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*(UNEP)*

**GF/1200-98-11**

**Evaluation of the UNEP/GEF MSP**

**Development of best practices and dissemination of  
lessons learned for dealing with the global problem of  
alien species that threaten biological diversity**

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**Contents**

Executive summary ..... 3

I. Introduction and background ..... 4

    A. Project identification ..... 4

    B. Project activities ..... 5

    C. Project results ..... 6

II. Lessons learned ..... 17

    A. Project organization ..... 17

    B. Funding ..... 17

    C. Attitudes and communication ..... 18

    D. Project outputs ..... 18

III. Findings and recommendations ..... 19

    A. Project aspects ..... 19

    B. Overall project rating ..... 21

    C. Recommendations ..... 21

**Annexes**

I. People interviewed ..... 24

II. Project outputs ..... 25

III. Co-financing (2000–2002) ..... 27

## Executive summary

1. A review of the United Nations Environment Programme (UNEP)/Global Environment Facility (GEF) medium-sized project (MSP), Development of Best Practices and Dissemination of Lessons Learned for Dealing with the Global Problem of Alien Species that Threaten Biological Diversity (project number GF/1200-98-11), was undertaken over a two-month period in mid-2003. The project was associated with the Global Invasive Species Programme (GISP), and its goal was to assist Governments, international organizations and other institutions in their efforts to minimize the spread and impact of alien invasive species. The review included interviews with key individuals associated with the project in Europe and North America, followed up by telephone and e-mail interviews. The MSP commenced in April 1998 and was extended to December 2002, with a total cost to the GEF Trust Fund of \$750,000 and a total project cost of \$3,133,000.

2. A very wide range of project outputs was generated, including a web site and alien invasive species database, a "Toolkit of Best Prevention and Management Practices", produced in both hard copy and on the Internet, a number of state-of-the-art specialist books and workshop proceedings and a book written for the general public on the issue of invasive alien species and ways forward to mitigate the problems they cause.

3. Lessons learned include the following:

(a) There is a need for personal support early in the project from professional champions and key individuals within funding agencies, along with recognition of the vulnerable nature of major projects involving volunteer time;

(b) There is a need for funding continuity, including pilot projects to develop protocols and technologies that will transfer to regions with very limited resources;

(c) It is important to educate participants and promote learning by doing among both academics and practitioners to ensure that outputs are delivered on time participants and are efficiently networked;

(d) There is a need to avoid superseding existing science and to show that science is integral to the Convention on Biological Diversity (CBD) and, under its umbrella, can be turned into a tool for the Parties to the Convention;

(e) There is a need for constant advocacy based on good case studies verifiable by facts and figures, backed by well-targeted regional workshops;

(f) There is value in a wide array of outputs covering a wide range of audiences from specialist academics through professional practitioners to the general public.

4. The project achieved a rating of 'very good' (75 – 89% achievement of objectives). Recommendations include ensuring that individuals and participating organizations are adequately facilitated and that there is clear understanding regarding the continuing nature of obligations and expectations; including ongoing viability of the longer-term aspects of the project as a clearly identified output; utilizing robust indicators to gauge project effectiveness, especially at the stakeholder level; promptly identifying slippages from the initial schedule; tracking the availability of major outputs and their translation into major languages; tracking all funding by the implementing agency; and clearly demarcating which activities and outputs belong to the MSP and which do not.

## I. Introduction and background

5. Invasive species are probably the second greatest threat to biodiversity after habitat loss, and the threat is highest on oceanic islands. Between 1982 and 1988, the Scientific Committee for Problems of the Environment (SCOPE) engaged scientists in an effort to document the problem of invasive alien species. This resulted in a number of publications, including a synthesis volume, *Biological Invasions – a Global Perspective*, published by SCOPE in 1989.

6. Following up from this earlier effort, in 1997 a coalition of scientists, economists, lawyers, social scientists, conservationists and resource managers began working together to develop a new comprehensive strategy for addressing the growing problem of invasive alien species. This evolved into GISP, a proactive, outcome-oriented partnership and network of specialists concerned about the problem. Collaboration was initiated by SCOPE, the United Nations Environment Programme (UNEP), the World Conservation Union (IUCN) and CAB International (CABI). The overall mission of GISP is to assist Governments, international organizations and other institutions in their efforts to minimize the spread and impact of alien invasive species.

7. The MSP made a major contribution to GISP phase I, with consequences for the establishment of GISP phase II. For many people, even those closely involved with both GISP and the MSP, there is a tendency to think of the two interchangeably. Although the distinction between them is somewhat subtle, it must be kept in mind, as this review is of the MSP and not of GISP itself.

8. This review was undertaken over a two-month period in mid-2003. It involved visits to North America and Europe to interview key people involved in the MSP. Following the interview phase of the review, telephone interviews were conducted (see annex I). A deliberate effort was made to interview not only scientists and policy-makers, but also end-users. A session was spent on site in New Zealand with an airport border surveillance team, and contact made in person and by telephone with surveillance and border control officials in several other countries.

### A. Project identification

**Title of project:** Development of best practices and dissemination of lessons learned for dealing with the global problem of alien species that threaten biological diversity.

**Project number:** GF/1200-98-11.

**GEF focal area:** Biological diversity.

**Geographic scope:** Global.

**Implementation:** Supporting organization: SCOPE. Implementing agency: UNEP.

**Duration of the project:** 30 months (commencing: April 1998, completion: September 2000). The closing date of the project was extended to December 2002.

#### **Cost of the project:**

|                                 |             |                 |
|---------------------------------|-------------|-----------------|
| Cost to the GEF Trust Fund      | \$750,000   |                 |
| Co-financing from other sources | \$2,383,000 | (see annex III) |
| Total cost of the project:      | \$3,133,000 |                 |

9. Co-financing has been difficult to identify in total as some cash grants did not pass through the SCOPE books and were given directly to, and administered by, other institutions. Also, some agencies

provided successive or simultaneous grants. The above excludes grants for ongoing work of GISP given outside the period of the MSP. It is apparent that securing the MSP grant was vital to obtaining a considerable proportion of this co-financing. The above costs of the project differ from the alternative figure that has co-financing from other sources in the amount of \$2,941,000 and a total cost of the project of \$3,691,000.

Specific aspects for which GEF funding was requested related to defining best current practices and disseminating lessons learned from case study countries. The project goal was, "to halt loss of biological diversity due to harmful alien species through the development of best practices and the dissemination of lessons learned worldwide". Two outcomes were defined: globally accessible early warning systems on alien invasive species and world wide dissemination of best practices and lessons learned in dealing with alien invasive species.

10. The following project activities were identified as means to achieve the project goal (the GEF contribution is indicated in parentheses):

- (a) Assessment of current knowledge base (\$0). Indicator: Present state of knowledge synthesized and made accessible to all stakeholders;
- (b) Development of early warning systems (\$100,000). Indicator: Information and data on the status and movement of invasive species made accessible;
- (c) Development of a web page (\$20,000). Indicator: Update of and exchange of information on invasive species enhanced;
- (d) Development of management and training guides and packages (\$400,000). Indicator: Proactive prevention and management approach enhanced;
- (e) Preparation of technical and scientific reports and reports for policy-makers and practitioners (\$50,000). Indicator: In-depth information on specific aspects of the problem made available;
- (f) Preparation of public awareness materials (\$30,000). Indicator: Public awareness of invasive species issues enhanced;
- (g) Miscellaneous project support services (\$120,000);
- (h) Monitoring and evaluation (\$30,000).

11. The expected project outcome is stated as follows: "This project will create a globally accessible knowledge base on alien invasive species and develop new tools and approaches, based on best practices, to deal with this problem, both locally and globally. Specific attention will be given to case-study countries that are especially impacted by invasive species (often these are small island States) or offer special opportunities for deriving useful lessons from their experiences. The main outputs are: (1) a set of early warning systems including a new easily accessible global data base on the most dangerous potential invasive species; and (2) management and educational guides to improve future prevention and control methods based on an analysis of best practices. These outputs, indeed, the entire project, will enable and catalyse the capacity building needed in both developing and developed countries to better address the invasives threat to biodiversity."

## **B. Project activities**

12. The objective of this project was to examine current tools and approaches that are utilized to recognize, evaluate and mitigate against invasive species in order to identify and disseminate best practices.

13. The project took a comprehensive approach to the invasive species problem through the development of a scientifically-based global strategy and action plan. In order to achieve project objectives, a number of separate but complementary activities were implemented, namely in two main parts: (i) an assessment and review of the existing scientific knowledge base to deal with the problem of invasive alien species and (ii) the development of new concepts and management tools, based on an analysis of best practices, that hold the promise of improving the efficiency and effectiveness of preventing, controlling and/or eradicating alien species that threaten biological diversity.

