UNEP

CBD

Convention on Biological Diversity

Distr.
GENERAL

UNEP/CBD/SBSTTA/16/4
12 April 2012**

ORIGINAL: ENGLISH

SUBSIDIARY BODY ON SCIENTIFIC,
TECHNICAL AND TECHNOLOGICAL ADVICE
Sixteenth meeting
Montreal, 30 April - 5 May 2012
Item 5 of the provisional agenda*

ISLAND BIODIVERSITY: IN-DEPTH REVIEW OF THE IMPLEMENTATION OF THE PROGRAMME OF WORK

Note by the Executive Secretary

EXECUTIVE SUMMARY

Since its adoption in 2006, the programme of work on island has stimulated island leadership and action to protect, manage and sustainably use the unique, diverse and threatened natural resources found on islands. Island Parties and Parties with islands have made relevant progress particularly on four priority areas*:* protected area networks especially through regional and multi-country island "challenges" and other large-scale island initiatives; ecosystem-based approaches to climate change adaptation; management of invasive alien species; and capacity-building.

The programme of work also contributes to meeting at least 14 of the 20 Aichi Biodiversity Targets, and builds on early efforts towards more sustainable and resilient island ecosystems and economies. Together these actions will also contribute to poverty alleviation by helping maintain subsistence livelihoods for vulnerable island populations.

However, much remains to be done. Major constraints to successful implementation on most islands continue to be limited institutional, technical and economic capacity in Governments, communities and the private sector (often also linked to land tenure issues); susceptibility to invasive species, climate change and natural disasters; isolation and remoteness; and vulnerability to global markets and trends.

Forty-six Parties and eight of their partner organizations contributed to this review through fourth national reports to the Convention or voluntary contributions and reports. Regional workshops, electronic surveys and forums, and consultation provided further information. Input was received from island Parties, Parties with islands, non-governmental organizations (NGOs) and inter-governmental organizations (IGOs) from all regions.

** The maps provided in the earlier version of this document contained some errors and have been removed.

* UNEP/CBD/SBSTTA/16/1.

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Suggested strategies to support continued island leadership and strengthen implementation include: supporting island Challenges and other large-scale island initiatives; strengthening governance and collaboration across countries and sectors to address invasive species and climate change impacts; promoting mechanisms to strengthen local capacity; investing in innovative and sustainable funding mechanisms; expanding the Global Island Partnership's (GLISPA) work with islands; and convening an island summit at the eleventh meeting of the Conference of the Parties to highlight island leadership, progress and new commitments to island conservation and sustainability.

SUGGESTED RECOMMENDATIONS

The Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) may wish to *call on* Parties and their partners to support holding an island summit in parallel to the eleventh meeting of the Conference of the Parties to highlight island leadership, progress and new commitments in implementing the programme of work on island biodiversity.

Additionally, the Subsidiary Body may wish to recommend that the Conference of the Parties at its eleventh meeting adopts a decision along the following lines:

The Conference of the Parties

Alarmed by the continued and ongoing loss of island biodiversity and the irreversible impacts of this loss for island peoples and the world, and *acknowledging* that 64 per cent of species extinctions have occurred on islands and that more than 70 per cent of vertebrates currently threatened with extinction are island species,[1]

Aware that invasive alien species and climate change are among the major drivers of biodiversity loss on islands with complex linkages that are best addressed by collaborative and integrated action with other sectors,

Also aware that sustainable management of marine, freshwater and terrestrial resources in islands is critically important to food security, climate change adaptation, public health and livelihoods,

Respecting the traditional/cultural knowledge, skills and management measures that have helped island populations use and manage their environment and resources over many centuries,

Recalling decision IX/21 requesting an in-depth review of the programme of work on island biodiversity at a meeting of the Subsidiary Body for final consideration by the eleventh meeting of the Conference of the Parties in 2012; and *reiterating* the guidance and actions called for in previous decisions directed at island biodiversity conservation (decisions VIII/1 and IX/21) as well as on invasive alien species (decisions IX/4 and X/38),

Appreciating the continued strong commitment and progress achieved by Parties and their partners committed to voluntary island "Challenges", especially the Micronesia Challenge, the Caribbean Challenge initiative, the Coral Triangle Initiative and the Phoenix Island Protected Area, which in turn inspired the development of the Western Indian Ocean Coastal Challenge and the Far West Africa Challenge, and recognizing the value of high-level events and summits under these initiatives to galvanize political will and new financial commitments and partnerships,

Recognizing the significant progress on sustainable financing mechanisms developed in island regions for climate change and biodiversity, including: the Micronesia Conservation Trust; the Mama Graun Conservation Trust Fund in Papua New Guinea; the Caribbean Biodiversity Fund; the European Parliament's Preparatory Action for a Voluntary Scheme for Biodiversity and Ecosystem Services in Territories of European Overseas (BEST); and emerging "debt for adaptation to climate change" swaps in islands,

[1] http://www.issg.org/pdf/publications/Island_Invasives/pdfHQprint/1Keitt.pdf.

