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Item 14 of the provisional agenda*

ISLAND BIOLOGICAL DIVERSITY: COMPILATION OF SUPPORTING ACTIONS FOR THE PROGRAMME OF WORK

Note by the Executive Secretary

I. INTRODUCTION

1. In decision VII/31, the Conference of the Parties decided to consider island biodiversity as a new issue for in-depth consideration at its eighth meeting and requested the Executive Secretary to make appropriate arrangements for a preparatory process.
2. In response to this decision, an ad hoc technical expert group was convened in the Canary Islands, from 13 to 17 December 2004. The draft elements of a work programme on island biological diversity prepared by the expert group were submitted to the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) at its tenth meeting as one of its main items for discussion. The Subsidiary Body considered the item and adopted recommendation X/1 on island biodiversity (UNEP/CBD/COP/8/2, annex) which contains in its annex: (i) an introduction describing the specific characteristics of islands, in particular small island developing States; (ii) the overall purpose and scope of the programme of work; (iii) some working definitions; and (iv) a table listing the goals, targets and timeframes, and island-specific priority actions for the Parties.
3. In paragraph 6 of recommendation X/1, SBSTTA requested the Executive Secretary to compile those supporting actions for the programme of work on island biodiversity included in the drafts considered at its tenth meeting and the suggestions received during that meeting, and forward them to the Conference of the Parties at its eighth meeting for its consideration.
4. In response to this request, the Executive Secretary prepared the present note. Drafts of the compiled supporting actions were circulated for comments from 13 October to 5 November 2005

* UNEP/CBD/COP/8/1.

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(Notification 2005 -110, Ref. SCBD/STTM/JM/JG /51255). Comments received were taken into account in the present note. The supporting activities for the Secretariat of the Convention, suggested partners, and linkages with decisions and processes, and the Canary Islands Declaration on Protecting Island Biodiversity from the Impact of Alien Species can be found in an information document.

II. INDICATIVE LIST OF SUPPORTING ACTIONS FOR PARTIES FOR THE IMPLEMENTATION OF THE PROGRAMME OF WORK ON ISLAND BIODIVERSITY

GOAL 1 ^{1/}

Priority action 1.1

- 1.1.1. Identify, classify, map, and prioritize island ecosystems and sensitive areas important for biodiversity and/or for the maintenance of ecological goods and services, with the full and effective participation of indigenous and local communities, taking into account practical issues of connectivity and implementation of conservation activities.
- 1.1.2. Develop and enforce regulations for the conservation of important ecosystems and habitats, including a mandate for participatory management plans.
- 1.1.3. Develop and implement participatory conservation and management plans for important ecosystems and habitats, engaging all relevant stakeholders.
- 1.1.4. Establish efficient local, national, and regional ecosystem monitoring programmes.
- 1.1.5. Facilitate participatory workshops on conservation regulations for all relevant stakeholders within or adjacent to key ecosystems and habitats to develop long term local support and commitment to compliance.
- 1.1.6. Improve understanding of ecological processes on islands, including the role of isolated and fragmented habitats, seamounts, hydrothermal vents, and cold seeps in preserving biodiversity.

Priority action 1.2

- 1.2.1. Develop and implement appropriate techniques and guidelines through reviewing and monitoring restoration projects globally.
- 1.2.2. Undertake revegetation in natural terrestrial ecosystems from which key components have been lost or significantly reduced. Work with knowledgeable local, traditional, and indigenous experts to identify key vegetation components that have been lost or significantly reduced;
- 1.2.3. Re-establish animal species in terrestrial and freshwater ecosystems from which they have been lost or significantly reduced.
- 1.2.4. Re-establish depleted species into marine ecosystems (e.g. artificial reefs, coral transplanting and species restocking)

^{1/} Goals and priority actions are described in the annex to recommendation X/1 in document UNEP/CBD/COP/8/3. This indicative list could be attached to the goals and priority actions for the purpose of work on island biodiversity as an appendix.

- 1.2.5. Develop and implement methods to protect endangered species in their island environments and to enhance or re-establish populations that have sustained extensive declines.
- 1.2.6. Use techniques such as assisted regeneration technologies in order to foster and reinforce natural restoration processes, as appropriate.
- 1.2.7. Recognize and facilitate restoration initiatives by indigenous and local communities, including policies, legislation, technical assistance and financial support for community based initiatives.
- 1.2.8. Document traditional knowledge, innovations and practices relevant to local species, with the cooperation and approval of the holders of that knowledge and on mutually agreed terms to both the documentation and the purpose of the process (including proposed usage), and in a manner that respects their possession and control of such knowledge.

Priority action 1.3

- 1.3.1. Develop practical criteria for classifying degraded island ecosystems and selecting priority ecosystems for restoration, based on their conservation and ecosystem service value and impact on other ecosystems or habitats.
- 1.3.2. Systematically compile existing and new data on the status and trend of degraded island ecosystems. Establish a baseline measure of the extent of degraded island ecosystems as a means of determining progress towards restoration targets.
- 1.3.3. Restore selected island ecosystems through control and management or, where feasible, the eradication of key pest species, such as weeds, rats, feral cats and goats.
- 1.3.4. Restore degraded mangrove, seagrass and coral reef ecosystems.
- 1.3.5. Recognize and facilitate ecosystem restoration initiatives by indigenous and local communities, including policies, legislation, technical assistance and financial support for community-based initiatives.
- 1.3.6. Establish mechanisms to recognize the ownership and control of genetic resources from lands and waters traditionally occupied and used by indigenous and local communities, associated traditional knowledge, innovations and practices, and data derived from such resources and knowledge.