## **C. Project results**

### **1. The attainment of project objectives and planned results**

14. The perceptions of interviewees (see annex II) were that achievement of MSP objectives ranged from the project having “achieved more than originally expected” to the “overall impression that the project achieved at a 50-60% level”, and that it had “not yet achieved the coordination, facilitating role”. The MSP appealed to many participants because it addressed a leading conservation issue that had received inadequate attention. A key question for some people was: “What could be achieved that others could not do?” The project served as a vehicle for issues that were not being addressed effectively and also provided a process for interaction between disciplines. As one participant put it, “invasive species came out of biological control research, then bumped into the environmentalists who were disillusioned, leading to a change of emphasis to biological invasives of which biological control is a component”.

15. There was general agreement that, through the MSP, researchers and policy-makers identified those issues that required major effort. The MSP achieved global standing with stakeholders and produced some good outputs that can be picked up by other programmes. Nevertheless, there is cause for concern insofar as some important outputs are not yet published. Of particular note is the important vectors output, dealing as it does with a neglected issue. Outputs concerned with legal issues have also been delayed, though not through the fault of the MSP itself. An overall synthesis volume is being edited. Currently, GISP is working with others to achieve these outputs that originated with the MSP.

16. An indirect output that is very difficult to assess is the degree to which the MSP has been a catalyst triggering action by Parties to CBD, especially in developing countries. Countries such as Australia, New Zealand and the United States of America already had a high level of awareness of the problems and substantial alien species programmes operating. It is unlikely that the MSP has played a major role in ongoing changes in such countries.

17. Overall, the project workshops and products were very useful to developing country participants - as a source of information, education, awareness building and exchange of experience. Awareness of the issue has increased substantially over recent years, and the MSP contributed significantly to this. Also, it seems that in the developing world confidence to tackle the issue has been increasing, and the existence of GISP itself and the foundational work of the MSP has (certainly within the CBD context) increased the sense of confidence. Governments are glad to know that there is a competent body that can provide technical support. Through the MSP, developing countries learned that there are all kinds of stakeholders (the scientific community, GEF and its implementing agencies, private foundations and other economic operators who contributed part of the co-financing for the project) committed to doing something about the problem of invasive species. This is reassuring for many developing countries, because usually they are frustrated by the lack of concrete action, especially in terms of funding, for dealing with the issue.

18. Invasive alien species issues are now on the formal agendas of bodies like CBD and Asia-Pacific Economic Cooperation. That has had a major flow-on effect in terms of developing countries, by increasing both the chances of donors supporting the work and the chances of countries giving it political priority. The tools that were, and are still being, developed were probably the greatest contribution that the project offered to developing countries. The Toolkit provides a framework that assists any country that is facing the invasive species problem to devise strategies, as well as ways and means to tackle it. In most developing countries, this problem is now being discussed in a serious way, but not all have integrated the

necessary actions into their biodiversity action plans. Work undertaken by the IUCN Law Centre was based on input from colleagues and experts in developing countries. This was beneficial for developing country experts and participants involved or associated with this programme. A GEF PDF B project is currently in progress to develop activities in several regions of Africa focused on alien plants, and the MSP certainly helped get this moving.

19. A number of developing countries are now interested in following up on the evidence and lessons of GISP and the Toolkit, which suggests that they are ready to recognize and prioritize genuine problems. It should be noted that in their opening addresses at the fifth World Parks Congress, Nelson Mandela, President Thabo Mbeki of South Africa and Klaus Topfer, the Executive Director of UNEP, made strong statements about the threat currently posed by invasive alien species in the world's parks.

20. Initiatives in the Nordic countries have been directly attributed to the work of GISP through the MSP. Regional workshops, mostly funded outside GEF, have undoubtedly played a significant role in this and parallel awareness processes. Nevertheless, there is a view that GISP (and by implication the MSP) forced the invasive species issue onto the CBD, suggesting that the issue has not yet been really picked up by a significant number of policy makers.

21. The MSP has been successful in drawing together people, major institutions and ideas. The project raised awareness globally and in many forums through well-researched documents. The overall project goal was to, "halt the loss of biological diversity due to harmful alien species through the development of best practices and the dissemination of lessons learned worldwide, the objectives being to determine what is being done at the current time to recognise, evaluate and mitigate against invasive species and to disseminate information on what practices are successful."

22. The outcomes were generally met. A general consensus is that the products were mostly appropriate and their delivery was generally successful but could have been better. One problem may have been global availability and overall awareness of project products. Publishers such as CABI and Island Press are not well known in some parts of the world, and a random check of several universities suggests that outside Europe and North America there are significant distributional gaps. A comment from IUCN Publications was that distribution is usually easier to track when publications are sold (and may be more valued by some users). Countries received publications and follow up to the distribution of materials at workshops, and although this work was not directly funded through the MSP, it inspired them to reach out to developing countries. Future work for the programme will develop capacity on local as well as regional scales, and to increase communication, key documents are being translated.

23. A significant comment was that the first action under the MSP might have had a few too many theoreticians and too few people who worked at the "coal face" on the practicalities of alien species. This probably made the necessary transfer from advocacy to the sloggy work of incremental change more difficult than it might have been. Significant time seems to have been spent on keeping the 'organization' together and on-track, diverting effort from such matters as evaluation and feedback.

24. It is generally recognised that the MSP provided the background funding that got SCOPE, IUCN and CABI together and cemented the idea of GISP as a whole and got it operating. It also provided an alternative to OECD, dominance especially through provision of expertise. It is important to note that the major participating organizations did not make anything financially from GISP as a whole and in fact were sometimes under strain through lack of compensation for their involvement. Both the MSP and GISP itself relied in part on the personal, and frequently under-rewarded, commitment of individuals.

## 2. Participation of primary stakeholder groups in the project

25. The MSP had considerable impact within and through CBD. The timing was right for a global theme with big impact. It emerged as a political issue but with a primary focus on good science rather than policy. An important aspect was that the exercise was often an educative process, both for CBD Parties expanding their perspective from local to global, and for academics being exposed to CBD processes.

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There was wariness on the part of some scientists about getting science into CBD. CBD Party representatives have expressed surprise at what they perceived as naiveté on the part of some academics promoting the project when it came to translating ideas into a policy and diplomacy setting. The academics, according to these Parties, had a tendency to ask: “I published the definitive arguments on this last week – why have countries not yet acted on it?!”

26. For some a barrier to buying in to the project was the question: “What is in it for us?”, especially when volunteer time was called for. On the other hand, the decision by the CBD Conference of the Parties at its sixth meeting generated considerable Party interest and attention, for example among the Nordic countries, and it is significant that many present and future stakeholders in the MSP attended the sixth meeting of the Conference of the Parties. With such projects, Parties need a sense of ownership that can lead to endorsement and ensure that it does not just remain science.

27. One of the problems noted by several interviewees is that the project sometimes meant different things to different people. However, CBD delegates, viewing the project in its broadest terms, came away with outcomes that they used to support novel programmes in their own countries. There were some debates over whether it was really the fundamentals of GISP through the MSP that triggered specific State action, or whether “the others are doing it so we should be seen to be also”. Many national biodiversity plans still do not deal much with alien invasive species. Some stakeholders still need further convincing evidence that fully supports project outcomes.

28. Regional workshops and meetings during the transition period between GISP phase I and phase II, including some inspired by the MSP, played an important role in involving people who had never before sat down together. These workshops got people together, mobilized discussion, encouraged interested people and institutions, and helped formulate practical recommendations.

29. The MSP influenced CBD processes through:

(a) Exposing individual delegates to invasive alien species issues for the first time. The project was a significant contributor to heightened awareness among delegates; focus on alien species markedly increased between the fourth meeting of the Conference of the Parties and more recent meetings;

(b) Providing a good conceptual basis for discussions among CBD stakeholders;

(c) Providing a partner for CBD work; delegates willingly identified the invasive species issue as a key component of future work proposals.

30. Overall, consultation was done well, especially considering that there is no limit to the amount that could be done. The CBD secretariat expressed the view that there were not many problems in the stakeholder consultation area. The stakeholder benefits extended well beyond formal meetings: prior to GISP being activated by the MSP, experts were often unaware of each other and so the network itself plays a valuable continuing role. A practical issue for future programmes of this type would be whether to initially include only science and managerial professionals and representatives of Parties for the stakeholder consultations. There was a perceived bias towards North American geopolitical influence.

31. The project was a global undertaking generated by the science community and successfully steered into the power-brokering apparatus of CBD. It was a very loose organization with people acting in their own (usually volunteer) capacity initially, but providing a basis for greater policy, decision-maker and non-governmental organization involvement on a more formal basis.

### **3. Other stakeholder involvement**

32. Given the universal problem of invasive alien species, several interviewees expressed disappointment that more global conservation organizations did not become involved in invasive alien species issues during the life of the MSP. This includes major global conservation non-governmental



organizations, regional conservation organizations, botanical gardens and crop germ plasm and ethno-botanical organizations. Considering the potential, the range of partners seems disappointingly low. Nevertheless, especially at the CBD Party level, there has been significant new agency interaction.

