



Convention on Biological Diversity

Distr.
GENERAL

UNEP/CBD/SBSTTA/15/INF/6¹
22 September 2011

ORIGINAL: ENGLISH

SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE

Fifteenth meeting

Montreal, 7-11 November 2011

REPORT OF THE AD HOC TECHNICAL EXPERT GROUP ON INDICATORS FOR THE STRATEGIC PLAN FOR BIODIVERSITY 2011-2020

INTRODUCTION

1. The tenth meeting of the Conference of the Parties adopted the Strategic Plan for Biodiversity 2011-2020 (decision X/2) including the 20 Aichi Biodiversity Targets. It was agreed that the Strategic Plan would serve as a flexible framework for setting national/regional targets. Decision X/2 includes a timetable for the development and reporting of national/regional targets as well as the development of national/regional monitoring programmes to enable countries/regions to assess progress made towards their targets. At the same time, global monitoring and reporting, building on previously agreed indicators, the fourth edition of Global Biodiversity Outlook, and information submitted in the fifth national reports due in March 2014, would provide a mid-term review of the implementation of the Strategic Plan in conjunction with the evaluation of the Millennium Development Goals (decision X/4).
2. In decision X/7, the Conference of the Parties requested the Executive Secretary, subject to the availability of the necessary financial resources, to convene a meeting, at the earliest opportunity, of an Ad Hoc Technical Expert Group (AHTEG) on Indicators for the Strategic Plan for Biodiversity 2011-2020 and provided the terms of reference for the Group. The terms of reference for the AHTEG were detailed in paragraph 5 of decision X/7 and are contained in annex I of this document.
3. The AHTEG meeting took place from 20 to 24 June 2011 in High Wycombe, United Kingdom of Great Britain and Northern Ireland. It was convened with the generous financial support from the European Union.
4. The need for technical expertise in all areas covered by the Strategic Plan for Biodiversity 2011-2020, and the desire to enable engagement of the large number of interested stakeholders led to the proposal, endorsed by the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice, of organizing an International Expert Workshop in support of the AHTEG on Indicators for the Strategic Plan for Biodiversity 2011-2020. Contributions from Canada, the European Environment Agency, Norway, Switzerland and the United Kingdom enabled this workshop to be held at the same venue from 20 to 22 June 2011. It was designed to serve as a resource for the AHTEG meeting with a view to enabling the AHTEG to fulfil all aspects of the tasks assigned to it through decision X/7.

¹ Previously circulated as UNEP/CBD/AHTEG-SP-Ind/1/3.

ITEM 1. OPENING OF THE MEETING

5. The AHTEG meeting was opened by Robert Höft on behalf of the Executive Secretary of the Convention on Biological Diversity at 8.30 a.m. on Monday, 20 June 2011. In his statement, he welcomed the participants and noted the importance of this Ad Hoc Technical Expert Group (AHTEG) meeting. He noted the importance of the meeting in providing guidance to Parties as they identify national biodiversity targets and monitoring programmes in accordance with decision X/2. He thanked the European Union for generously sponsoring this meeting as well as all other Governments and organizations that supported participants.

6. Participants then introduced themselves, highlighting their specific interests in the meeting. Dr. Andrew Stott, on behalf of the United Kingdom of Great Britain and Northern Ireland, highlighted the importance of the ability to assess progress towards the Aichi Biodiversity Targets and the need to draw lessons from the 2010 experience, including the conclusions from the International Expert Workshop on the 2010 Biodiversity Indicators and Post-2010 Indicator Development held in Reading, United Kingdom, from 6-8 July 2009.

7. Anne Teller, on behalf of the European Union, emphasized the overarching nature of the Strategic Plan for Biodiversity 2011-2020, both for the implementation of the Convention on Biological Diversity and its programmes of work and for the way in which other conventions and processes contribute to the delivery of the biodiversity agenda. She said that for this reason the European Union continued to be interested in supporting the process of improving the ability to monitor biodiversity at all levels.

8. The meeting noted that participants from Colombia, Georgia, Senegal and Ukraine had been unable to join the AHTEG meeting due to last minute visa problems. The list of participants is contained in annex II to this report.

ITEM 2. ORGANIZATIONAL MATTERS

2.1. Adoption of the agenda

9. The Group adopted its agenda on the basis of the provisional agenda (UNEP/CBD/AHTEG-SP-Ind/1/1), noting that the four substantive items might be handled flexibly.

2.2. Election of officers

10. The Group elected Dr. Andrew Stott (United Kingdom) and Dr. Teresita Borges Hernandez (Cuba) as co-chairs for the meeting.

2.3. Organization of work

11. Under this item, the Group considered the proposed organization of work for the meeting. During the first three days of its meeting the Group accepted the invitation of the hosts and sponsors to take advantage of the International Expert Workshop in support of the AHTEG by assigning specific tasks to that Workshop and by joining its discussions. The Group also decided to convene after the International Expert Meeting closed during those first three days. On the remaining two days the Group agreed to conduct its deliberations in plenary.

12. Accordingly, the Group temporarily broke at 9.30 a.m. to join the Expert Workshop. It reconvened on 20 June from 5:30 to 6:15 p.m. as well as from 6 to 7 p.m. on 21 June. On 23 and 24 June the AHTEG convened throughout the day in Plenary.

ITEM 3 SUBSTANTIVE ISSUES

3.1 *Advice on the further development of indicators agreed through decisions VII/30 and VIII/15 and indicators suggested in documentation on the Strategic Plan for Biodiversity 2011-2020*

and

3.2 *Advice on additional indicators that have been, or could be, developed, where necessary, to constitute a coherent framework designed to assess progress towards targets of the Strategic Plan for Biodiversity 2011-2020*

13. Items 3.1 and 3.2 were discussed as a unit. A general introduction to the task was provided by Robert Höft who described past developments on monitoring and indicators and introduced the terms of reference for the AHTEG. Dr. Andrew Stott made a presentation in which he drew attention to considerations for an indicators framework. Damon Stanwell-Smith, from UNEP-WCMC, summarized comments received on the documents for the meeting.

14. The AHTEG had before it documents on Indicators for the Strategic Plan for Biodiversity 2011-2020 (UNEP/CBD/AHTEG-SP-Ind/1/2) and Possible indicators for the Strategic Plan for Biodiversity 2011-2020 (UNEP/CBD/AHTEG-SP-Ind/1/2/Add.1). It also had before it a number of information documents, including a report on the Adequacy of Biodiversity Observation Systems to Support the CBD 2020 Targets, prepared by the Group on Earth Observation Biodiversity Observation Network (GEO BON), IUCN and the UNEP-World Conservation Monitoring Centre (UNEP/CBD/AHTEG-SP-Ind/1/INF/1). The list of documents is contained in Annex III to this report.

15. In considering these items, the AHTEG, together with the International Expert Meeting, worked in groups and in plenary and considered the framework for indicators, operational indicators and their prioritization as well as their suitability for communication purposes. The outcomes and recommendations are contained in the substantive report on the meeting (annex IV to this report).

3.3 *Further guidance and options for the establishment of mechanisms to support Parties in their efforts to develop national indicators and associated biodiversity monitoring and reporting systems*

and

3.4 *Advice on the strengthening of linkages between global and national indicator development and reporting*

16. Items 3.3 and 3.4 were discussed as a unit. Philip Bubb, from UNEP-WCMC, introduced the report, commissioned by the Department for Environment, Food and Rural Affairs of the United Kingdom, on National Indicators, Monitoring and Reporting for Global Biodiversity Targets (UNEP/CBD/AHTEG-SP-Ind/1/INF/2). He reviewed the use of indicators in the fourth national reports to the Convention on Biological Diversity and introduced the indicator development framework developed through the series of regional capacity-building workshops carried out through the Biodiversity Indicators Partnership.

17. The AHTEG, together with the International Expert Meeting, worked in groups and in plenary and considered ways to support Parties in the development of national biodiversity monitoring programmes. It also considered reporting requirements and linkages between indicators across scales, and synergies with other relevant Multilateral Environmental Agreements and processes. The recommendations derived from these discussions are contained in the substantive report on the meeting (Annex IV to this report).

ITEM 4 OTHER MATTERS

18. No other matters were discussed.

ITEM 5. ADOPTION OF REPORT

19. At the plenary meeting on 24 June 2011, the AHTEG agreed that a draft report of the meeting would be prepared by 1 July and made available for review by the AHTEG members during a period of two weeks. Under the authority of the co-chairs a revised draft would be prepared, noting the need for AHTEG members to review the modifications made to the original draft. The revised draft would then be made available for wider peer review with a review process emulating the peer review of the Millennium Ecosystem Assessment. The final peer reviewed report would then be made available as an information document for the fifteenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice and could subsequently be published, for example in the CBD Technical Series.

ITEM 6. CLOSURE OF THE MEETING

20. Following the customary exchange of courtesies, the AHTEG meeting was closed at 5 p.m. on Friday, 24 June 2011 by Dr. Andrew Stott.

Annex I

TERMS OF REFERENCE OF THE AD HOC TECHNICAL EXPERT GROUP ON INDICATORS FOR THE STRATEGIC PLAN FOR BIODIVERSITY 2011-2020 (DECISION X/7)

5. *Requests* the Executive Secretary, subject to the availability of the necessary financial resources, to convene a meeting, at the earliest opportunity, of an Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020, which shall be established in accordance with the procedures outlined in the consolidated *modus operandi* of the Subsidiary Body on Scientific, Technical and Technological Advice,² with full participation by developing countries, in particular the least developed and small island developing States, as well as countries with economies in transition, taking into account the need to draw upon the experience of the members of the 2010 Biodiversity Indicators Partnership and relevant international organizations, also building on the outcomes of the Reading workshop,³ and to report to the Subsidiary Body on Scientific, Technical and Technological Advice at its fifteenth meeting, as most appropriate to contribute to the functions of this body and in particular to the timely implementation, monitoring and review of the Strategic Plan for Biodiversity 2011-2020 and the multi-year programme of work of the Conference of the Parties. The Ad Hoc Technical Expert Group has the following terms of reference:

(a) Provide advice on the further development of indicators agreed through decisions VII/30 and VIII/15 and the information contained in annex III of document note by the Executive Secretary on examination of the outcome-oriented goals and targets (and associated indicators) and consideration of their possible adjustment for the period beyond 2010 (UNEP/CBD/SBSTTA/14/10) as well as in the table provided in the note by the Executive Secretary on the Strategic Plan for Biodiversity: provisional technical rationale, possible indicators and suggested milestones for the Aichi Biodiversity Targets,⁴ where necessary in the context of the updated Strategic Plan for Biodiversity 2011-2020;

(b) Suggest additional indicators that have been, or could be, developed, where necessary, to constitute a coherent framework designed to assess progress towards targets of the Strategic Plan for Biodiversity 2011-2020, for which the current suite of indicators is not adequate, noting the lack of agreed indicators for ecosystem services, making use, where appropriate, of the indicators developed by other multilateral environmental agreements, organizations, or processes;

(c) Develop further guidance and propose options for the establishment of mechanisms to support Parties in their efforts to develop national indicators and associated biodiversity monitoring and reporting systems, in support of setting of targets, according to national priorities and capacities, and in the monitoring of progress towards them;

(d) Provide advice on the strengthening of linkages between global and national indicator development and reporting;

² Decision VIII/10, annex III.

³ <http://www.cbd.int/doc/meetings/ind/emind-02/official/emind-02-0709-10-workshop-report-en.pdf>

⁴ The updated note on provisional technical rationale, possible indicators and suggested milestones for the Aichi Biodiversity Targets is available as UNEP/CBD/COP/10/27/Add.1.

Annex II

LIST OF PARTICIPANTS

Parties and other Governments

Bolivia

Mr. Ivan Zambrana
Jefe de Unidad de Biodiversidad y Recursos
Genéticos
Viceministerio de Medio Ambiente
Ministerio de Desarrollo Rural,
Agropecuaria y Medio Ambiente
Loayza Edif. Lara Bisch
La Paz
Bolivia
E-Mail: izambrana@gmail.com

Bulgaria

Ms Neli Mutafova
Senior Expert
EU Affairs and IC Directorate,
International Cooperation Department
Ministry of Environment and Water
67, William Gladstone Str.
Sofia 1000
Bulgaria
Tel.: +359 2 940 6258
Fax: +359 2 987 3867
E-Mail: n.mutafova@moew.government.bg

Canada

Ms. Patricia Hayes
Senior Science Advisor
Ecosystems and Biodiversity Priorities
Environment Canada
401 Burrard Street, 6th Floor
Vancouver, BC V6C 3S5
Canada
Tel.: +604 664 9333
E-Mail: trish.hayes@ec.gc.ca

China

Dr. Xu Haigen
Deputy Director General, Professor
Nanjing Institute of Environmental Sciences
Ministry of Environmental Protection
8 Jiang-Wang-Miao St., P.O. Box 4202
Nanjing 210042
China
Tel.: +86 25 852 87 081
E-Mail: xugh@sina.com, xhg@nies.org

Colombia (could not attend)

Mr. Juan Carlos Bello Silva
Senior Programme Officer
Global Biodiversity Information Facility
Agropecuaria y Medio Ambiente
GBIF Secretariat
Universitetsparken 15
Copenhagen 2100
Denmark
Tel.: +4532985877
E-Mail: bellojuan@gmail.com

Cuba

Dr. Teresita Borges Hernandez
Ministerio de Ciencia,
Tecnología y Medio Ambiente
18A esq. 41 Playa
Ciudad de la Habana
Cuba
Tel.: +537 204 9460
Fax: +537 86 68054
E-Mail: borges@citma.cu,
teresita.borges@infomed.sld.cu

Democratic Republic of the Congo

Dr. Trinto Mugangu
Expert en Biodiversité
Assemblée Nationale
73 Rue Maindombe
C/Kintambo
Kinshasa
Democratic Republic of the Congo
Fax: +1 512 519 1423
E-Mail: trintomugangu@yahoo.com

