

Research needs expressed in the Decisions of the Conference of the Parties to the Convention on Biological Diversity: Cross-Cutting Issue: 2010 Target and Aichi Biodiversity Targets 2011-2020

In April 2002, the Parties to the Convention committed themselves (<http://www.cbd.int/2010-target/default.shtml>) to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth. COP 10 in October 2010 reviewed to which extend the 2010-target was met and agreed on the Aichi Biodiversity Targets to be met in the period from 2011 until 2020 (Decision X/2).

Cited Decisions that express research needs are VI/26, VIII/15, X/2, XI/2, XI/3, XI/4, XI/16, XII/1, XIII/3, XIII/29, XIII/30, XIII/31, XIV/1, XIV/2, XIV/3, XIV/22, XIV/24, XIV/28, XIV/34 and XIV/35, also checked were Decisions VII/30 and XIV/36.

Direct research needs

Decision	Paragraph	Chapeau / Heading	Text	Source http://www.cbd.int/decisions/
VIII/15	Para 17	The Conference of the Parties	<i>Emphasizes the need for taxonomic studies in the implementation of the programme of work on the biological diversity of dry and sub-humid lands, taking into account the relevant activities in the programme of work for the Global Taxonomy Initiative.</i>	cop-08.shtml?m=COP-08&id=11029
VIII/15	Para 22	The Conference of the Parties	<i>Emphasizes the need for taxonomic studies in forest biodiversity, taking into account the relevant activities in the programme of work for the Global Taxonomy Initiative.</i>	
X/2	Annex, Target 19		By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved , widely shared and transferred, and applied.	cop/?id=12268
X/2	Annex, Para 25		Global monitoring of biodiversity: work is needed to monitor the status and trends of biodiversity , maintain and share data, and develop and use indicators and agreed measures of biodiversity and ecosystem change. Ongoing research on biodiversity and ecosystem function and services and their relationship to human well-being.	cop/?id=12268
XI/3	Section A,	The	<i>Requests the Executive Secretary [...] to:</i>	cop/default.shtml?id=13164

	Para 12	Conference of the Parties	<p>b) Further develop the global indicators identified in the annex to this decision with a view to ensuring that each Aichi Biodiversity Target can be monitored by at least one global indicator by 2014, taking into account indicators that are already in use by, or relevant to, other conventions, regional agreements and processes;</p> <p>c) Propose a limited number of simple, easily applicable and cost-effective indicators that can potentially be used by Parties, as appropriate and taking into account their particular conditions and priorities;</p>	
XI/3	Section A, Para 13	The Conference of the Parties	<i>Invites</i> the Group on Earth Observation Biodiversity Observation Network (GEO–BON) to continue its work on the identification of essential biodiversity variables and the development of associated data sets	cop/default.shtml?id=13164
XI/3	Section A, Para 15	The Conference of the Parties	<i>Invites</i> relevant organizations, including funding bodies, to encourage and support long-term monitoring and the further development of indicators and reporting progress in the implementation of the Strategic Plan for Biodiversity 2011-2020 as well as the development of baselines for indicators where these do not yet exist;	cop/default.shtml?id=13164
XI/4	Para 7	The Conference of the Parties	<p><i>resolves</i> to achieve the following preliminary targets, which are to be considered mutually supportive but independent:</p> <p>d) Endeavour for 100 per cent, but at least 75 per cent, of Parties provided with adequate financial resources to have prepared national financial plans for biodiversity by 2015, and that 30 per cent of those Parties have assessed and/or evaluated the intrinsic, ecological, genetic, socioeconomic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components;</p>	cop/default.shtml?id=13165
XI/16	Para 1	The Conference of the Parties	<p><i>Urges</i> Parties and <i>encourages</i> other Governments and relevant organizations to make concerted efforts to achieve Aichi Biodiversity Targets 14 and 15 and targets 4 and 8 of the Global Strategy for Plant Conservation, and to contribute to the achievement of all the other Aichi Biodiversity Targets through ecosystem restoration through a range of activities depending on national circumstances, including:</p> <p>b) Identifying, analysing and addressing both underlying and direct causes of ecosystem degradation or fragmentation and using the</p>	cop/default.shtml?id=13177

