Management Effectiveness
Session 4b and 5b. Invasive alien species

Session leaders: Maj De Poorter, ISSG and Geoffrey Howard IUCN EARO
Session rapporteur: John Mauremootoo (Mauritian Wildlife Foundation)

Footnote: "invasive alien species" means an alien species whose introduction and/or spread threaten biological diversity (CBD Dec VI/23)

Overall conclusion

The workshop participants re-emphasized the urgency of dealing with Invasive Alien Species (IAS) in protected areas: at this very moment many further species are facing extinction, protected area values are threatened and communities are facing drastic livelihood deterioration unless IAS are addressed. Almost all protected areas are currently facing significant IAS issues even if there is not widespread awareness of this. In spite of the seriousness of the problem, there are good reasons for optimism, as methodologies and knowledge are increasing and improving rapidly, and solutions for fighting back and for preventing further biological invasions exist and improve continuously. However, lack of awareness of the issues and/or of the solutions available threatens to perpetuate IAS problems. Management of IAS, must be mainstreamed, as support from governments, agencies, PA managers and local communities are crucial for successful prevention, eradication and control of IAS.

Main recommendation from workshop participants

Management of invasive alien species (IAS) in Protected Areas (marine as well as terrestrial) must be considered a priority and IAS issues must be mainstreamed into all aspects of PA management, including effectiveness monitoring. IAS Management is best carried out using the ecosystem approach. Protected area managers and other stakeholders should urgently be made aware of the serious implications for biodiversity, PA management and livelihoods that result from lack of recognition of the IAS problem and failure to address and prevent it. Awareness that solutions exist and ensuring capacity to implement effective IAS management should become part of standard operating practices in PAs. In addition to the consideration of "benefits beyond boundaries", the concept of "impacts from across boundaries" must be addressed in IAS management in PAs.

Especially for Marine PAs, a "cross boundary " approach to management will be necessary, considering the interconnectedness of the oceans and the need to prevent invasions at their source. This must include integration of management for all vectors and pathways. MPA management must include monitoring regimes (in the zone of influence rather than only he MPA itself) for early detection coupled with response plans for incursion management.

Considering the relatively recent recognition of IAS in the marine realm there is an urgent need for both multi- and bi-lateral organizations to support comprehensive technical cooperation programmes to build the necessary MIAS management capacity.

Session comment on WPC Recommendations:
The participants endorsed Rec 5.18 3d

Sessions

J. McNeely of IUCN, Gland (Switserland) presented an introduction to the issue: an overview of the wide spread taxonomically of invasive alien species (IAS) and oftheir impacts including to Protected Areas. International instruments and programmes that are in existence to address them were also covered.

*Geoffrey Howard IUCN EARO, Nairobi (Kenya)in his talk "*Managing Invasive Species in Protected Areas" presented practical methods and approaches to address the IAS issue in Protected Areas, including prevention, surveillance, eradication and control. His main messages included: there are invasive species in most Protected Areas around the world; they affect biodiversity, its conservation, PA management and livelihoods – sometimes very seriously - if unmanaged; there is need for awareness and information about the identity and threats of these species; there are solutions to IAS and their impacts; IAS should be mainstreamed in PA management; IAS are best managed in an ecosystem approach; the concept of "impacts from across boundaries" must be addressed in IAS management in PAs.

Musonda Mumba, *University College, London (UK)* presented a case study from Africa: "M*imosa pigra* invasion - The case of the Kafue Fats Floodplain, in Lochinvar National Park, Zambia". She highlighted the need for a decision to be made to manage the the weed, and to learn from others that have dealt with it (e.g.Australia); She explained the need for some "monitoring" in protected areas to review the biodiversity status

John Mauremootoo, Mauritius Wildlife Foundation, Mauritius presented a second case study on Africa, focussing on Mauritius. He explained the current situation: only very little of the native forest remains, and it is severely threatened by IAS. He discussed options to upscale managem,ent, including technical issues as well as awareness. He expressed the conviction that it is still possible to work towards a future where ecostems will have recovered – rather than an option where a "zoo" like situation exists with some highly managed areas surrounded by "seas of invasion".

Lyn Jackson, Global Invasive Species Programme (GISP), Capetown (South Africa), in her presentation *"The Global invasice Species Programme and Protected Areas"*presented some graphic examples of how Pas are affected by IAS worldwide. She also explained GISP's Programme, and the ways in which it can assist with the management of IAS issues.

Maj De Poorter, Invasive Species Specialist Group of IUCN's SSC, Auckland (New Zealand) in her talk "Invasive Alien Species Management - There is always SOMETHING you can do" reinforced the fact that sooner or later ANY PA will have to face Invasive alien species as a management issue, and emphasised the urgency

connected with IAS issues: species extinctions going on right now and livelihoods are badly affected. She gave case studies illustrating how it is possible to cooperate at many levels, not least the level of "peers helping peers" – concluding that while resources available may be drastically different from one PA to another, there is always something that can be done right now to improve the situation.

*Xie Yan , Institute of Zoology, CAS (Chinese Academy of Sciences)*in her presentation "management of Invasive Alien Species in Nature Reserves in China" explained how in China IAS occur in almost every watershed and ecosystem and represent most taxonomic groups , and are considered the second most important threat to biodiversity in China. She went on to explain how IAS are a major concern in Nature Reserves, and how a lot of activities in nature reserves actually encourage the spread of IAS, including the use of alien plants for vegetation restoration or soil stabilisation. In addition, endangered species are often artificially bred in areas where they do not occur naturally, or in areas where mixing with natural populations leads to problems. She concluded with explaining the extensive recommendations that have been provided by the Ecosecurity Task Force of the China Council for International Cooperation on Environment and Development.

Steve Raaymakers of IMO in his presentation *"*'Preventing Pests in Paradise' Impacts and Management of Invasive Aquatic Species in Marine Protected Areas" Started by reminding the audience that invasive alien species are one of the four main threats to the world's oceans. They spread e.g. through canal developments - opening 'transfer corridors', through the movement of large marine structures such as drilling platforms and floating-docks, by floating marine debris (e.g. discarded/lost fishing gear and plastics), the escape and/or release of species from private and public aquaria, intentional and accidental introductions for fisheries and aquaculture purposes, the movement of vessels between water bodies by land-transport (e.g. private recreational craft on trailers), species range expansion due to global climate change, and shipping. He gave the example how 3-10 billion tonnes of ballast is transferred globally per year, by shipping, with 7,000 species of microbes, plants and animals carried globally, causing Biodiversity, health and economic impacts. There is currently no international action to address IAS transfer via canals, fouling or climate change. FAO and ICES have guidelines for 'fisheries' introductions but they are often poorly implemented, and often at odds with fishery development projects. IMO very active in addressing the ballast water vector, including Guidelines since 1993 (poorly implemented), New Convention (Feb 2004), GloBallast Programme (GEF funded, technical cooperation with developing countries). Many things can be done to significantly reduce introductions (shore-side and shipboard) - GloBallast implementing a large range of activities at demonstration sites globally. He concluded with the following recommendations: IAS must be part of the MPA agenda; border-lines on a map will not protect MPA from invasive alien species - thinking 'beyond boundaries' should also include the origin of impacts; 'Cross-boundary', integrated, 'total oceans' management is required; More action is required by relevant groups to effectively address non-shipping vectors; Partnerships should be established between IMO / GloBallast and these groups to address all vectors in an integrated way;