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INDICATORS FOR ASSESSING PROGRESS TOWARDS, AND COMMUNICATING, THE 2010 TARGET AT THE GLOBAL LEVEL

Note by the Executive Secretary

EXECUTIVE SUMMARY

In response to the request of the Conference of the Parties in paragraph 6 of its decision VII/30, the Ad Hoc Technical Expert Group (AHTEG) on Indicators for Assessing Progress Towards the 2010 Biodiversity Target met in Montreal from 19 to 22 October 2004 to (i) review the use of the indicators listed in column B of annex I to that decision, *inter alia*, by reviewing a draft of the second Global Biodiversity Outlook; and (ii) identify or develop indicators listed in column C of the same annex.

The AHTEG confirmed the suitability for immediate use, including in the Global Biodiversity Outlook, of the indicators listed in column B of annex I to decision VII/30, and recommended that the following indicators be added to the above list for immediate testing and use: (i) change in status of threatened species; (ii) trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socio-economic importance; (iii) area of forest, agricultural and aquaculture ecosystems sustainable management; (iv) numbers and of alien under cost invasions; (v) connectivity/fragmentation of ecosystems. A summary of the conclusions of the AHTEG including in particular the names of organizations that could coordinate the collection and synthesis of data and analysis required for the delivery of the indicators is presented in annex I to the present note. Annex II to the note contains a table listing the association of the indicators considered by the AHTEG to the goals and sub-targets of decision VII/30.

SUGGESTED RECOMMENDATIONS

The Subsidiary Body on Scientific, Technical and Technological Advice may wish to:

(a)	Welcome the report of	the Ad Hoc	Technical 1	Expert (Group on	Indicators	for	Assessing
Progress Towar	ds the 2010 Biodiversity	Target (UN	EP/CBD/SI	BSTTA/	10/INF/7);		

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 ^{*} UNEP/CBD/SBSTTA/10/1.

- (b) Express its appreciation to:
 - (i) The Governments of the Netherlands, the United Kingdom of Great Britain and Northern Ireland, and the United States of America for their financial support of the meeting;
 - (ii) Other Governments and organizations for the participation of their representatives;
 - (iii) The Co-chairs and all the members of the Group for their contributions;
- (c) Endorse and recommend to the Conference of the Parties the addition of five indicators to those already adopted for immediate testing and use as follows: (i) change in status of threatened species; (ii) trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socioeconomic importance; (iii) area of forest, agricultural and aquaculture ecosystems under sustainable management; (iv) numbers and cost of alien invasions; (v) connectivity/fragmentation of ecosystems;
- (d) *Invite* the organizations listed in annex I below to contribute the data and analysis required for the delivery of the indicators, and the Parties and other Governments to facilitate this task, including by collecting and sharing information relevant to each indicator, *inter alia* by contributing such information to relevant databases;
- (e) Take note of the relevance of the indicators for assessing progress and communicating trends at the global level to the various goals and sub-targets adopted in decision VII/30, as presented in annex II to the present note, *agree* that this should be taken into account when integrating the goals and sub-targets into the various programmes of work; and *note* the gaps;
- (f) Request the Executive Secretary to report on progress made in the development of those indicators requiring further work at the eleventh meeting of SBSTTA, and, if necessary, and subject to the availability of resources, convene another meeting of an ad hoc technical expert group to facilitate this task and provide additional scientific advice to SBSTTA.