Priority action 2.1

- 2.1.1. Where national biodiversity strategies and action plans (NBSAPs) do not exist or are not inclusive of protected areas, prepare and implement management and conservation plans for protected areas and micro-reserves, including community-based management plans.
- 2.1.2. Develop and apply active conservation methods that integrate *ex situ* and *in situ* conservation.
- 2.1.3. Recognize, promote and establish marine, coastal and terrestrial protected areas using a broad set of governance types, including innovative types such as co-managed protected areas and community-based conserved areas and by:
 - a. Working with traditional, indigenous and local experts to identify and promote effective protected area governance options.
 - b. Using international legal designations (such as Ramsar and World Heritage) to leverage technical and financial support for island protected areas.

- c. Developing and conducting outreach activities to inform indigenous and local communities and other stakeholders on the benefits and importance of protected areas.
 - d. Empowering stakeholders in resource management and promoting community-based management.
 - e. Establishing partnerships with other governments, NGOs, and/or local communities to assist governments to build representative and resilient protected area networks.
- 2.1.4. Support integrated management of coastal and marine protected areas, and the enhancement of ecosystem resilience and recovery.
- 2.1.5. Integrate climate change adaptation measures into the development of island protected areas.
- 2.1.6. Identify and protect areas of significance to migratory species and consider ratification or accession to the Convention on Migratory Species and/or its subsidiary agreements.
- 2.1.7. Encourage the establishment of multiple use and transboundary marine protected areas where appropriate

Priority action 3.1

- 3.1.1. Identify, map, and prioritize areas containing native threatened,² endemic, and/or culturally important species working closely with traditional, indigenous and local experts.
- 3.1.2. Develop and implement habitat protection, species reintroduction and management strategies giving priority to *in situ* activities.
- 3.1.3. Adopt measures to control hunting and prevent unsustainable harvesting of threatened species.
- 3.1.4. Collaborate with local and traditional/indigenous communities to develop and apply active conservation methods that integrate *ex situ* and *in situ* conservation.
- 3.1.5. Implement inter-island translocation of threatened species, especially within archipelagos, in cases where this will improve chances for survival, and conduct risk assessment about hybridization and outbreeding processes before implementation.
- 3.1.6. Establish economic and other forms of incentives that encourage the conservation of endemic and threatened species by private sector, NGOs, and indigenous and local communities, giving priority to *in situ* activities.
- 3.1.7. Maintain as appropriate/necessary threatened island species in accessible *ex situ* collections, preferably in the country and/or region of origin.
- 3.1.8. Improve scientific capacity in conservation biology tools for recovery of endangered species, including population genetic studies prior to or concurrent with recovery efforts.
- 3.1.9. Promote the gathering of the maximum genetic diversity in the samples to be stored in *ex-situ* collections at population and individual level ^{3/}

^{2/} In the IUCN Red List of Threatened Species, a species is listed as threatened if it falls in the Critically Endangered, Endangered or Vulnerable categories (<http://www.iucn.org/themes/ssc/redlists/rindex.htm>).

^{3/} For example, Center for Plant Conservation (1991). Genetic sampling guidelines for conservation collections of endangered plants. In Falk, D.A. and Holsinger, K.E. (eds): *Genetics and Conservation of Rare Plants*. Oxford University Press, New York, pp. 225-238.

- 3.1.10. Understand delayed response processes of species responding to degradation, loss and fragmentation of insular habitats.
- 3.1.11. Develop and implement recovery plans for selected single, multiple or region-wide island endangered species in collaboration with indigenous and local communities, giving particular priority to species most at risk of extinction, those that are endemic, and species that will provide the broadest range of benefits.

Priority action 3.2

- 3.2.1 Compile and/or update maps and undertake censuses of all native threatened endemic, and/or culturally important species.
- 3.2.2 Undertake studies and provide baseline data and information on marine species, spawning and breeding sites.
- 3.2.3 Survey and assess known and potential biodiversity hot spots together with rapid assessments of components of island biodiversity.
- 3.2.4 Undertake taxonomic studies or revisions of important island taxa, including marine, freshwater and terrestrial species.
- 3.2.5 List all endangered island species that are stored in *ex situ* collections.
- 3.2.6 Document traditional use of local species with the full participation and prior informed consent of indigenous and local communities.
- 3.2.7 Promote studies on the species life history with special emphasis on conservation biology tools and approaches to assist active recovery efforts.
- 3.2.8 Understand the dynamics of key island populations and ecological communities, and what constitutes an adequate area of key habitat to ensure viable populations.
- 3.2.9 Assess genetic diversity and differentiation within and among island populations.
- 3.2.10. Improve the infrastructure and resources for data and information collection, management and exchange including:
 - (a) Informatics tools to provide easy access to repository collections and identification reference materials;
 - (b) Regional, national and local capacity, where appropriate, to house and maintain repository collections of voucher specimens and other reference specimens with the participation of indigenous and local communities.
- 3.2.11. Provide taxonomic training and prepare guides to enable researchers to identify poorly known biological groups, coral species and other associated island species.
- 3.2.12. Undertake monitoring of, those species suffering an unfavourable conservation status, especially, at a minimum, all critically endangered and endangered species.

Priority action 4.1

- 4.1.1. Support regional, subregional, national and local efforts to conserve the genetic diversity of crops and livestock on farms and of useful wild species in their natural habitats.

- 4.1.2. Integrate *in situ* and *ex situ* strategies for conservation of genetic diversity.
- 4.1.3. Identify and support mechanisms for the restoration of lost germplasm and associated information to communities and countries.
- 4.1.4. Support projects of indigenous and local communities to protect, perpetuate and revitalize customary use of *in situ* wild species and traditional crops in accordance with traditional cultural practices that are compatible with conservation and/or sustainable use requirements.
- 4.1.5. Develop, with the full and effective participation of indigenous and local communities, processes and mechanisms to facilitate the repatriation of genetic resources held in *ex situ* collections to their ecosystems of origin and further encourage and support their *in situ* conservation and sustainable use.