33. The MSP seems to have had a particularly significant impact in Africa. Through well-attended forums, vigorous promotion, publicity and distribution of the Toolkit and the key strategy documents, invasive alien species issues have become well known, with agencies asking for still more material. This includes conservation agencies in Governments, local non-governmental organizations and research colleagues. In Africa, the booklet “100 of the World’s Worst Invasive Alien Species: A selection from the Global Invasive Species Database” has been extremely useful and has been reprinted several times and widely copied. The agriculture community – a very important sector in relation to invasive vectors, participated in workshops.

34. The project also appeared to have a significant impact among the Nordic countries, which were inspired to begin reports on alien invasive species. The aim is to develop a Nordic early warning system as a model for other parts of the world. Five countries developed a common catalogue and the discussions and outcomes of the MSP encouraged action in the Baltic countries as well. There has been further interest in Poland and Estonia. The European Community biodiversity platform provides a forum to discuss this further. Regional interest has also emerged in the Great Lakes region of North America, and in Western Australia, local interest groups have met to discuss the implications of invasive alien species at the local level.

35. What about the developing world generally? The general consensus of those interviewed is that the MSP has been reasonably effective at raising awareness of global invasive species issues and providing specific details where before there was only a generalized and often incomplete understanding of the issues. For many countries, it is the beginning of a framework within which they can deal with invasive alien species issues. The workshops have provided sources of information, education, awareness building and exchange of experience. The greatest benefits have probably accrued to those developing country experts that directly participated in meetings, workshops and projects. The impact will be better measured during phases of GISP following the MSP, but even now the issues are written into recommendations to Parties emanating from the sixth meeting of the Conference of the Parties. It is difficult to be precise about effects of the MSP, but a test would be the extent to which some of the products of the project make it through to the real decision-makers. It is generally felt that the MSP should have had a very positive initial impact, but that much depends on the follow-up work now being undertaken following the MSP.

36. Awareness outside the primary target groups is something often achieved by a “ripple” effect. This is something that a good web site facilitates, and it is essential that the GISP site that was an outcome of the MSP become the primary search and reference web site on the subject of alien invasive species. A quick check of several Internet search engines resulted in more than 13,000 hits on “GISP” and over 2,200 on “invasive species”. The ripple effect may not become apparent until well into later phases of GISP. During the life of the MSP, GISP did not significantly engage with major trade interests such as the World Trade Organization, but this will be essential later and the MSP has helped set the stage for this.

#### **4. Quality and usefulness of the project's products and results**

37. There is no doubt that, overall, an impressive array of outputs was produced. There are two additional outputs, vector analysis and an overall synthesis, still to come. Most products, especially the Toolkit and the strategy itself, have been well received and are now well established. It is unrealistic to expect that all products will be on time and that their precise form can be predicted. The important thing is that stakeholders know that the products will in fact be delivered. It was planned that most outputs would be delivered by the time of the sixth meeting of the CBD Conference of the Parties, but several interviewees suggested that the debate at that meeting actually helped some of the outputs that failed to meet this deadline by giving them fresh perspectives and updates.

38. It is very important that the MSP products be translated from English into a core set of languages including at least Spanish, French, and Chinese. Some IUCN publications associated with the project have been translated, and a Chinese translation of the Toolkit is being prepared. This may be a general area in which UNEP or the CBD itself might assist by providing access to good translation services and by underwriting costs.

39. The reactions of Parties and others to the outputs are predictably varied. To give two contrasting perspectives, for New Zealand, most of the products probably had little direct impact, but New Zealand is not a primary target given how far ahead it is in dealing with alien invasive species. In contrast, much of the drive for outputs came from agricultural sector work on invasive issues in developing countries and countries with economies in transition, especially in Asia where there are big problems and often a lack of government policy, framework and infrastructure to deal with the issues. In such regions, the outputs are presenting new ideas and starting to fill a void.

40. Products additional to the original core list were generated. These should be recognized in lists of outputs. They would not have been produced without the stimulus of the MSP. In particular, some of the social science products appear to be under-recognized.

#### ***GISP Global Invasive Species Database***

41. The database is one of the more criticized outputs. Although those who developed it apparently saw problems with the database side of the project, it does not appear to have been sufficiently resourced, and may have been developed with insufficient guidelines. Comparable databases developed by CABI have been costed at approximately \$6 million for design, software and a platform. A fundamental question that arises and appears not to have been resolved by primary stakeholders is whether it is reasonable to provide access to data users free of charge; at least a small access fee could be charged, and the amount could be varied according to country and institution. A second important question is whether database development went too far beyond what was intended within the MSP time frame.

42. Fundamental database design is an issue, especially whether there should have been a network of database sites with the GISP tool being a meta-database to link these. As an example, the view has been expressed that the Nordic/Baltic region does not want to develop its own database and would prefer to work in conjunction with the global programme while preserving responsibility for its own information. Under this plan, the region would have linked national portals rather than a single global database. In the future, the invasive alien species programme is likely to move towards being a database broker that will use a meta-database to link databases.

43. The database has been populated but only in a limited sense and largely with the products of the "Worst 100" project and island data established through liaison with the South Pacific Regional Environment Programme. If it is to be more truly global, there is an urgent need to representatively populate the database, perhaps through linkage to existing national and regional systems.

#### ***100 of the World's Worst Invasive Alien Species: A selection from the Global Invasive Species Database, Lowe, S., by M. Browne, S. Boudjelas, M. DePoorter (published by the Species Survival Commission's Invasive Species Specialist Group (ISSG))***

44. This output has been successful to the point that it is often sold out. Nevertheless, it has attracted considerable criticism, and is seen by some as a document that resulted from a very good workshop but did not satisfy expectations. The title has confused some who are not native English speakers as it implies that these are the 100 worst invasive species although this is clearly not what was intended. Rather the intention should have been and probably was to expose people and sensitize them to invasive alien species issues. The selection of species such as Nile perch without consultation from Africa was injudicious. Although an invasive in some parts of the world, it is a very important fish for livelihoods and export income within its home range. For the scientific community, there is a lack of substance and some perception that the output has led to a highly selective database of 100 pests.

*The invasive alien species web site*

45. Although not all interviewees commented on the GISP web site developed as an output of the MSP, there appears to be a general feeling that it is not as helpful as it might be. It is not a particularly exciting site (as perhaps it should be, given that web sites are increasingly the “shop fronts” for organizations), and it lacks some of the qualities that one might expect from a comprehensive clearing house. Interview comments indicate that this probably reflects a lack of resources. One interviewee made an comment: “For those of us in Africa without automatic access to the Internet, personal responses from ISSG through e-mail have been extremely helpful.” This demonstrates the need for a personal touch behind the computer screen and web site.

***Invasive alien species: A Toolkit of Best Prevention and Management Practices, by Wittenberg, R. and Cock, M.J.W. (published by CAB International, Wallingford, Oxon, UK, on behalf of GISP (2001))***

46. The toolkit is a major publication available in hard copy and on the CABI web site. Its value was endorsed by almost every person interviewed. While it lacks some details and needs further editing, it is a good start, and has been used both to begin investigations and to find answers, especially through the contacts it lists. It is leading to development of sectoral tool kits, for instance a tool kit for wetland invasive species and another for island invasive species. At this point in time, however, the challenge is to get the Toolkit widely read and used by Parties.

47. There are valid criticisms. There were a range of other well-developed models offering framework structures and sector strategies, for instance for botanical gardens by Botanic Gardens Conservation International, that do not appear to be mentioned. Among the array of case studies, many of which are excellent, are some that lack “take home” lessons. The compilers argue that within the time frame and resources available, they had to work with the examples that were available, but it might have been better to eliminate some of the examples that did not have a clear application to users of the Toolkit. A third issue is that the Toolkit is very much based on a hierarchical top-down structure for action. It is not easy to start at a sector point (such as farming, operating a botanical garden or setting up an environmentally sensitive retail plant outlet) and work from there to develop a sector-specific invasive alien species operation. This is something that can be considered in developing a more interactive version of the Toolkit on the CABI web site (an internet search engine is not yet developed). The Toolkit needs to be a living document and should not be allowed to fossilize.

***A Guide to Designing Legal and Institutional Frameworks on Alien Invasive Species, by Shine, C., Williams N. and Gundling, L. (published by IUCN, Gland, Switzerland, Cambridge and Bonn (2000))***

48. This legal volume arose out of work with the Council of Europe in 1996, and then became part of the global process. It is designed to provide a wide range of examples of various approaches to dealing with alien invasive species at a wide range of scales of operation. It provides a template approach. The coverage is comprehensive, there are many boxed examples and the book is well edited.