I. INTRODUCTION

- 1. In paragraph 6 of decision VII/30, the Conference of the Parties to the Convention on Biological Diversity requested the Subsidiary Body on Scientific, Technical and Technological Advice, with the assistance of an ad hoc technical expert group, to review the use of the indicators listed in annex I, column B, to the decision, *inter alia*, by reviewing a draft of the second Global Biodiversity Outlook; identify or develop indicators listed in annex I, column C, to the decision, ensuring that the full set of indicators is limited in number; and report on the results to the Conference of the Parties at its eighth meeting.
- 2. In paragraph 7 of decision VII/12, the Conference of the Parties requested the Executive Secretary to integrate the work on indicators for monitoring sustainable use, referred to in annex I to the decision, into the broader work undertaken pursuant to decision V/7 on identification, monitoring, indicators and assessment.
- 3. In developing goals and sub-targets to facilitate coherence among the programmes of work, and to provide a flexible framework for national targets, the Conference of the Parties also requested SBSTTA to identify indicators for the sub-targets, where possible, by association with the indicators provided in annex I to decision VII/30 (para.12 (b)).
- 4. In paragraph 3 of decision VII/30, the Conference of the Parties requested that a balanced set of indicators be identified in accordance with principles for choosing indicators identified by the Expert Group on Indicators and Monitoring contained in the note of the Executive Secretary prepared for the ninth meeting of SBSTTA (UNEP/CBD/SBSTTA/9/10). To facilitate the work of the AHTEG, the Conference of the Parties gave specific guidance on the characteristics of the indicators to be identified or developed:
- (a) The indicators should not be used to evaluate the level of implementation of the Convention in individual Parties or regions;
 - (b) The same indicators may be used at the global, regional, national and local levels;
- (c) The indicators should relate to one or more of the various programmes of work of the Convention;
- (d) The indicators should take into consideration relevant Millennium Development Goals and indicators developed by other relevant international processes; and
 - (e) Existing data sets should be used.
- 5. Accordingly, the meeting of the Ad Hoc Technical Expert Group (AHTEG) on Indicators for Assessing Progress Towards the 2010 Biodiversity Target was held in Montreal from 19 to 22 October 2004, with financial support from the Governments of the Netherlands, the United Kingdom of Great Britain and Northern Ireland, and the United States of America. The full report of the meeting is available as an information document (UNEP/CBD/SBSTTA/10/INF/7).
- 6. The present note has been prepared to summarize the status of the eight indicators adopted in decision VII/30 for immediate use and testing, and considers the status of the other indicators referred to by the Conference of the Parties in the same decision for identification or development. Section II contains some general observations and recommendations on the collection of information pertaining to these indicators. Annex I to the note summarizes the status of, and work to be carried out on, each indicator. It includes the names of potential coordinators for the work on each indicator as proposed by the AHTEG. A detailed review of each indicator is provided in relevant information documents. Annex II to the note associates the indicators provided in annex I to decision VII/30 with the goals and sub-targets contained in annex II to decision VII/30, in response to the request of the Conference of the Parties in paragraph 12 (b) of decision VII/30.

II. GENERAL OBSERVATIONS MADE BY THE AD HOC TECHNICAL EXPERT GROUP

Suitability of indicators and datasets

- 7. The suitability of the following indicators was confirmed for immediate use, including in the Global Biodiversity Outlook:
 - (a) Trends in extent of selected biomes, ecosystems and habitats;
 - (b) Trends in abundance and distribution of selected species;
 - (c) Coverage of protected areas;
 - (d) Nitrogen deposition;
 - (e) Marine trophic index;
 - (f) Water quality in aquatic ecosystems;
- (g) Status and trends of linguistic diversity and numbers of speakers of indigenous languages; and
 - (h) Official development assistance provided in support of the Convention.
- 8. In addition to the eight indicators listed above, the following indicators were also found ready for immediate testing and use including in the Global Biodiversity Outlook:
 - (a) Change in status of threatened species;
- (b) Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socio-economic importance;
 - (c) Area of forest, agricultural and aquaculture ecosystems under sustainable management;
 - (d) Numbers and cost of alien invasions; and
 - (e) Connectivity/fragmentation of ecosystems.
- 9. It is important to consider both the suitability of the indicators for assessing progress and communicating trends and the availability of suitable datasets. In theory, there may be better potential indicators; but for practical use, data must be available. The limitations of each indicator must be clarified in the final analyses and presentations. Indicators for which there are currently no suitable global datasets should not be discarded, but efforts should be made to generate/collect relevant information. In the interim, such indicators can be used in a qualitative way (storylines on the basis of examples where data exist).
- 10. As a general rule, to yield data relevant for assessing against the 2010 target (i.e. assessing change in a rate of change), a dataset needs to provide a minimum of three datapoints, so as to provide a minimum of two trend (rate of change) estimates (see appendix 3 in the report of the AHTEG (UNEP/CBD/SBSTTA/10/INF/7)).
- 11. It is important to present clear and comprehensible key messages that should be accompanied with graphs clearly showing the direction of changes (increase or reduction in the rate of biodiversity loss), and global-coverage maps, whenever feasible. The presentation and communication of key messages derived from the indicators is as important as the science behind each indicator. The ecological complexity of indicators must be balanced with the need to use them to communicate with policy makers. Colour-coded maps are powerful tools to highlight a message. Wherever geo-referenced information is available, it would be useful to provide this as a map. Parties should be invited to report on the usefulness at national level of the indicators adopted for assessing progress at the global level and to provide additional relevant information.