Taking note with appreciation of the activities of the Global Island Partnership (GLISPA) as a mechanism for implementation of the Convention on Biological Diversity and a partnership under the United Nations Commission for Sustainable Development,

Reiterating the need for increased international and national support for islands, in particular small island developing States, to implement the programme of work and strengthen local capacity by providing new and additional financial resources and incentives,

1. *Urges* Parties, other Governments, financial institutions and other relevant organizations to strengthen the implementation of the programme of work on island biodiversity and to build on successful island approaches by:

(a) Promoting and supporting high-level regional commitments, such as the island challenges referred to above and other large-scale efforts that have demonstrated success in rapidly increasing marine protected areas and other priority targets;

(b) Adapting and expanding proven, cost-effective mechanisms to strengthen local capacity, particularly peer-learning networks, learning exchanges, transfer of technologies, sharing of lessons learned and best practices, communication and information exchange tools, targeted technical assistance, formal training and education;

(c) Developing and supporting innovative financial mechanisms for long-term implementation of the programme of work on island biodiversity, including trust funds, debt for adaptation to climate change swaps, payments for ecological services, and "green" fees on tourism or natural resource use dedicated to effective conservation;

(d) Supporting key databases and information portals such as the Global Islands Database and SIDSNet[2] to enable effective invasive species monitoring and eradication prioritization on islands, as valuable tools in support of the implementation of the programme of work;

2. *Calls on* Parties to focus international attention and action on invasive species management, ecosystem restoration and climate change adaptation as they affect livelihood and island economies, especially:

(a) Developing and strengthening regional and local collaboration to manage invasive alien species within and across jurisdictions, including the diversity of successful approaches to prevention, control and eradication where feasible, and to adopt a biosecurity approach that addresses the full range of invasive threats;

(b) Mainstreaming ecosystem-based adaptation to climate change, ecosystem restoration and invasive species management for human well-being into all island development and conservation plans and projects and build capacity in their application;

3. *Encourages* Parties, other Governments and relevant organizations to partner across sectors to:

(a) Develop and disseminate appropriate tools and processes to apply The Economics of Ecosystems and Biodiversity (TEEB) study and other economic valuation tools to support decision-making at island level;

(b) Use the opportunity of revising national biodiversity strategies and action plans to further mainstream biodiversity conservation with other key sectors (e.g., agriculture, fisheries, health, energy, tourism, integrated marine/coastal management, education and development) and to determine specific, measurable, ambitious, realistic and time-bound national targets, and related indicators, in line with the Aichi Biodiversity Targets;

[2] Respectively http://gid.unep-wcmc.org/ and http://www.sidsnet.org/

(c) Coordinate these efforts with the process led by the United Nations Department of Economic and Social Affairs (UN/DESA) to assess implementation of the Barbados Programme of Action and its associated Mauritius Strategy for Implementation;

(d) Engage national and local leadership in public-private partnerships committed to sustainably manage their natural resources, especially restoring fishery stocks to sustainable levels;

4. *Invites* Parties to recognize and support the Global Island Partnership (GLISPA) as an effective partner to support implementation of the programme of work;

5. *Requests* the Executive Secretary to cooperate with international and regional organizations with a view to promoting coherent and harmonized national information systems related to the reporting needs of the biodiversity-related conventions, and for joint reporting as appropriate, in particular for small island developing States.

I. THE IMPORTANCE OF ISLANDS TO THE CONVENTION ON BIOLOGICAL DIVERSITY AND TO GLOBAL SUSTAINABILITY

1. The programme of work on island biodiversity (PoWIB) was adopted by the Conference of the Parties in 2006 (decision VIII/1). It applies to island Parties and Parties with islands, and its goal is to reduce significantly the rate of island biodiversity loss as a contribution to poverty alleviation and the sustainable development of islands, particularly small island developing States (SIDS). Its content was developed following the International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of small island developing States (Mauritius, 10 to 14 January 2005). As a result, it incorporates many of the concerns voiced by the resulting Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States. The PoWIB provides a framework for relevant policies, legislation, programmes and measures, sub-regional and regional partnerships, development cooperation programmes and capacity-building partnerships needed to conserve island biodiversity and use it sustainably.

2. In paragraph 6 of decision IX/21, Parties to the Convention identified six priorities for implementing the programme of work:

(a) Capacity-building;

(b) Prevention, management and eradication of invasive alien species;

(c) Climate change adaptation and mitigation activities;

(d) The establishment and management of networks of marine protected areas;

(e) Access to, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources; and

(f) Poverty alleviation.

3. In paragraph 10 of decision IX/21, the Conference of the Parties requested the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) to undertake an in-depth review of the programme of work at one of its meetings after the tenth meeting of the Conference of the Parties, to be sent for consideration by the Conference of the Parties at its eleventh meeting. The programme of work on island biodiversity was the last thematic programme to be adopted and is also the last to be reviewed. This report is prepared to support the deliberations on this agenda item of the Subsidiary Body at its sixteenth meeting.

4. Islands are important to the Convention on Biological Diversity and the world:

(a) The world's 175,000 islands host more than 600 million inhabitants and provide critical resources to many more. Over two thirds of Parties to the Convention on Biological Diversity have extensive island ecosystems,[3] and more than 75 per cent of the Pacific Ocean is in the Pacific Island countries' exclusive economic zones;

(b) Environmental governance of islands with their maritime territories (one-sixth of the Earth's total area) affects global climate, food supplies and resource cycles.

(c) Islands harbour more than 50 per cent of the world's known marine biodiversity, seven of the world's 10 coral reef hotspots, and 10 of its 34 conservation hotspots;[4]

[3] http:www.//ngdc.noaa.gov/mgg/shorelines/gshhs.html

[4] Baldacchino, D. World of Islands, 2007 - http://www.islandstudies.ca/worldoflislands.html

(d) Island biodiversity is particularly threatened: 64 per cent of all recorded extinctions in human history happened on islands, and extinction rates for mammals are 177 times higher in island ecosystems than the aggregated average for all ecosystems;[5]

(e) In most island States, and small island developing States in particular, biodiversity is the most important source of products and services for livelihood and health security. Terrestrial, freshwater and marine ecosystems provide the base for most island economies (fisheries, forestry, agriculture, and tourism industries)[6] and cultures.