***The Economics of Biological Invasions, by Perrings, C. M., Williamson, M. and Dalmazzone, S. (Eds.) (published by Edward Elgar, Cheltenham, UK (2000))***

49. This is a technical volume written for a specialist audience and hence is difficult for a non-economist to assess. It has sold well and according to experts interviewed, breaks significant new ground. The one useful thing that the book does not provide is a less technical final summary chapter that translates economic impacts into concepts that can be readily grasped by natural scientists and other informed non-economists.

*A Social Marketing Handbook For Engaging Communities in Invasive Species Management, by the Academy of Educational Development in collaboration with Alan Holt (published by The Nature Conservancy, Washington, DC, for GISP (1999))*

50. This report parallels aspects of the GISP Toolkit but from a different angle insofar as it draws on the social sciences, commercial marketing experience and new techniques that – used together – cannot only raise awareness, but also persuade both citizens and policy makers to act to solve problems. This is the field of social marketing, the goal being to promote behaviours that will improve human health, the environment and other issues with social benefits.

*Invasive Species in a Changing World, by Mooney, H.A. and Hobbs, R.J. (Eds.) (published by Island Press, Washington, DC. (2000))*

51. This work brought together many experts and provides key ideas that are generally very well communicated. It is a worthy replacement for the earlier SCOPE summary volume, and has the potential to be widely used as a reference and teaching text. The regions covered and examples are very widely representative, and it is very well edited. The volume includes an extremely well prepared and useful summary (chapter 17) that outlines the drivers of global change through invasive species, ecosystem effects, social costs and what can be done to mitigate the effects of invasive alien species.

*A Global Strategy on Invasive Alien Species, by McNeely, J.A., Mooney, H.A., Neville, L.E., Schei, P., Waage, J.K. (Eds.) (published by IUCN on behalf of GISP (2001))*

52. A global strategy had to be written, and as put by one of its authors, this book was a one-off “big splash” that landed on a skilled communicator’s desk to put together. It has been widely used, is generally regarded as a good piece of necessary promotion, and (despite some editing deficiencies) has proved very useful, especially for policy-makers. Importantly, it is succinct, well illustrated and instructive.

*The Great Reshuffling: Human Dimensions of Invasive Alien Species, by McNeely, J.A. (Ed) (published by IUCN (2001))*

53. This is a major social science output that is particularly interesting in that it provides some particularly practical case studies and advances ways forward. It does for the social and trade issues what the Mooney and Hobbs volume does for the ecological sciences.

*Turning the Tide: The Eradication of Invasive Species: Proceedings of the International Conference on Eradication of Island Invasives, by Veitch, C.R. and Clout, M.N. (Eds.) (published by IUCN)*

54. This conference was held in February 2001, during the extension period of the MSP. Its planning and many of the motivating ideas for it clearly came from MSP activities. This was a specialist conference, but dealt with some of the most urgent and pervasive issues. The very large number of papers compiled in this volume are highly practical, worldwide in coverage and both innovative and contemporary. The conference aim was to, “bring together conservation practitioners and scientists who are at the forefront of the battle against alien invasive species ... to share their insight and practical experience with a wider audience”. In this the organizers and the editors succeeded admirably.

*Assessment and Management of Alien Species that Threaten Ecosystems, Habitats and Species, by the CBD secretariat (Eds.) (published by CBD (2000))*

55. This work includes the abstracts of keynote addresses and posters presented at the sixth meeting of the CBD Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) in March 2001. It is a very comprehensive overview of invasive alien species issues, including valuable case studies.

*A Plague of Rats and Rubbervines: The Growing Threat of Species Invasions, by Baskin, Y. Shearwater (published by Books/Island Press, Washington, D.C. (2002))*

56. GISP, working through the MSP, is unusual among global collaborative programmes in having commissioned a book for the informed public. The book is vigorously written by a highly regarded author and is replete with case studies. It is now reasonably widely distributed but does need to get into many more hands than it has; in some parts of the world is still largely unknown. It has received a favourable response in many quarters. Three areas of criticism have been noted: the book is a hybrid between a scientific viewpoint and a popular account for the public and as such could have been much more heavily pruned of repetitive examples; it lacks a synthesis or blueprint that that can effectively lead people to “help save the world”; and it followed several other popular books on invasive species so was not a new story. Despite these points, it is probably one of the most widely distributed and useful outcomes.

*Harmful Invasive Species. Legal Responses, by Miller, M.L. and Fabian, R. (Eds.). (volume in preparation)*

57. This assemblage of papers on legal aspects of invasive alien species arose out of a conference in Bonn in 1999 and so had its development in the MSP. It has been extensively reworked by the editors, who have ensured that the contributing chapters are updated. Most of the nine contributions are country-based, but two deal with international issues and one deals with the regulation of genetically modified organisms.

*Bioinvasions: Vector; Analysis and Management Strategies, by Ruiz, G and Carlton, J.T. (Eds) (published by Island Press, Washington, D.C. (in press))*

58. The author has not seen this work, which is yet to be published, but several interviewees described it as particularly important. The vector analysis work done as part of the MSP unfortunately lagged behind other outputs. There seems to have been a wish to give it a strong academic foundation, but in the process it was outstripped by outputs such as the Toolkit. This volume is set to be published in November 2003.

*Invasive Alien Species: Searching for Solutions, by Mooney, H.A., McNeely, J., Neville, L. E., Schei, P.J., Waage J.K. (Eds) (published by Island Press, Washington, D.C. (volume in press))*

59. This is a planned synthesis volume only seen in manuscript form. Once published, it will be the key reference volume on invasive alien species, with an emphasis on developing practical solutions.

## **5. Dissemination of MSP products and results**

60. A major challenge is to get outputs to those audiences that need information and guidance. In part, this requires having effective distribution channels, and in part it requires creating high levels of sector interest. In addition, since people often need a crisis that directly affects human societies to motivate them, one aim is to emphasize the human dimensions of the problem of invasive alien species, including costs and services, so that people and institutions do not just see the cost of action, such as border surveillance, but also the cost of inaction. This has been achieved in part, but much more must be done to drive home the point that there really is a global crisis from which no part of then planet is immune.

61. A major and urgent need, not attended to sufficiently during the MSP, is to translate major outputs into widely spoken languages apart from English and to ensure that outputs are available through local country-level distributors, especially in developing countries and countries with economies in transition where English may not be a first language. Many countries are a long way behind, and these will need to be better targeted. Regional workshops have proved to be a good way to address this problem, e.g., a workshop in Lusaka at which the Toolkit was well received. It should be noted that the Toolkit and strategy are now available in French and Spanish.

62. Distribution of outputs may have concentrated on individuals and fallen short with respect to some institutions. This poses a problem because individuals tend not to share publications. Distribution through

later United States-funded workshops provided opportunities that made up for some earlier deficiencies. Regional workshops involved 71 countries, although not all workshop reports are yet published (the last one is being finished now).

63. The organizers of GISP may have been over-optimistic about the effectiveness of the distribution of MSP products and even the extent of knowledge about GISP and the MSP itself. There appeared to be little awareness of the work of GISP and the MSP among many people who were consulted for purposes of this evaluation. These included a surveillance team in New Zealand, officials in New Zealand's Ministry of Agriculture and its Environmental Risk Management Authority, both of which play a statutory role in border surveillance and alien species control, and border officials in Canada, Malaysia, Singapore, South Africa, the United Kingdom and the United States. Those contacted either had not heard of GISP or the MSP or knew little of its products. A web-based check of several university library catalogues in New Zealand and Australia showed that few such institutions had obtained project outputs.

64. The GISP guidelines that were developed as an MSP output should have been available one meeting of the CBD Conference of the Parties earlier; these guidelines are important, as there are a lot of gaps in the legislation and operations of individual states. In the CBD context, the clearinghouse mechanism for GISP as a whole is the heart of CBD information on invasive alien species, and distribution of information through the mechanism needs to be effective and continually updated.

## **6. Impact on raising awareness**

65. The project started in the context of earlier SCOPE work (with some from the science community wanting to revisit this exercise) and a succession of key meetings (e.g., the Panama GBA workshop and Trondheim (Norway) workshop). This brought together SCOPE (science), CABI (management), IUCN (conservation) with whom SCOPE had a good relationship and GEF, which viewed the project in a positive light when it realized that it was country-driven, was based on good science and offered the possibility of a positive outcome for biodiversity conservation.

66. Vital to the process was that recommendations for driving the initiative were framed by a group of highly committed individuals. Awareness creation among Governments, institutions and experts was largely due to the concerted efforts of these people, who identified key individuals and secured their attendance at important meetings early in the life of the project. Also important was the implementation of a harmonizing framework; a project leader at this stage felt that there was a risk that the project would collapse, but it was averted by key CBD staff who got invasive alien species issues onto the CBD agenda. This required the science community to realize that the CBD process involves broad policy decisions based on persuasive recommendations, and that those recommendations can come from outside parties.

67. Some interviewees observed that there has been a focus on iconic species, as a result of which less glamorous but difficult issues such as diseases and marine species tend to be overlooked and certain important aspects of biodiversity loss are sometimes trivialized. This may explain why certain CBD Parties, although they have accepted the organizational aspects of the programme, have apparently not yet accepted that alien invasive species are a pervasive global problem for biodiversity.

