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INVASIVE ALIEN SPECIES

Options for future work

Note by the Executive Secretary

Executive summary

The present note identifies options for the full and effective implementation of Article 8(h) of the Convention on Biological Diversity, in line with paragraph 16 of decision V/8 of the Conference of the Parties (paragraph 16).

Options are presented for:

- (a) The further development of the Interim Guiding Principles,
- (b) The development of an international instrument; and
- (c) Other options, including: (i) national invasive alien species strategies and action plans, and (ii) international collaboration.

On the basis of the comprehensive review of existing measures for prevention, early detection, eradication and control (UNEP/CBD/SBSTTA/6/7), and, in particular, the review of the efficiency and efficacy of existing legal measures (UNEP/CBD/SBSTTA/6/INF/5), SBSTTA may wish to recommend that Conference of the Parties expresses support for the ratification and application of existing instruments and the development of relevant standards within them in harmony with the objectives of the Convention, also expresses support for planned negotiating processes to fill known gaps, and considers the need for new targeted instruments to fill any additional identified gaps.

* UNEP/CBD/SBSTTA/6/1.

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On the basis of the comprehensive review (UNEP/CBD/SBSTTA/6/7), and, in particular the review of activities for prevention, early detection, eradication and control (UNEP/CBD/SBSTTA/INF/3), the report on procedures, criteria and capacities for assessing risk from alien species (UNEP/CBD/SBSTTA/INF/6), as well as the products of phase 1 of the Global Invasive Species Programme (GISP), a number of activities are suggested in support of the development and application of national invasive alien species strategies and action plans, and for international collaboration on policy development, research, development of tools, coordination, and capacity-building.

Suggested recommendations

SBSTTA may wish to draw upon the following text, in elaborating its recommendations:

SBSTTA may wish to recommend that the Conference of the Parties, at its sixth meeting:

With regard to the Guiding Principles for the implementation of Article 8(h)

Recognizing that invasive alien species represent one of the primary threats to biodiversity, especially in fragile ecosystems including those that have been geographically and evolutionary isolated, such as small island developing States; and that risks may be increasing due to increased global trade, transport, tourism and climate change;

Reaffirming that full and effective implementation of Article 8(h) is a priority,

1. *Adopts* the Guiding Principles;
2. *Urges* Parties, other Governments and relevant organizations to promote and implement the Guiding Principles;

With regard to the development of an international instrument

Acknowledging the contribution to the implementation of Article 8(h) of existing international instruments, such as the International Plant Protection Convention (IPPC), and relevant international organizations such as the Office International des Epizooties, the regional plant protection organizations, the Food and Agriculture Organization of the United Nations (FAO), the International Maritime Organization (IMO), the World Health Organization (WHO) and other international organizations that develop relevant standards and agreements,

Noting, however, in the light of the comprehensive review of the efficiency and efficacy of existing legal instruments applicable to invasive alien species, that there are certain gaps and inconsistencies in the international regulatory framework from the perspective of the threats of invasive alien species to biological diversity;

3. *Recommends* that Parties and other Governments, as appropriate, ratify the revised International Plant Protection Convention;

4. *Welcomes* the preparation by the International Maritime Organization of an international instrument to address the environmental damage caused by the introduction of harmful aquatic organisms in ballast water;

5. *Invites* the International Plant Protection Convention (IPPC), the Office International des Epizooties, the Food and Agriculture Organization of the United Nations (FAO), the International

Maritime Organization (IMO), the World Health Organization (WHO) and other relevant international instruments and organizations, as they elaborate further standards and agreements, or revise existing standards and agreements, including for risk assessment/analysis, to consider incorporating criteria related to the threats to biological diversity posed by invasive alien species; and *invites* such instruments and organizations to report on any such ongoing, planned, or potential initiatives;