			<p>knowledge gained to prevent or reduce activities which cause further degradation, deterioration or destruction;</p> <p>c) Identifying degraded ecosystems that have the potential for ecosystem restoration</p> <p>h) Identifying opportunities to link poverty eradication and ecosystem restoration, <i>inter alia</i> through the rehabilitation or restoration of ecosystems that provide services upon which women, indigenous and local communities, and the poor and vulnerable are directly dependent, and the development of restoration projects that provide employment and skills improvement;</p>	
XII/1	Para 14	The Conference of the Parties	<p><i>Take notes</i> of the key scientific and technical needs related to the implementation of the Strategic Plan for Biodiversity 2011-2020, as identified by the Subsidiary Body on Scientific, Technical and Technological Advice at its seventeenth meeting and contained in annex I to the present decision, for use in future considerations on the implementation of the Strategic Plan for Biodiversity 2011-2020 and achievement of the Aichi Biodiversity Targets, and <i>invites</i> Parties to take action to address the identified gaps;</p>	doc/?meeting=cop-12
XII/1	Annex I		<p>a) <i>Social science</i> - The need for better ways to draw on social sciences to motivate choices consistent with the objectives of the Strategic Plan for Biodiversity 2011-2020 and to develop new approaches through, <i>inter alia</i>, better understanding of behavioural change, production and consumption patterns, policy development, and the use of non-market tools. The need for more effective communication, education and public awareness to be spread more widely through school systems and other channels and to devise communication and awareness strategies on biodiversity, complementing communication, education and public awareness efforts with other perspectives including research on intercultural and intracultural communication experiences;</p> <p>b) <i>Data and information</i> – The need for more accessible, affordable, comprehensive, reliable and comparable data and information streams through, <i>inter alia</i>, facilitated access to remote sensing, better collection and use of <i>in situ</i> observations, proxies, citizen science, modelling, biodiversity monitoring networks, better application of data standards and interoperability related to data acquisition and management to</p>	doc/?meeting=cop-12

		<p>produce policy-relevant products, including indicators and scenarios to inform decision-making;</p> <p>c) <i>Evaluation and assessment</i> – The need for improving and promoting methodologies for assessing the status and trends of species and ecosystems, hotspots and conservation gaps as well as ecosystem functions, ecosystem services and human well-being, at the national, regional and global levels;</p> <p>d) <i>Planning and mainstreaming</i> – The need for improvement and better use of appropriate planning tools, and approaches for mainstreaming, in implementing the Strategic Plan for Biodiversity 2011-2020 through, <i>inter alia</i>: biodiversity safeguards, tools and methods for spatial planning, including integrated land use and coastal and marine planning, valuation of biodiversity, ecosystem functions and ecosystem services; and mainstreaming biodiversity into sustainable development and other relevant policy sectors;</p> <p>e) <i>Linking science and policy</i> – The need for better integration of science and policymaking and for improved science-policy interfaces, particularly at the local and national levels and through the use of IPBES, and the improved and wider use of tools to promote policy coherence and policy evaluation and to produce scenarios and options relevant to policymakers;</p> <p>f) <i>Maintenance, conservation and restoration of ecosystems</i> – The need for better understanding of ecosystem processes and functions and their implications for ecosystem conservation and restoration, ecological limits, tipping points, socio-ecological resilience and ecosystem services; and improved methodologies and indicators for monitoring ecosystem resilience and recovery, in particular for vulnerable ecosystems;</p> <p>g) <i>Economic instruments</i> – The need for better understanding of the performance of economic instruments and their wider use in achieving the objectives of the Strategic Plan for Biodiversity 2011-2020, as well as poverty eradication strategies, taking into account national socioeconomic conditions, and the need for improved guidance and tools to develop positive incentives and for the identification, elimination, phasing out or reform of harmful incentives, consistent and in harmony</p>	
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XIII/3	Para 99	The Conference of the Parties	<p><i>Invites</i> the broader scientific community to strengthen efforts to communicate its research results, tools and information to policy-makers, and to fill the knowledge gaps identified at the Forum in close partnership with decision makers and other stakeholders, jointly with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services;</p>	decisions/cop/?m=cop-13
XIII/29	Para 6	The Conference of the Parties	<p><i>Encourages...</i>the scientific community...to further develop and use scenarios and models to support decision-making and the evaluation of policies,....</p>	decisions/cop/?m=cop-13
XIII/29	Para 9	The Conference of the Parties	<p><i>Invites</i> the scientific community:</p> <p>a) To address key gaps in methods for modelling the impacts of drivers and policy interventions on biodiversity and ecosystem services that have been identified in the methodological assessment of scenarios and models of biodiversity and ecosystem services;</p> <p>b) To develop practical and effective approaches to evaluating and communicating levels of uncertainty associated with scenarios and models, as well as tools for applying those approaches to assessments</p>	decisions/cop/?m=cop-13