68. A number of persons interviewed suggested that CBD might find ways of being more proactive in sourcing funding and developing strategy. In considering this assertion, it must be understood that the secretariat can only do so much and is limited by its mandate from the Conference of the Parties. One thing that CBD can do (and did do for this project) is to give a project weight with funding agencies. At the project level, CBD can assist greatly with transformation of a project, although there are limitations. Nevertheless, it was generally felt that good relationships were created with the Conference of the Parties and SBSTTA. Awareness was certainly created among allied organizations such as the Convention on Wetlands of International Importance, Especially as Waterfowl Habitat, IPPC and the International Maritime Organization, but less so in the case of the World Trade Organization, which leaves important development areas for further future action.

## 6. The project's institutional set-up and donor participation

69. The people who championed the invasive alien species issues that formed the basis of the MSP were passionate about them; this was largely what got the MSP so far so quickly, and cannot be over-emphasized. An interesting question that arose several times in interviews was: "How do you recruit people to support the programme?" This issue also emerged in the Global Millennium Assessment network, in the context of which it was found that one does not necessarily want the "best" experts if they cannot deliver timely products. In the case of the MSP, a steering group emerged that was deliberately as balanced as possible, involving not just academics but also management people. Some individuals who later played major roles got involved through their own efforts and determination.

70. A key catalytic event was a meeting in Trondheim, Norway. The Trondheim meeting boosted a lot of people, as did a later Cape Town workshop. Both helped in securing the commitment of IUCN and SCOPE. Also instrumental in securing the commitment of these organizations was the fact that they had a long history of working with UNEP; which created an essential bridge for communication.

71. On the whole, the organization of the MSP seems to have been reasonably successful. The question of legal structures and links to other institutions is, however, important, especially as both the MSP and GISP employ people. An issue that continues to be debated is whether there should have been a parent organization such as IUCN. Good communication seems to have occurred between project leaders through teleconferences, the Internet and intranets and face-to-face meetings, when the latter could be organized. The steering committee comprised a good mix of members, although some interviewed felt that donors and funders perhaps should have been involved at a less passive level. Not surprisingly, considering the large cast of characters from many varied backgrounds and vested interests, some felt from time to time that contact between participants was being lost. This demonstrates the need for tight central control of a project like this, as well as very frequent and open communication along with rapid conflict resolution.

72. Towards the end of the MSP was an important period for GISP itself, as several committed key individuals stepped down and deliberately passed on responsibility, although they still retained interest. This meant that during its closing period, the MSP relied significantly on new players who had other institutional responsibilities. Although there was a strong core team willing to commit time and resources and prepared to move quickly, the rapid transfer of responsibility appears to have complicated the transition from an informal and largely volunteer organization to the institutional structure needed for the more lasting programme that resulted from the MSP.

73. One full-time staff person had an overall coordinating role and SCOPE, based in Paris, handled financial reporting. The coordinator worked very long hours, was a tower of strength and impressed all with a prodigious output. The project probably needed at least two such people. As it was, the project depended heavily on volunteers, most of whom were already very busy people. Thus, staff of major organizations raised their own funding and their organizations subsidized the project by covering their employees' costs and time.

74. These flaws notwithstanding, the MSP was foundational to GISP development, which needed resources to build its track record of focus on best practices using words and concepts appropriate to the CBD context. This context is important for development of a global project such as this, although some interviewees expressed concern that leaving it to CBD Parties to implement such a strategy may not work due to a lack of mechanisms to ensure that recommendations are taken up and outcomes used. There was concern that such projects need to get well beyond paper and electronic outputs and move to ensuring action "on the ground".

75. Institutional takeover or imbalance is a risk. SCOPE, with responsibility for reporting, is a network with a mandate to review and assess the state of knowledge of specific global issues. There is a frequent perception that academia may not be the best sector to implement scientific findings. Therefore, it was appropriate to involve IUCN and CABI (SCOPE at that time did not have social science and legal analysis linkages). From the start, there were three senior institutional partners in GISP, but some lack of

clear institutional relationships. UNEP declined to be a fourth partner at this level, and later became the GEF implementing agency for the MSP. UNEP and SCOPE had a long association, including a memorandum of understanding, and this trust relationship and track record was an important catalyst. High-level meetings with the major partners have since been held to sort through relational issues including interpretation of memoranda of understanding.

76. As an example of institutional complexities, CABI has particular strengths in the area of bio-control and hence this is an agenda item that will particularly interest the organization. CABI had to ask how it would take this into account in making commitments of time and resources. It concentrated particularly on the Toolkit as its major commitment. While the MSP fitted the CABI mandate, CABI does not have core funding, so it is difficult for CABI staff to volunteer time; in effect, CABI subsidized its part in GISP as a whole. A major positive is that even if organizationally things did fall apart, then the new partnerships created on a more informal basis would probably still exist.

## 7. Administrative and financial support provided by UNEP and GEF

77. There is a probably erroneous perception that funding took too long because of the time required for major financial contributors to understand and accept that the project should have a global focus, rather than country or regional focus. There may also have been a perception that the proposals on invasive alien species were initially too academic and not geared sufficiently to specific country projects. Confidence now seems to be high because of the relative success of the MSP.

78. With respect to GEF funding procedures and the role of UNEP, support was good. UNEP provided a great deal of input to the MSP, including a great deal of strategic advice during its implementation. A staff member was specially assigned to serve as the task manager for the MSP to ensure this added value. UNEP played a key role in the issue of invasive alien species being part of the action plan of the Environment Initiative of the New Partnership for Africa's Development and UNEP, with the Government of South Africa, hosted a workshop on invasive alien species to develop an invasive alien species action plan for Africa, which was approved by AMCEN.

79. It is acknowledged by the project's champions that the MSP probably took longer than expected to get up and running and that outputs did not turn out exactly as expected. Securing co-funding was a problem but ICSU and UNEP initiated the project with seed money to get things moving prior to securing GEF resources. Commitment and endorsement from the science community was vital.

## 8. Effectiveness of the monitoring and evaluation system

80. Interviews indicated that monitoring was not strongly in the consciousness of many (perhaps most) people involved with GISP, but probably should have been. It is noted that the role of the implementing agency is to ensure not only that a proposal is realistic, but also that during its execution it will not be derailed. There thus is a monitoring role for the implementing agency. Nevertheless, the question needs to be asked whether any milestones would be sensitive enough to pick up problems. Taking the example of the Toolkit, there was feedback, but not as much as was wanted. That "it worked" is assumed from the demand for copies.

81. Project reports submitted to UNEP and funding agencies include assessment of progress in terms of publications, workshops, information dispersal and risks incurred through such things as delays in outcomes. The reports are cross-linked to the original achievement indicators. For the most part, reports indicate a "highly satisfactory" rating for achievement of project indicators. It is noted that although a highly satisfactory rating was achieved for Outcome I (Global early warning system and database) in 2001, the 2002 rating slipped to "satisfactory" with the comment that although web site use was substantial, good indicators had not been formulated to measure the effectiveness of the outcome. Other outcomes that were only rated satisfactory were (i) "information and data on the status/movement of invasive species enhanced", and (ii) "update and exchange of information on invasive species enhanced". Some of this can be ascribed to delays in publication.

**Commented [CRP2]:** What does this mean? That ICSU and UNEP provided seed money to run the project until GEF funding was secured?

**Commented [CRP3]:** Was the commitment and support forthcoming?

**Commented [CRP4]:** What is the kitset?



## 9. Sustainability arrangements and follow-up of project activities

82. Subsequent (post-MSP) development of GISP has built on the elements that were developed through the MSP and is designed to focus on operational and management issues and strengthen organizational links. This includes implementation of guidelines developed through the MSP. It will take up national and trans-boundary issues and involves different relationships with some stakeholders; as suggested by one interviewee, “it will be interesting insofar as parties to the CBD have now an opportunity to ‘come to the party’ with funds and resources, noting that although parties did not originate GISP they have accepted it, what it has achieved and implications of carrying on through the CBD”.

83. A general perception is that the coming months will be very important to the full utilization of the outputs of the MSP. The financial challenges in the short term will be to secure resources to ensure further programme security. The greatest challenge for programme sustainability may be to use the principles and objectives that have driven GISP, through the MSP, to maintain synergies between CBD, which is focused on the “environment” perspective of biodiversity, and GISP, which brings in the “producer” perspectives.

## II. Lessons learned

### A. Project organization

84. An important lesson was the necessity of personal support early in the genesis of the project from professional champions, along with others prepared to go against the current trend of non-generalist academics only producing first class publications. Particular countries and key individuals within funding agencies championed the project, and this was also essential. Such support was critical to a success that depended as much on people as institutions, notwithstanding that key people worked within institutional frameworks.

