

SUMMARY OF THE FIFTEENTH MEETING OF THE SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE OF THE CONVENTION ON BIOLOGICAL DIVERSITY: 7-11 NOVEMBER 2011

The fifteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) of the Convention on Biological Diversity (CBD) convened from 7-11 November 2011, in Montreal, Canada, immediately following the seventh meeting of the *Ad Hoc* Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions.

Over 400 representatives from governments, intergovernmental and non-governmental organizations, indigenous and local communities, business and academia attended the meeting. SBSTTA considered: a draft capacity-building strategy for the Global Taxonomy Initiative (GTI); indicators and other tools and guidance for assessing progress in implementing the Strategic Plan for Biodiversity 2011-2020; ways and means to support ecosystem restoration; proposals on ways and means to address gaps in international standards regarding invasive alien species (IAS) introduced as pets, aquarium and terrarium species, and as live bait and live food; implications of changes in the water cycle and freshwater resources for the implementation of the work programmes on inland water biodiversity; the sustainable use of biodiversity, including revised recommendations of the Liaison Group on Bushmeat, options for small-scale food and income alternatives, and a report on how to improve sustainable use in a landscape perspective; Arctic biodiversity; and ways and means to improve SBSTTA effectiveness.

SBSTTA adopted eight recommendations that will be submitted to the CBD Conference of the Parties (COP) at its eleventh session, to be held from 8-19 October 2012. The draft capacity-building strategy for the GTI will be considered by SBSTTA 16, to be held from 30 April - 4 May 2012.

A BRIEF HISTORY OF THE CONVENTION

The CBD was adopted on 22 May 1992, and entered into force on 29 December 1993. There are currently 193 parties to the Convention, which aims to promote the conservation of

biodiversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the use of genetic resources. The COP is the governing body of the Convention. It is assisted by SBSTTA, which is mandated, under CBD Article 25, to provide the COP with advice relating to the Convention's implementation.

COPs 1-3: At its first three meetings (November-December 1994, Nassau, the Bahamas; November 1995, Jakarta, Indonesia; and November 1996, Buenos Aires, Argentina), the COP adopted decisions on, *inter alia*: the establishment of the Clearing-House Mechanism (CHM) and SBSTTA; the designation of the Global Environment Facility (GEF) as the interim financial mechanism; the designation of Montreal, Canada, as the permanent location for the Secretariat; and cooperation with other biodiversity-related conventions. The COP also considered CBD Article 8, and emphasized regional and international cooperation, and the importance of disseminating relevant experience.

COP 4: At its fourth meeting (May 1998, Bratislava, Slovakia), the COP adopted thematic work programmes on inland waters ecosystems and marine and coastal biodiversity,

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and decided to consider protected areas (PAs) as one of the three main themes at COP 7. It also encouraged the CBD Executive Secretary to develop relationships with other processes to foster good management practices related to PAs, and established an *Ad Hoc* Technical Expert Group (AHTEG) on marine and coastal PAs.

COP 5: At its fifth meeting (May 2000, Nairobi, Kenya), the COP adopted work programmes on dry and sub-humid lands and on agricultural biodiversity, and decisions on access and benefit-sharing (ABS), Article 8(j) (traditional knowledge), the ecosystem approach, sustainable use, biodiversity and tourism, invasive alien species (IAS), incentive measures, the Global Taxonomy Initiative (GTI), and the Global Strategy for Plant Conservation (GSPC).

COP 6: At its sixth meeting (April 2002, The Hague, the Netherlands), the COP adopted the Convention's Strategic Plan, including the target to reduce significantly the rate of biodiversity loss by 2010. The meeting also adopted: an expanded work programme on forest biodiversity; the Bonn Guidelines on ABS; guiding principles for IAS; the GSPC; a work programme for the GTI; and decisions on incentive measures and Article 8(j).

COP 7: At its seventh meeting (February 2004, Kuala Lumpur, Malaysia), the COP adopted work programmes on mountain biodiversity, PAs, and technology transfer and cooperation, and mandated the Working Group on ABS to initiate negotiations on an international regime on ABS. The COP also adopted: a decision to review implementation of the Convention, its Strategic Plan and progress towards achieving the 2010 target; the Akwé: Kon Guidelines for cultural, environmental and social impact assessments; the Addis Ababa Principles and Guidelines for sustainable use; and decisions on incentive measures, inland waters, and marine and coastal biodiversity.

COP 8: At its eighth meeting (March 2006, Curitiba, Brazil), the COP adopted a work programme on island biodiversity and decisions on a range of issues including: Article 8(j); cooperation with other conventions and private sector engagement; PAs, including high seas PAs; incentive measures; biodiversity and climate change; and forest, marine and coastal, and agricultural biodiversity. COP 8 reaffirmed the COP 5 ban on the field-testing of genetic use restriction technologies, and instructed the ABS Working Group to complete its work with regard to an international ABS regime at the earliest possible time before COP 10 in 2010.

COP 9: At its ninth meeting (May 2008, Bonn, Germany), the COP adopted: a roadmap for the negotiation of the international ABS regime before the 2010 deadline; scientific criteria and guidance for marine areas in need of protection; and the Resource Mobilization Strategy for the Convention. It established an AHTEG on biodiversity and climate change, and further adopted decisions concerning a wide range of issues, including biofuels, genetically modified trees, protected areas and ocean fertilization.

COP 10: At its tenth meeting (October 2010, Nagoya, Japan), the COP adopted as a package: the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization; the CBD Strategic Plan for the period 2011-2020, including a mission, and strategic

goals and the Aichi Targets aiming to inspire broad-based action by parties and stakeholders; and a decision on activities and indicators for the implementation of the Resource Mobilization Strategy adopted at COP 9. The COP also adopted over 40 decisions, including on: inland water biodiversity, sustainable use, climate change and biodiversity, GTI, IAS, and ways and means to improve SBSTTA's effectiveness.

The Nagoya Protocol is open for signature by parties to the Convention from 2 February 2011 until 1 February 2012 at United Nations Headquarters in New York. There are currently 66 signatories to the Nagoya Protocol, and no ratifications. Fifty ratifications are required for the Protocol to enter into force.

REPORT OF THE MEETING

On Monday morning, 7 November, SBSTTA Chair Senka Barudanovic (Bosnia and Herzegovina) welcomed delegates, noting that SBSTTA 15 is the first meeting since adopting the new Strategic Plan, and stressing the need to strengthen the scientific basis for using biodiversity to green the economy. She emphasized ecosystem restoration as a strategy to maintain the delivery of essential goods and services, and reduce vulnerability to natural disasters. Carlos Martin-Novella, UNEP, outlined UNEP's contributions to CBD implementation, including on monitoring and indicators, ecosystem management and the economics of ecosystems and biodiversity, also noting efforts to enhance synergies among the biodiversity-related conventions and with the UN Framework Convention on Climate Change (UNFCCC). In a video message, Germany's Minister of Environment, Norbert Röttgen, called on delegates to advance work on ecosystem restoration, outlining the Bonn Challenge on forests, climate change and biodiversity, a commitment to restore 150 million hectares of forests by 2020.

CBD Executive Secretary Ahmed Djoghlaflaf underlined the need for progress on implementation of the Aichi Targets and the revision and implementation of national biodiversity strategies and action plans (NBSAPs) in light of the new Strategic Plan. He also announced that the vacancy for CBD Executive Secretary post has been advertised and that he intends to apply. In a keynote presentation, Jo Mulongoy, CBD principal officer of scientific, technical and technological matters, highlighted ways to mobilize the scientific community to contribute to the work of the Convention and improve the interface between scientists and policy makers.

ORGANIZATIONAL MATTERS: On Monday, delegates adopted the agenda and organization of work (UNEP/CBD/SBSTTA/15/1/Rev.1 and UNEP/CBD/SBSTTA/15/1/Add.1/Rev.1) and elected Joyce Thomas Peters (Grenada) and Ignatius Makumba (Zambia) as Working Group I Co-Chairs and Alexander Shestakov (Russian Federation) and Gabriele Obermayr (Austria) as Working Group II Co-Chairs. Nabil Hamada (Tunisia) was elected as rapporteur. Working Group I considered invasive alien species (IAS) and sustainable use and Working Group II discussed inland water biodiversity and Arctic biodiversity.

On Friday, delegates elected as new members of the SBSTTA Bureau: Maadjou Bah (Guinea) for the African region; Ratita Bebe (Kiribati) for the Asian region; Julius Smith (Trinidad

and Tobago) for the Group of Latin American and Caribbean Countries (GRULAC); and Ole Hendrickson (Canada) for Western European and Others Group.