5. Pressure on island resources is increasing. The population of the Pacific is expected to increase by 50 per cent by 2030, placing increased demands on these vulnerable and finite resources. Islands in the Caribbean, Southeast Asia, Macaronesia,[7] West and East Africa and the Indian Ocean are on similar paths. Land-management practices for forestry and agriculture (plant and animal) need to be sustainable. Coastal and open sea fisheries are at risk of overfishing, with fish resources over-exploited around major population centres. Unregulated coastal development increases vulnerability to predicted climate change impacts in coastal areas. Political leadership and management action are needed to halt and reverse these trends.

6. This in-depth review documents significant progress in implementation of the PoWIB since its adoption in 2006. Over the past six years, island Parties (including but not limited to SIDS) launched major initiatives and promising new programmes were started for Parties with islands (including European overseas islands). Regional and global cooperation mechanisms have also been set up. Most significantly, these have included:

(a) The Global Island Partnership (GLISPA) was established as one of the PoWIB's main implementing mechanisms;

(b) Regional and multi-country island initiatives ("Challenges") in Micronesia, the Caribbean, the Coral Triangle, the Indian Ocean and West Africa, and other large-scale initiatives in the Pacific are making significant progress on many critical global issues and on the Aichi Biodiversity Targets, by developing networks of protected areas, adopting innovative fisheries management approaches and restoring threatened species;

(c) Many island Parties and Parties with islands have taken action at the regional and global levels, including Italy with its support to the Global Islands Database of the World Conservation Monitoring Centre of the United Nations Environment Programme (UNEP-WCMC), New Zealand on invasive species issues and ecosystem restoration, France and the European Union's (EU) Message from Reunion Island and the European Parliament's preparatory action for a Voluntary Scheme for Biodiversity and Ecosystem Services in Territories of European Overseas (BEST), a critical asset for the European Union to achieve the Aichi Biodiversity Targets;

(d) Island leaders around the world are committing to build more sustainable and resilient (green and blue) island economies. For many islands – such as Barbados, Cuba, the Maldives and many Pacific islands – their small size, governance and economies make it possible to develop holistic, integrated, multi-sector strategies, policies and partnerships to facilitate change towards more sustainable

[5] Loehle, Craig, and Willis Eschenbach. 2011. Historical bird and terrestrial mammal extinction rates and causes. *Diversity and Distributions*

[6] http://www.islandstudies.ca/worldoflislands.html

[7] Group of islands in the North Atlantic Ocean near Europe and North Africa, including Madeira, Azores, Cape Verde and the Canary Islands.

economies. Lessons learned in these island States can be of great value to the rest of the world, and supporting these pioneering leaders and their citizens makes global sense.[8]

II. METHODOLOGY FOR THE IN-DEPTH REVIEW OF THE PROGRAMME OF WORK ON ISLAND BIODIVERSITY

7. This in-depth review draws on seven sources of information:

(a) Examination of 46 fourth national reports to the Convention from island Parties and selected Parties with islands.[9] The results are summarized in table 1 below and are more fully examined by region in information document UNEP/CBD/SBSTTA/16/INF/3;

(b) Twenty-seven voluntary reports submitted in response to notifications 2011-032, 2011-086 and 2011-107 from island Parties, Parties with islands, overseas islands, non-governmental organizations (NGOs) and inter-governmental organizations (IGOs);[10]

(c) Input was also collected at two national biodiversity strategy and action Plan (NBSAP) review workshops in the Caribbean and Pacific island regions.[11] Both workshops incorporated work on valuation and measures in cooperation with the programme of work on protected areas (PoWPA);

(d) An electronic survey was circulated widely to the Global Island Partnership (GLISPA) and related networks from 23 October to 4 November 2011 using WUFOO, an online tool for collecting data. The questionnaire is available at www.cbd.int/island/output.shtml. Fifty responses were received and analyzed;

(e) An electronic forum was conducted from 15 November to 24 December 2011, and comments are posted on the Convention website (http://www.cbd.int/island/forum);

(f) The present document was posted on the SBSTTA-16 web page for a short peer-review between 23 February and 5 March, 2012;

(g) Continuous and ongoing consultations were conducted throughout the process via GLISPA, a cooperative platform for the implementation of the PoWIB comprising more than 20 Parties and dozens of relevant organizations.[12]

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[8] Sources: Island Business News 45/2, May 2010 http://www.unep.org/pdf/green_economy_blue.pdf, http://www.unep.org/greeneconomy/portals/88/documents/advisory_services/Barbados.pdf, http://www.unep.org/greeneconomy/SuccessStories/OrganicAgricultureinCuba/tabid/29890/Default.aspx

[9] The 33 island States (including Japan and Australia) and a selection of 13 Parties with islands who had submitted their fourth national report to the Secretariat by 1 July 2011 (Brazil, Argentina, Chile, Denmark, Ecuador, France, Mexico, Netherlands, Peru, Portugal, Spain the United Kingdom and Venezuela).

[10] Reports were submitted by six island Parties (Antigua and Barbuda, Australia, Federated States of Micronesia, New Zealand, St. Lucia and Samoa); four Parties with islands (Colombia, Italy, Mexico, Peru); four islands of the United Kingdom (Ascension Island, Cayman Islands, Guernsey and Jersey); and France (also through its Research and Development Institute) reported on its islands. Four non-governmental organizations (, Royal Society for the Protection of Birds – RSPB, Island Conservation, Media Impact and RARE); and four intergovernmental organizations (the International Union for Conservation of Nature –IUCN, United Nations Division for Ocean Affairs and Law of the Sea, Secretariat of the Pacific Regional Environment Programme, and Secretariat of the Pacific Community) also contributed.