- 12. It is necessary to link the indicators to what they mean in terms of implementation or achievement of the Convention's objectives on the ground, and what can be done to improve the situation.
- 13. In many cases, different indicators provide complementary information relevant to the focal area. The complementarities between the indicators should be highlighted.
- 14. Regarding the second Global Biodiversity Outlook, it would be useful for global indicators and datasets to be underpinned with specific regional, national or local examples. Where no suitable global data are available, such examples and qualitative information would be used to prepare the storyline. The draft outline of the second Global Biodiversity Outlook, revised taking into account comments made by the AHTEG, is available as a document for the tenth meeting of SBSTTA (UNEP/CBD/SBSTTA/10/10). The technical information on the indicators that might be used in preparing the second Global Biodiversity Outlook is presented in relevant information documents.
- 15. In considering the availability of data and suitable methodologies, the AHTEG made specific recommendations on each indicator and identified possible coordinating organizations for the future work (in annex I below).
- 16. The work on the indicators for assessing progress towards the 2010 biodiversity target and for the preparation and publication of the second Global Biodiversity Outlook requires significant coordination efforts and financial resources. It would be useful to explore the possibility of securing funds from the Global Environment Facility (GEF) and other multilateral agencies, organizations and bilateral donors.

Annex I

SUMMARY OF INDICATOR STATUS AND WORK THAT NEEDS TO BE CARRIED OUT

Headline Indicator <u>1</u> /	Status 2/	Potential Measures	Data available now?	Method- ology available now?	Sources of data	Organizations to coordinate delivery of indicator
Trends in extent of	В	Forests, and forest	Yes	Yes	FRA (FAO); EU-JRC, NASA Modland;	UNEP-WCMC (with FAO,
selected biomes, ecosystems, and		types (eg. mangroves)			Corine land cover (see appendix 2 to the AHTEG report)	NASA-NGO Conservation Working Group and other
habitats <u>3</u> /		Peatlands	Yes	Yes	Various national datasets and remote- sensing (see appendix 2 to the AHTEG report)	relevant partners)
		Coral reefs	Yes	Yes	GCRMN/Reefcheck	
		Croplands	Yes	Yes	National regional datasets and remote- sensing (see appendix 2 to the AHTEG report), MA	
		(Natural) grasslands	Yes	Yes	Remote-sensing (see appendix 2 to the AHTEG report), MA	
		Polar/ice	Yes	Yes	Remote-sensing(see appendix 2 to the AHTEG report), MA	
		Inland wetlands	No	No	Remote-sensing (see appendix 2 to the AHTEG report), MA	
		Tidal flats/estuaries	No	No	Remote-sensing (see appendix 2 to the AHTEG report), MA	
		Seagrasses	No	No	Seagrass Atlas, MA	

Bold = Indicator considered ready for immediate testing and use (column B in decision VII/30); Bold italic = Indicator considered ready for immediate testing and use by the AHTEG and therefore recommended for upgrading from column C to column B; Regular = Indicator confirmed by the AHTEG as requiring more work (to remain in column C)

 $[\]underline{2}$ / B = Indicator is considered ready for immediate testing and use; C = Indicator requires further work

^{3/} Based on current and short-term future availability of trend information, the AHTEG recommended the following major ecosystem types for immediate indicator implementation: (i) forests (including different forest types, notably mangroves), (ii) peatlands (probably for certain geographic areas only by 2010), (iii) coral reefs, (iv) croplands, (v) grasslands/savannahs, (vi) polar/ice. Efforts should also be made to apply the indicator to the following ecosystem types, for which suitable global datasets need to be gathered, to ensure coverage of all thematic areas recognized by the Convention: (i) inland wetlands, (ii) tidal flats/estuaries, (iii) seagrass beds, (iv) dry and sub-humid lands, and (v) urban.