			and decision-making;	
XIII/30	Para 1	The Conference of the Parties	<i>Requests</i> the Executive Secretary to prepare.....updated scientific assessments of progress towards Aichi Biodiversity Targets, focusing in particular on those targets on which the least progress has been made...	decisions/cop/?m=cop-13
XIII/30	Para 2	The Conference of the Parties	<i>Also requests</i> the Executive Secretary to develop options to accelerate progress towards the achievement of those targets which have been identified as the least advanced.	decisions/cop/?m=cop-13
XIV/3	Para 16	The Conference of the Parties	<i>Invites</i> relevant organizations [...] b) To develop and improve metrics, indicators, baselines and other tools to measure the biodiversity dependencies of businesses in these sectors and their impacts on biological diversity , in order to provide business managers and investors with trusted, credible and actionable information for improved decision-making and the promotion of environmental, social and governance investments;	decisions/cop/?m=cop-14
XIV/22	Para 12	The Conference of the Parties	<i>Notes</i> the useful role of national studies to identify harmful incentives and opportunities for removal or reform of harmful incentives , including subsidies, and in scoping and identifying the most effective policy action, <i>invites interested organizations</i> [...] to consider undertaking a systematic compilation and analysis of existing studies with a view to identifying good-practice methods for identifying harmful incentives and developing appropriate policy responses, and develop a standard or template for such standards as voluntary guidance;	decisions/cop/?m=cop-14

Indirect research needs

Decision	Paragraph	Chapeau / Heading	Text	Source
VI/26	Annex I Para 11 Goal 2 Objective 5	Strategic Plan for the CBD.	Technical and scientific cooperation is making a significant contribution to building capacity.	http://www.cbd.int/decisions/cop-06.shtml?m=COP-06&id=7200
VI/26	Annex I Appendix Para 3	Obstacles to the implementation of the CBD.	Lack of accessible knowledge/information: Loss of biodiversity and the corresponding goods and services it provides not properly understood and documented.	

VIII/15	Annex II	The Conference of the Parties <i>Notes</i> that the framework for monitoring implementation of the Convention and achievement of the 2010 target is comprised of:	A limited number of indicators to measure progress in the implementation of the Strategic Plan, to be developed on the basis of the proposed indicators: Trends in extent of selected biomes, ecosystems and habitats ; Trends in abundance and distribution of selected species ; Change in status of threatened species ; Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socio-economic importance; Marine trophic index ; Nitrogen deposition ; Water quality in aquatic ecosystems; Trends in invasive alien species ; Connectivity/fragmentation of ecosystems; Status and trends of linguistic diversity and numbers of speakers of indigenous languages.	cop-08.shtml?m=COP-08&id=11029
X/2	Para 2	The Conference of the Parties	<i>Urges</i> Parties and other Governments to Monitor and review the implementation of their national biodiversity strategies and action plans in accordance with the Strategic Plan and their national targets making use of the set of indicators developed for the Strategic Plan;	cop/?id=12268
X/2	Annex, Para 6		Insufficient scientific information for policy and decision-making is a further obstacle for the implementation of the Convention.	cop/?id=12268
X/2	Annex, Target 6		By 2020 [...] fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits ;	cop/?id=12268
X/2	Annex, Target 8		By 2020, pollution , including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity .	cop/?id=12268
X/2	Annex, Target 9		By 2020, invasive alien species and pathways are identified and prioritized.....	cop/?id=12268
XI/2	Section E, Para 27	The Conference of the Parties	<i>Requests</i> the Executive Secretary to undertake, subject to the availability of resources, a review of the impact of disasters and conflicts on biodiversity and of ways and means to take action to implement the Strategic Plan for Biodiversity 2011–2020 and achieve	cop/default.shtml?id=13163