GLOBAL TAXONOMY INITIATIVE

Plenary first discussed a draft comprehensive capacity-building strategy for the GTI (UNEP/CBD/SBSTTA/15/5 and INF/4-5) on Monday. Plenary considered a draft recommendation on Wednesday, Thursday evening following a Friends of the Chair group, and Friday. Discussions focused on whether to recommend the endorsement of the draft capacity-building strategy, and how to address questions linked to the movement of genetic resources and access to traditional knowledge involved in taxonomic research.

Malawi, for the African Group, considered it premature to call the strategy “comprehensive” and requested: more emphasis on national activities, including involvement of national authorities and scientific organizations; financial support for academic training; and listing required taxonomic skills. Argentina called for the integration of the GTI capacity-building strategy into NBSAPs to be in line with national priorities and circumstances. Malaysia and Brazil proposed adding language on providing financial and technical assistance to developing country parties, prioritizing capacity building relevant to the implementation of the Aichi Targets. Thailand proposed that the review of guidance to the GEF reflect the GTI capacity-building strategy priorities.

Belgium suggested that the COP welcome the strategy as useful guidance, instead of endorsing it. France and other European countries, Mexico, Canada, Colombia and New Zealand preferred “endorsing” the strategy. Ethiopia, Norway, Brazil and Peru opposed, noting that the strategy had not been negotiated by SBSTTA. After informal consultations, delegates agreed to make the strategy available to SBSTTA 16 for consideration and finalization with a view to submitting it to COP 11.

Delegates debated references to the Nagoya Protocol in the context of building taxonomic skills and raising awareness, movement of genetic materials involved in taxonomic research, and indigenous and local communities’ (ILCs) taxonomic knowledge. Ethiopia emphasized the need to respect sovereign rights over genetic material in cross-boundary movement involved in taxonomic capacity-building, expressing concern that proposed elements on sharing taxonomic information and improving access to taxonomic knowledge are beyond the capacity-building mandate of the GTI, and requesting reference to the Nagoya Protocol. On recognizing that taxonomic research may involve the movement of genetic materials between countries, China offered compromise language on the need for consistency with the CBD provisions on ABS, the Nagoya Protocol and national ABS legislation. Mexico referred to the movement of “biological specimens,” the UK preferred “genetic material” and Peru favored “biological or genetic resources.”

The International Indigenous Forum on Biodiversity (IIFB) pointed to the need to adequately incorporate indigenous peoples’ knowledge and holistic views of ecosystem management, including their prior informed consent (PIC). Colombia stressed the need for free PIC on indigenous taxonomic knowledge, with Peru also pointing to the relevance of CBD Article 8(j) and national legislation. New Zealand proposed recognizing

that ILCs’ holistic views on ecosystem management and related taxonomic knowledge can form an important contribution to the conservation and sustainable use of biodiversity. Delegates agreed to bracket text on the need for free PIC on indigenous taxonomic knowledge.

On Friday, plenary considered compromise language contained in a non-paper on the need that taxonomic research involving the movement of genetic resources between countries and access to traditional knowledge be undertaken in line with the CBD provisions on ABS and, where relevant, the Nagoya Protocol, subject to domestic legislation or regulatory requirements. Malaysia requested that such taxonomic activities be “subject to,” rather than “in line with,” domestic legislation, in addition to being in line with relevant CBD provisions and the Nagoya Protocol. Delegates adopted the recommendation, agreeing to include the compromise language contained in the non-paper, as amended.

Final Recommendation: In the recommendation on the draft capacity-building strategy for the GTI (UNEP/CBD/SBSTTA/15/CRP.1), SBSTTA recommends that the COP, *inter alia*:

- acknowledge the importance of the draft strategy, with a footnote specifying that SBSTTA 16 will review it;
- invite governments to integrate the strategy in NBSAPs, noting that taxonomic capacity building requires multidisciplinary participation, including ILCs’ participation, as appropriate;
- emphasize the need that taxonomic research involving the movement of genetic resources between countries and access to traditional knowledge be undertaken in line with the CBD provisions on ABS and, where relevant, the Nagoya Protocol, subject to domestic legislation or regulatory requirements; and
- note the importance of ILCs’ traditional taxonomic knowledge in the context of the GTI.

STRATEGIC PLAN

Plenary considered the Strategic Plan (UNEP/CBD/SBSTTA/15/2 and 3) on Monday. A contact group, co-chaired by Tone Solhaug (Norway) and Larissa Maria Lima Costa (Brazil), met on Tuesday and Wednesday. On Friday, a draft recommendation was discussed in plenary and approved with some amendments. Discussions focused on: suggested indicators for the Strategic Plan and the Aichi Targets; and a provisional technical rationale, possible indicators and milestones for the Aichi Targets, as a resource that countries and stakeholders may draw upon when setting national targets and milestones.

On a proposed indicator framework for assessing progress towards the Strategic Plan’s implementation, Brazil suggested reorganizing the framework according to the Aichi Targets. Belgium, supported by Poland, Finland and Norway, stressed the need for technical guidance on using and further developing indicators at the international and national levels. Norway underscored that the Aichi Targets are the product of careful negotiation and any further development of technical guidance must reflect their formulation. Venezuela cautioned against incompatibility with local indicators, and noted that not all parties support indicators based on the commodification of nature. Malaysia, Timor Leste and others highlighted the need for capacity building and financial support for developing national targets and indicators. Poland stressed that further developing

the indicator framework should be a GEF priority. Switzerland called for baselines, realistic milestones and guidelines for reaching targets at the national level. China stated that: indicators should provide guidance to countries and be implemented with consideration for national circumstances; and technical and financial support should be provided. Malaysia proposed to allow the use of relevant national criteria in the indicator framework.

The Netherlands recommended the adoption of operational indicators by COP 11, suggesting developing additional indicators at a later stage. France suggested building on the work on indicators for the 2010 biodiversity target, and developing at least one indicator for each global target by 2014. Canada recommended, *inter alia*: using quantitative metrics to accompany the Aichi Targets, where possible; considering indicators on human needs for clean water, food, energy and medicinal plants to reflect the expansion from biodiversity to ecosystem services outcomes; prioritizing the mid-term evaluation of the Strategic Plan; and welcoming efforts of other biodiversity-related conventions to develop indicators, while cautioning that such indicators should not change the CBD indicator framework. The IIFB recommended a headline indicator, associated with Target 18 (traditional knowledge), on benefit-sharing and customary sustainable use, noting that such an indicator should consider guidance from the Article 8(j) Working Group. Argentina underscored that some indicators are highly complex and may transcend the CBD purview.

On Friday, Switzerland proposed titling the recommendation “Indicator Framework for the Strategic Plan.” On the updated technical rationales, Mexico, supported by Brazil, Colombia and Peru, proposed to refer to “provisional” rationales, with delegates agreeing to remove brackets around the reference. South Africa proposed noting that countries with limited capacities “and resources” for developing indicators require financial support, and that the Biodiversity Indicators Partnership “amongst others” plays a role in providing assistance. Brazil, supported by Peru, preferred the COP take note of the “indicative” list of indicators.

Colombia, Peru and Ethiopia, opposed by Argentina and Brazil, favored delinking reference to the Aichi Targets and the indicator framework as a flexible basis for updating NBSAPs and the fifth national reports from text urging parties to prioritize the national application of indicators ready for use at the global level. Delegates agreed to retain the link, recognizing different national capabilities and urging parties to consider using the framework and the list of indicators “including through the fifth national report, as far as possible, and subsequent national reports.”

Poland, supported by Canada and New Zealand, suggested requesting the Secretariat to “propose a limited number of easily applicable and cost-effective indicators that can potentially be implemented by all parties.” New Zealand proposed adding “simple” indicators, with parties agreeing to remove brackets. Poland suggested exploring options for the harmonization of global indicators and their use and “promoting further collaboration including through the Liaison Group of Biodiversity-related Conventions and the Joint Liaison Group of the Rio Conventions.”

Final Recommendation: The recommendation on the indicator framework for the Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets (UNEP/CBD/SBSTTA/15/CRP.4) has two annexes. Annex I on indicators proposed by the AHTEG for the Strategic Plan includes a table with an indicative list of indicators encompassing headline indicators and most relevant operational indicators according to each of the Aichi Targets. Annex II includes a conceptual model for communicating the indicators for assessing progress towards the Strategic Plan.

In the recommendation, SBSTTA takes note of the updated provisional technical rationales for the Strategic Goals of the Strategic Plan and the Aichi Targets; and the annexed indicative list of indicators identified by the AHTEG, which include, *inter alia*:

- a set of headline indicators to present policy-relevant information on biodiversity to cover the ambitions set out in the Aichi Targets;
- three categories of operational indicators: Category A indicators are ready for use at the global level; Category B indicators can be used at the global level but require further development; and Category C indicators are for consideration for use at the national or other sub-global level. Indicators in Categories A and B should be used to assess progress at the global level. Indicators in Category C represent some of the indicators available to parties for use at the national level, according to their national priorities and circumstances.

