation workers to identify high-risk cargo, recognize and report brown tree snakes, and contain detected snakes.
- Train Snake Watch Attack Teams on each island.

4. Education + Outreach

- Promote media coverage in affected islands and mainland U.S. to build public awareness of the threat and support for policy and funding initiatives.
- Inform local and national policy makers and judiciary about the severity of the threat and initiatives proposed to address it.
- Develop and distribute lesson plans on brown tree snake and the invasive pest issue to the state and private school systems.
- Educate travelers via ads, in-flight videos, airport displays, etc. Post advisories to travel agents and the international travel press.

Act Locally, Think Globally

These local strategies to prevent the spread of brown tree snakes – a cooperative effort among experts from Guam, Australia, Hawaii and the U.S. government – exemplify the kinds of tools that GISP is now developing on a global level to combat a vast range of invasive alien pests.

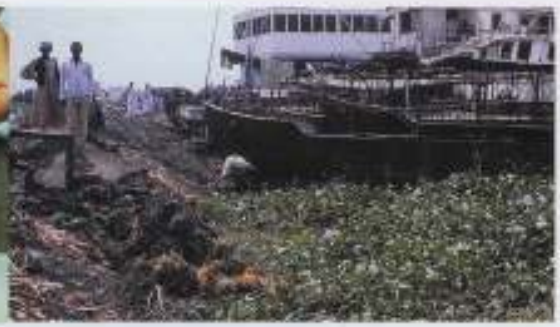
Invasive species are the second greatest threat to biodiversity globally (after habitat destruction) and the number one cause of species extinctions in most island states.

Introduced mosquitos spread avian malaria and other diseases that have ravaged Hawaii's native bird populations in many lowland areas.

Disease organisms, agricultural weeds, destructive insects and others threaten economic productivity, ecological stability, biodiversity and the health and safety of human communities.

People worldwide are already witnessing the ruinous impacts of harmful invasive pests: Phillipine rice farmers have lost nearly US$1 billion in crops to the invasive golden apple snail. Alien water weeds, like water hyacinth, are a global problem; African nations alone spend an estimated US$60 million yearly on their control. International trade has introduced the Asian tiger mosquito–which carries dengue and yellow fever–to the Americas and Africa, and has spread life-threatening E.coli 0157 bacteria in meat exports. Agriculture, forestry, rangelands, and native ecosystems are being decimated by invasive insects, plant diseases, and aggressive weeds. Invasive species are now second only to habitat destruction as a major cause of extinction, especially in island ecosystems which harbor much of the world's threatened biodiversity.

This problem is growing in severity and geographic extent as international trade and travel accelerate. In spite of its serious effects, national and multi-national leadership remains under informed regarding the scope and gravity of the invasive species problem. There is still no effective strategy in place to devise and implement appropriate solutions on a global scale.



This page, far left: Parasitic sea lampreys feed on native lake trout in America's Great Lakes.

Left: Deep, thick mats of South American water hyacinth now clog lakes and rivers, devastate fishing communities, and threaten navigation and power generation throughout Africa.

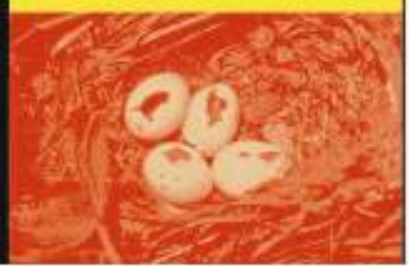
A Practical, Comprehensive Strategy

It is clear that the ecological, economic, and human health consequences of invasives are staggering. The crisis must be addressed proactively in a holistic context that will provide a strong foundation for international protection from potentially harmful invasive species.

Past responses to invasives problems generally have been crisis-oriented and undertaken by scientists and government officials. This project will take an interdisciplinary, proactive approach to prevention and management. Economists, geographers, trade experts, and international environmental policy specialists – in addition to scientists, managers and government officials with expertise – will contribute to a practical, comprehensive strategy to turn the tide against harmful invasive species worldwide.

Non-native vs Invasive

The Global Invasives Strategy Programme recognizes that many alien (non-native) species are beneficial to global economies and cultures. Many others may be neither useful nor harmful. We are focusing our efforts on preventing the introduction and spread of **harmful invasive species** that damage the ecosystems into which they are introduced.



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For more information on DIVERSITAS and GISP
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