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REPORTS: ASSESSMENT PROCESSES

Progress report on ongoing assessment processes

Note by the Executive Secretary

Addendum

PROJECT BRIEFS OF PILOT ASSESSMENTS: PROPOSED PROJECT BRIEF SUBMITTED BY NEW ZEALAND

Note by the Executive Secretary

At the request of the Government of New Zealand, the Executive Secretary is circulating herewith a proposed project brief submitted by that Government to supplement the brief on alien invasive species contained in section B of annex II to the progress report of the Executive Secretary on ongoing assessment processes (UNEP/CBD/SBSTTA/7/3).

* UNEP/CBD/SBSTTA/7/1.

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Annex

1. Evaluating the impacts of invasive alien species

Objectives

Provide synthesized evaluations of the impacts of invasive alien species in key ecosystems, as a basis for the development of improved predictive and response capacity in countries.

Rationale and background

At its sixth meeting, SBSTTA, in paragraph 6 (d) of its recommendation VI/5, called for scientific assessment of the impact of invasive alien species that should be based on existing knowledge and address knowledge gaps, and be management- and/or policy-oriented. It should contribute to capacity-building and enhancement of institutions, promoting scientific cooperation, education and public awareness.

Invasive alien species pose serious threats to biodiversity, sustainable development and environmental conservation. Awareness of the severity of invasive alien species problems remains poor in many countries. There is considerable evidence in the literature demonstrating the severity of particular invasive species problems. However, this kind of information remains largely site- or species-specific. Governments require access to evaluations that will provide a more comprehensive understanding of the invasive alien species problem as it affects, or may affect, important ecosystems and human activities.

To provide this information, it is planned to identify a set of "ecosystems" that have common characteristics relevant to the alien species issue, and commission some detailed evaluations of the available information, in order to derive clear advice to policy makers/managers about the patterns of invasion and impact.

The ecosystems selected for this initial study are: semi-arid grasslands; tropical and sub-tropical river and lake systems; small island ecosystems; and tropical lowland closed forests. If additional resources become available, boreal forests, marine and coastal systems, and temperate river and lake systems would be the next priorities for attention.

These ecosystems have been selected and defined on the basis of the availability of information, the likelihood of a common pattern of alien species invasion and impact, the apparent vulnerability of the systems to alien species, and the importance of the ecosystems in terms of their biodiversity and geographic extent.

In addition, there would be a study looking specifically at issues relating to the escalation of management and impact costs over time, as invasive species establish and expand, and the relative cost-benefit of prevention, eradication and mitigation.

Output

- 1. An evaluation of each ecosystem, to provide the following information:
 - Patterns of invasion which are most common for the ecosystem (what types of species invade, what pathway and sequence does invasion normally follow, what other activities are most associated with an increase in vulnerability to invasion, etc.)

- The patterns of impacts, identifying the most important direct and consequential impacts, the values and components of those ecosystems which are most affected, and indicating the general magnitude of the potential impacts.
- The implications of these patterns for management activities, including for prevention, for enhancing ecosystem resistance and resilience in the face of potential invaders, and for minimising impacts.
- 2. An evaluation of the following issues relating to the cost-benefit of various management options:
 - Changes in the cost-benefit and feasibility of impact prevention or mitigation over time, during the invasion life cycle of a range of types of invaders, in a range of types of ecosystems. This would firstly provide an evaluation of typical establishment/expansion patterns (including lag times). Then it would look at the way in which that pattern affects detection and management costs, detection and management feasibility, and impacts on biodiversity.
 - An evaluation of the cost-benefit of a range of management projects (covering prevention, eradication and mitigation), in order to generate guidance on the measurement of cost-benefit for the different types of management projects, and on patterns in cost-benefit that would help inform decisions about which broad management option is likely to be most cost-effective in what circumstances.

Activities and timeframe

Ecosystems

- 1. Identify for each ecosystem the key information available from the literature. (2 months)
- 2. Carry out an evaluation of patterns of invasion and impacts. Test these conclusions through a workshop of selected experts. (8 months)
- 3. Use the results of that evaluation to identify implications for management. Test these conclusions through a workshop of selected experts, and/or through a series of field tests. (8 months)
- 4. Publish the results. (4 months)

Cost-benefit analysis

- 1. Identify the available literature on establishment and expansion patterns, and develop some models for typical patterns. (12 months)
- 2. Undertake an analysis of the implications of those models for management costs and feasibility, through a modelling exercise, tested on real cases. (18 months)
- 3. Identify and evaluate a range of management projects, and a range of cost-benefit analysis techniques. Analyse those projects, in order to test the analysis techniques and provide information on cost-benefits of the projects. (12 months, concurrent with step 1)
- 4. Taking the results of that analysis, develop general models of cost-benefit, meshed with the work in (2). (18 months, concurrent with step 2)

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- 5. Develop guidelines based on the results of that work. (6 months)
- 6. Publish the results (4 months)

Partners

It is planned to request the Global Invasive Species Programme (GISP) to be the lead partner on this project to take advantage of its network of experts and information.

An early task for GISP and the Secretariat would be to identify suitable institutions to take responsibility for key aspects of the technical work.