SBSTTA notes that:

- initial baselines should be established for operational indicators to provide a reference point against which performance (trends) can be assessed;
- parties are likely to use different metrics and methodologies depending on national targets and available data and methods; and
- countries with limited capacities and resources will require financial resources and technical support to develop and apply indicators, as well as to carry out priority monitoring activities required at the national level.

SBSTTA recommends that the COP:

- take note of: the indicative list of indicators annexed to the recommendation, the indicator framework developed by the AHTEG, and the work of the Article 8(j) Working Group on the development of indicators relevant for traditional knowledge and customary sustainable use;
- recognize that the Aichi Targets and proposed indicator framework provide a flexible basis that can be adapted, taking into account different national circumstances;
- urge parties to consider using the flexible framework and the indicative list of indicators, *inter alia*, in their updated NBSAPs and in reporting, including through the fifth national report as far as possible, and subsequent national reports; and
- decide that the indicator framework be kept under review to enable the incorporation of relevant indicators developed by parties and other relevant conventions and processes.

SBSTTA further recommends that the COP request the Secretariat to:

- compile technical guidance materials for capacity building and provide support to parties for the further development of indicators and monitoring and reporting systems;

- propose a limited number of simple, easily applicable and cost-effective indicators that can potentially be implemented by all parties;
- assist parties, at their request, to initially establish and apply a few simple, cost-effective and easily applicable indicators for priority issues;
- include capacity building on the indicator framework in regional workshops to support its implementation;
- support review of the use of the indicator framework to identify gaps and priorities in national and regional institutions for future capacity building;
- develop practical information on the indicators, including the rationale behind the indicators, and the scale at which they are applied;
- further develop global indicators identified in Annex I to ensure each Aichi Target can be monitored by at least one global indicator by 2014;
- explore options for the further harmonization of global indicators with other conventions, regional agreements and processes; and
- provide regular progress reports on the development and use of indicators to SBSTTA prior to each COP until 2020, including the Strategic Plan mid-term evaluation and the experience in using the indicators in the fifth national reports and in the fourth Global Biodiversity Outlook.

ECOSYSTEM RESTORATION

Plenary first discussed ways and means to support ecosystem restoration (UNEP/CBD/SBSTTA/15/4 and INF/13) on Tuesday. A Friends of the Chair group, co-chaired by Horst Korn (Germany) and Krishna Chandra Paudel (Nepal), met on Wednesday to discuss a non-paper. Plenary discussed a draft recommendation on Thursday and adopted the recommendation on Friday. Discussions focused, among others, on the establishment of an AHTEG, the relationship between ecosystem restoration and climate change, and new and emerging technologies.

Many speakers emphasized that ecosystem restoration is not a substitute for conservation, but a last resort for ameliorating degraded ecosystems. Some parties objected to using ecosystem restoration as a means of carbon sequestration, ecosystem-based adaptation and mitigation of climate change and other ecosystem services, noting that these issues should be considered under the UNFCCC. China, supported by India, Mexico and Peru, suggested deleting references to the use of ecosystem restoration and its contribution to climate change mitigation and adaptation and to combating desertification. Delegates eventually agreed to delete explicit reference to climate change.

Uganda and Ghana supported the establishment of an AHTEG, with Ecuador favoring convening the AHTEG prior to COP 11. Finland, Australia, India and others preferred that the Secretariat, rather than an AHTEG, collect information on restoration. Denmark and Switzerland suggested using the CHM to share experiences and best practices. Eventually delegates agreed that SBSTTA recommend that the COP consider the “possible establishment” of an AHTEG.

The UK supported compiling information on the application of new and emerging technologies, and, supported by Colombia but opposed by the Philippines, suggested deleting specific

reference to synthetic biology and geo-engineering in that context. After informal consultations, delegates agreed to delete only reference to geo-engineering. During the closing plenary, Peru and Cuba requested bracketing “synthetic biology.” Delegates adopted the recommendation with this amendment.

Final Recommendation: In the recommendation on ways and means to support ecosystem restoration (UNEP/CBD/SBSTTA/15/L.2), SBSTTA takes note of the indicative available practical guidance on ecosystem restoration and requests the Secretariat to initiate work to compile information on practical guidance or guidelines on, *inter alia*:

- restoration of specific landscapes, ecosystems, habitats and their components, including identification of gaps and suggested means for addressing them;
- relevant tools and technologies, including positive and negative lessons learned and experiences used at multiple spatial scales and for specific ecosystems;
- the application of new and emerging technologies for ecosystem restoration, with bracketed reference to synthetic biology; and
- the most used definitions of key terms, highlighting their links to Targets 14 (restoration of ecosystems that provide essential services) and 15 (ecosystem restoration and climate change) of the Strategic Plan.

SBSTTA recommends that the COP:

- consider the need for any further work on ecosystem restoration and the possible establishment of an AHTEG;
- note that ecosystem restoration is not a substitute for conservation, nor is it a conduit for allowing intentional destruction or unsustainable use; rather it is the last resort for ameliorating degraded ecosystems;
- urge parties and others to make efforts to achieve Aichi Targets 14 and 15 and to contribute to ecosystem restoration by, *inter alia*: analyzing and addressing underlying and direct causes of ecosystem degradation or fragmentation and then preventing or reducing such activities; improving ecosystem resilience; supporting ILCs’ restoration activities; and taking into consideration Strategic Goal D on enhancing benefits to all from biodiversity and ecosystem services when making decisions on allocation of resources to ecosystem restoration;
- invite parties and others to support countries in implementing ecosystem restoration by, *inter alia*: compiling and disseminating case studies and methods for assessing success of restoration projects; facilitating the sharing of knowledge and publicly available information, subject to national legislation; supporting the development and implementation of regional, subregional or national plans or programmes for ecosystem restoration taking into account the ecosystem approach and the integration of ecosystem restoration into broader planning processes, such as spatial planning; and supporting the large-scale replication of projects and programmes implementing the recommendations of research on ecosystem restoration, including their monitoring; and
- request the Secretariat to: facilitate the further development of implementation tools and practical guidance for ecosystem restoration; identify opportunities for collaboration with the UN Convention to Combat Desertification (UNCCD), UNFCCC, Ramsar Convention and others to enhance and

harmonize efforts in ecosystem restoration; and facilitate the development of a tool for collating and presenting baseline information on ecosystem conditions to evaluate Target 15 and assist parties in identifying ecosystems whose restoration could contribute to achieving the Aichi Targets.

INVASIVE ALIEN SPECIES

Working Group I first discussed IAS on Tuesday (UNEP/CBD/SBSTTA/15/6 and 7, and INF/1). A Friends of the Chair group, chaired by Hesiquio Benitez (Mexico), considered a non-paper on Wednesday evening. Working Group I discussed a draft recommendation on Thursday, and plenary adopted a recommendation on Friday. Discussions focused on, *inter alia*: pathways for the introduction of IAS; renewing the CBD application for observer status to the World Trade Organization's (WTO) Committee on Sanitary and Phytosanitary Measures (SPS); and developing and improving international standards on IAS, including the possible role of the SPS Committee.

On pathways, Finland, supported by Saint Lucia, South Africa, Mexico and others, highlighted the need to identify and prioritize the most common pathways. Sudan called attention to seaborne IAS, and Saint Lucia to construction and equipment as pathways. Peru proposed referring to the potential risks of introduction and spread of animal IAS not only from commercial zoos and safari parks, but also from "breeding and trading centers."

On the CBD application for observer status to the SPS Committee, Belgium, supported by Norway, India and others, but opposed by Brazil and Argentina, suggested the CBD renew its application. The Secretariat clarified that it: has a pending request from the COP to seek observer status; has renewed such application, which has not yet been accepted because the SPS Committee is developing criteria for observer status; and will continue to renew this application periodically. France, supported by Denmark, Finland and other European countries, preferred retaining the request and referencing the relevant COP decision. Mexico, supported by Switzerland, Brazil, Argentina, Peru and Canada, proposed asking the Secretariat to inform the next COP on progress on the application. Delegates eventually bracketed the request.

On developing international guidelines on IAS, Ethiopia, supported by Brazil, Argentina and Senegal, proposed encouraging the members of the SPS Committee "to further address" the risks posed by IAS that are a threat to biodiversity, whereas Sweden and Denmark favored encouraging the Committee to "develop and improve international standards to address" these risks. Ethiopia, opposed by Sweden and Denmark, proposed deleting reference to the CBD offering to collaborate on this matter. After informal consultations, delegates agreed to encourage the SPS Committee to "further address, including by developing and improving international standards," these risks, noting that the CBD could offer to collaborate on this matter.