6. *Decides* to consider further, the need for, and, as appropriate modalities of, additional instruments, to address specific gaps in the international regulatory framework from the perspective of the threats of invasive alien species to biological diversity, and [*requests* SBSTTA] [*establishes* a [expert][working] group] to provide advice on this matter, and to report back to the Conference of the Parties at its seventh meeting, taking into account further relevant information arising from the implementation of the present decision;

With regard to other options:

Reaffirming the importance of national invasive alien species strategies and action plan, and of international collaboration to address the threats to biodiversity of invasive alien species,

Noting the range of measures (UNEP/CBD/SBSTTA/6/7) and the need to strengthen national capacities and international collaboration,

(a) *National invasive alien species strategies and action plans*

7. *Urges* Parties and other Governments, in implementing the Guiding Principles, and when developing, revising and implementing national biodiversity strategies and action plans to address the threats posed by invasive alien species, to:

(a) Identify national needs and priorities;

(b) Review, in the light of the Guiding Principles, relevant policies, legislation and institutions to identify gaps, inconsistencies and conflicts, and, as appropriate, adjust or develop policies, legislation and institutions;

(c) Enhance cooperation between the various sectors that might provide pathways or vectors for the unintended transfer of invasive alien species, in order to improve prevention, early detection, eradication and/or control of invasive alien species, and in particular, ensure communication between focal points of respective relevant international instruments;

(d) Promote awareness of the threats to biological diversity and related ecosystem goods and services posed by invasive alien species and of the means to address such threats, to policy makers at all levels of government, and in the private sector; quarantine, customs and other border officials; and the general public;

(e) Facilitate the involvement of all stakeholder groups, including in particular local and indigenous communities and the private sector, in national invasive alien species strategies and action plans, and in decisions related to the use of alien species that may be invasive; and

(f) Collaborate with neighbouring countries, and other countries, as appropriate, in order to address threats of invasive alien species to biological diversity in ecosystems that cross international boundaries, to migratory species, and to address matters of common regional interest.

8. *Encourages* Parties and other Governments, in undertaking this work and, in particular, when developing priority actions, to consider the need to:

(a) Develop capacity to use risk assessment/analysis to address threats of invasive alien species to biological diversity, and incorporate such methodologies in environmental impact assessments, and strategic environmental assessments, as appropriate and relevant;

(b) Develop economic incentives, and other policies and tools, to promote activities to reduce the threat of invasive alien species;

(c) Integrate national strategies and action plans that address the threats of invasive alien species, into national biodiversity policies, strategies and action plans, and into sectoral and cross-sectoral policies, strategies and plans, taking into account the ecosystem approach;

(b) International cooperation

9. *Urges* Parties, Governments and relevant organizations, to consider the potential effects of global change on the risk of invasive alien species to biodiversity, and related ecosystem goods and services, and, in particular:

(a) *Invites* the United Nations Framework Convention on Climate Change to consider this matter when it considers measures for adaptation to and mitigation of climate change;

(b) *Invites* the World Trade Organization, through its Committee on Trade and the Environment, to take into account the impacts of trade and trade liberalization; and

(c) *Invites* the Food and Agriculture Organization of the United Nations, the World Health Organization, the United Nations Development Programme, the United Nations Environment Programme, the World Bank and other development agencies to consider the impacts of land-use change, agriculture, aquaculture, forestry, health and development policies and activities;

10. *Invites* the Convention on the Conservation of Migratory Species of Wild Animals, the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar), the Convention on the Conservation of European Wildlife and Natural Habitats, the World Heritage Convention, and the Man and the Biosphere Programme of the United Nations Educational, Scientific and Cultural Organization, in collaboration with relevant organizations to promote further the implementation of Article 8(h) within their mandates, *inter alia*, through the development of guidance, best practices and pilot projects that address the threats of invasive alien species to particular sites or habitats, including means to enhance the capacity of ecosystems to resist or recover from alien species invasions;

11. *Urges* Parties, Governments and relevant organizations, at the appropriate level, with the support of relevant international organizations to promote and carry out, as appropriate, research and assessments on:

(a) The impact of alien invasive species on biological diversity;

(b) The socio-economic implications of invasive alien species particularly the implications for indigenous and local communities;

(c) The development of environmentally benign methods to control and eradicate invasive alien species, including measures for use in quarantine and to control fouling of ship-hulls.

