

Contribution of IUCN - The World Conservation Union to the Secretariat of the Convention on Biological Diversity for the In-Depth Review of work on Invasive Alien Species for CBD COP9

November 19, 2007

Introduction

IUCN – The World Conservation Union has been a strong supporter of the Convention on Biological Diversity and its Secretariat since the CBD's inception and has provided technical advice, information, case studies and supporting documents for the implementation of Article 8 (h). This support has come from the wide membership of IUCN as well as from the Secretariat and Commissions of IUCN, especially the Species Survival Commission which established an Invasive Species Specialist Group (ISSG) in 1993 which has led in the provision of information about IAS through its Global Invasive Species Database and the ISSG Newsletter "Aliens" which began in 1995 and is currently in its 24th issue. The Secretariat of IUCN continues to contribute to many aspects of IAS and their impacts on Biodiversity through its Global Thematic Programmes and Regional Programmes around the world. Most recently IUCN has established an Invasive Species Initiative with a full-time global coordinator and is developing a programme which has a significant component of support to the CBD and its Secretariat. IUCN's other main contributions to Article 8 (h) have come through its partnerships – especially that of the Global Invasive Species Programme (GISP) of which it was a founding member in 1996 and to which it contributes technical and staff support to date. IUCN's approach to the global problem of invasive species is to build the capacity (especially of developing country governments and their civil societies) to address invasions, particularly in relation to threats and impacts on biodiversity. Support is being provided across the developing world to take up at national and regional levels the relevant aspects of the **Global Strategy on Invasive Alien Species** prepared by IUCN and others for GISP in 2001.

Legislative measures and national policies

IUCN (through its Commission on Environmental Law, the Environmental Law Centre and Invasives Species Initiative) has developed a training course on the legal aspects of IAS management on behalf of GISP and with World Bank support. This course is being tested in Eastern and Western Africa and the Southern Pacific to ensure that it is applicable to a range of developing nations.

IUCN in partnership with CABI is assisting several African governments to develop a policy environment for IAS prevention and management in their own countries under a GEF project implemented by UNEP. Similar approaches are being prepared for the Caribbean, South-East Asia and other regions in the developing world (in partnership with IUCN's Regional Programmes, CABI, GISP and others) to address existing policy situations that are unable to accommodate the special needs for multi-stakeholder action to prevent or manage invasions. Similar support is provided by IUCN (mainly through ISSG) to countries of the Southern Pacific Ocean Region (through SPREP and other initiatives) taking into account the special needs of Small Island Developing States in relation to IAS. The adoption of the CBD Programme of Work on Island Biodiversity and lessons learned (by ISSG and others) from the Cooperative Initiative on Invasive Species on Islands (CII), the Pacific Invasives Initiative (PII) and the Pacific Invasives Learning Network (PILN) will take this process forward. At the same time the inputs of ISSG and the IUCN Oceania Programme are enhancing the revision of the Regional Invasive Species Strategy (RISS) coordinated by SPREP in the South Pacific.

Over the last 5 years IUCN has been active in support of developing legislation to address invasive species in the marine environment, in particular within the International Maritime Organisation and its Marine Environment Protection Committee where IUCN has influenced the development of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM 2004) that was adopted by the IMO members in February 2004 after 13 years of negotiations but is not yet in force. IUCN is also continuing to contribute to the development of guidelines to support this convention.

Currently, no regulations exist for managing hull fouling and there is great concern about an increase in hull-fouling linked introductions of IAS after the adoption of the International Convention on the Control of Harmful Anti-fouling Systems on Ships. IUCN joined forces with Governments and NGOs to raise this issue as a priority within IMO and to request the Marine Environmental Protection Committee to consider developing a management regime to reduce hull fouling related introductions.

IUCN has contributed to the improved Chilean aquaculture regulations for the import of exotic species, helping to find pragmatic solutions to the most pressing conservation and development challenges in implementing responsible aquaculture. The changes to the Chilean regulations aimed to reduce threats posed by alien species use in aquaculture systems by providing methodologies to assess the risk of invasions, and to detect, control and manage escapes and invasions when they occur.