During the closing plenary, the UK requested a cross-reference to lessons learned from countries' use of lists and management of IAS in a request to the Secretariat to prepare proposals for detailed guidance on the drafting and implementation of national measures associated with the

introduction of IAS as pets, aquarium and terrarium species, and as live bait and live food. The recommendation was adopted with further minor amendments.

Final Recommendation: The recommendation on invasive alien species (UNEP/CBD/SBSTTA/15/L.3) includes sections on: gaps in international standards regarding IAS introduced as pets, aquarium and terrarium species, and as live bait and live food; gaps in international standards regarding other IAS; other matters; and considerations for future work. In the latter, SBSTTA recognizes IAS as one of the main drivers of biodiversity loss, their increasing impact on biodiversity and economic sectors, and their negative impacts on human well-being, and emphasizes the need for continued work on IAS to achieve Aichi Target 9 (IAS).

On gaps in international standards regarding IAS as pets, aquarium and terrarium species, and as live bait and live food, SBSTTA recommends that the COP:

- take note of the AHTEG report on addressing the risks associated with the introduction of these IAS;
- encourage governments and others to ensure, at the national level, effective collaboration among national authorities and focal points for the CBD and the International Plant Protection Convention (IPPC), the World Organization for Animal Health, the Codex Alimentarius Commission, the SPS Agreement, the Convention on International Trade in Endangered Species (CITES), and the Food and Agriculture Organization (FAO) to address threats from these IAS and, as appropriate, make full use of existing standards; and
- request the Secretariat to: prepare more detailed guidance on drafting and implementing national measures associated with IAS; compile information and work with experts to avoid and/or minimize the potential risks associated with the introduction and spread of animal IAS from commercial zoos, safari parks and breeding and trading centers; and collect case studies and explore measures on how to deal with risks related to the intentional and unintentional release and escapes of captive-bred IAS and genotypes.

On gaps in international standards regarding other IAS, SBSTTA recommends that the COP:

- encourage the SPS Committee to further address, including by developing and improving international standards, the risks posed by IAS introductions that are a threat to biodiversity but not considered pests of plants, pathogens or parasites that affect domestic animals, or harmful to health, noting that the CBD could offer to collaborate with the SPS Committee;
- encourage the IPPC to: invite its members to broaden measures for the protection of plants in marine, terrestrial and freshwater environments; broaden its application to the health of bryophytes and algae species; and clarify its mandate on fungi; and
- request the Secretariat to develop a practical non-prescriptive toolkit on the application of existing international standards on, *inter alia*, how parties can use the international regulatory framework and have developed, integrated and strengthened national IAS strategies into national policies.

On considerations for future work, SBSTTA recommends that the COP request the Secretariat to: assess progress on IAS, including gaps and inconsistencies in the international regulatory

framework; prepare a list of the most common IAS pathways; and propose criteria for prioritizing and identifying tools to manage or minimize the risks associated with such pathways.

SBSTTA further requests the Secretariat to prepare a document on how guidance, relevant activities, and standards of relevant organizations can support parties in addressing the threats from IAS, as well as a report to COP 11 on the status of the CBD application for observer status to the WTO. A request to the Secretariat to renew the CBD application for observer status to the SPS Committee remains bracketed.

SUSTAINABLE USE

On Wednesday, Working Group I first discussed options for small-scale food and income alternatives in tropical and sub-tropical countries and revised recommendations of the Liaison Group on Bushmeat (UNEP/CBD/SBSTTA/15/12 and INF/7 and UNEP/CBD/WG8J/7/L.6) and the report on how to improve sustainable use of biodiversity in a landscape perspective (UNEP/CBD/SBSTTA/15/13). It considered a draft recommendation on Thursday and Friday. The closing plenary adopted the recommendation with minor amendments. Discussions focused, among others, on the revised recommendations on bushmeat, customary sustainable use, and recommended guiding principles on sustainable use in a landscape perspective.

LIAISON GROUP ON BUSHMEAT: The IIFB emphasized the participatory nature of the revision of the bushmeat recommendations following COP 10 and, with TRAFFIC, called on parties to support the adoption of the recommendations. On Friday in Working Group I, Ghana, opposed by Australia and Brazil, proposed adopting the Liaison Group's recommendations. Poland suggested inviting parties, other governments and relevant organizations to implement the Liaison Group's recommendations "as a complement to the Addis Ababa Principles and Guidelines." Brazil preferred qualifying the recommendations as a "possible" complement, and the UK suggested "potential" complement.

The Netherlands and Ethiopia stated that sustainable use should not be limited to bushmeat, with the Netherlands, supported by Poland, India, Ethiopia and Sweden, proposing broadening the scope of the Liaison Group's recommendations beyond tropical and sub-tropical countries. Discussions took place on whether to invite governments to adapt the Liaison Group's recommendations for implementation in countries other than tropical and sub-tropical countries, "where requested," as supported by New Zealand, or without this request, as proposed by Poland, Belgium and Switzerland. Delegates eventually agreed to invite governments and relevant organizations to "further develop and adapt the recommendations for implementation in other countries, as appropriate."

Austria proposed requesting the Secretariat to explore options for developing a collaborative partnership on sustainable wildlife management to enhance implementation of the Liaison Group's recommendations for COP 11 consideration. In the annex containing the Liaison Group's recommendations, Peru, supported by Colombia and Brazil, recommended deleting reference to formalizing the existing bushmeat market as a precursor to putting its management on a sounder footing.

CUSTOMARY SUSTAINABLE USE: Switzerland, supported by Norway, Poland, Colombia, Peru and others, proposed including bushmeat in the indicative list of tasks for the plan of action on customary sustainable use proposed by the Article 8(j) Working Group.

Peru highlighted sustainable use of bushmeat for subsistence use only. India advocated for biodiversity-friendly and socio-economically viable livelihood alternatives. Austria suggested strengthening cooperation between the CBD and CITES on livelihood benefits from community conservation programmes. The IIFB requested assessing the impacts of unsustainable harvesting and illegal trade on biodiversity-dependent livelihoods. New Zealand requested developing systems to determine and monitor levels of sustainable harvest to improve sustainable wildlife management and customary sustainable use "consistent with national legislation."

LANDSCAPE PERSPECTIVE: Argentina, Brazil, Uruguay and Ethiopia proposed to "take note" of the guidance on improving sustainable use in a landscape perspective. Brazil, supported by Argentina and Senegal, opposed referring to the guidance "as a useful complement to existing guidance under the CBD." Ghana, supported by the Netherlands and Ethiopia, proposed moving the text to the preamble. Brazil then suggested "inviting parties to consider" the guidance as a useful complement, with delegates deciding against moving it to the preamble.

Ethiopia, supported by Tunisia and Argentina, suggested inviting governments to apply an "ecosystem" approach, instead of a "landscape" approach, in planning and implementing climate change adaptation activities. Belgium proposed for the COP to invite relevant intergovernmental organizations to integrate not only the guidance on sustainable use in a landscape perspective, but also "other existing guidance on sustainable use," into their work programme. Delegates finally agreed to invite these organizations to integrate "existing guidance" on sustainable use.

On the Satoyama Initiative, an international partnership promoting socio-ecological production landscapes, Australia, supported by Canada, and opposed by Japan and Thailand, preferred referring to the "potential" usefulness of the Initiative as a platform for establishing synergies among the various landscape-level initiatives. After informal deliberations, "potential" was bracketed.

Final Recommendation: In the recommendation on sustainable use (UNEP/CBD/SBSTTA/15/L.7), which contains in an annex the revised recommendations of the CBD Liaison Group on Bushmeat, SBSTTA recommends that the COP:

- take note of the guidance on how to improve sustainable use in a landscape perspective, and invite parties to consider the guidance as useful complement to existing guidance under the CBD;
- invite governments to apply the ecosystem approach in planning and implementing climate change adaptation activities to avoid and/or mitigate their impacts on biodiversity, including displacement of pressure on biodiversity from one area to another;

- invite relevant intergovernmental organizations, including members of the Collaborative Partnership on Forests, to integrate existing CBD guidance on sustainable use into their work programmes;
- recognize the potential usefulness of the Satoyama Initiative as a platform for establishing synergies among the various existing landscape initiatives, with “potential” remaining in brackets;
- urge parties to acknowledge ILCs’ important role in sustainable use, and facilitate their full and effective participation in the design and implementation of policies and programmes at national and sub-national levels, according to national legislation;
- welcome the revised recommendations of the Liaison Group on Bushmeat as a potential complement to the Addis Ababa Principles and Guidelines related to sustainable wildlife management in tropical and sub-tropical countries; and
- request the Secretariat to further develop the linkages between the work on Article 10(c) and customary sustainable use of bushmeat.

