

Preface

Between 1982 and 1988 the Scientific Committee on Problems of the Environment (SCOPE) engaged a large number of scientists in an effort to document the nature of the invasive alien species (IAS) phenomenon. The results of this effort appeared in a number of books, including a synthesis titled *Biological Invasions: A Global Perspective* published by John Wiley in 1989. This synthesis clearly established that IAS could have major impacts on ecosystem functioning and that nearly every ecosystem has been affected by IAS, even those protected for conservation purposes. The studies also pointed out that advances in international transportation are enabling humans to establish, often unwittingly, a new biotic order on Earth as biogeographic barriers to migration are overcome. Although the SCOPE program was successful scientifically, it did not offer much practical advice to land managers or nations except to inform them that they were not alone in dealing with IAS problems.

After the 1996 Norway/United Nations Conference on Alien Species held in Trondheim, it was determined that developing a global strategy to address this issue was of paramount importance. In 1997, SCOPE, along with partners from the World Conservation Union (IUCN) and the Centre for Agriculture and Biosciences International (CABI), embarked on a new program on IAS, this time with the explicit objective of providing new tools for understanding and dealing with IAS. This initiative evolved as the Global Invasive Species Program (GISP). The GISP differed substantially from the previous program in that it was designed to engage the many constituencies involved in addressing the problem, including natural and social scientists, educators, lawyers, resource managers, and leaders from both industry and government.

The first phase of GISP was designed with 10 elements, each a building block in a comprehensive approach for dealing with IAS. Each of these contributed to building the comprehensive approach that is needed for dealing with invasive species (Figure P.1). Four elements addressed synthesizing our current knowledge of invasive species. These include an update and analysis of our knowledge of the ecology of invasive species, the current status of invasive species and new methods for assessing changing distributions, how society views and values invasive species, and how global change will influence the success of invaders. The elements were coordinated as follows.

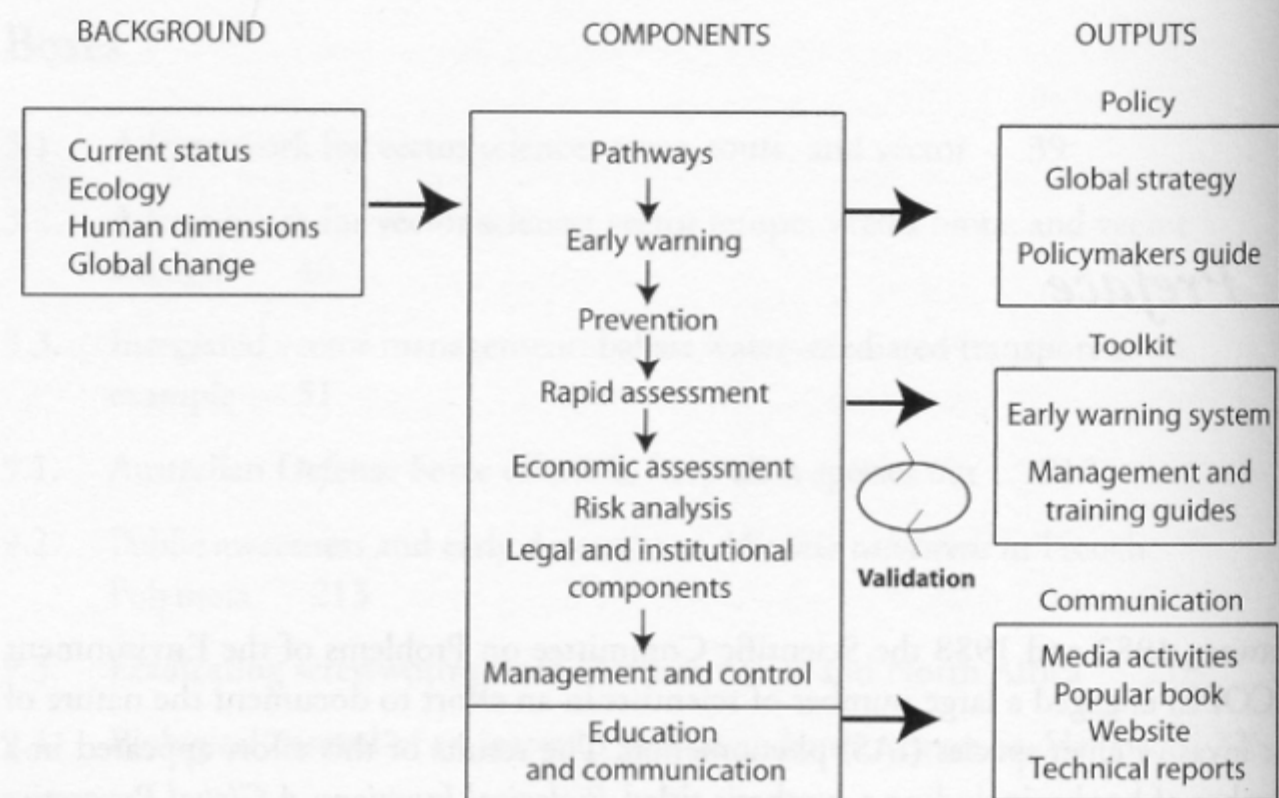


Figure P.1. Structure of GISP Phase I

Biological and Socioeconomic Syntheses

- Update and analysis of our knowledge of the ecology of IAS (Marcel Rejmánek and David Richardson)
- Analysis of the current status of IAS and new methods for assessing their changing distributions and abundance (Mark Lonsdale and Richard Mack)
- Analysis of societal views and values of IAS (Jeff McNeely)
- Analysis of how global change will influence the success of invaders (Richard Hobbs and Harold Mooney)

Policy and Management Syntheses

- Assessment of the best practices for prevention and management of IAS (Jeff Waage)
- Analysis of invasion pathways created by trade and new tools for risk assessment (James Carlton, Gregory Ruiz, and David Andow)
- Assessment of the economic consequences and tools for addressing IAS (Charles Perrings and Mark Williamson)
- Analysis of the legal and institutional frameworks for dealing with IAS (Nattley Williams)
- Development of a pilot database on IAS with early warning capabilities (Mick Clout)
- Development of new approaches for educating the general public on the potential dangers of invasive species (Alan Holt)

Each element was addressed through one or more workshops, resulting in specific products. All of the activities were summarized at a Phase I Synthesis Conference in Cape Town, Republic of South Africa, September 18–22, 2000.

The Phase I Synthesis Conference represented a collective forum convened on behalf of the efforts of the Phase I initiatives. This conference provided an opportunity for experts, governments, nongovernment organizations, and intergovernment organizations to engage. The participants clarified the initial findings, further developed a Global Strategy on Invasive Alien Species, and continued to summarize and refine various prevention and management tools and practices. The group explored future priorities and concerns focusing on a plan for building capacity and fostering international cooperation to address invasive species. This latter process identified areas for further development in management of the problem on a global scale. The final products of GISP Phase I represent an international consensus on the state of knowledge and applications. In addition, a global database has been established, and a popular volume on biological invasions (Baskin 2002) has been published highlighting invasive species issues with special appeal to a broad, nonscientific audience.

GISP has produced other publications for various audiences; these publications provide detailed information and guidance.

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References

- Baskin, Y. 2002. *A Plague of Rats and Rubbervines: The Growing Threat of Species Invasions*. Shearwater Books/Island Press, Washington, DC.
- Lowe, S., M. Browne, S. Boudjelas, and M. De Poorter. 2001. *100 of the World's Worst Invasive Alien Species: A Selection from the Global Invasive Species Database*. IUCN-ISSG, Gland, Switzerland.