			the Aichi Biodiversity Targets under such conditions	
XI/3	Section A, Para 10	The Conference of the Parties	<i>Recognizes</i> the need to strengthen technical and institutional capacities and to mobilize adequate financial resources for the development and application of indicators and monitoring systems ,	cop/default.shtml?id=13164
XI/3	Section A, Para 12	The Conference of the Parties	<i>Requests</i> the Executive Secretary [...] to: h) Develop an explanatory practical toolkit on each of the Aichi Biodiversity Targets, including possible steps for measuring progress towards these targets, taking into national conditions and priorities;	cop/default.shtml?id=13164
XI/4	Para 3	The Conference of the Parties	<i>Highlights</i> the need for further consideration to be given to evaluating resources mobilized in terms of the biodiversity outcomes achieved ;	cop/default.shtml?id=13165
XIII/3	Para 17	The Conference of the Parties	<i>Encourages</i> Parties and <i>invites</i> other Governments g) To enhance monitoring of the use of natural resources, such as land, soil and water in all sectors, including agriculture, forests, fisheries and aquaculture, and tourism, among others, and to improve data collection, management and public access to monitoring data;	decisions/cop/?m=cop-13
XIII/31	Para 4	The Conference of the Parties	<i>Invites</i> Parties and relevant organizations to further promote open access to biodiversity-related data and transparency in the development of derived metrics and, to this end, to consider, as appropriate, the voluntary guidance annexed to the present decision;	decisions/cop/?m=cop-13
XIII/31	Para 5	The Conference of the Parties	<i>Requests</i> the Executive Secretary c) To collaborate with relevant organizations for compiling information on tools to support the implementation of the Strategic Plan for Biodiversity 2011-2020, including those areas in which gaps have been identified, in particular methods to assess motives for and barriers to behavioural change, social marketing strategies, engagement techniques and participatory processes and mechanisms to promote the development of social, moral and economic incentives, taking into account cultural and socioeconomic differences among countries and regions, for people to sustainably manage biodiversity and ecosystem functions and services	decisions/cop/?m=cop-13
XIII/31	Para 6	The Conference of the Parties	<i>Encourages</i> Parties a) To further work to identify their biodiversity monitoring, assessment, project implementation, and research needs at the national level; g) To support the development, with the assistance, as appropriate, of the international barcode of life network, of DNA sequence-based	decisions/cop/?m=cop-13

			technology (DNA barcoding) and associated DNA barcode reference libraries for priority taxonomic groups of organisms, to promote the application of these techniques for the conservation and sustainable use of biodiversity;	
XIII/31	Annex Para 1	Voluntary Guidance	Promote open data access through policy incentives	decisions/cop/?m=cop-13
XIII/31	Annex Para 2	Voluntary Guidance	Promote the use of common data standards	decisions/cop/?m=cop-13
XIII/31	Annex Para 3	Voluntary Guidance	Invest in the digitization of natural history collections.	decisions/cop/?m=cop-13
XIII/31	Annex Para 4	Voluntary Guidance	Establish national biodiversity information facilities	decisions/cop/?m=cop-13
XIII/31	Annex Para 5	Voluntary Guidance	Enhance national capacity in biodiversity informatics	decisions/cop/?m=cop-13
XIII/31	Annex Para 6	Voluntary Guidance	Engage the public in biodiversity observation through citizen science networks	decisions/cop/?m=cop-13
XIII/31	Annex Para 7	Voluntary Guidance	Encourage data sharing from the private sector.	decisions/cop/?m=cop-13
XIII/31	Annex Para 8	Voluntary Guidance	Develop national platforms for data discovery, visualization and use	decisions/cop/?m=cop-13
XIII/31	Annex Para 9	Voluntary Guidance	Analyse data and information gaps to prioritize new data mobilization	decisions/cop/?m=cop-13
XIII/31	Annex Para 10	Voluntary Guidance	Engage with and support regional and global networks for data mobilization and access	decisions/cop/?m=cop-13
XIV/1	Annex Para 1 and 2	Possible Options	<p>Possible actions that could be taken [...] include:</p> <p>b) Increasing the generation of, and access to, biodiversity information, including by promoting research on biodiversity and ecosystem functions and services, developing data sets which can be disaggregated for different ecosystems and at different geographic scales, and developing and promoting mechanisms to share biodiversity information more effectively;</p> <p>c) Enhancing the monitoring of all aspects of biodiversity and ecosystem functions and services, including by making greater use of remote observations and geographic information systems as well as using technology for species identification and generation of biodiversity</p>	decisions/cop/?m=cop-14