European Union

Mrs. Anne Teller
Policy Officer for Biodiversity
DG Environment
European Commission
Avenue de Beaulieu 5
Brussels B-1049
Belgium
Tel.: +32 2 29 93 856
E-Mail: anne.teller@ec.europa.eu

Georgia (could not attend)

Mrs. Anna Rukhadze
Chief Specialist
Biodiversity Protection Service
Ministry of Environment Protection
5 Gulua Street
Tbilisi 0114
Georgia
Tel.: +995 32 72 72 31/32
Fax: +995 32 72 72 31
E-Mail: anarukhadze@yahoo.com,
biodepbio@moe.gov.ge

Japan

Ms. Kumiko Yoneda
Senior Research Scientist
Japan Wildlife Research Center
3-10-10 Shitaya, Taito-ku
Tokyo 110-8676
Japan
Tel.: +81 3 5824 0963
Fax: +81 3 5824 0964
E-Mail: kyoneda@jwrc.or.jp

Malaysia

Dr. Saw Leng Guan
Senior Director
Forest Biodiversity Division
Forest Research Institute Malaysia
Kepong
Selangor
Kuala Lumpur 52109
Malaysia
Tel.: +603-62797218
Fax: +603-62797858
E-Mail: sawlg@frim.gov.my
navarani@nre.gov.my

Mozambique

Ms. Emilia Veronica Lazaro Polana
Environmental Technician
Ministry for Coordination of Environmental
Affairs
Av. Acordos de Lusaka No.2115
P.O. Box 2020
Maputo
Mozambique
Tel.: +25821465299
Fax: +25821465849
E-Mail: epolana@yahoo.com.br,
vepolana@gmail.com

Nepal

Mr. Krishna Chandra Paudel
Director General
Department of Plant Resources
Ministry of Forests and Soil Conservation
P.O. Box 5014
Singha Durbar
Kathmandu
Nepal
Tel.: +977 1422 4892; 977-1-422-0067
Fax: +977-1-4211798;
E-Mail: kcpaudel@hotmail.com

Netherlands

Mr. Ben ten Brink
Planbureau voor de Leefomgeving
Department of Nature,
Landscape and Biodiversity
PO Box 303
Bilthoven 3720 AH
Netherlands
Tel.: +3130 274 22 10
E-Mail: ben.tenbrink@pbl.nl

New Zealand

Dr. Geoff Hicks
Chief Scientist
Department of Conservation
PO Box 10-420
Wellington 6143
New Zealand
Tel: +64 4471 3063
Fax: +64 4381 3057
E-Mail: ghicks@doc.govt.nz

Sénégal (could not attend)

M. Lamine Kane
Conseiller Technique
Parcs Nationaux
Ministère de l'Environnement et de la Protection de
la Nature
Building Administratif, 2ème étage, pièce 213
BP: 4055
Dakar
Senegal
E-Mail: kanelamine@hotmail.com

Singapore

Dr. Lena Chan
Deputy Director
National Biodiversity Centre
National Parks Board
Singapore Botanic Gardens
1 Cluny Road
Singapore 259 569
Singapore
Tel.: +65 6465 1696
Fax: +65 6465 5196
E-Mail: Lena_Chan@nparks.gov.sg

Ukraine (could not attend)

Ms Yuliya Bondarenko
Chief Specialist
Directorate of Biodiversity,
Land Protection and EcoNet
Ministry of Environmental Protection of Ukraine
35 Uritskogo Street
Kyiv 03035
Ukraine
Tel.: +38 044 206 3153
Fax: +38 044 206 3153
E-Mail: bondarenko@menr.gov.ua

United Kingdom of Great Britain and Northern Ireland

Dr. Andrew Stott
Head of Biodiversity Evidence
Department for Environment,
Food and Rural Affairs
Temple Quay House
Bristol BS1 6EB
United Kingdom
Tel.: +44 117 372 3583
E-Mail: andrew.stott@defra.gsi.gov.uk

United States of America

Dr. Douglas Beard
Interim Director, National Climate Change and
Wildlife Science Center
U.S. Geological Survey
U.S. Department of Interior
12201 Sunrise Valley Drive
Reston VA 20192
United States of America
Tel.: +(703) 648-4215
Fax: + (703) 648-4224
E-Mail: Dbeard@usgs.gov

United Nations and Specialized Agencies

Food and Agriculture Organization of the United Nations (FAO)

Ms. Linda Collette
Secretary
Commission on Genetic Resources for Food and
Agriculture
Natural Resources and Environment Department,
Food and Agriculture Organization of the United
Nations
Viale delle Terme di Caracalla
Rome, Italy
Tel.: 0039-0657052089
Fax: 0039-06-57053057
E-Mail: linda.collette@fao.org

Secretariat of the Convention on Biological Diversity

Robert Höft
Environmental Affairs Officer
Secretariat of the Convention on Biological
Diversity
413, Saint Jacques Street, suite 800
Montreal, Canada, QC H2Y 1N9
Te.: +1-514-287-7028
E-Mail: robert.hoft@cbd.int

Secretariat of the Convention on Biological Diversity

Kieran Mooney
Programme Assistant
Secretariat of the Convention on Biological
Diversity
413, Saint Jacques Street, suite 800
Montreal, Canada
QC H2Y 1N9
Te.: +1-514-287-8721
E-Mail: kieran.mooney@cbd.int

United Nations Convention to Combat Desertification (UNCCD)

Dr. Victor Castillo Sanchez
Programme Officer
Knowledge Management, Science and Technology
United Nations Convention to Combat
Desertification
Mailing: UNCCD Secretariat,
P.O. Box 260 129
Main Office: Hermann-Ehlers-Str. 10
Bonn

**United Nations Environment Programme -
World Conservation Monitoring Centre
(UNEP-WCMC)**

Dr. Matt Walpole
Head, Ecosystem Assessment Programme
219 Huntingdon Road
Cambridge CB3 0DL
United Kingdom of Great Britain and Northern
Ireland
Tel.: +44 1223 277314 ext 285
Fax: +44 1223 277136
E-Mail: Matt.Walpole@unep-wcmc.org

Germany
Tel.: +49 228 815 2865
Fax: +49 228 815 2898
E-Mail: vcastillo@unccd.int

Inter-Governmental Organizations**Biodiversity MEAs**

Prof. Nick Davidson
Biodiversity MEAs
Gland
Switzerland
Tel.: +41 22 999 0171
Fax: +41 22 999 0169
E-Mail: davidson@ramsar.org

**Organization for Economic Co-operation and
Development (OECD)**

Ms. Katia Karousakis
Administrator
Climate Change, Biodiversity and Development
Division
Organization for Economic Co-operation and
Development
2, rue André Pascal
Paris Cedex 16
France
Tel.: (+33 1) 45 24 98 83
Fax: (+33 1) 44 30 61 84
E-Mail: katia.karousakis@oecd.org,

**Secretariat of the Pacific Regional
Environment**

Mr. Bruce Jefferies
Secretariat of the Pacific Regional
Environment Programme
P.O. Box 240
Apia
Samoa
Tel.: +685 21929 ext 267
E-Mail: brucej@sprep.org

**IUCN - International Union for Conservation of
Nature**

Dr. Josephine Langley
Network Coordinator, Core Programme Area -
Conserving Biodiversity
Rue Mauverney 28
Gland 1196
Switzerland
Tel.: +41 22 999 0157
Fax: +41 22 999 0002
E-Mail: josephine.langley@iucn.org

Non-Governmental Organizations**BirdLife International**

Dr. Stuart Butchart
BirdLife International
Wellbrook Court
Girton Road
Cambridge CB3 0NA
United Kingdom of Great Britain and
Northern Ireland
Tel.: +44 1223 277800

Society for Ecological Restoration

Mr. Sasha Alexander Juanteguy
Program Director
Society for Ecological Restoration
1017 O Street, NW
Washington, DC 20001
United States of America
Tel.: +1 202 299 9518
Fax: +1 270 626 5485

Fax: +44 1223 277200

E-Mail: stuart.butchart@birdlife.org

E-Mail: sasha@ser.org

GEO BON

Dr. Henrique Miguel Pereira
Centro de Biologia Ambiental
Faculdade de Ciências da Universidade de
Lisboa
Campo Grande
1749-016 Lisboa,
Portugal
E-Mail hpereira@fc.ul.pt

Stockholm Resilience Center and DIVERSITAS

Prof. Thomas Elmqvist
Professor
Stockholm University
SE 10691 Stockholm
Sweden
Tel.: +46-8 16 20 00
E-Mail: thomase@ecology.su.se

WWF International

Mr. Jonathan Loh
Monitoring and Measures Specialist
WWF International
Av. du Mont-Blanc
Gland
Switzerland
Tel.: + 44 17 30 89 25 18
E-Mail: jonathan@livingplanet.org.uk

Indigenous and Local Community Organization

**Tebtebba Indigenous Peoples'
International Centre for Policy Research
& Education (Tebtebba)**

Mrs. Jocelyn Carino
Team Leader
Indigenous Peoples Capacity Building Project
for CBD Implementation
Tebtebba Indigenous Peoples' International
Centre for Policy Research & Education
no 1 Roman Ayson Road
Baguio City 2600
Philippines
Tel.: +44 1367 718 889
E-Mail: tongtong@gn.apc.org,
joji@tebtebba.org

Annex III

**DOCUMENTATION FOR THE MEETING OF THE AD HOC TECHNICAL EXPERT
GROUP MEETING ON INDICATORS FOR THE STRATEGIC PLAN FOR
BIODIVERSITY 2011-2020**

<i>Symbol</i>	<i>Title</i>
UNEP/CBD/AHTEG-SP-Ind/1/1	Provisional agenda
UNEP/CBD/AHTEG-SP-Ind/1/1/Add.1	Annotated provisional agenda
UNEP/CBD/AHTEG-SP-Ind/1/2	Indicators for the Strategic Plan for Biodiversity 2011-2020
UNEP/CBD/AHTEG-SP-Ind/1/2Add.1	Compilation of possible indicators for the Strategic Plan for Biodiversity 2011-2020
UNEP/CBD/AHTEG-SP-Ind/1/INF/1	Adequacy of Biodiversity Observation Systems to support the CBD 2020 Targets
UNEP/CBD/AHTEG-SP-Ind/1/INF/2	National indicators, monitoring and reporting for the Strategic Plan for Biodiversity 2011-2020
UNEP/CBD/AHTEG-SP-Ind/1/INF/3	Possible indicators for water and water related ecosystem services for the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets
UNEP/CBD/AHTEG-SP-Ind/1/INF/4	Monitoring biodiversity conservation in cities with the Singapore Index on Cities' Biodiversity
UNEP/CBD/AHTEG-SP-Ind/1/INF/5	The Union for Ethical BioTrade Biodiversity Barometer
UNEP/CBD/AHTEG-SP-Ind/1/INF/6	Making biodiversity safeguards for REDD+ work in practice
UNEP/CBD/AHTEG-SP-Ind/1/INF/7	SEBI (Streamlining European Biodiversity Indicators) - lessons learned from a regional process
UNEP/CBD/AHTEG-SP-Ind/1/INF/8	The Biotrade Impact Assessment System
UNEP/CBD/AHTEG-SP-Ind/1/INF/9	Indicators for monitoring the implementation of the convention's strategy for resource mobilization and their application
UNEP/CBD/AHTEG-SP-Ind/1/INF/10	Preliminary proposal for a CBD indicator for taxonomy

UNEP/CBD/COP/10/27/ADD.1	Strategic Plan for Biodiversity 2011-2020 – Provisional Technical Rationale, Possible Indicators and Suggested Milestones for the Aichi Biodiversity Targets.
UNEP/CBD/COP/10/INF/12/Rev.1	Strategic Plan for Biodiversity 2011-2020 – Further information related to Technical Rationale for Aichi Biodiversity Targets, Including Potential Indicators and Milestones.
CBD Technical Series No. 58	Developing Ecosystem Service Indicators: experiences and lessons learned from sub-global assessments and other initiatives
CBD Technical Series No. 53	Biodiversity indicators and the 2010 Target: Experiences and lessons learnt from the 2010 Biodiversity Indicators Partnership.
Biodiversity Indicators Partnership	Guidance for National Biodiversity Indicator Development and Use (also available in French and Spanish)

Annex IV

INDICATORS FOR THE STRATEGIC PLAN FOR BIODIVERSITY 2011-2020

EXECUTIVE SUMMARY

Pursuant to the request in decision X/7 (paragraph 5) the Executive Secretary convened an Ad hoc Technical Expert Group (AHTEG) meeting to provide guidance for monitoring the implementation of the Strategic Plan for Biodiversity 2011-2020. The meeting was held at Uplands Conference Centre in High Wycombe, Bucks, United Kingdom from 20 to 24 June 2011. From 20 to 22 June the Ad Hoc Technical Expert Group was supported by an International Expert Meeting.

The Group agreed that a framework for communicating biodiversity information should respond to the following questions: How is the status of biodiversity changing? (*state* – broadly relating to Strategic Goal C); Why are we losing biodiversity? (*pressures and underlying causes*– broadly relating to Strategic Goal B); What are the implications? (*benefits* – broadly relating to Strategic Goal D); and What do we do about it? (*responses* – broadly relating to Strategic Goals A and E). The group also noted that the Aichi Biodiversity Targets of the Strategic Plan for Biodiversity 2011-2020 imply responses at multiple levels.

The Group developed a set of 12 headline indicators around these questions, under which operational indicators could be organized (e.g. for communication to decision-makers), noting that each headline indicator covers several sub-topics for which distinct metrics are required. The Group listed a number of operational indicators and categorized them as: A - global priority and ready for use (22 indicators); B - priority for development at global level (36 indicators); C –for consideration at sub-global level (39 indicators). The list of indicators that is not considered to be a priority globally could be expanded, taking into account ongoing processes of partner organizations and the experience of Parties at regional, national and sub-national levels. The global priority lists A and B could be further refined and could also be reviewed periodically to allow for adjustments in line with other processes. A table providing further details about the operational indicators is accessible from <http://www.cbd.int/doc/meetings/ind/ahteg-sp-ind-01/official/ahteg-sp-ind-01-03-add1-en.xls>.