SBSTTA further recommends that the COP invite governments and relevant organizations to:

- implement the Liaison Group’s recommendations, taking into account CBD Article 10(c) as well as national legislation;
- further develop and adapt the recommendations for implementation in other countries, as appropriate;
- develop and promote methods and systems, and build capacity to determine levels of sustainable harvest of wildlife at national and other levels, with a particular view to monitoring and improving sustainable wildlife management and customary sustainable use, consistent with national legislation; and
- develop and promote alternatives to unsustainable management and use of wildlife, depending on the local and national context.

SBSTTA requests the Secretariat to:

- report on the issue of bushmeat during COP 11 discussions on Articles 8(j) and 10(c), in order for this issue to be taken into consideration when discussing the indicative plan of action developed by the Article 8(j) Working Group; and
- explore options for the development of a collaborative partnership on sustainable wildlife management to enhance cooperation and coordination for implementation of the Liaison Group’s recommendations, and report to COP 11.

INLAND WATER BIODIVERSITY

Working Group II first discussed inland water biodiversity (UNEP/CBD/SBSTTA/15/8-11 and INF/15) on Tuesday. On Thursday, Working Group II considered a draft recommendation, which was approved by the closing plenary, with some amendments. Discussions focused, among other things, on collaboration with other conventions and transnational water management initiatives, references to biodiversity supporting natural infrastructure, and the enhancement of capacities in developing countries to promote sustainable water management.

Many called for enhanced collaboration with the Ramsar Convention and other relevant agreements, such as the Convention on Migratory Species (CMS); and consideration of water as a cross-cutting issue across all CBD work

programmes. Poland and India suggested using the Aichi Targets as a framework to that end. On inviting the CBD and Ramsar Convention Secretariats’ cooperation on “natural solutions to water problems,” Australia suggested referring to “solutions to biodiversity-related water problems,” not to exclude technical solutions. Norway favored “natural solutions.” Delegates eventually agreed to “solutions to water problems.”

Botswana, Malawi and Tanzania highlighted the importance of multilateral river basin management. South Africa called for further effective transnational water management efforts, including by developing bilateral and multilateral agreements. On regional initiatives establishing a legally binding framework for integrated water management and serving as models for other regions, Canada preferred referring to “frameworks by legal and other effective means.” India suggested deleting that “lack of resources for the effective implementation of transnational agreements remains a constraint posing a further threat to the already threatened water resources.”

Australia and China proposed replacing “natural infrastructure” with “natural assets” in reference to the role of biodiversity for achieving water security. Argentina and Malawi suggested removing reference to biodiversity supporting natural infrastructure, natural assets or green infrastructure. Canada and Finland supported retaining “natural infrastructure,” with Canada highlighting that under the Ramsar Convention wetlands are considered “natural water infrastructure.” Colombia underscored biodiversity’s role to “guarantee ecosystems’ self-support.” Argentina, with Uruguay, recalled the lack of an internationally agreed definition of the term “water security.”

On nutrient loading, Brazil requested deleting reference to agriculture. Colombia suggested agricultural production and “other sectoral activities.” New Zealand pointed to “unsustainable agriculture.” Trinidad and Tobago suggested that the transfer of technical knowledge would enhance developing countries’ capacity to economically value aquatic ecosystems, while South Africa pointed to technology transfer.

During the closing plenary, Brazil cautioned against language stating that “inland water ecosystems, including their watersheds, provide services which are important for all states,” noting this could be interpreted as an “internationalization” of inland waters. After informal consultations, delegates agreed that “inland water ecosystems, including their watersheds, provide ecosystem services, which are important for sustaining biodiversity and human well-being. Therefore, it is necessary to enhance technical, financial and other capacities in developing countries, in particular the least developed countries, small island developing states (SIDS) and countries with economies in transition, in order to promote sustainable water management.” Malawi requested to reflect in the meeting’s report lack of agreement on genetic pollution of inland water biodiversity and the possibility to reopen the matter at COP 11.

Final Recommendation: In the recommendation on biodiversity of inland water ecosystems (UNEP/CBD/SBSTTA/15/L.4), SBSTTA recommends that the COP emphasize that the Strategic Plan and the Aichi Targets provide the Convention with the framework that should also guide the future work of all cross-cutting issues and thematic areas, and concludes that:

- the implications of the water cycle and freshwater resources in the implementation of the Convention's work programmes and thematic areas are far-reaching, including that biodiversity is essential to guarantee ecosystems are self-supporting and meet human needs for water-related ecosystem services in a cost-effective manner;
- water use for different purposes may affect downstream ecosystems and groundwater supplies, with consequent impacts on terrestrial ecosystems;
- regional initiatives establishing frameworks by legal and other effective means for the integrated water management can serve as models for other regions to strengthen effective transnational catchment management systems;
- work within the study on The Economics of Ecosystems and Biodiversity (TEEB) and economic appraisal techniques presents new opportunities to influence policies and decision-making at the national level;
- economic assessments should not be taken as the definitive valuation of a given resource, but serve only as a guide in the context of decision-making for developmental planning;
- inland water ecosystems, including their watersheds, provide ecosystem services, which are important for sustaining biodiversity and human well-being. Therefore, it is necessary to enhance technical, financial and other capacities in developing countries, in particular the least developed countries, SIDS and countries with economies in transition, in order to promote sustainable water management;
- ILCs that maintain a very close relationship with water cycle-associated biodiversity, which is demonstrated in cultural activities, including through indigenous languages, can help promote sustainable water management based on their traditional knowledge; and
- nutrient loading, including through unsustainable agricultural production and other sectoral activities, is among the main threats to inland water and coastal biodiversity.

SBSTTA further requests the Secretariat and invites the Ramsar Convention Secretariat to include an assessment of opportunities for enhanced collaboration on solutions to water problems under the Joint Work Plan with the Ramsar Convention and report to COP 11.

SBSTTA further recommends that COP 11:

- recognize the importance of the water cycle to the Strategic Plan and to achieving the Aichi Targets;
- note the term "wetland," as defined by the Ramsar Convention, offers flexible scope for national interpretation for addressing biodiversity challenges related to ecological interlinkages between inland, coastal and marine areas; and
- invite governments to consider wider adoption of the term "wetland," in implementation of the CBD, particularly for achieving Aichi Target 11 (conservation of terrestrial and coastal waters).

ARCTIC BIODIVERSITY

Working Group II first discussed Arctic biodiversity (UNEP/CBD/SBSTTA/15/14) on Wednesday, and a draft recommendation on Friday morning. The closing plenary adopted a recommendation with minor amendments.

Many parties welcomed cooperation between the CBD and the Working Group on the Conservation of Arctic Flora and Fauna of the Arctic Council (CAFF). Iceland suggested recognizing CAFF as the lead partner for CBD implementation in the Arctic region. The US recommended cooperation between the CBD and the Arctic Council in accordance with the Arctic Council's rules and procedures for cooperation. Malawi, with the US, supported that CAFF share information with SBSTTA on scientific data, trends and processes affecting biodiversity. Denmark, the Russian Federation and the UK highlighted the need to also collaborate with the CAFF Circumpolar Biodiversity Monitoring Programme (CBMP). The Russian Federation suggested sharing relevant information through the CHM. The UK, France and South Africa encouraged cooperation with non-Arctic parties, especially in sharing data on migratory species. Pointing to interlinkages between the Arctic and other regions, Malawi suggested CAFF incorporate countries from other regions as observers.

On Friday, Canada, supported by Norway, suggested noting the relevance of the Strategic Plan and many thematic work programmes and crosscutting issues to Arctic biodiversity. France favored considering relevant aspects of Arctic biodiversity through existing relevant work programmes and crosscutting issues, instead of considering it as a new and emerging issue. Canada cautioned against creating a precedent in addressing specific geographic regions under each of the work programmes and crosscutting issues. After informal consultations, Canada suggested, and delegates agreed, to delete the paragraph.

France, supported by Poland and opposed by Canada and Iceland, called for welcoming and encouraging the work of Oslo and Paris Conventions for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) and the North East Atlantic Fisheries Commission (NEAFC) on ecologically and biologically significant areas (EBSAs). After informal consultations, parties agreed to "welcome work done by CAFF for EBSA identification in the Arctic and encourage them to continue their work on cooperation with adjacent conventions and commissions including OSPAR and NEAFC." France, supported by Liberia, suggested that the Arctic Council working groups encourage work on identifying areas of high ecological and cultural significance. Canada, supported by Denmark, suggested promoting the implementation of the Strategic Plan and relevant work programmes "in relation to the Arctic environment."

On sharing relevant information through the CHM, Canada suggested that parties access relevant information directly from CAFF. On collaboration with ILCs in research projects and programmes, Denmark suggested encouraging parties to follow the Arctic Council's model for ILC collaboration. New Zealand preferred "appreciating" it, rather than recognizing it as a model.