			information;	
XIV/2	Para 2	The Conference of the Parties	<p>Invites the scientific and other relevant communities working on scenarios and related assessments to take into account the following issues which are relevant to the development of the post-2020 global biodiversity framework:</p> <p>(a) The broad range of underlying drivers and systemic and structural issues related to biodiversity loss;</p> <p>(b) Combinations of policy approaches at multiple scales and under different scenarios;</p> <p>(c) The identification of potential synergies, trade-offs and limitations related to biodiversity that should be considered in order to identify effective policies and measures to enable the achievement of the Sustainable Development Goals;</p> <p>(d) The contributions of the collective action of indigenous peoples and local communities in the conservation of biological diversity and the sustainable use of its components;</p> <p>(e) The consequences of alternative scenarios for the customary sustainable use of biodiversity by indigenous peoples and local communities;</p> <p>(f) Scenario analyses on financing the post-2020 global biodiversity framework and the attainment of the 2050 Vision for Biodiversity, taking into account Article 20 of the Convention;</p> <p>(g) Scenario analyses on the fair and equitable sharing of benefits arising from the utilization of genetic resources in accordance with the Convention and the Nagoya Protocol, including monetary and non-monetary benefits arising from their non-commercial and commercial utilization, and the potential of benefit-sharing to promote the conservation and sustainable use of biological diversity;</p> <p>(h) A gender perspective in the development, implementation and monitoring of the post-2020 global biodiversity framework;</p> <p>(i) The potential positive and negative impacts of productive sectors on biodiversity, such as agriculture, forestry and fisheries;</p> <p>(j) Technology developments, such as advances in data analytics, digital sequence information on genetic resources, new kinds of living modified organisms and synthetic biology, and their</p>	<p>decisions/cop/?m=cop-14</p>

			<p>potential positive or negative impacts on the achievement of the three objectives of the Convention as well as on the lifestyles and traditional knowledge of indigenous peoples and local communities;</p> <p>(k) The importance of increasing awareness about the multiple values of biodiversity and the consequences of biodiversity loss through enhanced communication;</p> <p>(l) How scenarios and related assessments could inform the identification of short- and medium-term milestones in pursuit of the long-term goal.</p>	
XIV/24	Chapeau text	The Conference of the Parties	<p><i>Recognizing the importance of taxonomy, remote sensing, scenario analyses and modelling to the provision of scientific underpinnings for actions under the post-2020 global biodiversity framework</i> in support of the 2050 Vision.</p>	decisions/cop/?m=cop-14
XIV/28	Para 1	The Conference of the Parties	<p><i>Emphasizes the need for sound evaluations of the effectiveness of policy instruments or measures</i> in supporting the implementation of the Convention and the Strategic Plan for Biodiversity 2011-2020 and for associated capacity-building;</p>	decisions/cop/?m=cop-14
XIV/34	Para 11	The Conference of the Parties	<p><i>Invites Parties [...] to consider developing [...], biodiversity commitments that contribute to the achievement of the three objectives of the Convention,</i></p>	decisions/cop/?m=cop-14
XIV/36	Para 6	The Conference of the Parties	<p><i>invites [...] relevant organizations to make available, in an open manner, accurate and reliable data and data updates on the status of, trends in, and projections for biological diversity as well as threats thereto,</i> and on progress in the implementation of the Convention and the Strategic Plan for Biodiversity 2011-2020, including with respect to mainstreaming activities</p>	decisions/cop/?m=cop-14