The indicators previously agreed for assessing progress towards the 2010 target of a significant reduction in the rate of biodiversity loss (decisions VII/30 and VIII/15) should continue to be developed and used with minor modifications.

It will be essential that countries with limited capacities for developing and applying indicators based on national data and monitoring are enabled to carry out the monitoring activities that are considered a priority at national level. This will imply the need for financial resources and technical support. The organizations involved in the Biodiversity Indicators Partnership and in the Group on Earth Observations Biodiversity Observation Network (GEO BON) could have a key role in assisting countries to develop appropriate monitoring programmes and indicators, subject to the availability of financial resources.

In accordance with decision X/2, Parties to the Convention have committed to reporting information on progress made towards targets adopted at the national level in their fifth national report which is due in March 2014. The strategic goals, Aichi Biodiversity Targets and proposed indicator framework provide a flexible framework for Parties to be adapted taking into account national priorities and circumstances. For most headline indicators it would be expected that countries will use different metrics and methodologies for their indicators depending on national targets and available data and methods. Where quantitative trend information relating to themes and headline indicators is reported by Parties it could be aggregated globally in the form of qualitative change (e.g. number of indicators showing improving trends). Where a significant number of countries use comparable data and methods a quantitative analysis of trends may be possible.

The Group concluded that there is a reasonably good basis for monitoring biodiversity globally but that significant investments will be necessary to enable countries with limited capacities to establish adequate biodiversity monitoring systems and indicators.

OBSERVATIONS AND RECOMMENDATIONS FROM THE GROUP

Use of indicators for the Strategic Plan, including framework and proposed global indicators

1. The Conference of the Parties requested the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 to suggest indicators that have been, or could be, developed, where necessary, to constitute a coherent framework designed to assess progress towards targets of the Strategic Plan for Biodiversity 2011-2020 (decision X/7, paragraph 5 (b)).
2. In considering this issue the Group noted that the suite of indicators for the Strategic Plan for Biodiversity fulfils multiple purposes:
 - (a) They help to change the way in which decisions are made: a small number of easily understood indicators that have a high impact would be particularly suitable for this purpose;
 - (b) They serve to assess progress in the achievement of the Strategic Plan for Biodiversity 2011-2020 at the global level;
 - (c) They assist Parties to monitor and review the implementation of their national biodiversity strategies and action plans in accordance with the Strategic Plan and their national targets, including at sub-national level as appropriate; and
 - (d) They may serve as a tool for promoting synergies and mainstreaming between biodiversity-related multilateral agreements, with other sectors and with the emerging Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES).
3. For each of these purposes a different sub-set of the indicators would be particularly well suited.
4. The meeting agreed that the framework to monitor progress towards the implementation of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets should be scientifically sound, that is provide logical linkages between its elements that enable coherent analyses, but also easy to communicate. In addition the meeting observed that the framework should be flexible enough to facilitate its use at the sub-global level and by different stakeholders.
5. To ensure its work was policy relevant the Group focused on four overarching policy questions which link to the goals of the Strategic Plan and which are loosely based on the DPSIR (driver-pressure-state-impact-response) model (see conceptual model in Appendix I). The questions are:
 - (a) How is the status of biodiversity changing? (*state*);
 - (b) Why are we losing biodiversity? (*pressures and underlying causes*);
 - (c) What are the implications of biodiversity loss? (*benefits*);
 - (d) What do we do about biodiversity loss? (*responses*).
6. For each of the policy questions a series of headline indicators were developed in order to structure the information required to provide the answers to policymakers, linking to the goals of the Strategic Plan. In total 12 headline indicators were developed around these questions, under which operational indicators could be organized (e.g. for communication to decision-makers), noting that each headline indicator covers several sub-topics for which distinct metrics are required. The sub-topics cover key issues which it will be important to monitor and communicate in order to assess and report on the state of progress towards the 2020 Mission of the Strategic Plan (see the relationship between the headline indicators and indicator sub-topics in Appendices II and IV). Each of the 12 headline indicators has at least one, but in most cases several operational indicators associated with it. The operational indicators are the metrics, methods and analytical frameworks through which progress will actually be measured (See Appendix III). The meeting determined that some operational indicators may be relevant and capable of application at all scales (global – regional – national - sub-national), whereas others are relevant or

limited by data to particular scales. The meeting developed a list of 97 operational indicators. The meeting then divided these indicators into three categories:

- (A) Priority and ready for use globally (22 indicators);
- (B) Priority to be developed at global and sub-global level (36 indicators);
- (C) For consideration at sub-global level (39 indicators).

7. The first group (A) of indicators represent those which have data, a methodology and have been peer reviewed and/or published. While some of these indicators could benefit from more robust data to fill information gaps, they can currently be used to assess progress towards the Strategic Plan at the global level. The second group (B) of indicators represent those which could be developed in time to assess progress towards the Strategic Plan at the global level and are urgently required to fill gaps in the assessment framework. While many of these indicators require further development to be applicable globally and across multiple ecosystems, several can currently be used to assess progress in the implementation of the Strategic Plan for certain components of biodiversity. Many of the indicators in these first two groups could be disaggregated or re-calculated for use at the sub-global level as well, depending on available data. The third group (C) of indicators represent those which could be useful at the sub-global level, depending on particular needs and circumstances, but which would be difficult to use to assess progress globally given limited data availability and comparability issues (The relationship between the headline indicators, operational indicators and Aichi Biodiversity Targets is presented in Appendix V).

8. All targets, except Target 1 (awareness about values of biodiversity) have at least one proposed operational indicator associated with them at the global level, though for Target 16 (access and benefit-sharing) the operational indicator is as yet undefined. Each indicator in Appendix VI is listed against the targets it is related to. Many indicators are relevant to several targets, including frequently to targets under different Strategic Goals. Furthermore several of the indicators identified are currently being used by other conventions or processes including UNCCD, CITES, CMS and the Millennium Development Goals (MDGs).

9. Generally, the indicators under Strategic Goals A, D and E require the most attention with regard to the further development of the indicators framework. Given the different elements (policy questions, headline indicators, indicator sub-topics and operational indicators) developed by the meeting, the framework can be presented in a number of ways depending on specific needs. In addition in Appendix VII the AHTEG identified global indicators which could be particularly useful from a communications perspective. A table listing the different information sources for each of the indicators, as well as their status of development and other relevant information is accessible from <http://www.cbd.int/doc/meetings/ind/ahteg-sp-ind-01/official/ahteg-sp-ind-01-03-add1-en.xls>.

10. Indicators, particularly those on trends to establish performance, require that initial baselines be established to provide a reference point against which gains or losses can be assessed.

11. The Group made the following recommendation:

Recommendation 1:

The indicator framework (consisting of a conceptual model, policy questions, headline indicators, indicator sub-topics and prioritised operational indicators) provides a sufficient basis to assess progress in the achievement of the Strategic Plan for Biodiversity 2011-2020 at various scales, from global to regional, national, sub-national and local. It should be applied flexibly for specific purposes and be considered as guidance for Parties and other Governments in the development or refinement of their monitoring and assessment systems to support the development and implementation of National Biodiversity Strategies and Action Plans (NBSAPs) as well as implementation of the Strategic Plan for Biodiversity 2011-2020.

Rationale:

The conceptual model, policy questions and 12 headline indicators are likely to be of wide relevance and may be used as guidance for Parties in developing their own monitoring and assessment frameworks. The use of a common framework by different Parties will improve the scope for regional and global assessments

The proposed conceptual model has already been tested by the Biodiversity Indicators Partnership to link indicators so as to create a more informative set that can better guide policy. Equally many of the global indicators have already been previously agreed and used, including in the third edition of Global Biodiversity Outlook and/or are being used by other Conventions and processes.

The indicator framework could be further refined depending on how it will be used. Indicators can serve multiple purposes at all scales. Some indicators are more useful for communicating with external audiences, others are more useful for internal reviews of implementation and others can facilitate linkage across scales and mainstreaming with other sectors, international agreements and processes. There is no limit to the number of indicators that could be listed.

For the list of operational indicators prioritized for use at the global level (categories A and B), the intention was to identify a limited number of indicators that together would provide information on all targets, noting that many indicators are relevant to multiple targets and that many targets have multiple elements which need to be assessed and also noting that several indicators are based on the same underlying data. In addition many of the indicators rely on the same essential variables and could be further refined if desired. The list in category C should be considered open with additional guidance on indicators in use at regional and national level contained, for example, in the report on National Indicators, Monitoring and Reporting for Global Biodiversity Targets (UNEP/CBD/AHTEG-SP-Ind/1/INF/2).

The indicators can also be applied flexibly as guidance for monitoring biodiversity at the sub-national level. In this context it is noted that decision X/22 endorses the Plan of Action on Subnational Governments, Cities and Other Local Authorities for Biodiversity and invites Parties to involve them when revising their NBSAPs.

Adjustments to global indicators agreed in decision VII/30

12. The Conference of the Parties requested the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 to provide advice on the further development of indicators agreed through decisions VII/30 and VIII/15 (decision X/7, paragraph 5 (a)).

13. The meeting, recognizing the large amount of resources and efforts that have been invested in the indicators agreed through decisions VII/30 and VIII/15, decided to retain most of the indicators already agreed. However in some cases changes to the wording of the indicators were required to bring them in line with the language of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets. In addition in a few cases the meeting also decided to subsume some indicators under broader headings or to disaggregate indicators into several in order to facilitate reporting at a global level. Appendix VIII illustrates the relationship between the indicators agreed through decisions VII/30 and VIII/15 and those discussed by the AHTEG.

Support for national biodiversity monitoring and reporting

14. The Conference of the Parties requested the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 to develop further guidance and propose options for the establishment of mechanisms to support Parties in their efforts to develop national indicators and associated biodiversity monitoring and reporting systems, in support of setting of targets, according to national priorities and capacities, and in the monitoring of progress towards them (decision X/7, paragraph 5 (c)).

15. The Group considered that the adoption of the Strategic Plan for Biodiversity and the commitment by Parties both to: (a) develop national and/or regional targets, using the Strategic Plan and

its Aichi Biodiversity Targets as a flexible framework; and (b) report on progress and achievements in 2012 and early 2014, present significant opportunities for the provision of coherent guidance and the establishment of comparable systems (data sets, indicator methodologies and reporting) across a range of countries. It would be important to demonstrate to countries that there are benefits in applying the same indicators including better technical support on their development, additional data available from disaggregating global or regional data sets, greater interest from stakeholders to contribute data, comparability of data and trends, and better ability to interpret observed trends in light of trends in other countries/regions.

16. The Group made the following specific recommendations:

Recommendation 2:

Parties to the CBD should use the Strategic Goals and the Aichi Biodiversity Targets of the Strategic Plan for Biodiversity 2011-2020 and the proposed indicator framework **as a flexible framework to help develop indicators to monitor and review the implementation of their updated NBSAPs**, according to national needs and priorities, and taking into account the potential use of indicators at sub-national, regional and global scales.

Rationale:

The Strategic Plan for Biodiversity 2011-2020 (decision X/2) urges Parties and other Governments to update their NBSAPs, including the adaptation of the Aichi Biodiversity Targets at the national or regional level and monitoring and review of implementation using the set of indicators developed for the Strategic Plan as a flexible framework. Parties agreed to report on progress including the use of indicators in their fifth and sixth national reports. Seeking consistency and aggregation of indicators across scales has been recommended by many regional and national indicator workshops and initiatives. This can be facilitated by emphasizing the development of scalable indicators.

Recommendation 3:

Countries, especially those with limited resources (and not yet using systematically produced indicators in their official reports) are encouraged **initially to establish a few simple indicators for priority issues** identified within their national biodiversity strategies and action plans and in line with the Aichi Biodiversity Targets, to demonstrate the benefits of indicators and build support for their use for other issues. Ideally this should be done with a view to **progressively identify and adopt a few commonly used indicators that are based on consistent/standardized methodologies and data sets**, including those that are commonly used based on existing international data collection.

Rationale:

The adoption and reporting of the Aichi Biodiversity Targets or of the corresponding national targets requires a step-change in the mode of implementation of the Convention on Biological Diversity, in terms of defining for the first time measurable targets and reporting on progress. Where the use of indicators is not an established part of decision-making and reporting it may be beneficial to demonstrate their value for issues of high national priority. A stepwise approach could involve:

- Step 1. Parties start to do what can be done immediately (including process-type indicators and indicators based on expert judgment or those available from global or regional data sources – Recommendation 2) to assess priority issues;
- Step 2. Parties gradually develop additional indicators with a view to reporting on these in line with the schedule laid out in decision X/2.

The desire to develop or enhance national/regional monitoring programmes in line with the Strategic Plan for Biodiversity 2011-2020 provides an opportunity to make a significant step towards a common set of indicators. By using the same indicators across a large number of countries significant advantages could be achieved:

- (i) capacity support could focus on a limited number of indicators;
- (ii) guidance for these indicators could be prioritized;
- (iii) indicators could be aggregated up from national to global scale, thereby maximizing their utility and policy impact;
- (iv) data collection efforts would focus on informing the indicators leading to increasingly comprehensive data sets;
- (v) existing international data gathering and collation efforts (such as remotely sensed information or agreed processes like the FAO Global Forest Resources Assessment) would complement and support national data collection efforts and global data sources could thus serve to inform national processes;
- (vi) mainstreaming indicator development, including the involvement of national statistical offices, would be facilitated thereby mobilizing national data sources for the global process.

It should be noted that the United Nations Statistics Division and national statistics offices are increasingly seeking to include environmental and biodiversity information in their work.

Recommendation 4:

Countries not yet using systematically-produced indicators for biodiversity should be encouraged to **establish or identify a facilitator** (individual, committee, agency or mechanism) **to promote and coordinate the collection and production of national biodiversity information** and to make it publicly available.

Rationale:

The existence of a body, or even an individual, with the role of promoting and co-ordinating the collection, analysis and communication of national biodiversity information results in a fundamental improvement in the information available to support implementation of the Strategic Plan for Biodiversity 2011-2020 as well as the implementation of other biodiversity-related conventions and agreements.