Headline Indicator <u>1</u> /	Status 2/	Potential Measures	Data available now?	Method- ology available now?	Sources of data	Organizations to coordinate delivery of indicator
		Dry and sub- humid lands	No	No	LADA, Remote-sensing (see appendix 2), MA	
		Urban	No	No	Remote-sensing (see appendix 2), MA	
Trends in abundance and distribution of selected species	В	Living Planet Index	Yes	Yes	WWF	UNEP-WCMC (WWF, Birdlife International and others, encouraged to review and refine methodology for calculation of index; These
		Various species assemblage-trends indices	Yes	Yes	Birdlife International and partners, others	groups and IUCN encouraged to compare and share data with that used for the Red List Index.) Indices could be developed from data disaggregated (e.g.: migratory species, wetland species))
Coverage of protected areas	В	Coverage according to World List of Protected areas.	Yes	Yes	WCMC/WCPA	UNEP-WCMC/IUCN-WCPA
		Overlays with IBAs	Yes	Yes	WCMC, WCPA, BirdLife International	
		Inclusion on community and private PAs	No	No		
		Management effectiveness	No	No		
Change in status of threatened species	В	Red List Index (IUCN-SSC)	Yes	Yes	Red List Consortium	Red List Consortium (Methodological refinements requested)

Headline Indicator <u>1</u> /	Status <u>2</u> /	Potential Measures	Data available now?	Method- ology available now?	Sources of data	Organizations to coordinate delivery of indicator
Trends in genetic diversity of domesticated animals, cultivated	В	Ex situ crop collections	Yes	Could be developed	FAO (SOW, WIEWS); IPGRI (CGIAR-SINGER); Fishbase	FAO with IPGRI on behalf of CGIAR
plants, and fish species of major socioeconomic		Livestock genetic resources	Yes	Could be developed	FAO (DADIS)	
importance		Fish genetic resources	Yes	Could be developed	FAO; Fishbase	
Area of forest, agricultural and aquaculture ecosystems under sustainable management	В	Certification	Yes	Yes	Certification bodies (eg: FSC, MSC, ISO)	UNEP-WCMC
Proportion of products derived from sustainable sources	С	Others	No	No	Equilibrium/WWF/World Bank/TNC intend to propose some indicators	SCBD
Nitrogen deposition	В		Yes	Yes	Available (INI) models for 2010 could be developed with additional effort	INI with UNEP-WCMC
Numbers and cost of alien invasions	В		Yes – some areas	No	Various	GISP
Marine Trophic Index	В		Yes	Yes	Available (UBC)	UBC
Water quality of freshwater ecosystems	В	Indicator of biological oxygen demand (BOD), nitrates and sediments/ turbidity	Yes	Yes	UNEP-GEMS/Water Programme	UNEP-GEMS/Water Programme
Trophic integrity of other ecosystems	С		No	No		SCBD to assemble available information

Headline Indicator <u>1</u> /	Status 2/	Potential Measures	Data available now?	Method- ology available now?	Sources of data	Organizations to coordinate delivery of indicator
Connectivity / fragmentation of ecosystems	В	Patch size distribution of terrestrial habitats (forests and possibly other habitat types)	Yes	Yes	NASA Consortium; CI; WWF-US based on remote sensing data	UNEP-WCMC (with FAO, CI, NASA-NGO Conservation Working Group and USDA- FS)
		Fragmentation of river systems	Yes	Yes	WRI	
Incidence of human- induced ecosystem failure	С	(see notes)	Some	No	SCBD to assemble available information for later consideration	SCBD/UNEP-WCMC
Health and well-being of communities who depend directly on local ecosystem goods and services*	С		No	No	To be identified	SCBD
Biodiversity for food and medicine	С		Some	No	FAO, IPGRI, WHO and others	SCBD
Status and trends of linguistic diversity and numbers of speakers of indigenous languages	В		Yes	Under review	Ethnologue	UNESCO with UNEP- WCMC (Smithsonian Institution requested to explore possible application of Red List methodology)
Other indicator of the status and indigenous and traditional knowledge	С		No	No	To be considered by the Working Group on Article 8(j) (possibly including land- tenure of indigenous and local communities)	SCBD
Indicator of access and benefit-sharing	С		No	No	To be considered by the Working Group on Access and Benefit-sharing	SCBD