Priority action 4.2

- 4.2.1. Develop capacity to establish and maintain gene banks/genetic resources centres, including for aquatic/marine species, crops, and livestock. This should be done with full respect for the rights of indigenous and local communities in accordance with Article 8(j), and with their full and effective participation, in accordance with national law and international obligations.
- 4.2.2. Develop a mechanism that enables and facilitates the development of regional gene banks/genetic resources centres to serve those islands that lack the resources and infrastructure to establish and maintain gene banks.
- 4.2.3. Ensure the placement of gene banks/genetic resources centres in least vulnerable areas and where possible, maintain stocks in duplicate sites.
- 4.2.4. Where appropriate and consistent with Article 15 of the Convention, establish mechanisms to respect the ownership and control of genetic resources from lands and waters traditionally occupied and used by indigenous and local communities, associated traditional knowledge, innovations and practices, and data derived from the use of such resources and knowledge.
- 4.2.5. Establish, with the full and effective participation of indigenous and local communities, a process and set of requirements governing prior informed consent, mutually agreed terms, and equitable sharing of benefits with respect to traditional knowledge, innovations and practices associated with genetic resources to be held in gene banks/genetic resources centres.

GOAL 2

Priority action 5.1

- 5.1.1. Develop and implement participatory standards and protocols for the sustainable utilization of marine-based resources.
- 5.1.2. Establish and ensure compliance with bans on illegal and destructive fishing gears and practices that severely impact vulnerable island ecosystems, taking into account sustainable customary resource use of indigenous and local communities.
- 5.1.3. Develop an updated assessment of fishing gears and practices.
- 5.1.4. Assess and promote new techniques to help alleviate fishing pressures on coastal ecosystems.
- 5.1.5. Promote the use of gears and techniques that minimize by-catch of non-target species.
- 5.1.6. Develop and implement fishery management plans to control pressure on resources and habitats, ensure stock replenishment and prevent loss of biodiversity / habitats, taking into account user's

rights, zoning (including setting of no take zones), drawing on traditional and science-based knowledge.

- 5.1.7. Encourage the development and implementation of environmentally friendly and socially fair and equitable certification of marine biodiversity-based products.
- 5.1.8. Promote the establishment of marine no-take zones to enhance replenishment of fishery resources.
- 5.1.9. Promote sustainable aquaculture practices ensuring the participation of indigenous and local communities.
- 5.1.10. Establish effective participatory monitoring, control and surveillance systems to ensure compliance with regulations by users of coastal and marine resources, at all levels.
- 5.1.11. Remove harmful subsidies, commercial agreements or perverse incentives that encourage unsustainable exploitation of island biodiversity, or irreversible loss of critical habitats.
- 5.1.12. Support integrated and participatory policy development, planning and management of coastal and marine resources with adjacent watersheds, including farming systems.
- 5.1.13. Support and strengthen the capacity of stakeholders (including government and indigenous and local communities) to sustainably manage coastal and marine resources and to document sustainable practices.

Priority action 5.2

- 5.2.1. Enact and/or strengthen and enforce legislation and regulations to prevent unsustainable harvesting of terrestrial and freshwater resources.
- 5.2.2. Work with civil society, business, and local leaders to enable indigenous and local communities to develop and/or implement adaptive community-management systems, through participatory processes, to conserve and sustainably use terrestrial and freshwater biological diversity, where appropriate.
- 5.2.3. Support and strengthen the capacity of indigenous and local communities to sustainably manage terrestrial and freshwater resources and to document sustainable practices.
- 5.2.4. Establish effective monitoring, control and surveillance systems to ensure compliance with regulations by users of terrestrial and freshwater resources, at the local, national and regional levels.
- 5.2.5. Provide incentives ^{4/} (e.g., certification and labelling) to encourage sustainable use of terrestrial and freshwater biodiversity in islands and remove subsidies that encourage unsustainable exploitation or habitat destruction.
- 5.2.6. Develop effective and generally accessible information systems and management strategies for terrestrial and freshwater resources.

^{4/} Any economic incentives will be WTO-consistent.

- 5.2.7. Promote implementation and monitoring of integrated and sustainable land use and water resources management strategies and practices.

Priority action 5.3

- 5.3.1. Develop and implement, through a participatory process, a sustainable and integrated agriculture development plan, including:
- a. The use of knowledge, wise practices and innovations of indigenous and local communities
 - b. Production and use of traditional crops and livestock, and associated traditional knowledge.
 - c. Sustainable use of medicinal plants and maintenance of home gardens.
 - d. Revitalization of sustainable farming systems aiming to prevent land degradation and increase productivity through agroforestry techniques and other soil conservation practices.
 - e. Application of integrated pest management methodologies and techniques in agricultural production.
 - f. Protection and enrichment of trees and arboreal biodiversity within agroforestry and cropping systems to reduce trends of agrodeforestation.
 - g. Efficient and sustainable agricultural production to ensure food security.
- 5.3.2. Establish strong collaborative partnerships and networks at the local, national, regional and international levels in order to undertake studies and projects advancing sustainable agriculture in islands.
- 5.3.3. Address land tenure issues relevant to the development of sustainable farming systems.
- 5.3.4. Identify market opportunities at the local, national, and international level to support the revitalization of sustainable agricultural production systems and provide fair and equitable access to these markets for indigenous and local communities.
- 5.3.5. Identify key components of biological diversity in agricultural production systems responsible for maintaining natural processes and cycles; monitor and evaluate the effects of different agricultural practices and technologies on these components and encourage restoration and other practices to attain appropriate levels of biological diversity.
- 5.3.6. Compile, in collaboration with FAO and other relevant bodies and organizations, and disseminate through the clearing-house mechanism and other means:
- 5.3.7. Guidelines/tool kits geared towards the development of sustainable agriculture systems.
- 5.3.8. Case-studies, lessons learned and best-practice guidance on sustainable agriculture systems.
- 5.3.9. Document and disseminate best practices on sustainable biodiversity-based production systems for human well being