Recommendation 5:

Relevant organizations, including funding bodies, should encourage and support the long-term monitoring and reporting of priority information, including by promoting the development or strengthening of ‘communities of practice’ on biodiversity monitoring and by ensuring that available data at all scales are made publicly available. It will be critical to gradually **increase the capacity for producing and communicating information**, including indicators. Resources should be mobilized to **share the expertise with and amongst countries** that have less capacity. **Public involvement in recording observations (‘citizen science’)** should also be **strengthened and recognized**, keeping in mind the need for quality control.

Rationale:

National adaptation of, and reporting of progress towards, the twenty Aichi Biodiversity Targets require a range of expertise and information, and sometimes new ways of working (e.g. integrating biodiversity values into national accounts), which few countries are likely to have in place in the short term. However, by sharing experiences amongst the countries and involving, as appropriate, representatives of the scientific and development community, it will be possible to cover the wide range of issues in the Strategic Plan for Biodiversity 2011-2020. ‘Communities of Practice’ for individual Aichi Biodiversity Targets and cross-cutting issues, operating within countries, regions and globally can provide necessary practical advice and encouragement, including the dissemination of lessons learned and solutions to problems. Capacity-building activities could for example:

- (i) develop capacities for the gathering and making publicly accessibility of data at **all scales**, using internet resources as appropriate;
- (ii) involve stakeholders at all levels including governments, NGOs, academic bodies and business;

- (iii) be linked to the process of revising/updating national biodiversity strategies and action plans;
- (iv) include a range of approaches such as peer-to-peer learning, technical training, expert exchanges, technical expert visits, and on-line support;
- (v) offer services from international organizations such as IUCN, UNEP-WCMC, UNDP and members of the Biodiversity Indicators Partnership and GEO BON

Recommendation 6:

Technical guidance materials for capacity building and support to Parties for the further development of indicators and monitoring and reporting systems **should be compiled and provided in an accessible manner**. Guidance, reference materials, examples of indicator methods and use could be compiled in a **toolkit** which should be used for, and further developed through, technical support activities.

Rationale:

Given the breadth of subjects covered by the Aichi Biodiversity Targets, and the current lack of relevant national indicators in many countries, guidance is needed for Parties to help them assess the relevance and practicality of using the framework of indicators in a flexible way for possible application at national and regional scales.

Co-ordinated initiatives, such as the Biodiversity Indicators Partnership and the GEO BON, have generated a wealth of experience and learning resources and facilitated links between the competent national authorities to the scientific and data-provider communities as well development agencies. Indicator developers, reporting organizations and scientific bodies, from national to global scales, should collaborate to jointly contribute to a toolkit on resources for biodiversity indicators, building on existing materials accessible from the Biodiversity Indicators Partnership websites⁵ as well as case studies⁶. The toolkit should include examples demonstrating the utility of indicators for decision-making and how they facilitate reporting. It should also include guidance on a minimum set of key data that could be collected or mobilized in support of producing indicators for national targets and their integration in national biodiversity strategies and action plans. Guidance is also needed to show that high utility and policy impact can be achieved with a small number of indicators and at limited additional cost, particularly by drawing on available data. Furthermore, the toolkit should include guidance to Parties on the relevance and practicality at national and regional scales of the global indicators recommended by the AHTEG for the Strategic Plan for Biodiversity 2011-2020.

Recommendation 7:

There is a need for **guidance on each of the Aichi Biodiversity Targets and their connections** to explain the scientific concepts and information needs that underpins the setting of national targets, strategy development, and reporting.

Rationale:

Since many of the Aichi Biodiversity Targets address complex issues, and some of the targets address new areas for implementation of the CBD, guidance to help understand the scientific and technical aspects of the targets and their measurement is an important requirement as countries update their NBSAPs. A consolidation of guidance and explanatory notes, based on documentation on the technical rationales for the Aichi Biodiversity Targets, should be led by the CBD Secretariat and involve relevant scientific and technical partners. A pragmatic approach should be taken, focusing on the key elements of the targets, and should include examples of operational indicators that could be produced in a cost-effective way. The guidance could be made available through the Convention's Clearing-House Mechanism and could be used in capacity-building workshops.

⁵ www.bipindicators.net and www.bipnational.net

⁶ Note: the International Expert Meeting highlighted capacity experiences and lessons on indicator development from e.g. Kenya, UK, Switzerland, Mexico, Nepal.

Strengthening linkage between global, regional and national

17. The Conference of the Parties requested the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 to provide advice on the strengthening of linkages between global and national indicator development and reporting (decision X/7, paragraph 5 (d)).

18. The Group made the following specific recommendations, which are also linked to recommendations 2, 3 and 6:

Recommendation 8:

The **5th national report to the CBD** should make a significant step towards **indicator-based reporting**.

Rationale:

Indicator-based reporting would reduce the reporting burden, promote coherent reporting to different processes and improve the quality and utility of reports by presenting available data. The guidance manual for the 5th National Report to the CBD should be developed accordingly, focusing on the assessment of national progress in the implementation/achievement of the Strategic Plan. The information obtained through the 5th National Report will be a key input to the fourth edition of Global Biodiversity Outlook and contribute to the evaluation of the Millennium Development Goals in 2015. Indicator-based reports should contribute to streamlined reporting by enabling information to be easily re-used for different purposes at national, regional and global levels.

Recommendation 9:

Parties should be encouraged to **contribute to, update, verify and maintain relevant national data in regional and global data sets** as a contribution to optimize and coordinate the production of indicators for monitoring and reporting at various scales.

Rationale:

There are a small number of global datasets which are of particular importance for monitoring the Strategic Plan as they are used for a variety of analyses and purposes at various scales. There are therefore multiple advantages in ensuring that these data sets are as up-to-date and complete as possible.

Synergies with other MEAs and other sectoral and intergovernmental processes

19. The Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 recognized that the Strategic Plan is relevant to a range of stakeholders and sectors and that their involvement both in the implementation on monitoring will be essential for the achievement of the Strategic Plan.

20. The Group noted that a number of collaborative processes are already underway that aim to ensure coherence and collaboration in the delivery of the biodiversity agenda. They include *inter alia* the efforts of the Liaison Group of Biodiversity-related Conventions (BLG); the meetings of the Chairs of Scientific Advisory Bodies of Biodiversity-related Conventions (CSAB), the Issue Management Group on Biodiversity of the Environment Management Group (EMG), and collaborative action in support of Parties as they update their national biodiversity strategies and action plans in the light of the Strategic Plan for Biodiversity 2011-2020.

21. The Group made the following specific recommendations:

Recommendation 10:

The **report of the Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020** should be circulated widely to **partner organizations** to solicit their comments and inputs.

Rationale:

Efforts have been made to have representation from a wide variety of stakeholder groups in the meeting of the AHTEG, including by organizing the parallel International Expert Meeting. Nevertheless, in a number of areas key stakeholders were not represented. Offering the opportunity to comment on the report would enable those stakeholders to engage in a collaborative process to support countries in their efforts to monitor biodiversity.

Recommendation 11:

The CBD should **explore opportunities to collaborate** with other multi-lateral environmental agreements and relevant international organizations and agencies in **working towards coherent and prioritized monitoring programmes for biodiversity**.

Rationale:

The Strategic Plan for Biodiversity 2011-2020 is relevant to all stakeholders who contribute to the achievement of its mission and goals. This provides an opening for the collaborative implementation by relevant partners for each of the Aichi Biodiversity Targets. It also underpins the need for partner agencies to promote synergies and offer support to countries in a coordinated and mutually supportive manner. The request by the Chairs of Scientific Advisory Bodies of Biodiversity-related Conventions (CSAB) to IUCN to map the respective strategic plans of the biodiversity-related conventions against the Strategic Plan could help to identify obvious areas of collaboration. The Environment Management Group could complete a similar analysis for UN agencies and organizations. Considerations for coherent biodiversity monitoring could build on background work conducted by UNEP-WCMC and the Biodiversity Indicators Partnership in which indicators used by different multi-lateral environmental agreements were mapped against each other. Such a collaborative approach towards implementation and monitoring of the Strategic Plan would have significant advantages such as to:

- (i) provide context and purpose for national synergies;
- (ii) enable multi-lateral environmental agreements to identify other indicators that can contribute to their implementation;
- (iii) inform the review and updating of national biodiversity strategies and action plans;
- (iv) enable streamlining and help to put national reporting into context;
- (v) help to inform other sectors and parts of government about biodiversity issues;
- (vi) help to inform the intergovernmental platform on biodiversity and ecosystem services and ensure that its contributions are relevant to multiple users;
- (vii) support the planning for the Rio 2012 United Nations Conference on Sustainable Development.

Recommendation 12:

The proposed indicator framework for the Strategic Plan should be kept under review with a view to enabling the future incorporation of relevant indicators developed by other Conventions and processes that are relevant to monitoring biodiversity.

Rationale:

A number of indicator processes relevant to the Strategic Plan are currently underway, such as the work on methodologies and data needs for an effective use of the sub-set of impact indicators for the 10-year strategic plan and framework (2008-2018) to enhance the implementation of the United Nations Conference on Desertification, or the discussions about monitoring for REDD plus. Providing guidance on the use of indicators from other processes once these are completed would be in line with and facilitate the progressive identification and adoption of a set of commonly used key indicators referred to in recommendation 3 above. It also is a signal of the desire to seize opportunities to collaborate with other multi-lateral environmental agreements and relevant international organizations and agencies in working towards coherent and prioritized monitoring programmes for biodiversity referred to in recommendation 11 above.

Production of global indicators

22. In decision X/2 (paragraph 13) the Conference of the Parties decided that the fourth edition of the Global Biodiversity Outlook (GBO-4) shall be prepared to provide a mid-term review of progress towards the Aichi Biodiversity Targets, including an analysis of how the implementation of the Convention and its Strategic Plan has contributed to the 2015 targets of the Millennium Development Goals. GBO-4 should be indicator-based. It should use global level indicators and also synthesize indicators presented in the fifth national reports to the Convention on Biological Diversity. Of the global priority indicators 22 are ready for use globally, while another 36 could be developed as a priority for use at the global level. Particular gaps exist with regard to indicators relevant to Strategic Goals A (mainstreaming), D (benefits) and E (implementation) and significant efforts are required to fill these gaps.

23. The further development of indicators will require the involvement of the key stakeholders working in this field in order to enhance synergies between various ongoing processes. Coordination for the development process could be provided by the Biodiversity Indicators Partnership, which, resources permitting, would be expected to engage with those stakeholders who are active in indicator development related to Goals A, D and E.

24. In developing the indicators framework and list of indicators for the Strategic Plan for Biodiversity 2011-2020 the Group identified several issues relevant to monitoring and data. It was observed that many of the indicators rely on the same key data sets. For example the data used to calculate the Red List Index as well as the Living Planet Index, can be analysed in different ways to produce a number of other indicators. Emphasizing these data sets, improving their coverage and temporal and spatial resolution should therefore be considered a priority. The report on the Adequacy of Biodiversity Observation Systems to Support the CBD 2020 Targets (UNEP/CBD/AHTEG-SP-Ind/1/INF/1) contains a section on essential biodiversity variables (starting on page 74) which identifies key data sets that inform several of the indicators discussed by the AHTEG. An in-depth analysis would allow the identification of where investment in data collection and collation and promotion of common methodologies, would provide greatest benefit.

Recommendation 13:

The mid term evaluation of the Strategic Plan and application of the indicators framework in the fifth National Reports and in the fourth edition of the Global Biodiversity Outlook, to be published in 2015, provides an opportunity to **review progress in developing indicators and the adequacy and effectiveness of the set of indicators and in assessing the achievement of the Strategic Plan for Biodiversity at all levels.**

Rationale:

The preparation of the fourth edition of Global Biodiversity Outlook and analysis of fifth national reports provides an opportunity to test the set of indicators and the framework proposed in this document and to review their effectiveness in assessing and communicating progress in the achievement of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets. It will allow for a better understanding of how Parties have adopted and adapted the Aichi Biodiversity Targets at the national and regional levels. Adjustments to the set of indicators and/or the framework could be made in the light of this experience.

Conclusions

25. The Ad Hoc Technical Expert Group on Indicators for the Strategic Plan for Biodiversity 2011-2020 concluded that there is a good basis for assessing progress towards the Aichi Biodiversity Targets globally and that any future work should build on the investments made in the period up to 2010. It is also noteworthy that many countries have undertaken detailed analyses and assessments with regard to the achievement of the 2010 target of a significant reduction in the rate of biodiversity loss at the national

level. Where indicators have been used successfully at national level there is good reason to continue their use in the future, taking into account guidance provided by this report.