(d) The costs and benefits of the use of biocontrol agents to control and eradicate invasive alien species;

(e) Means to enhance the capacity of ecosystems to resist or recover from alien species invasions;

(f) Priorities for taxonomic work, *inter alia*, through the Global Taxonomy Initiative (see UNEP/CBD/SBSTTA/6/6, paras. 94 and 95); and

(g) Criteria for assessing risks from introduction of alien species to biological diversity at the genetic, species and ecosystem levels;

12. *Requests* the Executive Secretary to compile information on topics listed under paragraph 11 above, in collaboration with relevant organizations;

13. *Urges* Parties, Governments and relevant organizations, at the appropriate level, to develop and make available technical tools and related information to support efforts for the prevention, early detection, eradication and/or control of invasive alien species:

14. *Requests* the Executive Secretary, within the availability of resources, and in collaboration with relevant organizations to support the development and dissemination of technical tools and related information on the prevention, early detection, eradication and/or control of invasive alien species through, *inter alia*:

(a) Compilation and dissemination of case-studies submitted by Parties, other Governments and organizations, best practices and lessons learned, drawing upon, as appropriate, tools listed in information document UNEP/CBD/SBSTTA/6/INF/2 and the “toolkit” compiled by the Global Invasive Species Programme (UNEP/CBD/SBSTTA/INF/10);

(b) Further compilation and preparation of anthologies of existing terminology used in international instruments relevant to invasive alien species, and to develop, and update as necessary, a non-legally binding list of terms most commonly used;

(c) Compilation and making available lists of procedures for risk assessment/analysis which may be relevant in assessing the risks of alien invasive species to biodiversity, habitats and ecosystems;

(d) Identification and inventory of existing expertise relevant to the prevention, early detection, eradication and/or control of invasive alien species, which may be made available to other countries, including the roster of experts for the Convention on Biological Diversity;

(e) Development of databases and facilitate access to such information to all countries, *inter alia*, through the clearing house mechanism;

(f) Development of systems for reporting new invasions of alien species and the spread of alien species into new areas;

15. *Requests* the Executive Secretary when reporting on the thematic work programmes of the Convention to report specifically on how the threats and impacts of invasive alien species will be addressed;

16. *Considers the need* for arrangements to provide financial resources, in accordance with Articles 20 and 21 of the Convention, for activities and capacity building, particularly in developing countries and countries with economies in transition paying particular attention to the needs of the least developed countries and small island developing States;

CONTENTS

Executive summary	1
Suggested recommendations	2
I. INTRODUCTION.....	7
II. DISCUSSION OF OPTIONS	7
A. Further development of the Interim Guiding Principles	8
B. Development of an international instrument.....	9
1. Developing a comprehensive instrument	9
2. Developing an instrument or instruments to fill identified gaps.....	10
3. Enlargement of existing instruments.....	10
4. Discussion of alternative approaches to develop international instruments	11
C. Other options.....	11
1. National invasive alien species strategies and action plans	11
2. International collaboration	12

I. INTRODUCTION

1. By paragraph 6 of its decision V/8, the Conference of the Parties, decided that it would consider, at its sixth meeting, options for the full and effective implementation of Article 8(h) including the possibilities of:

(a) Further developing the guiding principles on the prevention of introduction, and mitigation of the impacts, of alien invasive species;

(b) Developing an international instrument; and/or

(c) Other options.