On requesting the Secretariat to convey to the Arctic Council Secretariat the interest of UN member states not currently represented in the Council to be granted observer status, Sweden, supported by other Arctic Council members, noted that interested CBD parties should apply for observer status in accordance with the Arctic Council's rules and procedures. Delegates eventually agreed to delete the request.

During the closing plenary, Canada proposed to include “multilateral organizations,” in addition to multilateral agreements, in offering opportunities to collaborate with CAFF. Delegates adopted the recommendation with this amendment.

Final Recommendation: In the recommendation on Arctic biodiversity (UNEP/CBD/SBSTTA/15/L.6), SBSTTA requests the Secretariat to include references to the work on EBSAs of the OSPAR Convention and NEAFC in documentation on marine biodiversity for SBSTTA 16.

SBSTTA recommends the COP:

- note the key findings of the CAFF report, including on climate change as a far-reaching stressor on biodiversity, the global significance of Arctic flora and fauna, and the provision of essential ecosystem services for ILCs;
- invite contributions from parties, international organizations and multilateral environmental agreements to the CBMP;
- request the Secretariat to make parties aware of biodiversity-related information and reports generated by the Arctic Council, including from the CBMP and the Arctic Biodiversity Assessment;
- welcome the work on EBSAs of the Arctic Council working groups and encourage them to continue cooperating with adjacent regional conventions and commissions, including OSPAR and NEAFC;
- encourage the further development of Arctic ecosystem resilience assessments and reports; and
- urge parties to promote the implementation of the Strategic Plan and relevant work programmes in relation to the Arctic environment.

SBSTTA EFFECTIVENESS

Plenary first discussed ways and means to improve SBSTTA’s effectiveness (UNEP/CBD/SBSTTA/15/15) on Wednesday; considered a draft recommendation on Thursday morning; and adopted the recommendations on Friday afternoon. Discussions mostly focused on collaboration between SBSTTA and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).

Mexico called for interaction between SBSTTA and IPBES that reinforces SBSTTA. The UK stated that SBSTTA needs to adjust to the new landscape created by the IPBES. Moldova, for Central and Eastern European countries (CEE), recommended clear demarcation of activities between SBSTTA and IPBES, including at the regional level. Ghana favored exploring linkages between SBSTTA and IPBES after the latter is formally established. The Czech Republic proposed that a SBSTTA Bureau member be present at IPBES meetings.

Switzerland asked the Secretariat to identify relevant issues from the IPBES second plenary for discussion at SBSTTA 16 and COP 11. Poland favored preparing a discussion paper on improving SBSTTA effectiveness for consideration at SBSTTA 16 and COP 11. Denmark and France requested the discussion paper address how SBSTTA and IPBES can complement each other and avoid duplication. Argentina recommended requesting not only the Secretariat and the SBSTTA Bureau, but also the COP Bureau, to identify issues and modalities for collaboration with IPBES. The UK, supported by Colombia, proposed to also identify “options” for such collaboration.

Final Recommendation: In the recommendation on ways and means to improve SBSTTA’s effectiveness (UNEP/CBD/SBSTTA/15/L.5), SBSTTA requests the Secretariat, *inter alia*, to:

- in collaboration with others, prepare scientific reports and papers providing material about SBSTTA’s work in a format that is accessible and relevant to the scientific and technical community;
- encourage the participation of the SBSTTA Chair at future IPBES meetings; and
- with the SBSTTA and the COP Bureaus, identify issues, modalities and options for collaboration with IPBES for SBSTTA 16 consideration.

SBSTTA recommends the COP, *inter alia*:

- request SBSTTA to focus its work on the scientific and technical aspects of the Strategic Plan and the Multi-Year Programme of Work and to report on progress at future COPs, in response to Decisions VIII/10 (operation of work) and X/12 (SBSTTA effectiveness);
- recall Decision X/13 on the established procedure to include new and emerging issues on the SBSTTA agenda; and
- recognize the role of relevant regional, subregional and national centers to the implementation of the CBD.

CLOSING PLENARY

On Friday afternoon, delegates adopted the meeting’s report with minor amendments (UNEP/CBD/SBSTTA/15/L.1 and Add.1-2). Delegates also agreed to take note of the draft agenda for SBSTTA 16 (UNEP/CBD/SBSTTA/15/16), requesting the Secretariat to accommodate a new item on the review of the draft capacity-building strategy for the GTI.

Chair Barudanovic remarked that even if SBSTTA 15 had a light agenda, its work had not been easy. Several participants praised Jo Mulongoy, on the eve of his retirement, for his service to the Convention. Others praised the spirit of cooperation at SBSTTA 15. Poland, on behalf of EU and its Member States, noted that SBSTTA built on COP 10’s success and, with Ukraine, for CEE, praised the scientific, technical and technological focus of the discussions.

Ghana, for the African Group, expressed concern about the practice of providing financial support for only one regional expert in CBD back-to-back meetings where different types of expertise may be needed. Cambodia, for the Asia-Pacific region, stressed the importance of the capacity-building strategy for the GTI; expressed satisfaction about progress on the flexible indicator framework; and called for complementarity between SBSTTA and IPBES. Grenada, for GRULAC, stressed the need for two SBSTTA meetings per intersessional period; called for focusing on the linked implementation of the Strategic Plan and the Resource Mobilization Strategy; and urged parties to provide comments on the draft capacity-building strategy for the GTI to ensure its adoption at SBSTTA 16. Chair Barudanovic gavelled the meeting to a close at 6:24 pm.

A BRIEF ANALYSIS OF ARTICLE 8(J) WG 7 AND SBSTTA 15

3338 DAYS TO MEET THE AICHI TARGETS

So far away and yet so close! The countdown clock on the CBD website displayed during the final SBSTTA 15 plenary served as a useful reminder that this meeting and the preceding Article 8(j) Working Group meeting marked the first opportunity to put the CBD on the right track to implement its new Strategic Plan for Biodiversity 2011-2020 and meet the 2020 Aichi Targets. Article 8(j) WG 7 and SBSTTA 15 thus provided a taste of the impact that the Strategic Plan will have on the Convention in the coming decade, as well as the challenges and opportunities associated with the Plan's implementation as a framework at the regional and national levels. This analysis explores some of the implications of the Strategic Plan as a sophisticated yet flexible framework for monitoring and spurring implementation, as well as new issues and approaches for SBSTTA and the CBD as a whole, such as ecosystem restoration and new technological challenges.

STRATEGIC PLAN: GETTING SERIOUS ABOUT A BOTTOM-UP APPROACH?

On the surface, the implications of the Strategic Plan and the Aichi Targets seemed to be limited to the introduction of a standard reference into most recommendations that the Plan provides the overall framework for implementing the Convention towards 2020. In the Article 8(j) Working Group, Target 18 (traditional knowledge) was used as a tool to mainstream indigenous and local communities' concerns in different areas of the Convention. During SBSTTA 15, however, prolonged discussions focused on the development of indicators for measuring progress towards achieving the Aichi Targets. Discussions on indicators proved to be the most time-consuming issue and, while most delegates welcomed the outcome, many were unsure whether any real progress was achieved: pending indicators were not actually developed at the meeting, but delegates succeeded in increasing the understanding of the process for their development.

SBSTTA 15 adopted a list of indicators for each of the 20 Aichi Targets classified into three categories: indicators considered ready for use in assessing progress at the global level; indicators that can be used at the global level but require further work; and indicators that can be used at the national level. A number of delegates were initially confused by these three categories, which describe the maturity of an indicator with regard to methodology and data availability and, at the same time, its applicability at different levels. There are two reasons for this mixed approach. First, the Aichi Targets differ widely with regard to what needs to be monitored and what can be measured. For some, such as Target 5 (halving the rate of habitat loss by 2020), a number of global indicators already exist that can monitor progress of different aspects at different levels. For others, such as Target 1 (people's awareness of biodiversity values and steps they can take for conservation and sustainable use), it is very difficult to measure progress at the global level and all available indicators fall into the third category of indicators for national use. For these targets, the challenge will

be to find a way to usefully combine assessments of progress at the national or even subnational level, while respecting inherent differences in local culture, perceptions and circumstances.

The second reason for the mixture of indicators is a reflection of the multi-track approach embodied in the Strategic Plan. The Plan explicitly tasks parties to develop their own targets and indicators in the process of reviewing their national biodiversity strategies and action plans (NBSAPs), as well as developing regional targets and indicators, if useful. The parallel development of global and national or sub-global indicators creates additional challenges in comparing and aggregating indicators using a wide variety of targets, methodologies and data sources. Once again, this challenge will be more acute for targets for which no commonly used indicators exist, such as Target 18 on achieving the "respect" of traditional knowledge "subject to national legislation and international obligations" that will have to be measured in qualitative terms against nationally determined frameworks and priorities.