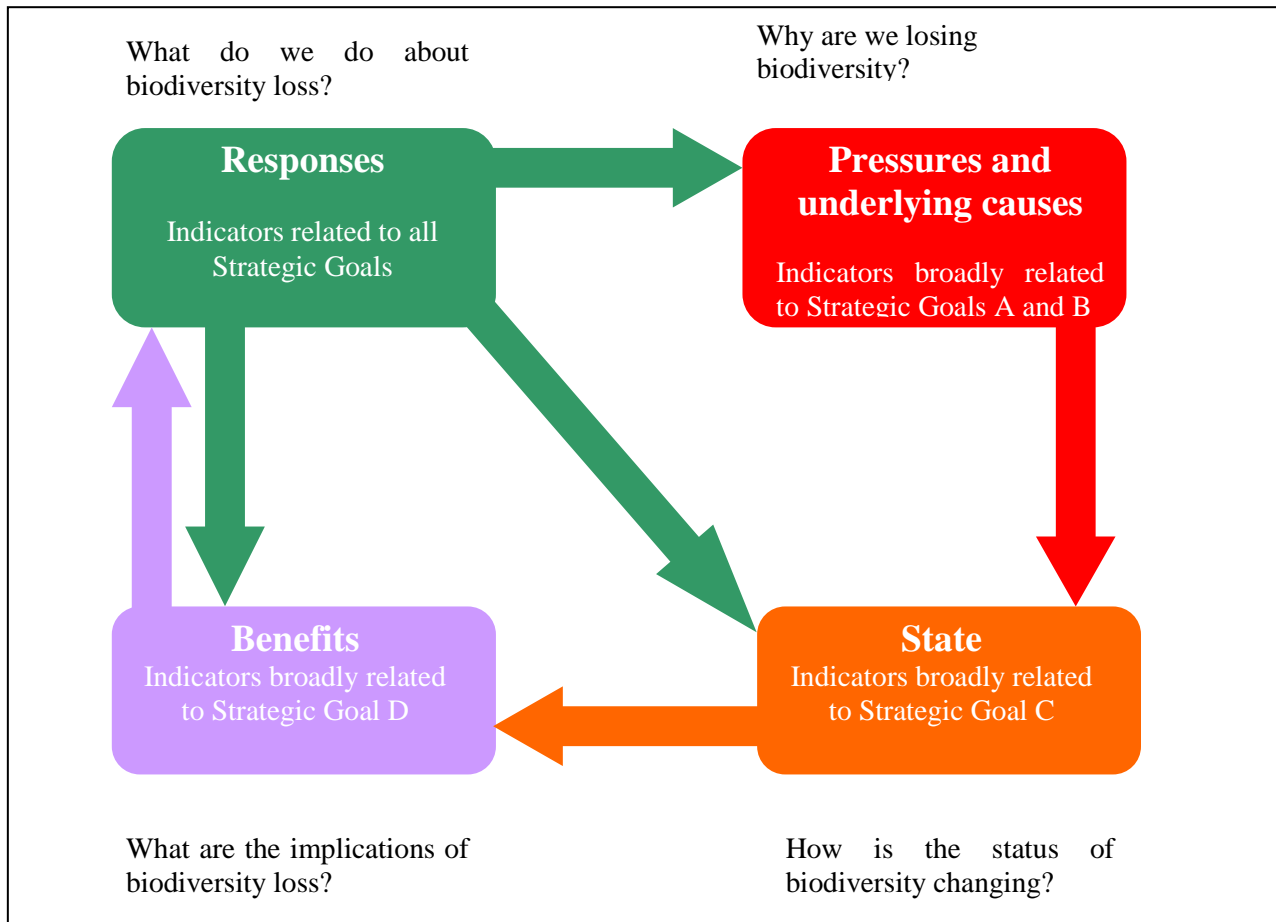
26. In its deliberations the Group noted that the suite of indicators for the Strategic Plan for Biodiversity can be used to fulfil multiple purposes. They help to change the way in which decisions are made; they can serve to assess progress in the achievement of the Strategic Plan for Biodiversity 2011-2020 at the global level; they can serve to enable Parties to monitor and review the implementation of their national biodiversity strategies and action plans; and, they can serve as a tool for promoting synergies and mainstreaming between biodiversity-related multilateral agreements and with other sectors. Further the group noted that the list of global and sub-national indicators could be further refined depending on their intended use.

27. There is no limit to the number of indicators that might be applied at the sub-global level, as demonstrated in the analysis of indicators in use at national level (UNEP/CBD/AHTEG-SP-Ind/1/INF/2), and the absence of an indicator in the list prepared by the Group does not imply that it would be less suitable for a given purpose than one that might be in the list. In that sense, the list of indicators for consideration at sub-global level should be considered flexibly. Nevertheless, the list should provide useful guidance and examples for Parties seeking to monitor each of the elements and themes in the overall framework.

28. For countries which undertake efforts to establish monitoring and assessment programmes in accordance with decision X/2 it is recommended to consider an iterative process starting with a few easy to implement indicators and emphasize scalable indicators that draw on global data sets and tested methodologies.

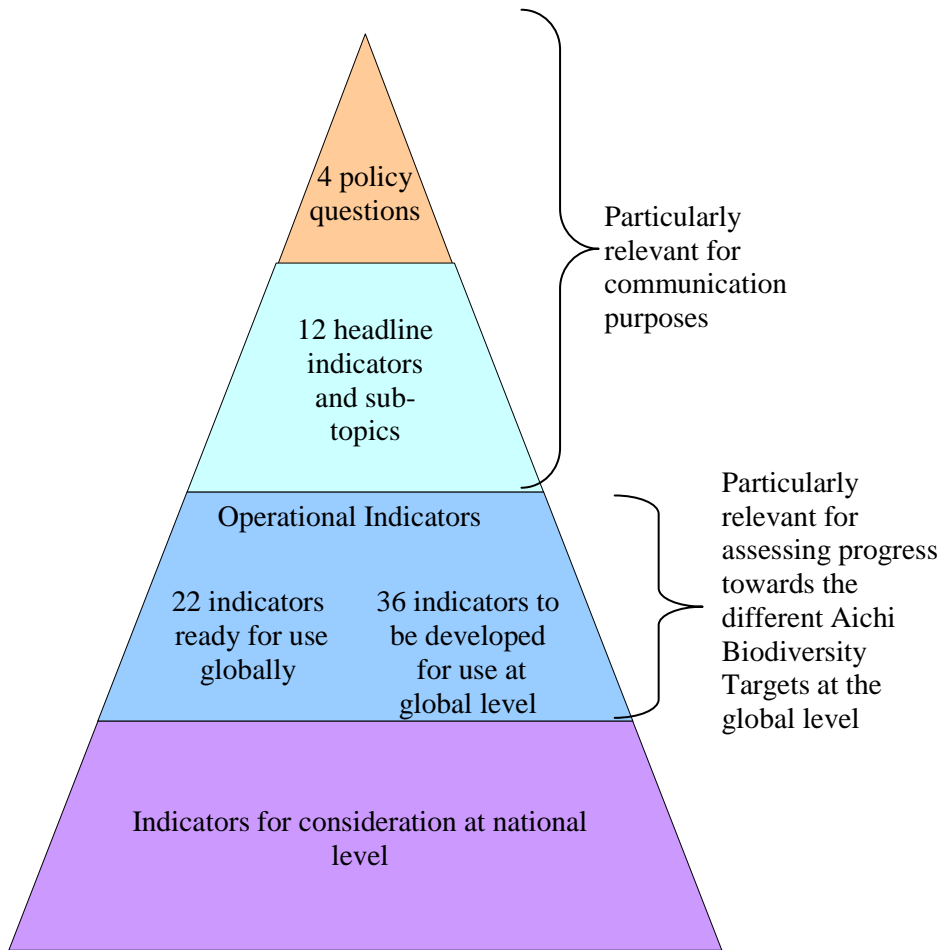
Appendix I

Conceptual model for communicating the different types of indicators for assessing progress towards the Strategic Plan for Biodiversity 2011-2020 (Based on the International Expert Workshop on the 2010 Biodiversity Indicators and Post-2010 Indicator Development held in Reading, United Kingdom, from 6-8 July 2009).



Appendix II

Relationship between the different elements of the indicator framework for assessing progress towards the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets



Appendix III

Relationship between the goals and targets and the headline and operational indicators at different levels.

This diagram illustrates schematically a flexible framework showing how indicators at different scales may relate to the goals and targets of the Strategic Plan for Biodiversity, 2011 – 2020. In this illustration, goal 1 has three associated targets at the global level. Progress towards these targets may be assessed by a number of headline indicators. A target may be assessed by one or more indicators, and an indicator may be relevant to more than one target. Headline indicators can be operationalized at different levels: global, regional, national and sub-national. A number of different operational indicators may be used for each headline indicator. Operational indicators at regional and national levels may also be designed in relation to regional and national level targets.



Appendix IV

Relationship between the policy questions, headline indicators, sub-topics, Strategic Goals and the Aichi Biodiversity Targets (refer to [Excel](#) spreadsheet for further details and rationale). Note that some of the indicator sub-topics are repeated under different policy questions and headline indicators. This is because some sub-topics are relevant to different aspects of the proposed indicator framework.

Policy Questions ⁷	Headline Indicators	Indicator Sub-topics	Strategic Goals	Most relevant Aichi Targets
State – How is the state of biodiversity changing?	Trends in extent, condition and vulnerability of ecosystems, biomes and habitats	Trends in degradation of natural habitats	B, C	5, 12
		Trends in extent of natural habitats	B	5
		Trends in fragmentation of natural habitats	B	5
	Trends in abundance, distribution and extinction risk of species	Trends in abundance, distribution and extinction risk of species	C	12
	Trends in genetic diversity of species	Trends in genetic diversity of species	C	13
Pressures and underlying causes - Why are we losing biodiversity?	Trends in pressures from unsustainable agriculture, forestry, fisheries and aquaculture	Trends in degradation of natural habitats	B	5
		Trends in sustainability of agriculture, forestry & aquaculture	B	7
		Trends in sustainable consumption and production of goods and services	A, B	4, 7
		Trends in sustainable utilisation of target and bycatch populations	B	6
	Trends in pressures from habitat conversion, pollution, invasive species, climate change, overexploitation and underlying drivers	Trends in degradation of natural habitats	B	4, 5
		Trends in impact of invasive alien species	B	9
		Trends in number/extent of invasive alien species	B	9
		Trends in integrity of ecosystems vulnerable to climate change	B	10
	Trends in pollutant releases to the environment	B	8	
Benefits - What are the implications of biodiversity loss?	Trends in distribution, condition and sustainability of ecosystem services for equitable human well-being	Trends in benefits that humans derive from biodiversity and ecosystem services	D	14
		Trends in consequences of benefits derived from ecosystem services for human wellbeing	D	14
		Trends in natural capital that delivers multiple ecosystem services	D	14, 15
Responses - What do we	Trends in awareness, attitudes and public engagement in support of biological	Trends in awareness, attitudes and public engagement in support of biological diversity	A	1

⁷ It should be noted that, depending on the context, a State indicator could also be a Pressure or Response indicator, etc. The categorization should therefore not be considered rigid but dependant on the key questions that are being asked.

do about biodiversity loss?	diversity and ecosystem services	Trends in sustainable consumption and production of goods and services	A	1
	Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives	Trends in degree to which traditional knowledge and practices are fully respected in implementation of the Strategic Plan.	E	18
		Trends in genetic diversity of species	C	13
		Trends in impact of invasive alien species	B	9
		Trends in implementation of National Biodiversity Strategy and Action Plans (NBSAPs)	E	17
		Trends in incorporation of biodiversity and ecosystem services into incentive systems	A	3
		Trends in knowledge of values of biodiversity and ecosystem services	A	2
		Trends in proportion of production landscapes sustainably managed	B	7
		Trends in reflection of biodiversity and ecosystem services in policy decisions, planning and reporting processes	A	2
		Trends in responses to invasive alien species	B	9
		Trends in sustainable consumption and production of goods and services	A	4
		Trends in sustainable utilisation of target and bycatch populations	B	6
		Trends in access and equity of benefit sharing of genetic resources	Trends in access and equity of benefit sharing of genetic resources	D
	Trends in accessibility of scientific/technical/traditional knowledge and its application	Trends in degree to which traditional knowledge and practices are fully respected in implementation of the Strategic Plan.	E	18
		Trends in improvement, sharing, transfer and application of knowledge	E	19
	Trends in coverage, condition, representativeness and effectiveness of protected areas and other area-based approaches	Trends in area of sustainably used ecosystems	C	11
		Trends in natural capital that delivers multiple ecosystem services	D	14, 15
		Trends in protected areas coverage, representation and condition	C	11
	Trends in mobilisation of financial resources	Trends in financial flows of funding for implementation of the Strategic Plan	E	20

Appendix V

Relationship between the policy questions, headline indicators, operational indicators and the Aichi Biodiversity Targets

Policy Question ⁸	Headline Indicator	Operational Indicators ⁹ (A: Priority and ready for use globally, B: Priority to be developed at global level, C: For consideration at sub-global level)	Most relevant Aichi Target	Other relevant Aichi Targets
State – How is the state of biodiversity changing?	Trends in extent, condition and vulnerability of ecosystems, biomes and habitats	Extinction risk trends of habitat dependent species in each major habitat type (A)	12	5, 6, 7, 8, 10, 14
		Trends in extent of selected biomes, ecosystems and habitats (A) (decision VII/30 and VIII/15)	5	7, 14, 15
		Trends in proportion of degraded/threatened habitats (B)	5	7, 14, 15
		Trends in fragmentation of natural habitats (B) (decision VII/30 and VIII/15)	5	7, 14, 15
		Trends in condition and vulnerability of ecosystems (C)	5	6, 7, 8, 9, 10, 11, 14, 15
	Trends in the proportion of natural habitats converted (C)	5	7, 10, 11, 14, 15	
	Trends in abundance, distribution and extinction risk of species	Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator)	12	5, 6, 7, 10, 13, 14, 15
		Trends in extinction risk of species (A) (decision VII/30 and VIII/15) (MDG indicator 7.7) (also used by CMS)	12	5, 6, 7, 10, 13, 14, 15
		Trends in distribution of selected species (B) (decision VII/30 and VIII/15) (also used by UNCCD)	12	5, 6, 7, 11, 14, 15
	Trends in genetic diversity of species	Trends in genetic diversity of cultivated plants, and farmed and domesticated animals and their wild relatives (B) (decision VII/30 and VIII/15)	13	7, 12, 14, 16
Trends in genetic diversity of selected species (C)		13	7, 12, 14, 16	
Pressures and underlying causes - Why are we losing biodiversity?	Trends in pressures from unsustainable agriculture, forestry, fisheries and	Trends in Ecological Footprint and/or related concepts (A) (decision VII/30 and VIII/15)	4	5, 6, 7, 8, 10, 14
		Trends in population and extinction risk of utilized species, including species in trade (A) (also used by CITES)	4	5, 6, 7, 12, 14, 15
		Trends in extinction risk of target and bycatch aquatic species (A)	6	4, 12
		Trends in population of target and bycatch aquatic species (A)	6	4, 12

⁸ It should be noted that, depending on the context, a State indicator could also be a Pressure or Response indicator, etc. The categorization should therefore not be considered rigid but dependant on the key questions that are being asked.