[11] Regional Workshop for Caribbean countries on Updating National Biodiversity Strategies and Action Plans (17 - 21 October 2011, in St-George's, Grenada) and the Regional Workshop for the Pacific Region on Updating National Biodiversity Strategies and Action Plans (3 - 7 October 2011 in Nadi, Fiji)

[12] Comments and suggestions via these two last channels were received from BirdLife International, SPREP, Australia, the University of the South Pacific, Chumbe Island, IUCN/Overseas EU, UNEP-WCMC, The Nature Conservancy and Mexico.

8. As the most recent thematic programme of the Convention, the goals and targets of the PoWIB complement those of the Convention on Biological Diversity's Strategic Plan 2002-2010. As a result, its targets and priority actions are largely consistent with the current Strategic Plan for Biodiversity 2011-2020 and its 20 Aichi Biodiversity Targets (decision X/2) adopted at the tenth meeting of the Conference of the Parties. For this reason and to facilitate future assessment of progress toward the Aichi Targets, Parties were invited to report on their PoWIB implementation according to the Aichi Targets.[13] Parties were also free to report according to the original PoWIB format of the programme of work (7 focal areas, 11 goals, 21 targets and more than 50 island-specific priority actions) or in any other desired format. To facilitate monitoring and evaluation, table 1 of this document uses the 20 Aichi Targets as reference.

9. The PoWIB provides small island developing States and other Parties to the Convention with islands[14] with a strategic platform to clearly identify and prioritize their common issues. These issues are often linked to the relative isolation of islands, their unique ecological fragility, dependence on biodiversity for food and livelihood security, limited capacity and resources, and the disproportionate effect of climate change, extreme weather events, natural disasters and invasive alien species on their people and livelihoods. Consequently, the Convention has accorded special status to least developed countries and small island developing States.[15] In other programmes of work and cross-cutting issues of the Convention on Biological Diversity (e.g. protected areas, climate change and biodiversity for development), the achievements and needs of island Parties may be difficult to recognize as they are overshadowed by Parties with larger populations, geographic size, resources or political influence.

10. The PoWIB is also a useful tool for Parties with islands. For instance, many European overseas islands face environmental challenges similar to their regional neighbours and may face institutional or capacity difficulties that prevent them from benefitting from the tools and initiatives of the Convention on Biological Diversity. Overseas islands are some of the most biodiverse parts of Europe, and they also provide valuable lessons on the sustainable use of biodiversity and for the economic valuation of biodiversity and ecosystem services — solutions that could be shared with all of mainland Europe and its regional neighbours.

11. By nature of their reduced size and interlinked ecosystems, islands can also provide opportunities for piloting integrated solutions for various multilateral environmental agreements, in particular the three Rio conventions. Biodiversity loss and ecosystem degradation in islands have contributed to worsening climate change-related impacts and land degradation, and vice-versa, with negative consequences for human well-being. At the same time, healthy, resilient ecosystems contribute significantly to climate-change mitigation and adaptation. For these reasons, the PoWIB recognizes and emphasizes the intrinsic interconnectedness of biodiversity, land management and climate change. Additional information on these linkages can be found in an information document on integration of climate-change impacts and response activities within the programme of work on island biodiversity (UNEP/CBD/SBSTTA/16/INF/4).

12. An analysis of all reports and voluntary contributions indicate that the PoWIB has facilitated and catalyzed progress over the last six years in all regions and towards meeting 14 (70 per cent) of the 20 Aichi Targets (see table 1 below):

[13] A comparison between the PoWIB and the Aichi Targets is available at http://www.cbd.int/islands/doc/idr/comparison-sp-pow.pdf

[14] These include a) large island nations (e.g., Japan, Madagascar, New Zealand, the United Kingdom); b) archipelagic nations (e.g., Indonesia, the Philippines); and c) all CBD Parties with continental or oceanic islands. The latter includes Parties with extensive island regions (e.g., Canada, Ecuador, Russia), Parties with numerous coastal islands (e.g., Australia, China, Italy and Mexico) and Parties with few islands (e.g., Peru, Yemen)

[15] See Convention preamble, Article 20.6 and 7; the eighth meeting of the Conference of the Parties decision VIII/1 pp. 7

(a) Three targets - general awareness (target 1), protected areas (11) and participation of indigenous and local communities/protection of traditional knowledge (18) – were assessed with "good progress", defined as significant activity in more than half the regions with encouraging or positive results;

(b) At least two regions reported significant activity on 11 targets, which was considered "moderate progress";

(c) Almost no activity was reported for two critical threat-based targets – pollution and eutrophication (8) and ocean acidification/climate change (10), and no island Parties have yet ratified the Nagoya Protocol (16), although 8 small island developing States and 6 island Parties have signed it;

(d) Targets with limited progress but promising initiatives include mainstreaming biodiversity into development (2), reducing habitat loss (5) and preventing extinctions (12).

Data availability and reporting did not allow for detailed and robust analysis of regional differences.

13. Though the PoWIB has not been comprehensively implemented yet, island progress is arguably more advanced in some targets when compared with overall performance reported in the third edition of the Global Biodiversity Outlook.[16] This is most notable for involvement of indigenous and local communities (18); use of economic incentives as policy tools (3); and work to control of invasive alien species (9).

14. Table 1 summarizes progress noted more extensively in information document UNEP/CBD/SBSTTA/16/INF/3, using the simple activity criteria below. For brevity, only examples and regional or global trends are provided. All lists should be considered incomplete since comparable data are not available for all Parties.