Headline Indicator <u>1</u> /	Status 2/	Potential Measures	Data available now?	Method- ology available now?	Sources of data	Organizations to coordinate delivery of indicator
Official development assistance provided in support of the Convention	В	ODA as marked	Some	Yes	Donor countries encouraged to mark data	OECD (OECD is working on this for a trial period)
Indicator of technology transfer	С		No	No	Countries invited to submit information. EGTT may wish to consider this matter.	SCBD

Annex II

INDICATORS RELEVANT TO THE 2010 GOALS AND SUB-TARGETS

Goals and targets	Relevant headline indicators						
Protect the components of biodiversity							
Goal 1. Promote the conservation of the biological diversity of ecosystems, habitats and biomes							
Target 1.1: At least 10% of each of the world's	Most relevant indicator:						
ecological regions effectively conserved.	Coverage of protected areas						
	Other relevant indicators:						
	 Trends in extent of selected biomes, ecosystems and habitats 						
	 Trends in abundance and distribution of selected species 						
Target 1.2: Areas of particular importance to	Relevant indicators:						
biodiversity protected	Trends in extent of selected biomes, ecosystems and habitats						
	Trends in abundance and distribution of selected species						
	Coverage of protected areas						
Goal 2. Promote the conservation of species div	versity						
Target 2.1: Restore, maintain, or reduce the	Most relevant indicator:						
decline of populations of species of selected taxonomic groups	 Trends in abundance and distribution of selected species 						
	Other relevant indicator:						
	Change in status of threatened species						
Target 2.2: Status of threatened species	Most relevant indicator:						
improved.	Change in status of threatened species						
	Other relevant indicators:						
	 Trends in abundance and distribution of selected species 						
	Coverage of protected areas						

Goals and targets	Relevant headline indicators					
Goal 3. Promote the conservation of genetic diversity						
Target 3.1: Genetic diversity of crops,	Most relevant indicator:					
livestock, and of harvested species of trees, fish and wildlife and other valuable species conserved, and associated indigenous and local knowledge maintained.	Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socio-economic importance					
	Other relevant indicators:					
	Biodiversity used in food and medicine (indicator under development)					
	 Trends in abundance and distribution of selected species 					
Promote sustainable use						
Goal 4. Promote sustainable use and consumpt	ion.					
Target 4.1: Biodiversity-based products	Most relevant indicators:					
derived from sources that are sustainably managed, and Production areas managed consistent with the conservation of	 Area of forest, agricultural and aquaculture ecosystems under sustainable management 					
biodiversity.	 Proportion of products derived from sustainable sources (indicator under development) 					
	Other relevant indicators:					
	 Trends in abundance and distribution of selected species 					
	Marine trophic index					
	Nitrogen deposition					
	Water quality in aquatic ecosystems					
Target 4.2 Unsustainable consumption, of biological resources, or that impacts upon	Relevant indicator: • None assigned					
biodiversity, reduced						
Target 4.3:No species of wild flora or fauna endangered by international trade	Most relevant indicator:					
The state of mornanonal trace	Change in status of threatened species					

Goals and targets	Relevant headline indicators						
Address threats to biodiversity							
Goal 5. Pressures from habitat loss, land use chreduced.	hange and degradation, and unsustainable water use,						
Target 5.1: Rate of loss and degradation of	Most relevant indicator:						
natural habitats decreased	 Trends in extent of selected biomes, ecosystems and habitats 						
	Other relevant indicators:						
	Trends in abundance and distribution of selected species						
	Marine trophic index						
Goal 6. Control threats from invasive alien spec	cies						
Target 6.1: Pathways for major potential alien	Relevant indicator:						
invasive species controlled.	 Numbers and cost of alien invasions 						
Target 6. 2: Management plans in place for	Relevant indicator:						
major alien species that threaten ecosystems, habitats or species.	Numbers and cost of alien invasions						
Goal 7. Address challenges to biodiversity from	n climate change, and pollution						
Target 7.1: Maintain and enhance resilience of	Relevant indicator:						
the components of biodiversity to adapt to climate change.	Connectivity/fragmentation of ecosystems						
Target 7.2: Reduce pollution and its impacts on	Nitrogen deposition						
biodiversity.	Water quality in aquatic ecosystems						
Maintain goods and services from biodiversity	y to support human well-being						
Goal 8. Maintain capacity of ecosystems to deli	ver goods and services and support livelihoods						
Target 8.1: Capacity of ecosystems to deliver	Relevant indicators:						
goods and services maintained.	 Biodiversity used in food and medicine (indicator under development) 						
	Water quality in aquatic ecosystems						
	Marine trophic index						
Target 8.2: biological resources that support	Most relevant indicator:						
sustainable livelihoods, local food security and health care, especially of poor people maintained.	Health and well-being of communities who depend directly on local ecosystem goods and services						
	Other relevant indicator:						
	Biodiversity used in food and medicine						
Protect traditional knowledge, innovations and practices							
Goal 9 Maintain socio-cultural diversity of indigenous and local communities							