85. A very important element of success was that the initial champions who put their passion into the project were able to disconnect from it and hand it over to others; some problems did occur, however, as “silverbacks” stepped away. It has been suggested that some might have felt that GISP, following the MSP, was a spent force, and as a result a new set of champions was “working like crazy to keep it afloat”.

86. Another lesson lay in the vulnerable nature of a major project run to a considerable extent on volunteer time – in some instances up to 30 hours a week being volunteered by some key individuals. Phase I was under-staffed in relation to the expected outcomes. One example is a workshop organizer who was not given explicit details of the expected obligations. His assumption that there were core funds on which to build other funding was incorrect – in fact, the expectation was that he would raise all funding himself (a common problem with volunteerism). Some volunteers have more time and commitment than others, and some are driven by their own agendas. Volunteers are highly valued – they are involved because of their personal interest and not because they are being paid to be involved (this needs recognition), but ultimately should not drive a complex project of this magnitude.

87. Despite some problems and especially the insufficiency of agreed arrangements and relationships through memoranda of understanding or other formalities, the combination of SCOPE, IUCN and CABI seems to have worked and the insistence by CBD that the emerging programme become its main technical agency for invasive alien species seems also to suggest that the project worked well. The project showed that it is possible to bring diverse groups together to generate useful products.

### B. Funding

88. Adequacy and continuity of funding are crucial for all projects, including pilot projects. There is a temptation to use countries that can readily co-fund as the location for pilot programmes, but what works well in such countries may not transfer to those with very limited resources. It must be ensured that global projects are in every respect truly global.

### C. Attitudes and communication

89. Education of participants is a significant issue. Even academics learn by doing, and there is a need for them to be exposed to the world of CBD and the international politics of conservation. The University of Geneva is working with convention secretariats to get students involved with international conventions in order to expose them to the politics of conservation.

90. It is important for the partners in a project like the present one to speak with one voice and to keep people well informed. This is where a good clearing house, timely delivery of outputs and efficient networking ensure that issues are disseminated down to the national level. Success in this area was variable; it was excellent in some areas, but some stakeholders felt left out and uninformed. Communication and a single unified message should be one of the high priorities in similar projects in the future.

Commented [CRP5]: What does this mean?

91. The project offered some novel possibilities for CBD Parties, and this is another important characteristic to be fostered. As noted by one interviewee, “if you cannot do anything new then why are you there? – This needed to be asked as part of the focus of attention.” The novelty of the project lay at least in part not in superseding existing science, but in showing that science is integral to CBD and under its umbrella can be turned into tools for the Parties.

92. In achieving this, “best practice” is a misnomer, at least in the first years of a project when most effort will go into discovering the many ways in which invasive species affect people, biodiversity and development. There will be a continued role for gathering information (hence the value of the ISSG database) and putting together case studies before reaching certainty about guidelines. Ongoing support is therefore needed for gathering and disseminating such information as part of the process leading to region-specific guidelines.

93. A project such as this must not only identify problem groups of people, but also engage them. GISP as a whole will not come of age until, building on the results of the MSP, it engages with trade issues and the World Trade Organization, ranching and hunting, forestry and agriculture, botanical gardens, horticulture and urban alien invasive species issues. There is need to find effective ways to get the global issues down to the local level. A related need is to link with related global programmes such as the Millennium Ecosystem Assessment, the Global Plant Conservation Strategy and the Botanic Gardens Conservation Strategy. A broader constituency creates fruitful synergies and more funds “at the margins” when opportunities arise.

94. Another lesson is that people working at the practical end of the spectrum do not always grasp the global significance of issues. There needs to be constant advocacy based on good case studies that are verifiable by facts and figures. This is where regional workshops play a very important role. These encourage stakeholder participation, ensure targeting of key groups and create awareness of the global picture. Outputs to stakeholders must be readily available in a variety of formats (hard copy, electronic, web-based, etc.) and translated at least into major languages. List servers, question and answer forums, electronic chatting and other interactive systems have an important place for stakeholders.

### D. Project outputs

95. A remarkably large and varied array of printed and electronic products, mostly of high quality, was produced. This was made possible largely by a well-coordinated series of workshops and conferences that were followed through to written proceedings, together with early engagement of stakeholders who could take charge of sectoral issues. A very useful result of this approach was that the overall array of outputs covered a wide range of audiences from specialist academics through professional practitioners to the general public.

96. Nevertheless, some outputs fell by the wayside or have been late in delivery. One can argue that this is hard to avoid in such a wide-ranging project. Two of the late outputs, the synthesis and vectors volumes, are substantial contributions that must be seen through to completion.

### **III. Findings and recommendations**

#### **A. Project aspects**

##### **1. Attainment of objectives and planned results**

97. The project produced an extraordinary array of outputs, especially in published hard copy. Most were to a high standard, albeit deserving of better editing in some instances. The GISP strategy document, the Toolkit, “Invasive Species in a Changing World” and “The Great Reshuffling” were perhaps the outstanding publications. A further project success, but one that is far harder to quantify, is the bringing together of people into lasting networks. It will be post-MSP efforts that best reveal the degree of success of this aspect of the MSP.

##### **2. Achievement of outputs and activities**

98. Most outputs were achieved within the required timeframe. Some, however, for instance the database, did not quite match original project intentions. Several important outputs are still in press or preparation and it is vitally important that these be seen through to finality. Probably the most important of these is the proposed volume on vectors for alien species.

##### **3. Cost-effectiveness and execution within budget**

99. This has been an extraordinarily cost-effective project, considering its scope and the wide range of its outputs. Additional cost effectiveness is ascribed to secondary products that were not part of the original scenario but which were catalysed by the MSP, for instance workshop outputs during the transition phase and following the Cape Town synthesis workshop and the Nordic initiatives. One can question the degree to which this cost effectiveness was dependent on the goodwill of both organizations and individuals and whether the project would have been better served by more paid staff being involved. Analysis of project expenditure reports (on a four- to six-monthly basis) indicates very close stewardship of funds. The final balance shows an over-expenditure of \$207, which was absorbed by SCOPE.

##### **4. Project impact and capacity-building**

100. On one level the project has had considerable impact, but it is very hard to determine its catalytic value: would some things have happened (especially in first world nations) regardless of the outputs of the MSP? Was it the spark that lit a fire, or did it happen fortuitously at a time when people were starting to think about and act on invasive alien species. Perhaps all are true and a major goal of subsequent work building on the MSP should be to track those initiatives that have arisen from it, whether directly or indirectly. The capacity-building aspects of the project were generally achieved. There is a foundation of good materials available for dealing with many of the global problems with alien invasive species, and the project generated many examples and case studies. The best test will be the extent to which CBD Parties, especially those from the developing world and countries with economies in transition, pick up and use the available tools in the future.

##### **5. Project sustainability**

101. It has been difficult to put together a fully coherent account of the transition phase following the end of the MSP (between phase I and phase II of GISP); there have been a number of wide ranging viewpoints expressed by interviewees. The MSP was instrumental in drawing attention to the work of GISP, including the interest of the World Bank, which (with UNEP) has encouraged GISP to develop an

institutional long-term strategy. GISP went through an uncertain period following phase I. The GISP Secretariat is now established in South Africa at the National Botanical Institute in Cape Town thanks to the hard work of several individuals from UNEP, the World Bank and the GISP partners. The establishment of the secretariat provides an institutional foundation for what should become a significant global organization. This is an indirect outcome of the MSP and will support the long-term sustainability of project outputs and outcomes.

## 6. Stakeholder participation

102. The MSP had considerable impact within and through CBD and consequently experienced a growing level of participation. The exercise was an educative process, both for CBD parties expanding their perspective from local to global and for academics being exposed to CBD processes. For some, especially where volunteer time was called for, a barrier to buying into the project was the question: "What is in it for us?" Overall, consultation was done well and good networks were set up, although practical steps should have been taken at the initial stages to concentrate on participation by science/managerial professionals and key representatives of Parties and to promote greater developing country representation. One disappointment was that participation by global conservation organizations and trade interests was less than expected. Stakeholder encouragement and participation was facilitated by the GISP web site, an outcome of the MSP, which became the primary search and reference web site for alien invasive species.

**Commented [CRP6]:** The meaning of this is not clear. What impact did it have within and through CBD, and what had a growing level of participation. The MSP? If so, what is the link between the impact and the growing level of participation?

## 7. Country ownership

103. Decisions on alien invasive species made by the CBD Conference of the Parties at its sixth meeting generated considerable Party interest and attention, for example among the Scandinavian and African countries; it is significant that many of the present and future stakeholders in the MSP, and GISP overall, attended the sixth meeting of the Conference of the Parties. Regional workshops and meetings, including some inspired by the MSP, helped developing and transition economy Parties to become involved by mobilizing discussion, thereby helping to formulate practical recommendations. Initially, much of the ownership seems to have been with developed economy Parties, especially in North America and Western Europe, and a greater initial participation by developing economy Parties would have been desirable. Ownership is an issue that is being particularly addressed post-MSP.