4	Good progress = significant activity in more than half of the regions
3	Moderate progress = significant activity in two or more regions
2	Early progress = promising new initiatives in one or more countries or regions
1	Limited or no progress = little or no activity in any region

[16] The Global Biodiversity Outlook is the CBD's landmark publication, resulting from the analysis of National Reports submitted by Parties. The third edition was launched, at SBSTTA 14, in 2010. For more details please see www.cbd.int/GBO3.

Table 1: Evaluation of activity levels in the implementation of the PoWIB using the Aichi Biodiversity Targets.

Strategic Goal A. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society		
Target 1: By 2020, at the latest, all people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	**4**	Awareness levels are reported as low but increasing significantly. Between 40% (Africa) and 80% (Caribbean, Asia) of Parties across all regions describe successful activities on communications, education and public awareness (CEPA). The Dominican Republic lists this as one of its biggest successes. Others produced inventories of island biodiversity (Mexico) or incorporated biodiversity into school curricula at all levels (Singapore) or local media (Bermuda). Two international communications organizations – Media Impact and RARE – worked with States and partner organizations across the Caribbean, Pacific, Latin America and Asia to provide proven awareness tools (e.g. social marketing campaigns, soap operas) and skilled professional support, while strengthening local skills.
Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	**2**	Valuation of biodiversity is still incipient in islands, but some promising initiatives are reported by Antigua and Barbuda (through its National Physical Development Plan), Australia, Comoros, Madagascar, Mexico (with its National Strategy for the Sustainable Development of Islands), Samoa and New Zealand (with its 2010 Department of Conservation strategy to manage islands). Good progress has been made in using environmental impact assessments for development projects to mainstream and measure biodiversity. Several European islands report on integrated development/biodiversity plans.
Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.	**3**	The Caribbean has made progress with incentive programmes in the Dominican Republic, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. Ireland, Maldives, Malta and the Portuguese overseas territory of Madeira also report the use of incentives. Pacific SIDS indicate a paucity of programmes focusing on this topic. Australia and New Zealand report that they are making progress.
Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits	**3**	Between 16% (Asia) and 60% (Africa) of Parties noted progress in involving the private sector in sustainable production. Comoros and Mauritius in Africa, Sri Lanka in Asia, St. Lucia and the Dominican Republic in the Caribbean, Peru (through its PROABONOS programme on sustainable use of island resources) and Australia indicate specific initiatives. EURODOM, an association of economic sectors in French overseas islands, promotes biodiversity-friendly business practices.
Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use		
Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero,	**2**	Parties report ongoing and significant habitat losses (more than 40% highlight mangrove cover decreases) and little progress in reducing the rates of loss, degradation or fragmentation. Promising exceptions are Australia reporting the rate of habitat loss has

and degradation and fragmentation is significantly reduced		been reduced and Singapore with a 10% increase in green cover over the last 20 years. Four Pacific Parties report some progress through environmental impact assessment, land use plans and GIS-referenced data.
Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.	**3**	Overfishing and illegal, unreported and unregulated (IUU) fishing are still extensive. *Caribbean:* Cuba, Dominica and St. Lucia report progress and recovery of some fishing stocks, for instance through establishment of the Soufriere Marine Management Area in St. Lucia. *Africa:* Cape Verde, Comoros and Mauritius have instituted regulatory laws and measures in fisheries. *Pacific*: Eight island Parties to the Nauru Agreement are applying innovative conservation measures for the sustainable management of tuna and other fish stocks, including Locally Managed Marine Areas. *EU:* Portugal's autonomous region of the Azores has a no-trawling zone in its territorial waters.
Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity	**3**	In spite of continuing degradation overall, some Parties indicate progress. Customary land tenure presents both opportunities and threats. *Agriculture*: 60% of Pacific Parties note an increasing move towards organic food production and Parties in the EU (5), Caribbean (2), Africa (3) and Asia (2) are promoting sustainable practices and/or seeing increases in their use. *Aquaculture* is increasing globally and only Malta, the Federated States of Micronesia and Tonga report success in controlling its expansion and impacts. *Forestry*: Four Parties representing four regions reported increased forest cover -- Cape Verde (30%), Vietnam (20%), Philippines (10%) and Dominican Republic (6%). Three more (Fiji, Japan and Maldives) reported developing or applying best practices in sustainable forestry.
Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.	**1**	Worsening pollution conditions are reported for most Parties, with isolated cases of moderate success. Wastewater management improved in Mauritius. Regulations have been developed in the Caribbean. Water quality has improved somewhat in the Philippines and New Zealand. In Ireland water quality is reasonable but there are elevated nutrient levels. Sediment monitoring programs were established in key watershed sites in the Federated States of Micronesia.
Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment	**3**	Islands are providing important leadership on the global invasive alien species issue, reporting diverse measures to increase prevention, eradication and management of destructive animals, plants and micro-organisms. Parties from all regions reported having active programmes to manage invasive species. Globally significant leadership is also being provided by: • New Zealand with significant national progress on invasive species management since 1997; they hosted the groundbreaking *Helping Islands Adapt* workshop focused on regional collaboration to manage invasive species. • Mexico has adopted a National Strategy on IAS, has eradicated 40 populations of