2. The Conference of the Parties further decided that the issues would be taken up on the basis of case-studies and comments on the Interim Guiding Principles provided by Parties, other Governments, and relevant bodies (paragraph 5 of the decision), and the results of collaboration with international organizations on a number of matters (paragraph 14), such information being contained in a progress report by the Executive Secretary (paragraph 15 of the decision; see UNEP/CBD/SBSTTA/6/6 and UNEP/CBD/SBSTTA/INF/2), as well as on a comprehensive review on the efficiency and efficacy of existing measures for prevention, early detection, eradication and control of alien invasive species and their impacts prepared by the Executive Secretary in collaboration with relevant international organizations (paragraph 15; see UNEP/CBD/SBSTTA/6/7). The comprehensive review is supported by a number of information documents.^{1/} Additionally, a number of products of phase I of the Global Invasive Species Programme (GISP) are available. This note also draws upon the work of the liaison group on invasive alien species, which provided a list of possible options for future work (UNEP/CBD/SBSTTA/6/INF/7).

3. Based on all of the above, the present note identifies options for the full and effective implementation of Article 8(h) of the Convention on Biological Diversity, in line with decision V/8. Section II discusses the options according to the three groups identified by Conference of the Parties, on the basis of the analysis of gaps and needs provided in the comprehensive review.

II. DISCUSSION OF OPTIONS

4. There is a wide range of ongoing activities and instruments relevant to the prevention, early detection, control and eradication of invasive alien species. However, there is a need to continue to refine knowledge and understanding of the significance of the invasive alien species issue to the implementation of the Convention. Furthermore, the existing capacity to address environmental, economic and social challenges posed by invasive alien species is not sufficient. There are gaps both in the tools available, and in the capacity of countries to utilize existing tools. There are also gaps within the existing international regulatory framework, as noted in the comprehensive review (UNEP/CBD/SBSTTA/6/7). Moreover, many measures have been designed to address particular species or vectors in the limited context of particular sectors such as agriculture, trade and transport, and do not address adequately the threats to biodiversity.

^{1/} Review of the efficiency and efficacy of existing legal measures (UNEP/CBD/SBSTTA/6/INF/5); review of activities for prevention, early detection, eradication and control (UNEP/CBD/SBSTTA/6/INF/3); and report on procedures, criteria and capacities for assessing risk from alien species (UNEP/CBD/SBSTTA/6/INF/6).

5. The task facing policy makers is how to strengthen capacity to protect native biodiversity against invasion impacts without adding extra complexity or unnecessarily duplicating what already exists. It is understood that the major implementation effort for the Convention is at the national level, undertaken by States under their own environmental policies and laws, and that each Party is to develop or adapt national strategies, plans or programmes for the implementation of the Convention. The implementation of the objectives of the Convention is to be integrated with other relevant national work.

6. It should also be recognized that priorities for action will vary among countries, as will the way in which implementation is undertaken. For some Parties, particularly those that are responsible for geographically and evolutionarily isolated ecosystems such as islands, alien species issues may be the primary cause of biodiversity loss; for others, alien species effects may be less important compared to issues such as deforestation, land degradation, or unsustainable harvest of biological resources.

7. Nevertheless, it is also recognized that international collaboration is vital to address fully the threat of invasive alien species, particularly through prevention of introductions. This is reflected in the large range of international legal instruments relevant to the matter. In some cases where gaps are identified, they may be best addressed under these existing instruments.

8. In light of the above, and considering also the advice of the liaison group that priority should be given to strengthening national implementation, that the development of instruments containing binding rules will require more detailed assessment, and that cooperative arrangements be promoted in the mean time (see UNEP/CBD/SBSTTA/6/INF/7), the discussion of the second option referred to in paragraph 16 of decision V/8, “elaboration of an international instrument”, includes also consideration of the application of existing instruments and the development of standards within existing instruments. Further, discussion of the third option referred to in the decision, “other options”, includes both consideration of national strategies and action plans, as well as international collaboration.