Priority action 5.4

- 5.4.1. Develop and implement, through a participatory process, a sustainable forestry plan, integrating the use of knowledge, wise practices and innovations of indigenous and local communities, including:
- a. Sustainable forestry systems aiming to prevent land degradation and increase productivity through appropriate techniques and other soil conservation practices

- b. Sustainable use of medicinal plants
 - c. Application of integrated pest management methodologies and techniques
 - d. Use of fire management tools and techniques for maintaining and enhancing biological diversity within managed forests
- 5.4.2. Develop plans for sustainable management of mangrove ecosystems and ensure sustainability of fuelwood harvests
 - 5.4.3. Address land tenure issues relevant to the development of sustainable forestry systems
 - 5.4.4. Establish strong collaborative partnerships and networks at the local, national, regional and international levels in order to undertake studies and projects advancing sustainable forestry in islands
 - 5.4.5. Conduct research and extension activities on the propagation, production and use of native and endemic forest species, and associated traditional knowledge, where applicable, to maintain the diversity of native species

Priority action 5.5

- 5.5.1. Mainstream biodiversity into the integrated planning, strategies, policies and implementation for all tourism and tourism-related projects. Include community-based initiatives, wherever appropriate.
- 5.5.2. Develop and promote specific guidelines and responsible codes for all tourism activities, including socio-cultural and environmental impact assessments, sustainable water use, energy management, waste generation and disposal, and construction in order to have a real benefit for biodiversity conservation, taking into account: the CBD Guidelines on Biodiversity and Tourism Development, the Akwe:Kon Guidelines on Cultural, Environmental and Social Impact Assessment, and guidelines for integrating biodiversity considerations in EIA and SEA
- 5.5.3. Promote networks of island destinations respectful of biological diversity and develop an island forum on innovation supporting biodiversity and responsible tourism
- 5.5.4. Promote and facilitate partnerships between tourism stakeholders, operators, and indigenous and local communities to promote sustainable tourism.
- 5.5.5. Promote sites with potential for added-value tourism, including community support
- 5.5.6. Support pilot tourism projects in island tourist destinations that favour conservation of local biodiversity
- 5.5.7. Disseminate information on specific island biological and cultural diversity issues and value to improve knowledge and increase awareness of responsibilities among all relevant tourism actors (including tour operators, tourists, indigenous and local communities, authorities, etc.).
- 5.5.8. Maximize local benefits from tourism on islands (e.g., keeping tourism receipts within local economies) and strengthen local capacity for sustainable tourism management.
- 5.5.9. Develop regional partnership to help enforcement of regulations against illegal practices connected to biodiversity and tourism

Priority action 6.1

- 6.1.1. Develop and implement policies and a legal framework to facilitate the removal of subsidies that encourage unsustainable exploitation of island biodiversity, including, *inter alia*, the following actions:

- a. Increase awareness of policy makers, legislators and the private sector on the impacts of subsidies on island biodiversity.
 - b. Promote non-consumptive use (e.g., ecotourism) and adopt/encourage measures to help eradicate over-exploitation of threatened species and other species with an unfavourable conservation status (e.g., seabirds, marine turtles and dugong).
 - c. Assess the effectiveness of policies designed to render economic activities sustainable on islands, and provide scientific knowledge to develop them further.
 - d. Understand how such island-specific policies can be incorporated in the over-arching trade, tourism and environmental governance schemes and whether they comply with the principle of fair access and benefit-sharing.
- 6.1.2. Adopt, promote and enforce the use of environmentally friendly technologies in all production processes.
 - 6.1.3. Support indigenous and local communities in developing sustainable resource-based livelihoods and economic activities, including appropriate research and capacity-building.
 - 6.1.4. Understand how biodiversity is affected by pressures resulting from economic activities including tourism, agriculture, forestry and fisheries, which are intensified in small island environments.
 - 6.1.5. Assess the current and potential contribution of biodiversity to island peoples in terms of sustaining livelihoods, economic activity and cultural value.

Priority action 7.1

- 7.1.1. Strengthen legislation and enforcement to manage international trade in threatened species, *inter alia*, by applying appropriate penalties and strengthening the weakest parts of the enforcement system.
- 7.1.2. Empower communities to support enforcement of regulations concerning collection for trade and in monitoring the populations of the species concerned.
- 7.1.3. Adopt certification programmes to ensure compliance with CITES and national regulations so that harvest for trade is sustainable.
- 7.1.4. Develop and adopt management plans for key species to ensure that harvest for international trade in them is sustainably based.
- 7.1.5. Develop incentives ^{5/} to ensure that revenue from trade is reinvested in conservation and sustainable management of the species concerned.

Priority actions 7.2 and 7.3

No supporting actions proposed.

Priority action 8.1

- 8.1.1. Establish and promote participatory tools and mechanisms to develop and implement integrated land and water use plans, including community-based resource mapping

^{5/} Any economic incentives developed will be WTO-consistent.

- 8.1.2. Develop and implement enabling-policy and legal frameworks for integrated land and water use planning and management, including integrated watershed, marine and coastal area management and prevention of cumulative impacts from incremental development
- 8.1.3. Create mechanisms to ensure coordination of all agencies and sectors responsible for land and water use planning or management
- 8.1.4. Assess and address underlying causes of habitat loss in small islands, in particular in small island developing States
- 8.1.5. Develop alternatives to prevent loss of habitats and overexploitation of existing natural resources (e.g., fuelwood, timberwood, mangroves, marine resources) driven by mariculture, agriculture or tourism.
- 8.1.6. Reduce the negative impacts on ecosystems and resources of mining and quarrying (including sand exploitation, coral mining and dredging) by developing and implementing:
 - a. Policy and legal frameworks, including in particular for sustainable conversion of mangrove ecosystems;
 - b. Technologies that minimize adverse impacts;
 - c. Environmentally friendly and socially responsible approaches;
 - d. Methods for estimating the maximum sustainable yield of non-metallic resources, such as sand aggregates, gravel, coral and mud.
- 8.1.7. Prevent and reduce coastal erosion, siltation and land/soil degradation.