		invasive mammals from 28 islands and proposes reductions between 20 and 50% for the impacts of invasives on islands by 2020. • The Micronesia Biosecurity Plan (MBP) is an unprecedented regional process to address invasive species across all ecosystems, taxa and pathways. • IUCN's Invasive Species Specialist Group facilitates critical technical support, networking and information exchange among islands, including key databases • Birdlife International's Pacific Partnership, which demonstrates both effective grass-roots invasive species management and sustainable, in-country capacity development. • Island Conservation, an international NGO, is working with island Parties to organize a global coordinated campaign to address invasive vertebrates on islands.
Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.	**1**	Reports are overwhelmingly negative for coastal ecosystems, coral cover and bleaching across the globe, largely due to overfishing, pollution, and climate change. While a few Parties report individual progress – e.g. Singapore on coral nurseries, Samoa on village-based conservation initiatives – declining cover is the norm. The Maldives, Samoa, Niue and the Federated States of Micronesia note their well-articulated adaptation plans while still indicating the overall negative trend.
Strategic goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity		
Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascapes.	**4**	Significant progress has been made in implementing networks of protected areas around the world, especially through island Parties and other Governments collaborating on regional initiatives or "island Challenges" across Micronesia (5), Caribbean (8) and the Coral Triangle (6), with new Challenges developing in the Western Indian Ocean and West Africa. Many of these are progressing toward shared goals of 20-30% of their lands and waters in effectively managed legal protected areas. Other Parties, especially SIDS, established new World Heritage sites (e.g. Kiribati) and Biosphere Reserves (e.g. the Southeast Asian Biosphere Reserve Network). Kiribati and the USA established the world's two largest marine protected areas and jointly established *Big Ocean*, a growing network for the world's largest marine managed areas. The successful Locally Managed Marine Area (LMMA) network assists community-managed protected areas in 15 island States across the Pacific. Among Parties with islands, Mexico, Peru, Brazil, France and the United Kingdom (UK) reported establishing major new island protected areas. *Protected Area Estimates*: Reported estimates of terrestrial area under legal protection vary from 3-10 % (Pacific Island Countries, Singapore) to 20-35% (Malta, Sri Lanka, Canary Islands and New Zealand). Estimates for marine areas vary from 7% (New Zealand) to 10% (Australia) and between 20 and 30% for some of the Parties involved in the Caribbean and Micronesia Challenges. *Effectiveness*: Currently, monitoring of protected areas to evaluate effectiveness is limited, and is a priority for future action.
	2	There has been poor progress in preventing or reverting species extinctions, and 62% of Parties in the Caribbean and the Pacific indicate lack of data for complete assessments. For

Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.		sea turtles and birds, conservation, recovery and restoration programmes have been successful in a number of islands. Some international partners – Island Conservation, RARE and BirdLife International – specialize in assisting countries and partner organizations with successful species campaigns, providing technical expertise and training local professionals to lead future efforts.
Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.	**3**	Although widespread loss continues for genetic resources, wild crop and breed relatives, and traditional knowledge in agriculture and medicinal plants, all Parties report partial success with gene banks and seed banks. These efforts advance both biodiversity and food security. Japan indicates that its gene bank is currently the world's largest. Tonga points to success with government experimental farms; Antigua and Barbuda indicates a high level of progress in establishing biologically diverse farms. Sri Lanka points to the lack of capacity to preserve livestock rather than germoplasm.
Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services		
Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	**3**	Most reporting Parties indicate freshwater and livelihood are the main ecosystem services managed. The majority express concerns that the recent economic downturn has increased the reliance of poor communities on their natural resources, increasing the pressure on biodiversity. Many propose community-based solutions, such as Indonesia's "social forests", the Philippines' community-based forest management and Sri Lanka's "forest/home gardens", all of which involve local communities in the restoration/management of the resources upon which their livelihoods and well-being depend. Fiji's locally-managed marine areas and Samoa's fishing reserves are further examples.
Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.	**3**	Between 34% (Caribbean) and 84 % (Asia) of reporting Parties indicate active restoration programmes, although precise goals have not been defined consistently. Mangrove and forest restoration and rehabilitation programmes are mentioned for Bermuda, Cyprus, the Dominican Republic, Fiji, Indonesia, Madagascar, Malta, the Philippines, St. Lucia, Samoa, Singapore, Tonga, Tuvalu, Vietnam and France's overseas department of Reunion Island. Programmes to protect watersheds and wetlands areas are also underway in Trinidad and Tobago and Vietnam, and Bermuda is restoring mangroves and seagrass beds.
Target 16: By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.	**1**	To date, only 14 island Parties (including 8 SIDS) have signed the Nagoya Protocol out of 92 signatories worldwide. No island Party has yet ratified it. Between 40 and 60% of Parties across all regions indicate having made some progress in establishing legal Access and Benefit-sharing (ABS) frameworks at the national level, while also noting that capacity-building and enforcement were missing. Sri Lanka, Singapore, the Philippines, Greenland, Ireland, Cook Islands, Samoa, Fiji, Australia and New Zealand cited specific ABS examples.