9. The options discussed, and reflected in the above draft elements for SBSTTA recommendations to the Conference of the Parties, incorporate the suggestions of liaison group in relation to: increasing understanding of needs and priorities by decision makers and the public; capacity-building; developing national legal, institutional and economic arrangements; bilateral and multi-lateral cooperation; setting international standards and guidelines; developing tools and taking actions for prevention, early detection and early eradication of alien species which threaten ecosystems, habitats or species; developing tools and taking actions for eradication and control of established alien species invasions (UNEP/CBD/SBSTTA/6/INF/7).

10. In discussing these options, it should be noted that they are not mutually exclusive.

A. Further development of the Interim Guiding Principles

11. Guiding principles were developed by SBSTTA pursuant to decision IV/1 C. In amended form, the Interim Guiding Principles for the Prevention, Introduction and Mitigation of Impacts of Alien Species are annexed to decision V/8. Parties, Governments and relevant organizations were urged to apply the Principles, as appropriate, in the context of activities aimed at implementing Article 8(h) and in the various sectors. They were also invited to submit written comments (see UNEP/CBD/SBSTTA/6/6 and INF/2).

12. In their current form, the Interim Guiding Principles will already make a constructive contribution to policy formation. They identify overarching principles that should provide a common foundation for regional, bilateral and national measures, including sequenced priorities for prevention, early warning, eradication and control. They explain how differentiated measures are needed to control intentional and unintentional introductions. They seek to clarify how key principles supported by

international law should be applied to the specific context of alien species, including the precautionary approach, the responsibility of States as potential sources of invasive alien species and the need for inter-State cooperation and capacity-building. Education and public-awareness measures are also given prominent treatment.

13. That the Interim Guiding Principles are non-binding has certain advantages. Their non-binding nature requires less time for their development, and avoids the delay inherent in formal treaty negotiations, yet makes structured guidance available to countries and regions that wish to take swifter action consistent with internationally agreed approaches. Non-binding instruments that have been developed with high participation of the international community are evidence of broad consensus on a particular topic and should be implemented in good faith by States and organizations concerned.

14. On the other hand, there are obvious limitations to a non-binding instrument. It can promote harmonization but cannot require implementation of common approaches to legislation, decision-making criteria, environmental and risk assessment/analysis procedures and management and control measures. In their current form, the Interim Guiding Principles do not address the issue of providing resources for capacity-building or deal more specifically with liability and redress. These issues can, however, be addressed through other processes under the Convention (e.g., under decision V/18, on impact assessment, liability and redress).

15. Comments received from Parties, Governments and organizations on the Interim Guiding Principles (UNEP/CBD/SBSTTA/6/6 and UNEP/CBD/SBSTTA/6/INF/2) mostly concern the title and terminology used, or provide specific suggestions for textual changes. One Party suggested two additional principles. None suggested that the principles should not be further developed or adopted. It would appear therefore that they could be finalized and adopted, as non-binding guidance, at the sixth meeting of the Conference of the Parties.

16. Application of the guiding principles will require the development of specific approaches that are appropriate to the particular circumstances of the Party, Government or relevant organization. Tools for implementation, and exchange of best practice, could facilitate and support their application. Development of such tools and information exchange is addressed under section C below (“Other options”).

B. Development of an international instrument

17. Alternatives for developing a new international instrument, or instruments, or for enlarging existing instruments, are summarized below.

1. Developing a comprehensive instrument

18. One approach would be to adopt a framework agreement to provide an overarching instrument for all sectors concerned by invasive alien species issues, including transport, trade, tourism, primary production, public health and conservation. Its substantive provisions could address matters covered by the Interim Guiding Principles as well as additional issues such as standard-setting, capacity-building and financial aspects. The agreement could be completed by technical annexes that bring together or reference sectoral standards, guidelines and practices for specific pathways and activities.

19. Leaving aside the time and commitment needed to develop any new treaty, implications with regard to existing agreements would require particular attention. Many instruments and processes already reference alien species and, some are actively developing guidance and standards for their respective Parties or members. A new instrument should aim not to displace or undermine the achievements and

expertise built up to date, but, rather, to support consistency of approach across these various instruments and thus facilitate cooperation between all intergovernmental organizations, and relevant stakeholders.