Priority action 8.2

- 8.2.1. Take measures to avoid/prevent or reduce soil erosion caused by, *inter alia*, deforestation, overgrazing, and fires.
- 8.2.2. Implement strategic environmental assessment, and environmental and socio-economic impact assessment procedures or regulations integrating biodiversity considerations prior to land-use conversion.

GOAL 3

Priority action 9.1

- 9.1.1. Enforce the environmental impact assessment process for island industries, infrastructure, and urban plans.
- 9.1.2. Integrate pollution and waste management into regional, national and sub-national regulations and plans to prevent ecosystem pollution and degradation.
- 9.1.3. Develop and implement wastewater treatment plants and other appropriate systems for management of human waste.
- 9.1.4. Enhance and promote public awareness projects and actions to minimize, manage and recycle waste, including appropriate facilities.
- 9.1.5. Assist islands with safe disposal of hazardous wastes.
- 9.1.6. Develop and enforce instruments to control ship-source pollution, and prepare contingency plans for oil spills.

- 9.1.7. Give incentives to industries and local communities to adopt clean energy sources as their main power supply.

Priority action 9.2

- 9.2.1. Maintain and, where necessary, restore mangrove and other vegetated ecosystems to help prevent run-off and siltation, working closely with government, civil society and local stakeholders.

Priority action 9.3

- 9.3.1. Promote appropriate agricultural techniques, including organic and sustainable agriculture, to prevent run-off and eutrophication, ensuring technical assistance to indigenous and local communities.

Priority action 10.1

- 10.1.1. Establish an effective quarantine control system at national borders to prevent the entrance of invasive alien species.
- 10.1.2. Where appropriate for the protection of native biodiversity, ecosystem function or crops and livestock, establish quarantine barriers to prevent movement of invasives between islands within nation states (i.e., intra-island in the case of islands that are part of an archipelago or a larger state).
- 10.1.3. Collect baseline data on invasive alien species introductions, and support regional and global databases providing comprehensive information on invasive species.
- 10.1.4. Develop risk analysis policies and tools to govern the importation of goods that may accidentally include invasive alien species (e.g. insects on food shipments, soil spores on second-hand machinery imports).
- 10.1.5. Support regional efforts at biological control of invasive alien species that negatively affect multiple countries/islands groups.
- 10.1.6. Develop and implement protocols to detect, evaluate and control the translocation of island endemics to different islands and new locations within the same islands.
- 10.1.7. Develop, strengthen and enforce legislative and policy frameworks as a basis for effective prevention measures.
- 10.1.8. Request the WTO, under its work programme on small economies, to specifically address the issue of invasive alien species and to develop specific measures to protect island biodiversity, in accordance with the decisions of the Conference of the Parties.
- 10.1.9. Where appropriate, integrate into broader control measures for invasive alien species WTO/SPS measures developed and implemented under the WTO work programme on small economies.
- 10.1.10. Establish linkages to other international instruments and the work of organizations with an interest in invasive alien species (e.g., the IPPC, WTO/SPS, APEC, SPREP and other regional bodies relevant to the Mediterranean, Indian Ocean, and Caribbean).

Priority action 10.2

- 10.2.1. Collaborate to identify and address pathways for movement of invasive alien species at the regional and global level, so that clusters of Island States can work together to protect themselves from them.
- 10.2.2. Share national pest lists and data on pests intercepted and their pathways at the international level.

- 10.2.3. Solicit assistance from IMO in the assessment and compilation of best practices geared towards control of ballast water, minimization in the movement of invasive alien species, and spread of invasive alien species through hull-fouling.
- 10.2.4. Solicit assistance from IMO in the development and implementation of regulatory measures for the control of ballast water and the assessment and compilation of best practices geared towards minimization in the movement of invasive alien species, and spread of invasive alien species through bio-fouling.
- 10.2.5. Encourage island governments that have not done so to accede to IMO agreements relevant to invasive alien species.

Priority action 10.3

- 10.3.1. Develop contingency plans for the early detection and rapid response to the incursion of invasive alien species that may affect the ecological, social, economic and cultural balance in both terrestrial and marine ecosystems.
- 10.3.2. Implement participatory surveillance programmes (integrating as far as possible, local communities) to detect new incursions and to assess the probability that species already present will become invasive.
- 10.3.3. Share national pest lists and data on pests intercepted and their pathways at the national level.
- 10.3.4. Develop, strengthen and enforce legislative and policy frameworks as a context for effective response systems.
- 10.3.5. Collect baseline data for existing native and endemic species in order to better understand what alien and invasive alien species populations have become established, so as to better assess their impacts.
- 10.3.6. Identify abundance and population tendencies, habitat (natural and semi-natural), biology (especially xenotypes), reproduction and propagation features of potentially invasive alien species.
- 10.3.7. Identify and address likely invasion processes in the design of biodiversity conservation strategies.
- 10.3.8. Perform science-based risk analysis for (a) proposed deliberate introductions of alien species and (b) importation of goods that may accidentally include invasive alien species (e.g. insects on food shipments).
- 10.3.9. Develop science-based risk analysis methodologies applicable at the local, national and regional levels, including the risk of hybridization with endemic species.
- 10.3.10. Encourage assistance by regional international entities in development of regional science-based risk analysis policies and tools and capacity-building to assist countries in addressing the rigorous requirements of IPPC/WTO for raising barriers to keep pests out.

Priority action 11.1

- 11.1.1. Identify priorities and opportunities for the practical control and eradication of key pests from islands, working closely with governments, civil society, business and local stakeholders.
- 11.1.2. Encourage, develop and support implementation of economically and environmentally sustainable management programmes for control and eradication of priority invasive alien species on islands.
- 11.1.3. Develop an inventory of invasive alien species on islands based on surveys. Link this with inventory of species and ecosystems to identify the pressures, risks and most cost-effective

opportunities for prevention of invasive alien species introduction and spread, and restoration of invaded habitats.