The advantage of this multi-track approach is that it actively engages parties and stakeholders in biodiversity planning and monitoring, and arguably strengthens the sense of ownership and flexibility necessary to move towards an implementation process more in line with the decentralized and bottom-up approaches recommended by the Millennium Ecosystem Assessment. Supporting the revision of NBSAPs is therefore one of the current priorities of the CBD Secretariat and the Global Environment Facility. And according to the Article 8(j) Working Group's recommendation, the NBSAPs revision should be used as an opportunity to integrate traditional knowledge across national biodiversity frameworks in accordance with Target 18. While progress in 2011 has been slower than many hoped for, initial results are nevertheless encouraging. A number of countries, including Brazil, the UK and Venezuela, presented their updated NBSAPs at side-events, revealing diverse and promising activities at the national level, including the development of appropriate methodologies and ensuring public participation.

The different tracks of Strategic Plan implementation are set to converge at COP 12 in 2014. By this time, an initial set of global indicators, including at least one indicator that is fully operational for each target, is expected to be available. Parties are also expected to have concluded the revision of their NBSAPs and report on their targets and indicators in their fifth national reports, if possible. From a national perspective, this timeline is extremely ambitious given the poor record of timely submission of previous national reports. From a global perspective, however, it means that indicators for comprehensive monitoring will only be available halfway towards the 2020 deadline, which means that there will be only limited time remaining to adjust implementation according to the outcomes monitored. For parties and stakeholders, this creates an essential dilemma: should limited resources be invested in the development of indicators and monitoring systems, or in the implementation activities that must be undertaken to meet at least some of the Aichi Targets, but sacrificing the tools to prioritize actions and track impacts?

Overall, delegates felt that the multi-track approach creates a trade-off between ensuring progress towards 2020 and building long-term implementation and monitoring capacity. As the Aichi

Targets are conceived as a stepping stone on the way towards realizing the Strategic Plan's 2050 vision of life "in harmony with nature," limited progress towards the Targets by 2020 could be compensated by an increased chance to achieve the 2050 vision.

ECOSYSTEM RESTORATION—GETTING READY FOR THE ANTHROPOCENE?

The Strategic Plan also puts the spotlight on an issue that has so far been considered only at the margins of the CBD's work programmes and crosscutting issues—ecosystem restoration. The Plan recognizes that ecosystem restoration is an essential element to achieve the 2050 vision, as well as for reducing biodiversity loss. COP 10 therefore decided that ways and means to support ecosystem restoration should be considered in-depth at COP 11.

Fueled by recent developments both at the scientific and the policy levels, many expected the issue to take center stage during SBSTTA 15. An increasing number of studies show that restoration is not only a potential complement to conservation, but most likely a necessity to reduce biodiversity loss. At the same time, there is mounting evidence that restoration can go hand in hand with significant improvements in the delivery of ecosystem services, in particular food production. Finally, recent discussions on market-based mechanisms to provide incentives for private sector investment in ecosystem goods and services, in particular on REDD+ under the climate change regime, have raised the expectation that there could be a strong business case for restoration.

These expectations are paralleled by rising fears that not all restoration will necessarily benefit biodiversity conservation. The growing interest in using restoration projects for climate change mitigation, for example, raises fears that ecosystems could be "optimized" to provide certain services at the cost of lower or even negative benefits for biodiversity. Similarly the advent of new and fast-developing technologies, such as synthetic biology or certain approaches to geo-engineering, open up opportunities for large scale "high-tech" interventions with uncertain impacts on restoration and poorly understood risks and societal consequences—features that make them the subject of controversial scientific debates and fierce opposition from civil society.

Against this backdrop, the discussion was surprisingly low-key, especially given the focus on ecosystem restoration in statements delivered during the opening plenary. Aside from some discussions on emerging technologies and linkages to climate change, the latter of which merely remain implicit in a reference to Aichi Target 15 (restoration of at least 15% of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification), delegates agreed rather quickly on a recommendation that is limited to initiating information gathering and to specifying that ecosystem restoration is not a substitute for conservation, but the last resort for ameliorating degraded ecosystems. For some delegates, this is because the item was discussed in isolation from the "real" restoration issues, in particular REDD+ and biofuel production on degraded land, which are on the agenda of SBSTTA 16. For others, there had been little time since COP 10 for a broader analysis of the issue, in particular regarding linkages with the CBD thematic work programmes

and cross-cutting issues, as well as consultation with relevant international organizations, particularly on competing land uses. Some delegates further noted that, with few exceptions, work on the valuation of ecosystem services (which is required to comprehensively assess the impact on conservation and sustainable use) is still in its infancy, in particular with regard to valuing bundles of services rather than a single service such as carbon sequestration. Despite this low-profile start at SBSTTA 15, restoration can be expected to assume a higher profile in future CBD discussions as tensions regarding what should be considered "adequate" restoration will confront emerging technologies and growing private interest. More generally, the issue could move the CBD into the center of the emerging debate regarding the extent to which the global environment should be controlled, or even "designed," through human activity, thus entering the era of the "anthropocene."

SBSTTA IN THE RED QUEEN'S RACE

The discussion of synthetic biology, geo-engineering and "high-tech" restoration also pointed to some of the challenges faced by SBSTTA in the context of the Strategic Plan, namely the ability to address fast-developing technologies as emerging issues; and the need to improve dialogue with a broad range of scientists.

As the ETC Group noted, the cost of genome sequencing has decreased more than ten-fold since SBSTTA 14 in May 2010. Similar quick developments can be expected with regard to synthetic biology, propelling it from a niche technology to a mainstream application for biological processes. SBSTTA has a mandate and a process to address technological impacts on biodiversity as new and emerging issues. Keeping abreast of technological issues often resembles the Red Queen's race in *Alice in Wonderland*—a race in which "it takes all the running you can do to stay in the same place." SBSTTA's capacity to do so, however, is compromised by its already heavy agenda arising from the Multi-Year Programme of Work and the CBD's many work programmes and crosscutting issues. Opinions diverged whether SBSTTA should enhance its "early listening capacity," enabling it to alert the COP of such technological developments or concentrate on its core mandate, to advise the COP on "regular" CBD issues. Those who took the latter position suggested that this and other tasks could be delegated to other bodies, such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).

Equally important challenges comprise the engagement of the broader scientific community, also from the social sciences and indigenous and local communities (ILCs), in order to provide adequate advice on all aspects of the Aichi Targets, including socio-economic and cultural aspects. Technological issues cannot be assessed in isolation from questions of biodiversity values and public attitudes, and thus cannot be solved by the natural sciences alone. In addition, the knowledge and values of ILCs are yet to be integrated into the work of SBSTTA: the opportunities arising from the unprecedented back-to-back meeting with the Article 8(j) Working Group were not fully realized in Montreal, notwithstanding the overlapping agenda item on sustainable use. Questions related to indigenous taxonomic knowledge and the role of ILCs in restoration, sustainable use and inland water ecosystems were touched upon,

but not explored. This leaves SBSTTA to figure out a more effective way to cross-fertilize its work with that of the Article 8(j) Working Group, with a view to maximizing the use of this specific CBD forum that focuses not only on ILCs' concerns but also on their contributions to the Convention's objectives in a way that is unique among biodiversity-related scientific advisory bodies.

TRANSFORMATIVE UNDERCURRENTS

SBSTTA 15 has provided a first glimpse of the impact of the new Strategic Plan, including its potential to substantively transform CBD work both in terms of new issues, such as ecosystem restoration, and new approaches, by accelerating the move towards bottom-up implementation monitoring. Given these developments and in light of the extraordinary success of COP 10, some participants expect that COP 11 will be a "transition" COP on the road towards the Strategic Plan mid-term evaluation at COP 12. Others, however, think that it may be too early to tell since the global environmental landscape could change substantially in the coming months as a result of the second IPBES plenary to be held in April 2012 and the Rio+20 Conference to be held in June 2012. SBSTTA 16 will take stock of these developments, as well as address a number of highly controversial issues, such as geo-engineering and synthetic biology, over which controversy already surfaced at SBSTTA 15, but also biofuels and REDD-plus, which may relate to questions of land restoration. These issues could have a significant influence on the transformative undercurrents under the CBD in the next 3338 days.