## 8. Implementation approach

104. A good initial structure was set up with expert representation. There was a general consensus that the executive structure was relatively under-resourced for what emerged as a very complex and fully global project. In addition, the project's success built on voluntary in-kind contributions from both individuals and organizations that at times were difficult to maintain. Some interviewees noted that it was dedication and unpaid effort that at times kept the project on track. A striking feature of this project is its managerial complexity, but it must be emphasized that project outcomes were largely achieved within the time-frame set.

## 9. Financial Planning

105. The general level of financial management, including initial costings, tracking of expenditure through a six-monthly reporting process and completing the project very close to budget, was excellent. Detailed records were maintained of funds handled by SCOPE. The only problem area was keeping track of co-financing, which was complicated by the fact that not all such funds came through the SCOPE system. This points to a need to have a financial tracking system that is adhered to by all partners and that clearly reveals the existence of such funds and their use within the project.

## 10. Replicability

106. The magnitude and global nature of this project means that precise replicability is not likely or needed. More relevant is whether the project can be adapted to a more regional scale, and it appears that

this can be largely achieved through use of outputs such as the Toolkit. This is already occurring, for instance among the Baltic and Nordic countries. Replicability is also an issue for other global CBD projects now and in the future, and the MSP provides both a useful structure and objective lessons.

## 11. Monitoring and evaluation

107. Monitoring was not always strongly in the consciousness of many people involved with GISP, and it appears that some sectors of the project did not have milestones sensitive enough to pick up problems and trends at an early stage. At the whole project level, very comprehensive progress reports were submitted to UNEP and funding agencies, which rated progress in terms of publications, workshops, information dispersal and risks incurred through such things as delays in outcomes. The reports are cross-linked to the original achievement indicators.

### B. Overall project rating

108. The success of the project's implementation was evaluated utilizing a rating system employing a scale of one to five, as follows:

|   |                  |                         |
|---|------------------|-------------------------|
| 1 | = Excellent      | (90 – 100% achievement) |
| 2 | = Very good      | (75 – 89%)              |
| 3 | = Good           | (60 – 74%)              |
| 4 | = Satisfactory   | (50 – 69%)              |
| 5 | = Unsatisfactory | (49% and below)         |

Eleven aspects of the project were evaluated, as set out in the following table:

| Project aspect rated                              | Rating                         |
|---|--------------------------------|
| A. Attainment of objectives and planned results   | 1                              |
| B. Achievement of outputs and activities          | 3                              |
| C. Cost-effectiveness and execution within budget | 1                              |
| D. Project impact and capacity-building           | 1                              |
| E. Project sustainability                         | 2                              |
| F. Stakeholder participation                      | 2                              |
| G. Country ownership                              | 2                              |
| H. Implementation approach                        | 3                              |
| I. Financial planning                             | 2                              |
| J. Replicability                                  | 1                              |
| K. Monitoring and evaluation                      | 3                              |
| <b>Overall rating</b>                             | <b>2</b><br><b>(very good)</b> |

### C. Recommendations

#### *Recommendation one*

109. Environmental projects often build on the enthusiasm and knowledge of dedicated initiators. There is need to ensure that such individuals and participating organizations are adequately compensated and facilitated to ensure their contributions to the project and to ensure that obligations and expectations are clearly communicated. Achievement of outputs may rely in some instances on essentially voluntary inputs by key individuals, sometimes with minimal institutional support. Experts may be willing to give their time, but their time is usually subject to competing demands from their employers. Consequently, a barrier

to organizations buying into a project can be the question: "What is in it for us?" This issue is particularly important for organizations whose income is strictly project-related, as is increasingly the case in many countries. There are several mechanisms by which this recommendation may be effected. One is to ensure that the extent of volunteer time, including expert advice, is fully determined and that the expectations of all concerned are clear. Another is to ensure that volunteer costs are appreciated by host organizations, where necessary through memoranda of understanding. A third is to ensure that budgets include reimbursement for all reasonable expenses and provision of extra facilities (e.g., payment of internet access, e-mail and telephone expenses) as a reward to volunteers for their time and effort. The problem of accounting for and compensating volunteer time and resources is being increasingly recognized in global projects; a useful and practical summary of the issue is found at <http://iucn.org/themes/ssc/memonly/volunteerism/execsum.htm>. It is important that volunteer inputs be fully recognized, costed and approved prior to commencement of a project.

#### ***Recommendation two***

Where a project is a contributing component of a longer-term project (as the MSP is for GISP), the ongoing viability and continuance of the longer-term project should be an identified output. The MSP outputs tend to concentrate on physical outcomes such as web sites, reports, books and manuals, and may not adequately include ongoing "post-MSP" development. Following the end of the MSP (between phase I and phase II of GISP), GISP went through some periods of uncertainty that on the one hand were retrieved by the hard work of several individuals, but also built on the results of the MSP. The MSP itself was instrumental in drawing attention to the work of GISP and encouraging GISP to develop an institutional long-term strategy. Ensuring continuance might be best achieved by having a funded component of the project, the purpose of which would be to draw up a clear, ongoing post-project strategy, preferably through a short-term external consultancy followed by a workshop involving principal partners in the MSP (or equivalent), the consultant, a facilitator and representative beneficiaries of the project. The workshop should be organized by the executing agency. Ongoing organizational matters to be considered in this process include recommendations for principal partners, the form of governance best suited to the continuing programme, issues of incorporation and organizational legal status, staffing needs, especially as the programme expands, a gap analysis of new issues that have been identified, necessary new partnerships and initiatives and funding options.

#### ***Recommendation three***

110. There is a need to ensure that robust indicators are included from project inception to gauge project effectiveness, especially at the stakeholder level. The identification of SMART indicators to achieve this should be the subject of an expert workshop involving CBD, UNEP, UNDP, the World Bank and indicator specialists. In this instance, although there is general agreement that there was significant impact on CBD Parties, including developing countries, it was quite difficult to assess the degree to which the MSP has been an actual catalyst for change and its relative contribution to change compared with other factors. As executing agencies may adopt different standards and may not even see the need for such indicators, it is appropriate for implementing agencies to ensure that standardized methodology is available to project teams for assessing effectiveness of subprojects, especially at the stakeholder level. The overall problem is that a global programme such as GISP, of which the MSP was a critical component, arises in answer to perceived needs, and the sceptic might well argue that changes and initiatives ascribed to GISP (or any equivalent project) would have occurred anyway. It would be premature for this evaluator to recommend a specific set of indicators, as discussion with a number of conservation and environmental organizations suggests that this is a widely recognized problem that would be best addressed by a specific CBD-led expert workshop.

#### ***Recommendation four***

111. There must be early identification of slippages from a project's initial schedule, and contingency provisions must be identified to ensure that key outcomes are fully achieved. In the case of the MSP, although most outputs were achieved on time, some important outputs have still not been realized. A few outputs did not quite match original project intentions and standards, for instance the database. It is vitally

important that slippages or significant changes in direction of component outputs be identified very early and that there be contingencies to cover non-delivery. This recommendation is addressed to the project task manager, who must ensure that there is a clear understanding by those delegated to achieve outputs with respect to timetabling and milestones for achievement of outputs and the need to make early contact with the task manager if unforeseen delays are likely.

***Recommendation five***

112. Dissemination of products, including web sites, should include quantitative tracking of availability and uptake by target audiences and translation into major languages to facilitate use. Global availability and awareness of products is important. A project web site will often be the primary clearing house for a project, and coupled with this there needs to be a simple but globally effective supply mechanism for outputs that can track distribution and use of products. An important performance measure – perhaps the most important – is the level of uptake of materials produced by the project and their use to solve practical issues in target countries and regions. To achieve this, a practical step is to ensure that all distribution of output materials is coordinated through a single clearing house which maintains a record of distribution (by region, country, institution and individual). A second step is to survey recipients and relevant national agencies within Parties to determine the usefulness of outputs and instances of their specific use. These two activities should be clearly written into the project as specifically funded activities overseen by the task manager. Translation into a core set of languages apart from English – at least into Spanish, French, and Chinese, is an activity with which implementing agencies or the CBD might assist by providing access to good translation services and assisting at least partially with costs.

***Recommendation six***

113. All funding, and especially co-funding, needs to be tracked by the implementing agency and summarized in progress reports. Problems can occur in keeping track of co-financing when not all such funds are routed through the executing agency. This points to the need for a financial tracking system that is adhered to by all partners and that incorporates centralized notification of such funding and its use within the project.

***Recommendation seven***

114. An MSP that is a distinct component of a larger project such as GISP, must be clearly distinguished from the larger project, with clear demarcation of which activities and outputs belong to the MSP and which do not. There has been widespread confusion between GISP as a whole and the MSP itself as a component of GISP. Although the present review is strictly of the MSP, many comments in interviews addressed issues that were not part of the MSP, although they were very relevant to GISP. It is apparent that many, and perhaps most, participants in the MSP did not clearly distinguish it from GISP.