Goals and targets	Relevant headline indicators
Target 9.1 Protect traditional knowledge,	Most relevant indicator:
innovations and practices.	 Status and trends of linguistic diversity and numbers of speakers of indigenous languages
	Other relevant indicator:
	Additional indicators to be developed
Target 9.2: Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit-sharing.	Indicator to be developed
Ensure the fair and equitable sharing of benefit	fits arising out of the use of genetic resources
Goal 10. Ensure the fair and equitable sharing	of benefits arising out of the use of genetic resources
Target 10.1: All transfers of genetic resources are in line with the Convention on Biological Diversity, the International Treaty on Plant Genetic Resources for Food and Agriculture and other applicable agreements.	Indicator to be developed
Target 10.2: Benefits arising from the commercial and other utilization of genetic resources shared with the countries providing such resources.	Indicator to be developed
Ensure provision of adequate resources	
Goal 11: Parties have improved financial, hum implement the Convention	an, scientific, technical and technological capacity to
Target 11.1: New and additional financial resources are transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with Article 20.	Most relevant indicator: • Official development assistance provided in support of the Convention
Target 11.2: Technology is transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with its Article 20, paragraph.	Indicator to be developed

Annex III

LIST OF ACRONYMS AND ABBREVIATIONS

AHTEG Ad Hoc Technical Expert Group
BOD Biochemical oxygen demand
CBD Convention on Biological Diversity

CGIAR Consultative Group on International Agricultural Research

CI Conservation International COP Conference of the Parties

DADIS Domestic Animal Diversity Information System of FAO

EGTT Expert Group on Technology Transfer
EU-JRC Joint Research Centre of the European Union

FAO Food and Agriculture Organization of the United Nations

FRA Forest Resources Assessment of FAO

FSC Forest Stewardship Council GBO Global Biodiversity Outlook

GCRMN Global Coral Reef Monitoring Network
GEMS Global Environment Monitoring System
GISP Global Invasive Species Programme

INI International Nitrogen Initiative: a joint programme of SCOPE and IGBP

IPGRI International Plant Genetic Resources Institute
ISO International Organization for Standardization

IUCN The World Conservation Union

LADA Land Degradation Assessment in Drylands, a project of FAO

LPI Living Planet Index

MA Millennium Ecosystem Assessment

MSC Marine Stewardship Council

NASA National Aeronautics and Space Administration

NGO non-governmental organization

OECD Organisation for Economic Co-operation and Development

RLI Red List Index

SBSTTA Subsidiary Body on Scientific Technical and Technological Advice

SCBD Secretariat of the Convention on Biological Diversity

SINGER System-wide Information Network for Genetic Resources (for CGIAR)

SOW1 First Report on the State of the World's Plant Genetic Resources for Food and

Agriculture. FAO, Rome 1997.

SSC Species Survival Commission of IUCN

TNC The Nature Conservancy
UBC University of British Columbia

UNEP United Nations Environment Programme
UNEP-WCMC World Conservation Monitoring Centre

UNESCO United Nations Educational, Scientific and Cultural Organization

USDA United States Department of Agriculture

WCPA World Commission on Protected Areas of IUCN

WHO World Health Organization

WIEWS World Information and Early Warning System on PGRFA

WRI World Resources Institute

WWF – the Global Conservation Organization (formerly: World Wide Fund for

Nature)