20. For any new instrument, four issues would need special consideration with regard to the multilateral trade system: (a) the form that dedicated environmental standards might take; (b) the institutional and technical capacity required to develop them; (c) the relationship between such standards and existing and future standards, recognized under the SPS Agreement or other WTO Agreements; and (d) ways in which cooperation and dialogue should be further developed with the WTO to secure recognition of such standards.

2. Developing an instrument or instruments to fill identified gaps

21. Another possibility is to design one or more new instruments to fill the gaps in existing frameworks identified in the review. The International Maritime Organization is addressing one such gap. SBSTTA and the Conference of the Parties may wish to take account of this experience. The initial strategy of IMO on ballast water management was to promote voluntary adherence to technical guidance adopted in 1993 and revised in 1997. However, in recognition of the limitations of such voluntary guidelines, the IMO Marine Environmental Protection Committee has supported the development of legally binding global rules, broadly based on the same substantive content as the 1997 Guidelines. A diplomatic conference in 2002 will consider formalization of the 1997 guidelines as a new MARPOL annex, new convention or other legal instrument. A similar approach could be used where there are gaps identified, for example in the case of aquatic introductions. These could build upon the current non-binding measures, such as relevant provisions of the FAO Code of Conduct for Responsible Fisheries and the Code of Practice on the Introductions and Transfers of Marine Organisms of the International Council for the Exploration of the Sea and the FAO European Inland Fisheries Advisory Commission (ICES/EIFAC).

22. In other areas, where there are no instruments, for example for shipping-associated vectors other than ballast water, non-binding approaches may be used first. Non-binding instruments can also be used to develop more detailed guidance under existing instruments.

23. To the extent that new instruments are nested within existing institutions, agreements and programmes, this option probably involves fewer political, institutional and legal demands. Particularly in the short term, it may be the most efficient approach. However, gap-filling needs to be strategic and consultative rather than piecemeal and sectoral, or else it may perpetuate patterns of dispersal and proliferation and work against streamlining and consistency. Careful planning would be necessary to ensure that such approaches support comprehensive and integrated approaches at international and national level.

3. Enlargement of existing instruments

24. A third approach would be to seek some kind of accommodation or enlargement of existing sanitary, phytosanitary, food safety and public health instruments. On grounds of efficiency, there are pragmatic reasons to maximize existing mechanisms and expertise, particularly in the area of standard setting and risk analysis methodology, and to use regional networks and national capacity to the full. Moreover, IPPC, OIE and Codex Alimentarius Commission already interface with the multilateral trading system as their standards are formally recognized under the SPS Agreement.

25. However, any discussion of this possibility must seriously consider the readiness of relevant organizations (and national agencies) to embark on more change. The ongoing process of developing standards and harmonizing risk assessment/analysis methodologies only began quite recently, triggered by the need for consistency with WTO principles and rules. Even for the IPPC, which has probably gone

furthest towards revising its mandate, amendments agreed in 1997 have not yet entered into force. More generally, existing powers to take account of environmental and societal dimensions have not been fully utilized and there does not appear to be any consensus regarding development of environmental standards under these regimes.

26. These limitations notwithstanding, a process for strengthening existing instruments has already begun through the identification of where additional work is required. An open-ended working group of the IPPC held in June 2000 identified the need for a review of IPPC standards to ensure that they adequately addressed environmental risks. A meeting to undertake that work is planned for February 2001 and the outcomes of the meeting are expected to be reported upon at the sixth meeting of SBSTTA. Such initiatives could be promoted proactively by the Convention on Biological Diversity, through, for example, joint approaches to standards development or joint work programmes between secretariats.

4. Discussion of alternative approaches to develop international instruments

27. A new instrument should only be developed if there is a strong rationale for it: that is if there is a consensus that the existing regulatory framework limits efficient and effective action on alien species. Given the number of agreements already in place, a consensus on developing a new, comprehensive agreement at this time would be difficult to reach. There may be a case, however, for developing targeted instruments to fill identified gaps, and/or developing standards under existing agreements.