Strategic Goal E: Enhance Implementation through participatory planning, knowledge management and capacity building		
Target 17: By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.	**3**	Of the CBD's 43 island Parties (including Australia and Japan), only 5 (10%) have updated their NBSAPs since 2002; 29 (58%) are in the process of revisions, 8 (16%) are developing a first plan; and 3 (6%) have not reported. Only 20% (Africa) to 50% (Asia, the Caribbean) of Parties reporting indicate development of NBSAPs with ample consultations, and 50% on average comment that their NBSAPs need to be updated. Only New Zealand reported this target achieved. Many European islands and overseas territories also have biodiversity plans and strategies. Despite serious island concerns about climate change, it is not included in many current NBSAPs, though several countries have climate-specific plans -- e.g Joint National Action Plan for Disaster Risk Management & Climate Change Adaptation (JNAP) and National Adaptation Programmes of Action (NAPAs). No data is available on NBSAP implementation, but some Parties cite failure to assign responsibilities and lack of approval from Parliament as barriers to implementation.
Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels	**4**	Between 50% (Africa, the Caribbean) and 90% (Pacific) of Parties report involving indigenous and local communities in NBSAPs, land and protected areas management, and the documentation and protection of traditional knowledge. In the past decade, more than 12,000 km^2 in the South Pacific have been brought under a community-based system of marine resource management known as Locally-Managed Marine Areas (LMMA). The LMMA Network involves 500 communities in 15 Pacific Island States, and traditional knowledge is being documented.
Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	**3**	Cooperation is increasing and satisfactory in Asia and the Pacific, and considered existing but insufficient in the Caribbean and Latin America. Main barriers indicated are staff turnover and lack of capacity, particularly for remote sensing. In France and its overseas islands, the Institute for Research and Development (IRD) actively cooperates with various universities that serve their territories, and many useful databases are collaboratively maintained and shared.
Target 20: By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan 2011-2020 from all sources and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resources needs assessments to be developed and reported by Parties.	**3**	Overall, reporting Parties indicate that funding for implementing the Strategic Plan for Biodiversity 2011-2020 has increased but is still insufficient. Importantly, developing Parties are directly supporting island conservation with national budget allocations (e.g. Philippines and Vietnam); regional and national trust funds (e.g. Micronesia Conservation Trust, Caribbean Biodiversity Fund, Papua New Guinea's Mama Graun Conservation Trust) and other special financing systems (e.g. Kiribati's reverse fishing license, Palau's visitor "green" fees, and proposed debt for adaptation to climate change swaps in the Caribbean). The European Commission, Japan, Malta, Australia and New Zealand reported extensive regional and global financial support to the implement the PoWIB.

III. RESULTS AND LESSONS LEARNED IN THE IMPLEMENTATION OF THE PROGRAMME OF WORK

15. Overall, the PoWIB has significantly leveraged attention and action to achieve the objectives of the Convention in island ecosystems. Since 2006, important island conservation initiatives have been launched by national, subregional, regional and multi-country partners, in cooperation with international NGOs and with significant support from the Global Environmental Facility (GEF), in particular the Micronesia Challenge, Caribbean Challenge, Kiribati's Phoenix Islands Protected Area, and the Coral Triangle Initiative (see Target 11). Similar, multi-country initiatives are currently under development in the Western Indian Ocean, East Africa and West Africa. These initiatives generated major progress on marine protected area networks, ecosystem-based management and sustainable finance and helped spearhead work on climate change adaptation. Their success is due in large part to committed political leadership at the highest levels, collaboration across political jurisdictions (countries and overseas territories) and approaches that address multiple island and global priorities.

16. Parties also reported that the PoWIB helped directly and indirectly leverage increased international and national funding. Since island conservation requires long-term capacity, the most significant new developments are the diverse and innovative funding mechanisms (e.g. trust funds, fees, licenses, debt for adaptation to climate change swaps) by Parties and overseas islands to provide a secure funding base for their protected area networks and other conservation activities. Significant new support is also being provided by the multi-year GEF-Pacific Alliance for Sustainability (GEF-PAS) and Europe Development Funds (EDF) for Least Developed Countries (LDC) and islands States, (e.g. Global Climate Change Alliance for the Pacific, Caribbean). The European Parliament's Voluntary Scheme for Biodiversity and Ecosystem Services in Territories of European Overseas (BEST), launched in 2010, offers a unique opportunity to develop long-term innovative governance and financial instruments.

17. National biodiversity strategies and actions plans (NBSAPs) and national sustainable development strategies were identified as key tools for implementing and mainstreaming the PoWIB. As of February 2012, 29 small island developing States and eight island nations had NBSAPS. Of these at least 11 have revised their plans at least once and three more are under revision. Approximately 30 Parties addressed climate change at some level within their NBSAPs, but only Australia has a National Biodiversity and Climate Change Action Plan. Mexico has produced a Sustainable Development Plan for all its insular territories. More recently, efforts to develop harmonized strategies for biodiversity and climate change concerns have been initiated using either Joint National Action Plan for Disaster Risk Management & Climate Change Adaptation (JNAP) and National Adaptation Programmes of Action (NAPAs), for instance by Samoa. At the request of several island Parties, Australia organized projects for joint reporting on all Rio conventions. Almost all Parties face challenges implementing and updating the numerous plans they produce. The NBSAP updates provide a timely opportunity to coordinate, integrate and mainstream planning for biodiversity with climate change and sustainable development.

18. A 2011 report by the International Union for Conservation of Nature (IUCN) on the European Union overseas islands (Future Directions for Biodiversity Action in Europe Overseas, http://data.iucn.org/dbtw-wpd/edocs/2011-024.pdf) indicates that these islands were only marginally involved in processes of the Convention on Biological Diversity. As a result, specific policies and strategies for overseas island biodiversity are not necessarily included in the EU member States NBSAPs and climate-change policies, and may not always be articulated at the subnational and local level.

19. The fact that most island Parties reported invasive species management programmes confirms the enormous impact of invasive alien species on biodiversity and the readiness of Parties to take action. The

IUCN publication *Turning the Tide* (2002)[17] presents encouraging examples across the globe of invasive species eradication or management and resulting ecosystem recovery.

20. The Global Island Partnership (GLISPA)[18] has proven to be a highly effective supporting platform for progress in the PoWIB. Created in 2006, it was recognized by the Conference of the Parties to the Convention on Biological Diversity in decision IX/28 as a critical partnership for the Convention on Biological Diversity. By early 2012, GLISPA had mobilized more than US$ 125 million and assisted countries and organizations in conceiving, launching, financing and strengthening more than 12 major commitments. Many of the island challenges and other initiatives highlighted in the analysis above worked with GLISPA to advance their collaboration, planning and implementation.