IUCN continues to bring the issue of marine invasive species to the attention of the relevant regional conventions and forums, particularly, the Barcelona Convention for the protection of the Mediterranean Sea and various components of the Antarctic Treaty System.

Prevention and Management

IUCN has been promoting the development of National Invasive Species Strategies and Action Plans together with on-ground activities to address threats by invasive species that have already become problematic. This is being done in several countries in Africa, in the South-Pacific and Latin America as well as South Asia and builds upon the NBSAPs that CBD signatory countries have already developed and adds case studies for national use in planning implementation arrangements. IUCN has recently investigated countries' capacity for prevention of introduction of IAS and developed procedures for assembling national invasive species lists (e.g. in Sri Lanka) to provide background for risk assessments for new introductions and management priorities for existing invasions.

Aquaculture is an important major vector of species introductions into the aquatic environment and although several conventions and instruments call for the use of native organisms, many developing economies have opted for the continued use of alien species in their aquaculture systems as there are few incentives for using native species. Recognising these challenges, IUCN has recently developed guidelines to ensure a responsible use of alien species for aquaculture purposes with methodologies to assess and manage the risk of escapes and invasions. Caged and static mariculture has also received attention as has the management of AIS in tropical waters in the Indian Ocean and Southern Pacific Ocean regions

Assessment

IUCN's Species Programme, together with several Species Survival Commission's Specialist Groups, especially ISSG, has been developing further the understanding of invasions as a source of threats to species on the IUCN Red List of Threatened Species and is linking the Species Information System of IUCN to the Red List data and ISSG GISD. This will enable concerned Parties to the CBD to improve the conservation of many endangered species and generally understand better the links between IAS and biodiversity management.

IUCN and CABI's work with several African countries and invasive plants is showing the way forward to develop assessments of the impacts of IAS on (locally and globally important) biodiversity as the invaders begin to be managed/reduced and native biodiversity returns. While this has been done in several developed countries which are data-rich, it presents significant problems in those countries without information about the "previous situation" where assessments are required. This GEF-funded programme is developing practical solutions to species assessments and spreading this concept to other regions through related GEF projects (currently under development).

Eradication of invasive organisms is likely to be most feasible at the earliest stages of the invasion process before exponential population growth and spread occurs. Hence baseline surveys and surveillance, to enable early detection and action, are critical for effective control as they are key to identifying invasion patterns. IUCN has developed a series of guidelines and training to undertake baseline surveys and assess risk of species introduction in the marine environment, through several projects in tropical areas of the Indian and Pacific Oceans (Seychelles, Chagos and Palau).

Economic instruments

IUCN has had a small role in the development of economic instruments to assess impact of invasions but is now in the process of developing initiatives to take these further. The IUCN Policy Programme analysed the links between invasive species and trade and described the necessity to relate CBD Article 8 (h) to WTO in some situations. IUCN is currently developing a process for assessing the impact of Free Trade Agreements in the spread (or otherwise) of invasive species which will have significance for the prevention and management of invasions.

The IUCN Invasive Species Initiative and the IUCN Environmental Economics Programme have begun to develop a series of activities to develop more applicable economic instruments to assess the impact of AIS as well as the costs of their management and that of ecosystem restoration after invasion.

Provision of resources

IUCN has worked with the GEF, especially through UNEP, to assist countries to develop fundable projects that address invasive species issues. IUCN also contributed to the development of the current policy of GEF 4 to retain IAS in the Biodiversity Focal Area. Currently there is scant availability of resources (from donors and others) to develop capacity, policy frameworks and access to information to address invasive species threats to biodiversity: this is holding back the implementation of many aspects of Article 8 (h) of the Convention.