UPCOMING MEETINGS

GEO-VIII: This will be the eighth session of the Group on Earth Observations (GEO-VIII), which is coordinating efforts to build a Global Earth Observation System of Systems. **dates:** 16-17 November 2011 **location:** Istanbul, Turkey **contact:** GEO Secretariat **phone:** +41-22-730-8505 **fax:** +41-22-730-8520 **email:** secretariat@geosec.org **www:** <http://www.earthobservations.org/geo8.shtml>

17th Meeting of the CMS Scientific Council: The 17th meeting of the Scientific Council of the Convention on Migratory Species (CMS) will precede the 10th meeting of the CMS Conference of the Parties. **dates:** 17-18 November 2011 **location:** Bergen, Norway **contact:** UNEP/CMS Secretariat **phone:** +49-228-815-2426 **fax:** +49-228-815-2449 **email:** secretariat@cms.int **www:** http://www.cms.int/bodies/ScC/17th_scientific_council/17th_ScC_documents.htm

CMS COP 10: The 10th meeting of the Conference of the Parties (COP 10) to the Convention on Migratory Species (CMS) will consider, *inter alia*: proposals on the organization and strategic development of the CMS Family; extension of the Agreement on the Conservation of Cetaceans in the Black Sea Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) area; merger of CMS and the Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS) Secretariat functions; and the Strategic Plan. **dates:** 20-25 November 2011 **location:** Bergen, Norway **contact:** UNEP/CMS Secretariat **phone:** +49-228-815-2426 **fax:** +49-228-815-2449 **email:** secretariat@cms.int **www:** <http://www.cms.int/>

bodies/COP/cop10/documents_overview.htm

MOP 2 of the CMS Agreement on the Conservation of Gorillas and their Habitats: The Second Meeting of the Parties (MOP 2) to the CMS Agreement on the Conservation of Gorillas and their Habitats will be held immediately after the CMS COP 10. **dates:** 26-27 November 2011 **location:** Bergen, Norway **contact:** UNEP/CMS Secretariat **phone:** +49-228-815-2426 **fax:** +49-228-815-2449 **email:** secretariat@cms.int **www:** http://www.cms.int/species/gorillas/mop2/mtg_docs/mtg_docs.html

UNFCCC COP 17 and COP/MOP 7: The 17th session of the UNFCCC Conference of the Parties (COP 17) and the seventh session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP 7) will continue negotiations for a post-2012 regime. **dates:** 28 November - 9 December 2011 **location:** Durban, South Africa **contact:** UNFCCC Secretariat **phone:** +49-228-815-1000 **fax:** +49-228-815-1999 **email:** secretariat@unfccc.int **www:** <http://unfccc.int/> or <http://www.cop17durban.com>

31st Standing Committee Meeting of the Bern Convention on the Conservation of European Wildlife and Natural Habitats: The meeting will address, among others, invasive alien species. **dates:** 29 November - 2 December 2011 **location:** Strasbourg, France **contact:** Council of Europe **phone:** +33-3-88-41-20-00 **www:** http://www.coe.int/t/dg4/cultureheritage/about/governance/TPVS_en.asp

Sixth World Water Forum: This Forum will focus on the theme "Solutions for Water." **dates:** 12-17 March 2012 **location:** Marseille, France **contact:** Secretariat **phone:** +33-4-95-09-01-40 **fax:** +33-4-95-09-01-41 **email:** secretariat@worldwaterforum6.org **www:** <http://www.worldwaterforum6.org/>

CITES AC 26: The 26th meeting of the CITES Animals Committee (AC) will address sharks, snakes, sturgeons, corals, and listing criteria for commercially exploited aquatic species. **dates:** 15-20 March 2012 **location:** Geneva, Switzerland **contact:** CITES Secretariat **phone:** +41-22-917-8139/40 **fax:** +41-22-797-3417 **email:** info@cites.org **www:** <http://www.cites.org/eng/com/AC/index.php>

CITES Scientific Committees Joint Meeting and PC 20: The joint meeting of the CITES Scientific Committees will address cooperation with other conventions, among other issues. The 20th meeting of the CITES Plants Committee (PC) will address timber issues and cooperation with other initiatives, among other issues. **dates:** 22-30 March 2012 **location:** Dublin, Ireland **contact:** CITES Secretariat **phone:** +41-22 917-8139/40 **fax:** +41-22-797-3417 **email:** info@cites.org **www:** <http://www.cites.org/eng/com/PC/index.php>

2nd Session of IPBES Plenary Meeting: The second session of the plenary meeting on an Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) will continue with the deliberations on the institutional arrangements and modalities. **dates:** April 2012 **location:** TBA **contact:** UNEP Secretariat **phone:** +254-20-762-5135 **email:** ipbes.unep@unep.org **www:** <http://ipbes.net/>

ICNP-2: The second meeting of the Intergovernmental Committee for the Nagoya Protocol on Access to Genetic Resources and Equitable Sharing of Benefits arising from

their Utilization (ABS) will consider guidance to the financial mechanisms and on resource mobilization, and the need for, and modalities of, a global multilateral benefit-sharing mechanism. **dates:** 9-13 April 2012 **location:** New Delhi, India **contact:** CBD Secretariat **phone:** +1-514-288-2220 **fax:** +1-514-288-6588 **email:** secretariat@cbd.int **www:** <http://www.cbd.int/meetings/>

CBD SBSTTA 16: The 16th meeting of the CBD Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 16) will address, *inter alia*, the in-depth review of the implementation of the work programme on island biodiversity, marine and coastal biodiversity, and biodiversity and climate change. **dates:** 30 April - 4 May 2012 **location:** Montreal, Canada **contact:** CBD Secretariat **phone:** +1-514-288-2220 **fax:** +1-514-288-6588 **email:** secretariat@cbd.int **www:** <http://www.cbd.int/doc/?meeting=SBSTTA-16>

WGRI 4: The fourth meeting of the CBD *Ad hoc* Open-ended Working Group on Review of Implementation (WGRI 4) will review implementation of the new Strategic Plan for Biodiversity (2011-2020), including the Aichi Targets. **dates:** 7-11 May 2012 **location:** Montreal, Canada **contact:** CBD Secretariat **phone:** +1-514-288-2220 **fax:** +1-514-288-6588 **email:** secretariat@cbd.int **www:** <http://www.cbd.int/meetings/>

UN Conference on Sustainable Development: The UNCED will mark the 20th anniversary of the UN Conference on Environment and Development, which convened in Rio de Janeiro, Brazil **dates:** 20-22 June 2012 (tentative new dates) **location:** Rio de Janeiro, Brazil **contact:** UNCED Secretariat **email:** uncsd2012@un.org **www:** <http://www.uncsd2012.org/>

Ramsar COP 11: The 11th meeting of the COP to the Ramsar Convention on Wetlands of International Importance will focus on the theme "Wetlands, Tourism and Recreation." **dates:** 19-26 June 2012 **location:** Bucharest, Romania **contact:** Ramsar Secretariat **phone:** +41-22-999-0170 **fax:** +41-22-999-0169 **email:** ramsar@ramsar.org **www:** <http://www.ramsar.org>

IUCN World Conservation Congress 2012: The Congress theme will be "Nature+," a slogan that captures the fundamental importance of nature and its inherent link to every aspect of people's lives. The Congress will explore nature+climate, nature+livelihoods, nature+energy and nature+economics. **dates:** 6-15 September 2012 **location:** Jeju, Republic of Korea **contact:** IUCN Congress Secretariat **phone:** +41-22-999-0336 **fax:** +41-22-999-0002 **email:** congress@iucn.org **www:** <http://www.iucnworldconservationcongress.org/>

CBD COP 11: The 11th meeting of the CBD COP will consider, among other items, the recommendations adopted at the fifteenth and sixteenth sessions of SBSTTA. **dates:** 8-19 October 2012 **location:** Hyderabad, India **contact:** CBD Secretariat **phone:** +1-514-288-2220 **fax:** +1-514-288-6588 **email:** secretariat@cbd.int **www:** <http://www.cbd.int/meetings/>

GLOSSARY

ABS	Access and Benefit-sharing
AHTEG	<i>Ad Hoc</i> Technical Expert Group
CAFF	Arctic Council Working Group on the Conservation of Arctic Flora and Fauna
CBD	Convention on Biological Diversity
CBMP	Circumpolar Biodiversity Monitoring Programme
CEE	Central and Eastern European countries
CHM	Clearing-house Mechanism
CITES	Convention on the International Trade in Endangered Species of Wild Fauna and Flora
COP	Conference of the Parties
EBSA	Ecologically and Biologically Significant Areas
GEF	Global Environment Facility
GRULAC	Group of Latin American and Caribbean Countries
GSPC	Global Strategy for Plant Conservation
GTI	Global Taxonomy Initiative
IAS	Invasive alien species
IIFB	International Indigenous Forum on Biodiversity
ILCs	Indigenous and local communities
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPPC	International Plant Protection Convention
NBSAP	National Biodiversity Strategy and Action Plan
NEAFC	North East Atlantic Fisheries Commission
OSPAR	Oslo and Paris Conventions for the Protection of the Marine Environment of the North-East Atlantic
PAs	Protected areas
PIC	Prior informed consent
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
SIDS	Small Island Developing States
SPS	Sanitary and phytosanitary measures
UNFCCC	United Nations Framework Convention on Climate Change
WTO	World Trade Organization