IV. OBSTACLES AND CHALLENGES ENCOUNTERED

21. This in-depth review indicated that there has been significant activity on the targets and actions of the PoWIB over the last six years. However, it also emerged that despite promising progress by many Parties in their priority areas, overall the greatest challenges to protecting island biodiversity remain unchanged – islands have "the highest proportion of recorded species extinctions and continue to be significantly threatened by invasive alien species, climate change and variability, natural and environmental disasters, land [and habitat] degradation and land based sources of marine pollution" (paragraph 9 of decision VIII/1).

22. The PoWIB also outlined a long list of major obstacles encountered by islands working to change these systemic challenges, which still apply today – "small populations and economies, weak institutional capacity in both the public and the private sector, remoteness from international markets, susceptibility to natural disasters and climate change (including, in particular, sea-level rise), fragility of land and marine ecosystems (particularly affected by tourism development and unsustainable agriculture and forestry), high cost of transportation, limited diversification in production and exports, dependence on international markets, export concentration, and income volatility and vulnerability to exogenous economic shocks." (paragraph 10 of decision VIII/1).

23. To understand the major obstacles experienced by island governments and partners in implementing the PoWIB, an online questionnaire survey was undertaken (see paragraph 7, section II for methods). Input was received from a diverse group of 50 respondents from the Pacific, Caribbean, Indian Ocean, the European Union and Latin America, representing governments and NGOs. The most common difficulties reported by government, NGO and other respondents in two or more regions were:

(a) Legislation & Enforcement (82%). In some places, legislative mandates for biodiversity conservation action are inadequate, while in others there is good legislation but insufficient enforcement;

(b) Insufficient funds (68%). Even where new programmes and finance mechanisms are providing increased international and national support, only six Parties reported sufficient financial resources;

(c) Limited capacity to implement (66%). Government units frequently have small staff with each person responsible for multiple, often unrelated, issues; staff are limited by insufficient training, and poor education systems;

(d) Coordination and communication (62%) is challenging for both donors and implementing organizations within and across jurisdictions and with other relevant sectors; in some places good internet connectivity to access information is not available;

[17] http://www.issg.org/pdf/publications/turning_the_tide.pdf.

[18] More information on GLISPA can be found at www.cbd.int/island/glispa.shtml.

(e) Governance & political support (58%), including weak local and national institutions and unsupportive institutional frameworks and leadership;

(f) Community and cultural obstacles (46%), including land tenure, gender and religious issues;

(g) High costs (40%) and small populations (38%) both related to the remoteness and size of the islands. Transportation and logistics can be much more expensive and difficult for small isolated islands and large archipelagic island countries.

V. CONCLUSIONS

24. Based on this in-depth review of progress achieved and obstacles faced, future action to achieve the targets of the Strategic Plan for Biodiversity 2011-2020 could focus on the following key opportunities, reformulated into recommendations above:

(a) Support successful implementation of the regional island Challenges and other large-scale island initiatives in Micronesia, Caribbean, Coral Triangle, Western Indian Ocean and East and West Africa and assist other island regions to development similar multi-country collaborations to address their shared issues;

(b) Mainstream and strengthen national planning for NBSAPs, sustainable development, climate change and related issues through efficient multi-sector partnerships and planning processes that focus on action. Parties can use the upcoming regional and sub-regional NBSAP workshops being organized with the support of the Government of Japan to help articulate strategies and action plans based on the outcomes of the eleventh meeting of the Conference of the Parties;

(c) Ratify the recently adopted Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefit Arising from Their Utilization[19] to ensure islands benefit from the use of their genetic resources. Island endemics are irreplaceable repositories of genetic information with an inherent value to all humanity. The Nagoya Protocol is needed to create greater legal certainty and transparency for island providers of genetic resources;

(d) Strengthen collaboration across countries and sectors to manage invasive species and climate-change impacts. Integrate island planning for both these critical threats in all biodiversity and development plans and programmes. Several partners, including Island Conservation, propose to launch a global campaign to address invasive species;

(e) Expand the use of cost-effective mechanisms to strengthen local capacity and to share and adapt lessons and successful tools, including peer networks (e.g., Locally-Managed Marine Areas), learning exchanges, implementation partnerships (e.g., GLISPA), communication tools (e.g., RARE and MediaImpact campaigns), information tools for local decision-making, and formal education and training (e.g., as in Singapore), with special attention on the next generation of island professionals;

(f) Develop and support innovative and sustainable funding mechanisms for island regions, countries and territories. These include established and new trust funds, debt swaps starting with the Caribbean, tourism and natural resource fees and licenses, payments for ecological services, private protected areas and other ways to increase long-term national or local financing for effective management of island resources;

(g) Expand and support the Global Island Partnership (GLISPA) to continue mobilizing island leaders and partners for implementation of the Convention on Biological Diversity and to

[19] Decision X/1, annex I.

strengthen linkages with other Conventions and international programmes, especially climate change, land management and sustainable development;

(h) An Island Summit at the eleventh meeting of the Conference of the Parties can highlight island leadership, progress and new commitments to island conservation and sustainability as called for by the PoWIB, produce a political declaration on islands and contribute to key upcoming United Nations and SIDS meetings, especially preparations for the review of the Barbados Programme of Action and its Mauritius Implementation Strategy in 2014. Additional high-level summits such as the planned Caribbean Summit of Political and Business Leaders (January 2013), are ways to galvanize political will, new financial commitments, customarily managed land tenure systems and partnerships.