⁹ Where reference is made to decisions and processes through which selected indicators were previously agreed the exact wording for the indicator may differ slightly but the intent remains the same.

aquaculture	Trends in proportion of utilized stocks outside safe biological limits (A) (MDG indicator 7.4)	6	4, 7, 10, 12, 14
	Trends in population of forest and agriculture dependent species in production systems (B)	7	5, 12, 14
	Trends in production per input (B)	7	4, 8
	Trends in primary productivity (C)	5	14, 15
	Trends in proportion of land affected by desertification (C) (also used by UNCCD)	5	14, 15
	Ecological limits assessed in terms of sustainable production and consumption (C)	4	6, 7, 14
	Trends in proportion of products derived from sustainable sources (C) (decision VII/30 and VIII/15)	7	4, 6, 8, 9, 10, 11, 14
	Trends in area, frequency, and/or intensity of destructive fishing practices (C)	6	5, 7, 10, 11
	Trends in catch per unit effort (C)	6	4, 10, 12
	Trends in fishing effort capacity (C)	6	4, 10, 12
Trends in pressures from habitat conversion, pollution, invasive species, climate change, overexploitation and underlying drivers	Population trends of habitat dependent species in each major habitat type (A)	5	6, 7, 8, 9, 10, 11, 12, 14, 15
	Trends in the impact of invasive alien species on extinction risk trends (A)	9	10, 12
	Extinction risk trends of coral and reef fish (A)	10	5, 6, 12, 14
	Trends in incidence of hypoxic zones and algal blooms (A)	8	5, 10, 14
	Trends in water quality in aquatic ecosystems (A) (decision VII/30 and VIII/15)	8	5, 10, 14
	Trends in the economic impacts of selected invasive alien species (B)	9	2, 10,
	Trends in climate change impacts on extinction risk (B)	10	12
	Trends in coral reef condition (B)	10	5, 12, 14
	Trends in extent, and rate of shifts of boundaries, of vulnerable ecosystems (B)	10	5, 14
	Trends in number of invasive alien species (B) (decision VII/30 and VIII/15)	9	10
	Impact of pollution on extinction risk trends (B)	8	10, 12
	Trends in pollution deposition rate (B) (decision VII/30 and VIII/15)	8	10, 14
	Trends in sediment transfer rates (B)	8	10, 14
	Trends in biodiversity of cities (C) (decision X/22)	4	2, 12, 14
	Trends in climatic impacts on community composition (C)	10	5, 12
	Trends in climatic impacts on population trends (C)	10	12
	Trends in incidence of wildlife diseases caused by invasive alien species (C)	9	12
	Trend in emission to the environment of pollutants relevant for biodiversity (C)	8	10, 12
Trend in levels of contaminants in wildlife (C)	8	10, 12	
Trends in ozone levels in natural ecosystems (C)	8		
Trends in proportion of wastewater discharged after treatment (C)	8	10	

		Trends in UV-radiation levels (C)	8	10
		Trends in nitrogen footprint of consumption activities (C)	8	4, 7
Benefits - What are the implications of biodiversity loss?	Trends in distribution, condition and sustainability of ecosystem services for equitable human well-being	Trends in benefits that humans derive from selected ecosystem services (A)	14	15
		Trends in proportion of the population using improved water services (A) (MDG indicator 7.8 and 7.9)	14	8
		Trends in proportion of total freshwater resources used (A) (MDG indicator 7.5)	14	4, 5, 7
		Population trends and extinction risk trends of species that provide ecosystem services (A)	14	12, 15
		Status and trends in extent and condition of habitats that provide carbon storage (A)	15	5, 7, 14
		Trends in delivery of multiple ecosystem services (B)	14	15
		Trends in economic and non-economic values value of selected ecosystem services (B)	14	2, 4, 15
		Trends in health and wellbeing of communities who depend directly on local ecosystem goods and services (B) (decision VII/30 and VIII/15)	14	7, 18
		Trends in human and economic losses due to water or natural resource related disasters (B)	14	15
		Trends in nutritional contribution of biodiversity: Food composition (B) (decision VII/30 and VIII/15)	14	7
		Trends in incidence of emerging zoonotic diseases ©	14	
		Trends in inclusive wealth (C)	14	
		Trends in nutritional contribution of biodiversity: Food consumption (C) (decision VII/30 and VIII/15)	14	7
		Trends in prevalence of underweight children under-five years of age (C) (MDG indicator 1.8)	14	
		Trends in natural resource conflicts (C)	14	
		Trends in the condition of selected ecosystem services (C)	14	5
Trends in biocapacity (C)	14	5, 15		
Responses - What do we do about biodiversity loss?	Trends in awareness, attitudes and public engagement in support of biological diversity and ecosystem services	Trends in awareness and attitudes to biodiversity (C)	1	2, 4, 17, 18, 19
		Trends in public engagement with biodiversity (C)	1	2, 4, 17, 19
	Trends in communication programmes and actions promoting social corporate responsibility (C)	1	4	
	Trends in integration of	Trends in land-use change and land tenure in the traditional territories of indigenous and local communities (B) (decision X/43)	18	5

biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation and incentives	Trends in the practice of traditional occupations (B) (decision X/43)	18	5
	Trends in number of effective policy mechanisms implemented to reduce genetic erosion and safeguard genetic diversity related to plant and animal genetic resources (B)	13	17
	Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)	17	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20
	Trends in the number and value of incentives, including subsidies, harmful to biodiversity, removed, reformed or phased out (B)	3	2, 4, 20
	Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management (B) (decision VII/30 and VIII/15)	7	2, 4, 5, 14, 15
	Trends in number of countries incorporating natural resource, biodiversity, and ecosystem service values into national accounting systems (B)	2	3, 4, 14, 15
	Trends in policy responses, legislation and management plans to control and prevent spread of invasive alien species (B)	9	2, 17
	Trends in extent to which biodiversity and ecosystem service values are incorporated into organizational accounting and reporting (B)	4	2, 3
	Trends in proportion of depleted target and bycatch species with recovery plans (B)	6	12
	Trends in invasive alien species pathways management (C)	9	12
	Trends in identification, assessment and establishment and strengthening of incentives that reward positive contribution to biodiversity and ecosystem services and penalize adverse impacts (C)	3	1, 2, 4, 20
	Trends in number of countries that have assessed values of biodiversity, in accordance with the Convention (C)	2	4, 19, 20
	Trends in guidelines and applications of economic appraisal tools (C)	2	3, 4, 19
	Trends in integration of biodiversity and ecosystem service values into integrated in sectoral and development policies (C)	2	4
	Trends in policies considering biodiversity and ecosystem service in environmental impact assessment and strategic environmental assessment (C)	2	4
Trends in access and equity of benefit sharing	ABS indicator to be specified through the ABS process (B)	16	

	of genetic resources			
	Trends in accessibility of scientific/technical/traditional knowledge and its application	Trends in degree to which traditional knowledge and practices are respected through: full integration, participation and safeguards in national implementation of the Strategic Plan (B)	18	13, 17
		Trends of linguistic diversity and numbers of speakers of indigenous languages (B) (decision VII/30 and VIII/15)	18	19
		Trends in coverage of comprehensive policy-relevant sub-global assessments including related capacity building and knowledge transfer, plus trends in uptake into policy (B)	19	1, 2, 17
		Number of maintained species inventories being used to implement the Convention (C)	19	12, 13
	Trends in coverage, condition, representativeness and effectiveness of protected areas and other area-based approaches	Trends in extent of marine protected areas, coverage of key biodiversity areas and management effectiveness (A)	11	5, 6, 7, 10
		Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)	11	5, 6, 7, 8, 9, 10, 12, 13,14,15
		Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)	11	5, 6, 7, 8, 9, 10, 12, 13,14,15
		Trends in area of degraded ecosystems restored or being restored (B)	14	5, 15
		Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)	11	5, 6, 7, 8, 9, 10, 12, 13,14,15
		Population trends of forest-dependent species in forests under restoration (C)	15	5, 14
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)	11	1, 2, 5, 6, 7, 10, 12, 13, 14, 15, 20
	Trends in mobilisation of financial resources	Indicators agreed in decision X/3 (B)	20	2, 3, 14, 15, 16, 17, 19

Appendix VI

Relationship between the Aichi Biodiversity Targets and the operational indicators. Multiple operational indicators can be used to assess progress towards a target. Some indicators are more directly relevant to a target than others. However indicators which are not directly related to a specific target may nonetheless provide information which can be useful in assessing progress.

Aichi Target	Operational Indicators ¹⁰ (A: Priority and ready for use globally, B: Priority to be developed at global level, C: For consideration at sub-global level)	
	Most relevant indicators	Other relevant indicators
1	Trends in awareness and attitudes to biodiversity (C)	Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
	Trends in public engagement with biodiversity (C)	Trends in coverage of comprehensive policy-relevant sub-global assessments including related capacity building and knowledge transfer, plus trends in uptake into policy (B)
	Trends in communication programmes and actions promoting social corporate responsibility (C)	Trends in identification, assessment and establishment and strengthening of incentives that reward positive contribution to biodiversity and ecosystem services and penalize adverse impacts (C)
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)
2	Trends in number of countries incorporating natural resource, biodiversity, and ecosystem service values into national accounting systems (B)	Trends in the number and value of incentives, including subsidies, harmful to biodiversity, removed, reformed or phased out (B)
	Trends in number of countries that have assessed values of biodiversity, in accordance with the Convention (C)	Trends in extent to which biodiversity and ecosystem service values are incorporated into organizational accounting and reporting (B)
	Trends in guidelines and applications of economic appraisal tools (C)	Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management (B) (decision VII/30 and VIII/15)
	Trends in integration of biodiversity and ecosystem service values into integrated in sectoral and development policies (C)	Trends in the economic impacts of selected invasive alien species (B)
	Trends in policies considering biodiversity and ecosystem service in environmental impact assessment and strategic environmental assessment (C)	Trends in policy responses, legislation and management plans to control and prevent spread of invasive alien species (B)
		Trends in economic and non-economic values value of selected ecosystem services (B)
		Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
		Trends in coverage of comprehensive policy-relevant sub-global assessments including related capacity building and knowledge transfer, plus trends in uptake

¹⁰ Where reference is made to decisions and processes through which selected indicators were previously agreed the exact wording for the indicator may differ slightly but the intent remains the same.

		into policy (B)
		Indicators agreed in decision X/3 (B)
		Trends in biodiversity of cities (C) (decision X/22)
		Trends in identification, assessment and establishment and strengthening of incentives that reward positive contribution to biodiversity and ecosystem services and penalize adverse impacts (C)
		Trends in awareness and attitudes to biodiversity (C)
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)
		Trends in public engagement with biodiversity (C)
3	Trends in the number and value of incentives, including subsidies, harmful to biodiversity, removed, reformed or phased out (B)	Trends in number of countries incorporating natural resource, biodiversity, and ecosystem service values into national accounting systems (B)
	Trends in identification, assessment and establishment and strengthening of incentives that reward positive contribution to biodiversity and ecosystem services and penalize adverse impacts (C)	Trends in extent to which biodiversity and ecosystem service values are incorporated into organizational accounting and reporting (B)
		Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
		Indicators agreed in decision X/3 (B)
		Trends in guidelines and applications of economic appraisal tools (C)
4	Trends in Ecological Footprint and/or related concepts (A) (decision VII/30 and VIII/15)	Trends in extinction risk of target and bycatch aquatic species (A)
	Trends in population and extinction risk of utilized species, including species in trade (A) (also used by CITES)	Trends in population of target and bycatch aquatic species (A)
	Trends in extent to which biodiversity and ecosystem service values are incorporated into organizational accounting and reporting (B)	Trends in proportion of utilized stocks outside safe biological limits (A) (MDG indicator 7.4)
	Ecological limits assessed in terms of sustainable production and consumption (C)	Trends in proportion of total freshwater resources used (A) (MDG indicator 7.5)
	Trends in biodiversity of cities (C) (decision X/22)	Trends in number of countries incorporating natural resource, biodiversity, and ecosystem service values into national accounting systems (B)
		Trends in the number and value of incentives, including subsidies, harmful to biodiversity, removed, reformed or phased out (B)
		Trends in production per input (B)

		Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management (B) (decision VII/30 and VIII/15)
		Trends in economic and non-economic values value of selected ecosystem services (B)
		Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
		Trends in guidelines and applications of economic appraisal tools (C)
		Trends in integration of biodiversity and ecosystem service values into integrated in sectoral and development policies (C)
		Trends in policies considering biodiversity and ecosystem service in environmental impact assessment and strategic environmental assessment (C)
		Trends in identification, assessment and establishment and strengthening of incentives that reward positive contribution to biodiversity and ecosystem services and penalize adverse impacts (C)
		Trends in number of countries that have assessed values of biodiversity, in accordance with the Convention (C)
		Trends in catch per unit effort (C)
		Trends in fishing effort capacity (C)
		Trends in proportion of products derived from sustainable sources (C) (decision VII/30 and VIII/15)
		Trends in nitrogen footprint of consumption activities (C)
5	Trends in extent of selected biomes, ecosystems and habitats (A) (decision VII/30 and VIII/15)	Trends in Ecological Footprint and/or related concepts (A) (decision VII/30 and VIII/15)
	Population trends of habitat dependent species in each major habitat type (A)	Trends in population and extinction risk of utilized species, including species in trade (A) (also used by CITES)
	Trends in proportion of degraded/threatened habitats (B)	Trends in incidence of hypoxic zones and algal blooms (A)
	Trends in fragmentation of natural habitats (B) (decision VII/30 and VIII/15)	Trends in water quality in aquatic ecosystems (A) (decision VII/30 and VIII/15)
	Trends in condition and vulnerability of ecosystems (C)	Extinction risk trends of coral and reef fish (A)
	Trends in the proportion of natural habitats converted (C)	Trends in extent of marine protected areas, coverage of key biodiversity areas and management effectiveness (A)
	Trends in primary productivity (C)	Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)
	Trends in proportion of land affected by desertification (C) (also used by UNCCD)	Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)

		Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator)
		Trends in extinction risk of species (A) (decision VII/30 and VIII/15) (MDG indicator 7.7) (also used by CMS)
		Extinction risk trends of habitat dependent species in each major habitat type (A)
		Trends in proportion of total freshwater resources used (A) (MDG indicator 7.5)
		Status and trends in extent and condition of habitats that provide carbon storage (A)
		Trends in population of forest and agriculture dependent species in production systems (B)
		Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management (B) (decision VII/30 and VIII/15)
		Trends in land-use change and land tenure in the traditional territories of indigenous and local communities (B) (decision X/43)
		Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
		Trends in coral reef condition (B)
		Trends in the practice of traditional occupations (B) (decision X/43)
		Trends in extent, and rate of shifts of boundaries, of vulnerable ecosystems (B)
		Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)
		Trends in distribution of selected species (B) (decision VII/30 and VIII/15) (also used by UNCCD)
		Trends in area of degraded ecosystems restored or being restored B)
		Trends in area, frequency, and/or intensity of destructive fishing practices (C)
		Trends in climatic impacts on community composition (C)
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)
		Trends in the condition of selected ecosystem services (C)
		Population trends of forest-dependent species in forests under restoration (C)
		Trends in biocapacity (C)
6	Trends in extinction risk of target and bycatch aquatic species (A)	Trends in Ecological Footprint and/or related concepts (A) (decision VII/30 and VIII/15)
	Trends in population of target and bycatch aquatic species (A)	Trends in population and extinction risk of utilized species, including species in trade (A) (also used by CITES)
	Trends in proportion of utilized stocks outside safe	Population trends of habitat dependent species in each major habitat type (A)

	biological limits (A) (MDG indicator 7.4)	
	Trends in proportion of depleted target and bycatch species with recovery plans (B)	Extinction risk trends of coral and reef fish (A)
	Trends in area, frequency, and/or intensity of destructive fishing practices (C)	Trends in extent of marine protected areas, coverage of key biodiversity areas and management effectiveness (A)
	Trends in catch per unit effort (C)	Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)
	Trends in fishing effort capacity (C)	Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)
		Extinction risk trends of habitat dependent species in each major habitat type (A)
		Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator)
		Trends in extinction risk of species (A) (decision VII/30 and VIII/15) (MDG indicator 7.7) (also used by CMS)
		Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)
		Trends in distribution of selected species (B) (decision VII/30 and VIII/15) (also used by UNCCD)
		Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
		Ecological limits assessed in terms of sustainable production and consumption (C)
		Trends in condition and vulnerability of ecosystems (C)
		Trends in proportion of products derived from sustainable sources (C) (decision VII/30 and VIII/15)
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)
7	Trends in population of forest and agriculture dependent species in production systems (B)	Trends in Ecological Footprint and/or related concepts (A) (decision VII/30 and VIII/15)
	Trends in production per input (B)	Trends in population and extinction risk of utilized species, including species in trade (A) (also used by CITES)
	Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management (B) (decision VII/30 and VIII/15)	Trends in extent of selected biomes, ecosystems and habitats (A) (decision VII/30 and VIII/15)
	Trends in proportion of products derived from sustainable	Population trends of habitat dependent species in each major habitat type (A)

sources (C) (decision VII/30 and VIII/15)	
	Trends in proportion of utilized stocks outside safe biological limits (A) (MDG indicator 7.4)
	Trends in extent of marine protected areas, coverage of key biodiversity areas and management effectiveness (A)
	Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)
	Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)
	Extinction risk trends of habitat dependent species in each major habitat type (A)
	Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator)
	Trends in extinction risk of species (A) (decision VII/30 and VIII/15) (MDG indicator 7.7) (also used by CMS)
	Trends in proportion of total freshwater resources used (A) (MDG indicator 7.5)
	Status and trends in extent and condition of habitats that provide carbon storage (A)
	Trends in proportion of degraded/threatened habitats (B)
	Trends in fragmentation of natural habitats (B) (decision VII/30 and VIII/15)
	Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)
	Trends in distribution of selected species (B) (decision VII/30 and VIII/15) (also used by UNCCD)
	Trends in genetic diversity of cultivated plants, and farmed and domesticated animals and their wild relatives (B) (decision VII/30 and VIII/15)
	Trends in health and wellbeing of communities who depend directly on local ecosystem goods and services (B) (decision VII/30 and VIII/15)
	Trends in nutritional contribution of biodiversity: Food composition (B) (decision VII/30 and VIII/15)
	Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
	Ecological limits assessed in terms of sustainable production and consumption (C)
	Trends in condition and vulnerability of ecosystems (C)
	Trends in the proportion of natural habitats converted (C)

		Trends in area, frequency, and/or intensity of destructive fishing practices (C)
		Trends in nitrogen footprint of consumption activities (C)
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)
		Trends in genetic diversity of selected species (C)
		Trends in nutritional contribution of biodiversity: Food consumption (C) (decision VII/30 and VIII/15)
8	Trends in incidence of hypoxic zones and algal blooms (A)	Trends in Ecological Footprint and/or related concepts (A) (decision VII/30 and VIII/15)
	Trends in water quality in aquatic ecosystems (A) (decision VII/30 and VIII/15)	Population trends of habitat dependent species in each major habitat type (A)
	Impact of pollution on extinction risk trends (B)	Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)
	Trends in pollution deposition rate (B) (decision VII/30 and VIII/15)	Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)
	Trends in sediment transfer rates (B)	Extinction risk trends of habitat dependent species in each major habitat type (A)
	Trend in emission to the environment of pollutants relevant for biodiversity (C)	Trends in proportion of the population using improved water services (A) (MDG indicator 7.8 and 7.9)
	Trend in levels of contaminants in wildlife (C)	Trends in production per input (B)
	Trends in ozone levels in natural ecosystems (C)	Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)
	Trends in proportion of wastewater discharged after treatment (C)	Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
	Trends in UV-radiation levels (C)	Trends in condition and vulnerability of ecosystems (C)
	Trends in nitrogen footprint of consumption activities (C)	Trends in proportion of products derived from sustainable sources (C) (decision VII/30 and VIII/15)
9	Trends in the impact of invasive alien species on extinction risk trends (A)	Population trends of habitat dependent species in each major habitat type (A)
	Trends in the economic impacts of selected invasive alien species (B)	Trends in condition and vulnerability of ecosystems (C)
	Trends in number of invasive alien species (B) (decision VII/30 and VIII/15)	Trends in proportion of products derived from sustainable sources (C) (decision VII/30 and VIII/15)
	Trends in policy responses, legislation and management plans to control and prevent spread of invasive alien species (B)	Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)

	Trends in incidence of wildlife diseases caused by invasive alien species (C)	Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)
	Trends in invasive alien species pathways management (C)	Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)
		Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
10	Extinction risk trends of coral and reef fish (A)	Trends in Ecological Footprint and/or related concepts (A) (decision VII/30 and VIII/15)
	Trends in climate change impacts on extinction risk (B)	Population trends of habitat dependent species in each major habitat type (A)
	Trends in coral reef condition (B)	Trends in proportion of utilized stocks outside safe biological limits (A) (MDG indicator 7.4)
	Trends in extent, and rate of shifts of boundaries, of vulnerable ecosystems (B)	Trends in incidence of hypoxic zones and algal blooms (A)
	Trends in climatic impacts on community composition (C)	Trends in water quality in aquatic ecosystems (A) (decision VII/30 and VIII/15)
	Trends in climatic impacts on population trends (C)	Trends in the impact of invasive alien species on extinction risk trends (A)
		Trends in extent of marine protected areas, coverage of key biodiversity areas and management effectiveness (A)
		Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)
		Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)
		Extinction risk trends of habitat dependent species in each major habitat type (A)
		Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator)
		Trends in extinction risk of species (A) (decision VII/30 and VIII/15) (MDG indicator 7.7) (also used by CMS)
		Impact of pollution on extinction risk trends (B)
		Trends in pollution deposition rate (B) (decision VII/30 and VIII/15)
		Trends in sediment transfer rates (B)
		Trends in the economic impacts of selected invasive alien species (B)
	Trends in number of invasive alien species (B) (decision VII/30 and VIII/15)	
	Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)	
	Trends in implementation of National Biodiversity Strategies and Action Plans,	

		including development, comprehensiveness, adoption and implementation (B)
		Trends in condition and vulnerability of ecosystems (C)
		Trends in the proportion of natural habitats converted (C)
		Trends in area, frequency, and/or intensity of destructive fishing practices (C)
		Trends in catch per unit effort (C)
		Trends in fishing effort capacity (C)
		Trends in proportion of products derived from sustainable sources (C) (decision VII/30 and VIII/15)
		Trend in emission to the environment of pollutants relevant for biodiversity (C)
		Trend in levels of contaminants in wildlife (C)
		Trends in proportion of wastewater discharged after treatment (C)
		Trends in UV-radiation levels (C)
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)
11	Trends in extent of marine protected areas, coverage of key biodiversity areas and management effectiveness (A)	Population trends of habitat dependent species in each major habitat type (A)
	Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)	Trends in distribution of selected species (B) (decision VII/30 and VIII/15) (also used by UNCCD)
	Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)	Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
	Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)	Trends in condition and vulnerability of ecosystems (C)
	Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)	Trends in the proportion of natural habitats converted (C)
		Trends in area, frequency, and/or intensity of destructive fishing practices (C)
		Trends in proportion of products derived from sustainable sources (C) (decision VII/30 and VIII/15)
12	Extinction risk trends of habitat dependent species in each major habitat type (A)	Trends in population and extinction risk of utilized species, including species in trade (A) (also used by CITES)
	Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator)	Population trends of habitat dependent species in each major habitat type (A)
	Trends in extinction risk of species (A) (decision VII/30 and	Trends in extinction risk of target and bycatch aquatic species (A)

VIII/15) (MDG indicator 7.7) (also used by CMS)	
Trends in distribution of selected species (B) (decision VII/30 and VIII/15) (also used by UNCCD)	Trends in population of target and bycatch aquatic species (A)
	Trends in proportion of utilized stocks outside safe biological limits (A) (MDG indicator 7.4)
	Extinction risk trends of coral and reef fish (A)
	Trends in the impact of invasive alien species on extinction risk trends (A)
	Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)
	Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)
	Population trends and extinction risk trends of species that provide ecosystem services (A)
	Trends in proportion of depleted target and bycatch species with recovery plans (B)
	Trends in population of forest and agriculture dependent species in production systems (B)
	Impact of pollution on extinction risk trends (B)
	Trends in climate change impacts on extinction risk (B)
	Trends in coral reef condition (B)
	Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
	Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)
	Trends in genetic diversity of cultivated plants, and farmed and domesticated animals and their wild relatives (B) (decision VII/30 and VIII/15)
	Trends in biodiversity of cities (C) (decision X/22)
	Trends in catch per unit effort (C)
	Trends in fishing effort capacity (C)
	Trend in emission to the environment of pollutants relevant for biodiversity (C)
	Trend in levels of contaminants in wildlife (C)
	Trends in incidence of wildlife diseases caused by invasive alien species (C)
	Trends in invasive alien species pathways management (C)
	Trends in climatic impacts on community composition (C)

		Trends in climatic impacts on population trends (C)
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)
		Trends in genetic diversity of selected species (C)
		Number of maintained species inventories being used to implement the Convention (C)
13	Trends in genetic diversity of cultivated plants, and farmed and domesticated animals and their wild relatives (B) (decision VII/30 and VIII/15)	Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)
	Trends in number of effective policy mechanisms implemented to reduce genetic erosion and safeguard genetic diversity related to plant and animal genetic resources (B)	Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)
	Trends in genetic diversity of selected species (C)	Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator)
		Trends in extinction risk of species (A) (decision VII/30 and VIII/15) (MDG indicator 7.7) (also used by CMS)
		Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)
		Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
		Trends in degree to which traditional knowledge and practices are respected through: full integration, participation and safeguards in national implementation of the Strategic Plan (B)
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)
		Number of maintained species inventories being used to implement the Convention (C)
14	Trends in benefits that humans derive from selected ecosystem services (A)	Trends in Ecological Footprint and/or related concepts (A) (decision VII/30 and VIII/15)
	Trends in proportion of the population using improved water services (A) (MDG indicator 7.8 and 7.9)	Trends in population and extinction risk of utilized species, including species in trade (A) (also used by CITES)
	Trends in proportion of total freshwater resources used (A) (MDG indicator 7.5)	Trends in extent of selected biomes, ecosystems and habitats (A) (decision VII/30 and VIII/15)
	Population trends and extinction risk trends of species that provide ecosystem services (A)	Population trends of habitat dependent species in each major habitat type (A)
	Trends in delivery of multiple ecosystem services (B)	Trends in proportion of utilized stocks outside safe biological limits (A) (MDG

	indicator 7.4)
Trends in economic and non-economic values value of selected ecosystem services (B)	Trends in incidence of hypoxic zones and algal blooms (A)
Trends in health and wellbeing of communities who depend directly on local ecosystem goods and services (B) (decision VII/30 and VIII/15)	Trends in water quality in aquatic ecosystems (A) (decision VII/30 and VIII/15)
Trends in human and economic losses due to water or natural resource related disasters (B)	Extinction risk trends of coral and reef fish (A)
Trends in nutritional contribution of biodiversity: Food composition (B) (decision VII/30 and VIII/15)	Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)
Trends in area of degraded ecosystems restored or being restored B)	Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)
Trends in incidence of emerging zoonotic diseases (C)	Extinction risk trends of habitat dependent species in each major habitat type (A)
Trends in inclusive wealth (C)	Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator)
Trends in nutritional contribution of biodiversity: Food consumption (C) (decision VII/30 and VIII/15)	Trends in extinction risk of species (A) (decision VII/30 and VIII/15) (MDG indicator 7.7) (also used by CMS)
Trends in prevalence of underweight children under-five years of age (C) (MDG indicator 1.8)	Status and trends in extent and condition of habitats that provide carbon storage (A)
Trends in natural resource conflicts (C)	Trends in population of forest and agriculture dependent species in production systems (B)
Trends in the condition of selected ecosystem services (C)	Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management (B) (decision VII/30 and VIII/15)
Trends in biocapacity (C)	Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)
	Trends in number of countries incorporating natural resource, biodiversity, and ecosystem service values into national accounting systems (B)
	Trends in proportion of degraded/threatened habitats (B)
	Trends in pollution deposition rate (B) (decision VII/30 and VIII/15)
	Trends in sediment transfer rates (B)
	Trends in fragmentation of natural habitats (B) (decision VII/30 and VIII/15)
	Trends in coral reef condition (B)
	Trends in extent, and rate of shifts of boundaries, of vulnerable ecosystems (B)
	Trends in distribution of selected species (B) (decision VII/30 and VIII/15) (also used by UNCCD)