- 11.1.4. Develop, strengthen and enforce legislative and policy frameworks as a context for effective management systems.
- 11.1.5. Promote regional mechanisms for supporting communication, rapid response, risk assessment procedures and coordination of regulatory measures to counter the spread of invasive alien species across island chains or groups and among insular regions with similar ecosystems.
- 11.1.6. Facilitate and support the work of cooperative initiatives to eradicate or manage priority invasive alien species on islands (e.g. Cooperative Initiative on Invasive Alien Species).
- 11.1.7. Review and, as necessary, facilitate the revision or development of national and/or local legal instruments, adapted to the situation of each island state or island region, to prevent undesired introductions and to manage or eradicate established invasive alien species.
- 11.1.8. Provide the legal framework and the human and infrastructure capacity at the regional, national, and local levels to conduct research, education, and enforcement for ongoing prevention and management of invasive species.

Priority action 11.2

- 11.2.1. Develop and conduct public awareness and social marketing activities and programmes for key audiences and key species to increase public will to address invasives and strategic action by target groups, working closely with local governments, civil society, business and local stakeholders.
- 11.2.2. Develop and implement participatory processes for integrated planning for prevention and management of invasive species, working with all relevant stakeholders.
- 11.2.3. Create or maintain active multi-sector invasive species committees (or equivalent) at the island or national level to:
 - a. Ensure ongoing coordination by all public and private sector agencies with a role in invasive species planning and action;
 - b. Assist national and local governments, non-governmental organizations, local communities, and the private sector to clearly identify their own responsibilities for the prevention, detection, rapid response, eradication, and long-term management of invasive species, including *inter alia*, procedures for the regulation of domesticated or captive species that may become invasive;
 - c. Establish and/or strengthen collaborative working relationships among conservation, agriculture and border control (customs and quarantine) authorities.
- 11.2.4. Develop and implement codes of conduct to regulate intentional introductions and prevent unintentional introductions by the general public and by enterprises that import, export or transport goods.

Priority action 12.1

- 12.2.1. Develop monitoring techniques to identify and monitor the means by which climate change affects key species.

- 12.2.2. Consider afforestation and reforestation projects that enhance island biodiversity, noting that it *may* be possible for these projects to get credits under the Kyoto Protocol's Clean Development Mechanism.
- 12.2.3. Develop models to understand the vulnerability of island biodiversity to climate change, including:
 - a. Understand how sea level rise and other aspects of climate change threaten island biodiversity;
 - b. Develop general circulation models and other scientific tools to help understand, mitigate, and adapt to the impacts of climate change on island biodiversity.
- 12.2.4. Monitor and exchange information on the impacts of global climate change on island biodiversity.
- 12.2.5. Strengthen national capacity to address climate change issues for island biodiversity (including through national multisectoral committees).
- 12.2.6. Identify species (e.g., corals) that are resilient to climate change in order to use those species for restoration.
- 12.2.7. Reduce chemical and physical degradation of coral reefs to facilitate recovery from climate-induced bleaching.

Priority action 12.2

- 12.2.1. Identify and protect sites whose environmental conditions favour the maintenance and recovery of species and ecosystems under changed climate and sea level.
- 12.2.2. Create viable national networks of ecologically connected protected areas that are resilient to climate change.

Priority action 13.1

- 13.1.1. Empower local communities to address, respond and adapt effectively to natural disasters and their impacts on island biodiversity, taking into account traditional practices.
- 13.1.2. Strengthen efforts to preserve and restore ecosystems that provide protection against tidal and storm surges and damage (e.g. mangroves, coral reefs, and sand dunes).

Priority action 13.2

- 13.2.1. Identify and implement effective early-warning systems (forecasting) and strategies that address natural hazards and their impacts on island biodiversity and its recovery capacity, such as tsunamis, hurricanes, storm surges, floods, and tropical storms and longer-term trends such as climate change, sea level rise, El Nino and La Nina phenomena.
- 13.2.2. Integrate natural disaster education and awareness related to island biodiversity into ongoing natural disaster programmes on islands.
- 13.2.3. Establish and strengthen formal national and local organizations responsible for disaster preparedness, response and mitigation on islands.
- 13.2.4. Develop specific participatory plans, including community response and mitigation plans, to address specific disasters such as flooding, storm surges, drought, bush fires and mainstream these into national planning processes, including appropriate traditional practices.

Priority action 13.3

- 13.3.1. Identify settled areas at risk from mudslides and landslides, and implement vegetation stabilization and other mitigation measures.

GOAL 4

Priority action 14.1

- 14.1.1. Investigate and document the availability of endemic genetic resources and knowledge, and their existing and potential uses.
- 14.1.2. Identify and assess systems of information delivery, and update them to improve the recording and cataloguing of island genetic resources and, where appropriate, to implement alternative systems.

Priority action 14.2

- 14.2.1. Investigate and document the potential for research, including bio-prospecting, into endemic genetic resources on islands.
- 14.2.2. Develop national guidelines on bio-prospecting strategy, taking into account the Bonn Guidelines.
- 14.2.3. Establish and harmonize access and benefit-sharing processes, mechanisms and measures to protect island genetic resources and for bio-prospecting.
- 14.2.4. Develop and implement a national access and benefit-sharing strategy, and national access and benefit-sharing measures, including legislative, administrative and policy measures with particular reference to endemic island species, taking into account the Bonn Guidelines.
- 14.2.5. Establish rights over endemic species and locally generated races and cultivars.
- 14.2.6. Develop and implement national legal mechanisms for the recognition of exclusive genetic resources as public assets, particularly in reference to island endemics and locally originated races and cultivars. Mechanisms should incorporate arbitration systems.