Communication, education and public awareness

Key to effective prevention and management of invasive species in developing countries are: availability of information and its communication, education about IAS, and awareness of the seriousness of species invasions at government, civil society and general public levels. The ISSG of IUCN is a leader in the provision of information and awareness as a partner in the Conservation Commons. ISSG provides crucial information through the Global Invasive Species Database (GISD) which is readily available to users on the ISSG website. GISD covers all taxonomic groups of invasives from micro-organisms to animals and plants and currently has available details of more than 470 species. Aliens-L is a listserver maintained by IUCN and dedicated to IAS which allows users to freely share and seek information on IAS species and issues. The newsletter *Aliens* is produced twice yearly by ISSG to provide information news, contacts and general information – including success stories of managing invasive species and community initiatives. The prototype Global Register of Invasive Species (GRIS) was developed by ISSG and contains annotated geographical records of introductions, invasiveness and/or potential invasiveness for more than 18,000 species. GRIS is expected to evolve into an open web-based application and reporting site linked via web services to nomenclatural databases for validation of species names. It will also be linked to other IAS data consumers and providers such as GBIF, OBIS and the Global Invasive Information Network (GISIN).

ISSG has supported the development of “I3N”, the Invasive Species Information network of the Inter-American Biodiversity Information Network (IABIN) and of GISIN in partnership with the USA’s National Biodiversity Information Infrastructure (NBII).

IUCN, through its various outlets, has produced many publications in the last ten years to increase the availability of basic and applied information about invasive species and ways to prevent their introduction or manage invasions. These include many of the products of the first phase of GISP, follow-up publications of GISP, specialist publications and handbooks of information as well as the ISSG awareness product “*100 of the World’s Worst Invasive Alien Species*” first developed in 2000 and subsequently published in hard copy in several languages.

IUCN, through partnerships including GISP, CABI and TNC, has developed country-level awareness programmes in Africa, Asia, Latin America and several SIDS and continues to ensure that awareness is an essential part of any project, programme or individual activity for the prevention and management of invasive species.

With regard to invasive species in the marine environment, there’s still a very low level of awareness of the seriousness of the problem which is one of the main impediments of addressing the issue. IUCN has been developing several awareness products related to marine invasive species and targeting all stakeholders from the public to the decision makers. IUCN is finalising a booklet highlighting all aspects of introduction of alien species in the marine environment and reflecting IUCN’s belief that raising awareness about the human-mediated causes of IAS introductions is one of the most effective preventative strategies.

To ensure accessibility to critical information and advice to managers and decision makers particularly in developing countries, IUCN’s publications and guidelines are made freely available electronically and could be downloaded through the IUCN publications website (<http://www.iucn.org/publications/>).

Cooperation

IUCN, through its regional programmes has provided support to developing countries to assist with their implementation of the CBD in relation to invasive species and continues to offer advice to SBSTTA and COP delegations under the coordination of its Global Policy Unit. The ISSG is a world-wide network that encourages cooperation in IAS management and has sub-sections devoted to the Marine Environment and to Europe. There are also links to protected area and World Heritage Site networks as well as to the Ramsar Convention in its development of strategies for addressing IAS in Wetlands of International Importance.

IUCN promotes the need for regional (and sub-regional) cooperation between states and international organizations as well as regional organizations in recognizing the value of cross-border cooperation in IAS management. IUCN was instrumental in ensuring that IAS was a significant inclusion in the Environment Action Plan of NEPAD and of its five sub-regional environment actions plans.

Future priorities for IUCN

Rapid scientific risk assessment methodologies are still to be developed to support informed and effective management decisions either for voluntary introductions or when a new exotic species is reported or a previously unknown invasion occurs.

Interactions of IAS with climate and other global change processes will be examined. Several global processes, including climate change, economic globalization, overfishing, deforestation and alteration of nutrient cycles, are contributing to escalating the rates of species invasions. Climate change alters the physical environment in ways that can favour invading species and may alter (reduce) ecosystem resilience to invasions. Economic globalization is not only changing the pathways and rates of species transfers between continents, countries, lakes and oceans, but also the economic forces affecting local and regional decisions, and thereby indirectly influencing invasion opportunities.