		Trends in genetic diversity of cultivated plants, and farmed and domesticated animals and their wild relatives (B) (decision VII/30 and VIII/15)
		Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
		Indicators agreed in decision X/3 (B)
		Ecological limits assessed in terms of sustainable production and consumption (C)
		Trends in biodiversity of cities (C) (decision X/22)
		Trends in condition and vulnerability of ecosystems (C)
		Trends in the proportion of natural habitats converted (C)
		Trends in primary productivity (C)
		Trends in proportion of land affected by desertification (C) (also used by UNCCD)
		Trends in proportion of products derived from sustainable sources (C) (decision VII/30 and VIII/15)
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)
		Trends in genetic diversity of selected species (C)
		Population trends of forest-dependent species in forests under restoration (C)
15	Status and trends in extent and condition of habitats that provide carbon storage (A)	Trends in population and extinction risk of utilized species, including species in trade (A) (also used by CITES)
	Population trends of forest-dependent species in forests under restoration (C)	Trends in extent of selected biomes, ecosystems and habitats (A) (decision VII/30 and VIII/15)
		Population trends of habitat dependent species in each major habitat type (A)
		Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)
		Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)
		Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator)
		Trends in extinction risk of species (A) (decision VII/30 and VIII/15) (MDG indicator 7.7) (also used by CMS)
		Trends in benefits that humans derive from selected ecosystem services (A)
		Population trends and extinction risk trends of species that provide ecosystem services (A)

		Trends in number of countries incorporating natural resource, biodiversity, and ecosystem service values into national accounting systems (B)
		Trends in proportion of degraded/threatened habitats (B)
		Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management (B) (decision VII/30 and VIII/15)
		Trends in fragmentation of natural habitats (B) (decision VII/30 and VIII/15)
		Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)
		Trends in distribution of selected species (B) (decision VII/30 and VIII/15) (also used by UNCCD)
		Trends in delivery of multiple ecosystem services (B)
		Trends in economic and non-economic values value of selected ecosystem services (B)
		Trends in human and economic losses due to water or natural resource related disasters (B)
		Trends in area of degraded ecosystems restored or being restored (B)
		Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
		Indicators agreed in decision X/3 (B)
		Trends in condition and vulnerability of ecosystems (C)
		Trends in the proportion of natural habitats converted (C)
		Trends in primary productivity (C)
		Trends in proportion of land affected by desertification (C) (also used by UNCCD)
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)
		Trends in biocapacity (C)
16	ABS indicator to be specified through the ABS process (B)	Trends in genetic diversity of cultivated plants, and farmed and domesticated animals and their wild relatives (B) (decision VII/30 and VIII/15)
		Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
		Indicators agreed in decision X/3 (B)
		Trends in genetic diversity of selected species (C)
17	Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)	Trends in policy responses, legislation and management plans to control and prevent spread of invasive alien species (B)

		Trends in number of effective policy mechanisms implemented to reduce genetic erosion and safeguard genetic diversity related to plant and animal genetic resources (B)
		Trends in degree to which traditional knowledge and practices are respected through: full integration, participation and safeguards in national implementation of the Strategic Plan (B)
		Trends in coverage of comprehensive policy-relevant sub-global assessments including related capacity building and knowledge transfer, plus trends in uptake into policy (B)
		Indicators agreed in decision X/3 (B)
		Trends in awareness and attitudes to biodiversity (C)
		Trends in public engagement with biodiversity (C)
18	Trends in land-use change and land tenure in the traditional territories of indigenous and local communities (B) (decision X/43)	Trends in health and wellbeing of communities who depend directly on local ecosystem goods and services (B) (decision VII/30 and VIII/15)
	Trends in the practice of traditional occupations (B) (decision X/43)	Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
	Trends in degree to which traditional knowledge and practices are respected through: full integration, participation and safeguards in national implementation of the Strategic Plan (B)	Trends in awareness and attitudes to biodiversity (C)
	Trends of linguistic diversity and numbers of speakers of indigenous languages (B) (decision VII/30 and VIII/15)	
19	Trends in coverage of comprehensive policy-relevant sub-global assessments including related capacity building and knowledge transfer, plus trends in uptake into policy (B)	Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
	Number of maintained species inventories being used to implement the Convention (C)	Trends of linguistic diversity and numbers of speakers of indigenous languages (B) (decision VII/30 and VIII/15)
		Indicators agreed in decision X/3 (B)
		Trends in awareness and attitudes to biodiversity (C)
		Trends in public engagement with biodiversity (C)
		Trends in number of countries that have assessed values of biodiversity, in accordance with the Convention (C)
		Trends in guidelines and applications of economic appraisal tools (C)
20	Indicators agreed in decision X/3 (B)	Trends in the number and value of incentives, including subsidies, harmful

		to biodiversity, removed, reformed or phased out (B)
		Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
		Trends in number of countries that have assessed values of biodiversity, in accordance with the Convention (C)
		Trends in identification, assessment and establishment and strengthening of incentives that reward positive contribution to biodiversity and ecosystem services and penalize adverse impacts (C)
		Trends in the delivery of ecosystem services and equitable benefits from protected areas (C)

Appendix VII

Operational indicators identified as being important for communicating progress to external audiences (refer to [Excel](#) for further details and rationale).

This table is based on a ranking exercise conducted by the group to identify which operational indicators are particularly useful for communications purposes. The Group's discussion on this issue was not conclusive and therefore this list should be considered as indicative.

Operational Indicators¹¹
Trends in extent, condition and vulnerability of ecosystems (VIII/15)
Trends in abundance of selected species (A) (decision VII/30 and VIII/15) (UNCCD indicator)
Aggregated financial flows, in the amount and where relevant percentage, of biodiversity-related funding, per annum, for achieving the Convention's three objectives, in a manner that avoids double counting, both in total and in, inter alia, the following categories:(a)Official Development Assistance (ODA); (b)Domestic budgets at all levels; (c) Private sector; (d)Non-governmental organizations, foundations, and academia; (e)International financial institutions; (f)United Nations organizations, funds and programmes; (g)Non-ODA public funding; (h)South-South cooperation initiatives;(i)Technical cooperation; (agreed in decision X/3)
Trends in extinction risk of species (A) (decision VII/30 and VIII/15) (MDG indicator 7.7) (CMS indicator)
Trends in benefits that humans derive from selected ecosystem services (A)
Trends in protected area condition and/or management effectiveness including more equitable management (A) (decision X/31)
Trends in health and wellbeing of communities who depend directly on local ecosystem goods and services (B) (decision VII/30 and VIII/15)
Trends in number of countries incorporating natural resource, biodiversity, and ecosystem service values into national accounting systems (B)
Trends in extent to which biodiversity and ecosystem service values are incorporated into organizational accounting and reporting (B)
Trends in Ecological Footprint and/or related concepts (A) (decision VII/30 and VIII/15)
Trends in human and economic losses due to water or natural resource related disasters (B)
Trends in area degraded ecosystems restored or being restored (B)
Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems (A) (decision VII/30 and VIII/15)
Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management (B) (decision VII/30 and VIII/15)
Trends in population of forest and agriculture dependent species in production systems (B)
Trends in number of invasive alien species (B) (decision VII/30 and VIII/15)
Trends in implementation of National Biodiversity Strategies and Action Plans, including development, comprehensiveness, adoption and implementation (B)
Trends in fragmentation of natural habitats (B) (decision VII/30 and VIII/15)
Trends in genetic diversity of cultivated plants, and farmed and domesticated animals and their wild relatives (B) (decision VII/30 and VIII/15)

¹¹ Where reference is made to decisions and processes through which selected indicators were previously agreed the exact wording for the indicator may differ slightly but the intent remains the same.

Trends in production per input (B)
Trends in proportion of utilized stocks outside safe biological limits (A) (MDG indicator 7.4)
Trends in proportion of total freshwater resources used (A) (MDG indicator 7.5)
Status and trends in extent and condition of habitats that provide carbon storage (A)
Trends in nutritional contribution of biodiversity: Food composition (B) (decision VII/30 and VIII/15)
Trends in coverage of comprehensive policy-relevant sub-global assessments including related capacity building and knowledge transfer, plus trends in uptake into policy (B)
Extinction risk trends of habitat dependent species in each major habitat type (A)
Trends in population and extinction risk of utilized species, including species in trade (A) (CITES indicator)
Population trends of habitat dependent species in each major habitat type (A)
Trends in climate change impacts on extinction risk (B)
Trends in the economic impacts of selected invasive alien species (B)
Trends in pollution deposition rate (B) (decision VII/30 and VIII/15)
Trends in the impact of invasive alien species on extinction risk (A)
Trends in incidence of hypoxic zones and algal blooms (A)
Trends in proportion of the population using improved water services (A) (MDG indicator 7.8 and 7.9)
Trends in resources mobilized from the removal, reform, or phase out of incentives, including subsidies, harmful to biodiversity, which could be used for the promotion of positive incentives, including but not limited to innovative mechanisms that are consistent and in harmony with the Convention and other international obligations taking into account, national, social and economic conditions (B) (decision X/3)
ABS indicator to be specified through the ABS process (B)
Trends in degree to which traditional knowledge and practices are respected through: full integration, participation and safeguards in national implementation of the Strategic Plan (B)
Trends in the connectivity of protected and other area based approaches integrated into land and sea scapes (B) (decision VII/30 and VIII/15)
Trends in land-use change and land tenure in the traditional territories of indigenous and local communities (B) (Agreed in decision X/43);

Appendix VIII

Adjustments to the indicators agreed through decisions VII/30 and VIII/15 (refer to [Excel](#) for further details and rationale)

<i>Indicators agreed through Decisions VII/30 and VIII/15</i>	<i>Indicators developed by the AHTEG</i>	<i>Rationale for changes</i>
Coverage of protected areas	Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems	The indicator from decisions VII/30 and VIII/15 was retained and built upon to bring it in line with the wording of Target 11 of the Strategic Plan
Trends in extent of selected biomes, ecosystems and habitats	Trends in extent of selected biomes, ecosystems and habitats	Retained from decisions VII/30 and VIII/15
Trends in abundance and distribution of selected species	Trends in abundance of selected species	The indicator from decisions VII/30 and VIII/15 was retained but modified to focus on abundance. It was felt that distribution, while important, does not greatly help in assessing progress towards the Strategic Plan and is difficult to measure globally
Change in status of threatened species	Trends in extinction risk of species	Retained from decisions VII/30 and VIII/15 but wording changed to emphasize trends and improve clarity
Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socio-economic importance	Trends in genetic diversity of cultivated plants, and farmed and domesticated animals and their wild relatives	Retained from decisions VII/30 and VIII/15 but modified to incorporate information on wild relatives to bring the indicator inline with the wording of Target 13 of the Strategic Plan
Biodiversity used in food and medicine	Trends in nutritional contribution of biodiversity: Food composition Trends in nutritional contribution of biodiversity: Food consumption	Retained from decisions VII/30 and VIII/15 but disaggregated into two indicators to make the focus more clear

<i>Indicators agreed through Decisions VII/30 and VIII/15</i>	<i>Indicators developed by the AHTEG</i>	<i>Rationale for changes</i>
Area of forest, agricultural and aquaculture ecosystems under sustainable management	Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management	Retained from decisions VII/30 and VIII/15
Proportion of products derived from sustainable sources	Trends in proportion of products derived from sustainable sources	Retained from decisions VII/30 and VIII/15
Marine trophic index	Trends in proportion of utilized stocks outside safe biological limits	Both indicators rely on the same data sets. Given the recent discussions in the scientific literature on the utility of the Marine Trophic Index, the meeting decided to subsume the marine trophic index under the new proposed indicator. If and when the methodological issues surrounding the Marine Trophic Index are resolved, it could again be considered as a tool in monitoring progress towards the Strategic Plan.
Nitrogen deposition	Trends in pollution deposition rate	Recognizing that nitrogen represents only one pollutant and that relatively good information is available for other pollutants, such as phosphorus and sulfur, the meeting decided that the nitrogen deposition indicator should be subsumed under a boarded indicator focusing on pollutants.
Water quality in aquatic ecosystems	Trends in water quality in aquatic ecosystems	Retained from decisions VII/30 and VIII/15
Ecological footprint and related concepts	Trends in Ecological Footprint and/or related concepts	Retained from decisions VII/30 and VIII/15
Trends in invasive alien species	Trends in number of invasive alien species	Retained from decisions VII/30 and VIII/15
Connectivity/fragmentation of ecosystems	Trends in the connectivity of protected and other area based approaches integrated into land- and sea- scapes Trends in fragmentation of natural habitats	Retained from decisions VII/30 and VIII/15 but divided into two distinct indicators, one focusing on connectivity and the other focusing on fragmentation.
Incidence of human-induced ecosystem failure		Not considered by AHTEG

Health and well-being of communities who depend directly on local ecosystem goods and services	Trends in health and wellbeing of communities who depend directly on local ecosystem goods and services	Retained from decisions VII/30 and VIII/15
Status and trends of linguistic diversity and numbers of speakers of indigenous languages	Trends of linguistic diversity and numbers of speakers of indigenous languages	Retained from decisions VII/30 and VIII/15
Official development assistance provided in support of the Convention	Aggregated financial flows, in the amount and where relevant percentage, of biodiversity-related funding, per annum, for achieving the Convention's three objectives, in a manner that avoids double counting, both in total and in, inter alia, the following categories:(a)Official Development Assistance (ODA); (b)Domestic budgets at all levels; (c) Private sector; (d)Non-governmental organizations, foundations, and academia; (e)International financial institutions; (f)United Nations organizations, funds and programmes; (g)Non-ODA public funding; (h)South-South cooperation initiatives;(i)Technical cooperation;	Retained from decisions VII/30 and VIII/15 but also broadened in line with decision X/3