Priority action 15.1

- 15.1.1. Initiate programmes, where appropriate, to record and study traditional knowledge and practices, in particular those that support the sustainable use of island biodiversity with the full and effective participation of indigenous and local communities.
- 15.1.2. Respect, preserve and maintain indigenous and local communities' linguistic diversity that maintains biodiversity-related knowledge.
- 15.1.3. Establish and implement mechanisms to recognize the ownership and control of genetic resources from lands and waters traditionally occupied and used by indigenous and local communities, associated traditional knowledge, innovations and practices, and data derived from such resources and knowledge.

Priority action 15.2

- 15.2.1. Enhance access to information for the full participation and involvement of indigenous and local communities in decisions that affect them in relation to island biodiversity.
- 15.2.2. Develop local capacities for protecting and facilitating the use of island traditional knowledge and practices, including the exercise of prior informed consent.
- 15.2.3. Increase involvement and participation of indigenous and local communities in decision-making and implementation of the present programme of work.

- 15.2.4. Acknowledging that linguistic diversity can be important for island biodiversity conservation and use, support measures for its maintenance where appropriate and practical.
- 15.2.5. Develop and implement effective systems to respect, preserve and maintain traditional knowledge, innovations and practices, where appropriate, for sustainable use of island resources.
- 15.2.6. Document traditional knowledge, innovations and practices relevant to local species or the sustainable use of island biodiversity, only with the prior informed consent of indigenous and local communities and in a manner that recognizes their ownership and control of such knowledge.
- 15.2.7. Establish mechanisms to recognize the ownership and control of genetic resources from lands and waters traditionally occupied and used by indigenous and local communities, associated traditional knowledge, innovations and practices, and data derived from such resources and knowledge.

Priority action 15.3

- 15.3.1. Encourage, support and develop, in cooperation with the Working Group on Article 8(j) and related provisions, the preservation and conservation of indigenous and local communities, of their traditional knowledge, innovations and practices associated with island genetic resources and data derived from such resources and knowledge.
- 15.3.2. Establish, with the full and effective participation of indigenous and local communities, a process and set of requirements governing cooperation and approval of holders of traditional knowledge, prior informed consent, mutually agreed terms, and equitable sharing of benefits arising from use of their traditional knowledge, innovations and practices associated with island genetic resources.

GOAL 5

Priority action 16.1

- 16.1.1. Identify constraints and difficulties at the national level for the establishment of partnerships, including use conflicts and management responsibilities.
- 16.1.2. Develop active partnerships focused on specific island biodiversity issues across the full range of stakeholders at the local, national, regional and/or international levels.
- 16.1.3. Establish partnerships in different sectors, such as tourism, fisheries and natural disaster management.
- 16.1.4. Encourage and support partnerships with non-governmental organizations, as well as local partnerships.
- 16.1.5. Secure the engagement of the private sector, including financial, technical and political support, at the local, national, regional and international levels.

Priority action 16.2

- 16.2.1. Provide priority access to the financial mechanism of the Convention for the implementation of the programme of work on island biodiversity, in particular to small island developing States.
- 16.2.2. Establish a special window for the funding of island biodiversity projects in small island developing States, including collaboration with islands in other nations to accelerate progress and action on critical island issues.
- 16.2.3. Develop group projects and enabling activities for the implementation of the programme of work, in particular for small island developing States.

Priority action 16.3

- 16.3.1. Assess and establish conservation trust funds (including national biodiversity trust funds), debt-for-nature swaps, user fees, payments for ecosystem services, and other instruments, including national funding of biodiversity conservation and sustainable use.
- 16.3.2. Secure increased bilateral and multilateral grants and loans to support this programme of work.
- 16.3.3. Assist countries and communities to identify practical mechanisms to increase local financial support of conservation action.
- 16.3.4. Analyse and communicate the socio-economic value of island biodiversity and its contribution to local, national and global economies and cultures, the achievement of the Millennium Development Goals, and the contribution of biodiversity to poverty alleviation and resilience building.

Priority action 17.1

- 17.1.1. Assess and identify suitable technology for island biodiversity, at all scales.
- 17.1.2. Determine the most effective means and protocols to facilitate effective transfer of knowledge, science and technology to maximize the absorption and use of these at a local level.
- 17.1.3. Share information on appropriate technologies on a regional and subregional basis.
- 17.1.4. Establish protocols for technology transfer.
- 17.1.5. Protect and facilitate exchange of knowledge on indigenous island technologies among indigenous and local communities.
- 17.1.6. Increase national and regional information networking capacity to facilitate broader technology transfer efforts, including through national CHMs, by:
 - a. Establishing or strengthening national centres on island biodiversity that centralize or coordinate knowledge and capacities for inventorying, evaluating and assisting other agencies on biodiversity issues. Such centres should have legal capacity for identifying biodiversity elements (species, genes) and their particular condition (endemism, etc) and should include the complementary elements of modern and traditional knowledge;
 - b. Establishing national information system and clearing-house mechanisms for island biodiversity (in at least 25) small island developing States;
 - c. Developing a regional and/or subregional umbrella structure/mechanism to coordinate national centres;
 - d. Developing a roster of regional experts on island biodiversity.

Priority action 17.2

- 17.2.1. Identify existing island-based technology that supports the implementation of the programme of work on island biodiversity.
- 17.2.2. Facilitate the development of new island-based technology, where needed, including through the provision of funding.
- 17.2.3. Provide protection to the technologies developed, including through intellectual property rights according to existing national laws.