28. If either a comprehensive or gap-filling instrument is under consideration, thought would need to be given to the choice of organization or umbrella agreement to sponsor the negotiation process and possibly host the new instrument. Of the multilateral environmental agreements, the Convention on Biological Diversity is the only global instrument to provide a comprehensive legal basis for measures to protect all components of biodiversity against the adverse impacts of invasive alien species. It provides for two kinds of legally binding instrument to be adopted by the Conference of the Parties: annexes and protocols. ^{2/}

C. Other options

29. There are several options to enhance cooperation and synergy and to address policy gaps or weaknesses without developing new instruments. These include: (i) elaborating national invasive alien species strategies and action plans, and (ii) collaborative action at the international level.

1. National invasive alien species strategies and action plans

30. At its fifth meeting, the Conference of the Parties urged Parties, other Governments and relevant bodies to give priority to the development and implementation of invasive alien species strategies and action plans.

31. The development of such strategies and action plans should be based on national needs and priorities, and should be guided *inter alia* by: (i) the fact that invasive alien species can be an important issue within national boundaries; (ii) the Interim Guiding Principles for the prevention, introduction and mitigation of impacts of alien species; and (iii) information on the cost effectiveness of actions that could be taken to address invasive alien species. Development of strategies and action plans should include a review of all relevant policies, legislation and institutions, and economic arrangements. This process

^{2/} An annex has a simplified procedure for entry into force but its use is limited to building on the existing requirements of the Convention. If the Conference of the Parties wanted to develop institutional and technical capacity for future environmental standard-setting, this would probably require a protocol (Convention Articles 29 on "Amendment of the Convention or Protocols" and 30 on "Adoption and amendment of annexes")

should identify, gaps, inconsistencies, and conflicts, and, as appropriate, adjust or develop policies, legislation and institutions.

32. The information on existing measures for the prevention and control of alien species in national biodiversity policies, strategies and action plans, summarized in the progress report on alien species (UNEP/CBD/SBSTTA/6/6) highlights the need to integrate national invasive alien species strategies and action plans into national biodiversity policies, strategies and action plans, as well as more broadly into sectoral and cross-sectoral policies, strategies and plans (Article 6 of the Convention), taking into account the ecosystem approach.

33. The review of the efficiency and efficacy of existing measures (UNEP/CBD/SBSTTA/6/7) has highlighted the need for greater cooperation between the various sectors that might provide pathways or vectors for the unintended transfer of invasive alien species, in order to improve prevention, early detection, eradication and/or control of invasive alien species. Greater communication between focal points of respective relevant international instruments will provide an important mechanism to improve co-operation at the national level.

34. The analysis of the thematic national reports on invasive alien species (UNEP/CBD/SBSTTA/6/INF/2) shows that the ability of most countries to adequately address the issue of alien species was limited. This highlights the need for collaboration between neighbouring countries, and other countries, as appropriate, in order to address threats of invasive alien species to biological diversity in ecosystems that cross international boundaries, to migratory species, and to address matters of common regional interest.

35. In planning and implementing national invasive alien species strategies and action plans it will be important to facilitate the involvement of all stakeholder groups, including local and indigenous communities, and the private sector. Strategies and plans need to raise awareness of the threats of invasive alien species to biological diversity and related ecosystem goods and services amongst policy makers, in the private sector, and in the wider general public. The results of GISP phase I provide some guidance on how to carry out effective public awareness and education work (UNEP/CBD/SBSTTA/6/INF/9 and 10)

36. States wishing to adopt or strengthen national legal frameworks and to develop bilateral and subregional coordinated approaches may wish to consider existing materials which are already available, such as the IUCN *A Guide to Designing Legal and Institutional Frameworks on Alien Invasive Species* (UNEP/CBD/SBSTTA/6/INF/8). Additional guidance is given in document UNEP/CBD/SBSTTA/6/INF/7 with regard to surveillance techniques, tools for inventory, improvement of border control, movement of species within national borders, risks posed by vectors and international aid work, emergency response mechanisms, prediction capacity, application of ecosystem in control measures, and development of eradication work.