## **Annex I**

### **People interviewed**

The country following each name indicates the place of employment or duty station of each person interviewed. It is not an indication of nationality.

David Brackett, Canada  
Mark Christensen, New Zealand  
Mick Clout, New Zealand  
Matthew Cock, Switzerland  
Alan Holt, USA  
Geoffrey Howard, Kenya  
Richard Mack, USA  
Jeff McNeely, Switzerland  
Sue Mainka, Switzerland  
Hal Mooney, USA  
Jo Mulongoy, Canada  
Sean Murphy, United Kingdom  
Laurie Neville, USA  
Richard Perrings, United Kingdom  
Veronique Plocq-Fichelet, France  
Guy Preston, USA  
Dave Richardson, South Africa  
Jamie Riesser, USA  
Cristian Samper, USA  
Peter Scott, United Kingdom  
Cyrie Sendashonga, Canada  
Elaine Shaughnessy, UK  
Greg Sherley, South Africa  
Hans Eric Svart, Denmark  
Jeff Waage, United Kingdom  
Paula Warren, New Zealand  
Nattley Williams, USA

In addition, two hours were spent on active duty with the New Zealand Ministry of Agriculture Quarantine Service (Auckland Airport), and short discussions were held with equivalent quarantine services in the United Kingdom, USA, Canada and Germany.



## Annex II

### Project outputs

#### e.1) Development of early warning systems

- The GISP Global Invasive Species Database, developed in collaboration with the World Conservation Union – Invasive Species Specialist Group (IUCN- ISSG) can be accessed at: <http://issg.org/database>
- Lowe, S., M. Browne, S. Boudjelas, M. DePoorter : *100 of the World's Worst Invasive Alien Species A selection from the Global Invasive Species Database*. IUCN-ISSG.

#### e.2) Development of a Web page

- <http://jasper.stanford.edu/gisp/home.htm>

#### e.3) Development of Management and Training Guides/Packages.

- Wittenburg, R. and M.J.W. Cock 2001: *Invasive alien species: A Toolkit of Best Prevention and Management Practices*. CAB International, for the Global Invasive Species Programme. Web version at: <http://jasper.stanford.edu/gisp/home.htm>. More than 3,000 hard copies distributed at various venues.
- Shine, C., N. Williams and L. Gundling 2000: *A Guide to Designing Legal and Institutional Frameworks on Alien Invasive Species*. IUCN Gland, Switzerland, Cambridge and Bonn. xvi+138 pp.
- Perrings, C., M. Williamson, and S. Dalmazzone. (eds.) 2000. *The Economics of Biological Invasions*. Edward Elgar, Cheltenham, UK.
- Academy of Educational Development and A. Holt 1999: *A Social Marketing Handbook For Engaging Communities in Invasive Species Management*. AED.

#### e.4) Preparation of Technical reports and Scientific reports

- Mooney, H.A. and R.J. Hobbs (eds) 2000: *Invasive Species in a Changing World*. Island Press.
- Mooney, H.A. et al. (eds) in press: *Invasives Alien Species - Searching for Solutions*, Island Press. A synthesis science report.
- Dean, R.W.J. 1998: Space Invaders: Modelling the Distribution, Impacts and Control of Alien Organisms [News & Comment] *Trends in Ecology and Evolution* 13: 256-258
- Dukes, J.S. and H.A. Mooney 1999: Does global change increase the success of biological invaders. *Trends in Ecology and Evolution* 14: 135-139.
- Everett, R.A. 2000: Patterns and pathways of biological invasions [News and Comment. *Trends in Ecology and Evolution*, 15:177-178.
- Mooney, H.A. 1999: Species without frontiers. *Nature* 397: 665-666.
- Mooney, H. A. and A. Hofgaard 1999: Biological invasions and global change. In O. T. Sandlund, P. J. Schei. and A. Viken (eds), *Invasive Species and Biodiversity Management*. Kluwer, Dordrecht. Pp. 139-148.
- Rejmánek, M. 2000: Invasive plants: approaches and predictions. *Australian Journal of Ecology*.
- Rejmánek, M. and D.M.Richardson 2000: What makes some conifers more invasive? *Proceedings of the Fourth International Conifer Conference*.
- Richardson, D.M., N. Allsopp, C.M. D'Antonio, S.J. Milton, and M. Rejmánek 2000: Plant invasions - the role of mutualisms. *Biological Reviews of the Cambridge Philosophical Society* 75: 65-93.
- Ruiz, G and J. T. Carlton, (eds) in press: *Bioinvasions: Vector; Analysis and Management Strategies*. Island Press, Washington, D.C.

#### **e.5) Reports for policy makers/practitioners**

- McNeely, J.A., H.A. Mooney, L.E. Neville, P. Schei and J.K. Waage (eds) 2001: *A Global Strategy on Invasive Alien Species*. IUCN on behalf of the Global Invasive Species Programme, Gland, Switzerland and Cambridge, UK.
- McNeely, J.A. 2001: *The Great Reshuffling: Human Dimensions of Invasive Alien Species*. IUCN, Gland, Switzerland and Cambridge, UK.
- Mooney, H.A., J. McNeely, L.E. Neville, P.J. Schei, J.K. Waage (eds) in press: *Invasive Alien Species: Searching for Solutions*. Island Press, Washington, D.C.
- Mooney, H. A. 1999: A global strategy for dealing with alien invasive species. In, Sandlund, O.T., P. J. Schei, and A. Viken (eds), *Invasive Species and Biodiversity Management*. Kluwer Academic Publishers, Dordrecht. Pp. 407-418.
- Regional strategies that have been designed/discussed through a series of regional meetings (decision-makers + scientific experts) over 2001-02.

#### **e.6) Preparation of public awareness materials**

- Baskin, Y. 1998: Winners and losers in a changing world." *BioScience* 48: 788-792.
- Baskin, Y. 2002: *A Plague of Rats and Rubbervines: The Growing Threat of Species Invasions*. Shearwater Books/Island Press, Washington, D.C.
- Anon 1998: *The Global Invasive Species Programme Brochure*. Numerous leaflets, pamphlets etc were also produced for COP and SBSTTA events.

## Annex III

### Co-financing (2000-2002)

Figures are US\$ 000 (USD)

#### GEF Grant

|  |            |
|--|------------|
| Global Environment Facility (GEF) - to SCOPE as per project  | 720        |
| Global Environment Facility (GEF) - to UNEP for coordination | 30         |
| <b>Subtotal</b>  | <b>750</b> |

#### In cash, counterpart funding

|  |              |
|--|--------------|
| United Nations Environment Programme (UNEP) - start up grant   | 45           |
| ICSU - start up grant  | 15           |
| UNESCO/ICSU - project coordination + global change workshop  | 80           |
| McArthur Foundation- start up grant  | 27           |
| La Fondation Total - database development  | 45           |
| NASA - Stanford unit   | 10           |
| NASA - global change workshop  | 24           |
| Packard Foundation - initial grant for Stanford GISP Unit  | 47           |
| Packard Foundation - second grant for Stanford GISP Unit   | 62           |
| Packard Foundation - Capetown conference + publications  | 220          |
| IUCN - human dimensions workshop   | 45           |
| IUCN - database development  | 18           |
| Danish government - Copenhagen regional workshop   | 6            |
| Ministry of Foreign Affairs New Zealand - database development                                       | 5            |
| European Commission - legal component  | 60           |
| US State Department - Capetown + regional workshops + publications                                   | 278          |
| US State Department via NFWF - Lusaka regional workshop  | 17           |
| US Fish and Wildlife Service - database development  | 12           |
| US Gov. Bureau of Land Management - Bangkok regional workshop  | 10           |
| US State Department - regional workshops, additional grants  | 180          |
| US Government (Dept of Interior – Office of Insular Affairs) additional for Hawaii regional workshop | 45           |
| USAID - Hawaii regional workshop   | 30           |
| Aquatic Nuisance Species Task Force (ANSTF) - Hawaii workshop  | 40           |
| <b>Subtotal</b>  | <b>1,321</b> |

|  |              |
|--|--------------|
| <b>In-kind, counterpart funding</b>                            |              |
| Danish Government - Copenhagen regional workshop               | 2            |
| University of Auckland - database development                  | 80           |
| Brazilian Government - Brasilia regional workshop, local costs | 40           |
| German Research Council - economics component, post doc fellow | 40           |
| MacArthur Foundation - economics component, post doc fellow    | 20           |
| Personnel, scientific experts                                  | 760          |
| SCOPE, project support   | 70           |
| UNEP, evaluation mission                                       | 50           |
| <b>Subtotal</b>  | <b>1,062</b> |
| <b>Total Counterpart funding</b>                               | <b>2,383</b> |
| <b>Total funding (in thousands US\$)</b>                       | <b>3,133</b> |