Priority action 18.1

- 18.1.1. Strengthen national capacity to enact and fully enforce island-appropriate policies, legislation and regulations. This would include technical assistance, training and/or other support to legislatures, regulatory and enforcement agencies, and the courts.
- 18.1.2. Provide appropriate incentives to support the conservation and sustainable use of island biodiversity.
- 18.1.3. Remove harmful subsidies and commercial agreements or perverse incentives that encourage unsustainable exploitation of island biodiversity (terrestrial, coastal and marine), or irreversible loss of critical habitats.
- 18.1.4. Promote collaboration between agencies involved in environmental protection enforcement, including land use planning authorities, to prevent adverse impacts on island biodiversity.
- 18.1.5. Strengthen legislation and enforcement to address domestic trade and commercial use of threatened species.
- 18.1.6. Promote awareness raising and training, including for voluntary compliance.
- 18.1.7. Increase appropriate enforcement power of indigenous and local communities, also by applying existing customary laws consistent with national legislation.
- 18.1.8. Implement incentive/disincentives measures that will enable mitigation of detrimental actions and facilitate participatory approaches in the conservation, management and sustainable use of biodiversity, including certification schemes.
- 18.1.9. Ratify relevant multilateral environmental agreements and complete the legal systems for integrating them into national law, through appropriate enabling legislation.

Priority action 18.2

- 18.2.1. Promote cooperation between small island developing States on biodiversity resources, shared ecosystem management and exchange of experiences.
- 18.2.2. Implement peer learning opportunities and networks to ensure rapid dissemination of best practices and lessons learned to accelerate successful implementation of national biodiversity strategies and action plans and the programme of work on island biodiversity.
- 18.2.3. Explore ways and means on how the CHM can be more effectively and efficiently utilised for the sharing of information on best practices and technologies that promote sustainable use, particularly on islands with limited information technological capacity.
- 18.2.4. Develop and implement training programmes to enhance national science and technology capability.
- 18.2.5. Provide training on multilateral environmental agreements to enhance capacity to implement the programme of work on island biodiversity.

Priority action 18.3

- 18.3.1. In collaboration with relevant national and local leaders and organisations, as appropriate, develop and implement effective communication, public awareness and education programmes at all levels, addressing local capacity, language and culture to promote and advance the programme of work on island biodiversity.

- 18.3.2. Develop and conduct public awareness and social marketing activities and programmes for key audiences and key species to increase public support and strategic action on critical issues within this programme of work.
- 18.3.3. Investigate perceptions of biodiversity by island inhabitants, tourists, developers and other stakeholders to improve the legitimacy and effectiveness of island-specific, science-based policy making.
- 18.3.4. Increase public awareness of the value of biodiversity and threatened species.
- 18.3.5. Introduce island biodiversity issues in the curricula of schools and universities, in the framework of education for sustainable development, to build the understanding of island biodiversity.
- 18.3.6. Integrate island environmental issues into formal and non-formal education curricula at all levels of educational institutions.
- 18.3.7. Undertake education, capacity-building and training activities at all levels, including indigenous and local communities, to contribute to sustainable management practices.
- 18.3.8. Involve other United Nations agencies and intergovernmental organizations in the promotion of the programme of work on island biodiversity, including the use of national protected areas and internationally designated sites, such as those designated under the Ramsar Convention and the World Heritage Convention.
- 18.3.9. Enhance and promote public awareness and action to minimize, manage and recycle waste, including appropriate facilities.

Priority action 18.4

- 18.4.1. Use, whenever possible, the island as the unit for spatial planning, with due consideration to biodiversity requirements.
- 18.4.2. Develop participatory decision-making mechanisms involving civil society, scientists, indigenous peoples, local communities and key economic sectors.
- 18.4.3. Mainstream biodiversity into the integrated planning, strategies, policies and implementation plans for all development projects.
- 18.4.4. Integrate national biodiversity strategies and action plans into national sustainable development plans and national and island planning processes.
- 18.4.5. Develop mechanisms to allow for the integration of appropriate traditional conservation management systems and practices into national policies and management and development plans, with full involvement of relevant stakeholders.
- 18.4.6. Develop the capacity and enhance opportunities for community-based research and monitoring to conserve island biodiversity and provide greater benefits to island communities.
- 18.4.7. Integrate consideration of the programme of work on island biodiversity in the national capacity self-assessment and in the development of ongoing action plans.
- 18.4.8. Establish, as appropriate, a coordination process/mechanism for the implementation of all relevant multilateral environmental agreements at the national level.
- 18.4.9. Coordinate and harmonize the implementation of different ongoing programmes under the Convention on Biological Diversity with cross-cutting activities and other biodiversity-related conventions.

Priority action 18.5

- 18.5.1. Establish monitoring systems to assess the implementation and long-term impact of national biodiversity strategies and action plans and the programme of work.
- 18.5.2. Develop and adopt methods, standards, criteria and indicators addressing ecological, social, cultural and economic aspects for evaluating progress in implementing the programme of work.
- 18.5.3. Build on existing indicators to develop biodiversity monitoring indicators adapted to small islands.
- 18.5.4. Continue work on a vulnerability index and other indicators that reflect the status of small islands, and integrate ecological fragility, socio-economic and cultural vulnerabilities.
- 18.5.5. Develop appropriate techniques for monitoring island biodiversity in order to assess and report on long-term regional and global trends and on the drivers of biodiversity loss, including global change, and their impacts on biodiversity.
- 18.5.6. Establish baseline knowledge and information systems for the conservation of island biodiversity, including.
 - a. Inventories of components of island biodiversity;
 - b. Data sharing protocols including all stakeholders;
 - c. Improved infrastructure and capacity for data collection, management and exchange.
- 18.5.7. Develop appropriate arrangements and explore innovative means to report on the Convention while minimizing the reporting burden for island nations with limited capacity.

Priority action 18.6

- 18.6.1. Establish national and international island partnerships that bring governments, communities and civil society organizations together to increase political, financial and technical support for this programme of work
- 18.6.2. Promote cooperation between small developing States on biodiversity resources, shared ecosystem management and exchange of experiences
- 18.6.3. Promote island networks and exchanges that will accelerate implementation of this programme of work at the national, regional and international levels.