2. *International collaboration*

37. Risks to biological diversity arising from invasive alien species are increasing because of global change phenomena associated with climate change and the increased trade, transport and tourism associated with globalization, as well as ongoing developments in agriculture, aquaculture, forestry and infrastructure development. There is insufficient attention to the risks posed by such changes, notwithstanding the number of legal instruments associated with many of these sectors. Increased attention to these problems through relevant international organizations is proposed in the above draft elements for a SBSTTA recommendation to the Conference of the Parties.

38. At its fifth meeting, the Conference of the Parties invited relevant instruments and organizations to assist Parties in various matters related to the implementation of Article 8(h) and to coordinate work on the matter. Section V of the progress report (UNEP/CBD/SBSTTA/6/6) summarizes activities to date.

39. Many Parties do not have adequate information on their biological diversity. Inventories of existing biodiversity can be difficult and expensive to undertake. Providing tools for undertaking this work may, therefore, be desirable. SBSTTA could seek partners (including potentially the GISP and the Millennium Ecosystem Assessment) to develop tools for, and undertake baseline assessments.

40. The Convention on Biological Diversity and other organizations and institutions could further develop information sharing as a mechanism to improving the ability of Parties to address invasive alien species issues. The further development of an integrated clearing house mechanism and other mechanisms to facilitate scientific and technical cooperation on alien species issues are required. Partners could be sought for the development of these mechanisms. SBSTTA could work with GISP and other relevant bodies to identify appropriate means to improve Parties' access to information. This could include the continued development of the database work undertaken under GISP phase I. Existing focal points or new ones should be considered to provide single point of contact within countries and organizations.

41. The promotion of a coordinated approach to the development and maintenance of databases on alien species presence, biology and management should be encouraged as well as the development of centres specialized in particular aspects related to the implementation of Article 8(h) and that can provide technical assistance to Parties.

42. Some of the difficulties associated with terminology could be addressed through less formal channels. Key international organizations might cooperate in producing a glossary of equivalent terms that can draw on existing materials (e.g. the IPPC Glossary of Phytosanitary Terms) and treaty definitions, whilst stopping short of an attempt at full standardization, which would be extremely difficult.

43. The development of tools for the prevention and management of invasive alien species has been identified as an urgent need. Development of techniques and capacity for risk assessment/analysis, including a possible early warning system, and setting of international standards could be priority areas. International institutions and organizations can play a leading role in their development.

44. International organizations and institutions could facilitate the establishment of pilot projects for capacity building, to enhance capacity both at national and regional levels. Further guidance to the Global Environment Facility on priorities for capacity building and ways to improve delivery of assistance may be sought, as well as support from bilateral and multilateral donors.

45. Conventions and agreements that manage aspects of biodiversity at specific sites provide a unique opportunity to address research and management aspects of mechanisms to enhance the capacity of ecosystems to resist or recover from alien species invasions. These networks of sites under the mandate of international conventions provide an excellent 'global classroom' to help develop institutional and scientific linkages to progress understanding across the major ecosystem types. Pilot cooperative programmes based around sites, which are managed pursuant to other conventions (particularly the Ramsar Convention on Wetlands, the Convention on Migratory Species, and the UNESCO Man and the Biosphere and World Heritage sites). This work could focus on providing training and impetus for tackling alien species issues relevant to the implementation of Article 8(h), but also meeting the operational requirements of each relevant agreement.

46. Furthering research generally to increase knowledge and understanding of the impact of invasive alien species on biological diversity in a coordinated manner by international organizations, institutions and instruments will result in efficiencies and greater progress in defining the extent of the threats, and the remedies required to address the impacts.
