

# **IPBES TCA Chapter 1. Analysis of effectiveness of environmental governance / IPBES transformative change assessment**

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## **Description**

This review corresponds to the IPBES transformative change assessment. The IPBES transformative change assessment scoping document requests that the Assessment answers the question of “What are transformative changes, and how do they relate to current approaches to managing biodiversity, ecosystem services, and nature’s contributions to people?”, and the chapter 1 to specifically “present evidence for the need for transformative change, explain what transformative change is, whether and how it differs from incremental change”. This report describes the process of delivering on the task by providing quantitative data, which amended the qualitative assessment of approaches to managing and governing biodiversity.

## Protocol

To evaluate and assert the effectiveness of the existing approaches, an analysis of effect by current approaches to biodiversity governance and management was conducted and related to biodiversity trends. Those aspects of biodiversity governance and management were selected that are specific and measurable, and where data is publicly available. It was necessary to be able to match on the same timeline (1972 onwards) the indicator of biodiversity and the governance or management approaches.

The analysis, informing figure 1.4, selected the following indicators and datasets, for the following reasons and with the following considerations:

Indicator	Justification for the choice of indicator	Unit chosen	Data source	Comments relating to the unit and analysis	Citation
Biodiversity	Temporal presentation of the status of biodiversity and ecosystem loss	Living Planet Index	Living Planet Index (A) ( <a href="https://www.livingplanetindex.org/latest_results">https://www.livingplanetindex.org/latest_results</a> , accessed April 2024). ( <a href="https://ourworldindata.org/living-planet-index-region">https://ourworldindata.org/living-planet-index-region</a> )		LPI 2024. Living Planet Index database. 2024. <a href="http://www.livingplanetindex.org/">www.livingplanetindex.org/</a> . Downloaded on 1 April 2024.  WWF (2022) Living Planet Report 2022 – Building a nature-positive society. Almond, R.E.A., Grooten, M., Juffe Bignoli, D. & Petersen, T. (Eds). WWF, Gland, Switzerland.
Participation in Multilateral Environmental Agreements	Indication of states' commitments to biodiversity conservation	States signing the selected treaty	Our World in Data, Number of parties in environmental agreements from Our World In Data (B) ( <a href="https://ourworldindata.org/grapher/number-of-parties-env-agreements">https://ourworldindata.org/grapher/number-of-parties-env-agreements</a> <a href="https://ourworldindata.org/">https://ourworldindata.org/</a> , accessed 10.07.2023), number-of-parties-env-agreements ( <a href="https://ourworldindata.org/grapher/number-of-parties-env-agreements">https://ourworldindata.org/grapher/number-of-parties-env-agreements</a> )  For other conventions data was retrieved from their websites (C): - Revised African Convention on Conservation of Nature, 2013 ( <a href="https://au.int/en/treaties/african-convention-conservation-nature-and-natural-resources-revised-version">https://au.int/en/treaties/african-convention-conservation-nature-and-natural-resources-revised-version</a> , accessed May 30 2024) - Protocol on Environmental Protection to the Antarctic Treaty, 1991 ( <a href="https://www.ats.ag/devAS/Parties?lang=e">https://www.ats.ag/devAS/Parties?lang=e</a> , accessed May 30 2024) - UNECE Convention on Long-Range Transboundary Air Pollution (1979)	Our World in Data dataset included the number of member parties in each convention or treaty by year. Based on the date of signature (when available, otherwise ratification date) of each country the same data format was created for other conventions not included in Our	Number of parties to multilateral environmental agreements - UNCTAD – processed by Our World in Data. “Cartagena Protocol on Biosafety” [dataset]. “Cites Convention on International Trade in Endangered Species of Wild Fauna and Flora” [dataset]. “Convention on Biological Diversity (CBD)” [dataset]. “Convention on the Conservation of Migratory Species of Wild Animals” [dataset]. “Kyoto Protocol (Greenhouse gas emissions)” [dataset]. “Ramsar Convention

			<p>and UNECE Convention on Access to Information, Public Participation and Access to Justice in Environmental Matters (1998). Information on UNECE member states was retrieved from <a href="https://unece.org/member-states-and-member-states-representatives">https://unece.org/member-states-and-member-states-representatives</a> on 25 May 2024.</p> <p>- Montreal Protocol on the Substances that Deplete the Ozone Layer, 1987. (<a href="https://ozone.unep.org/all-ratifications">https://ozone.unep.org/all-ratifications</a>, accessed 25 May 2024)</p> <p>- Basel Convention on Hazardous Waste, 1989 (<a href="https://www.basel.int/Countries/StatusofRatifications/PartiesSignatories/tabid/4499/Default.aspx">https://www.basel.int/Countries/StatusofRatifications/PartiesSignatories/tabid/4499/Default.aspx</a>, accessed 25 May 2024)</p> <p>- Nagoya Protocol, 2010. (<a href="https://www.cbd.int/abs/nagoya-protocol/signatories">https://www.cbd.int/abs/nagoya-protocol/signatories</a>, accessed 25 May 2024)</p> <p>- Minamata Convention on Mercury, 2013. (<a href="https://minamataconvention.org/en/parties">https://minamataconvention.org/en/parties</a>, accessed 25 May 2024)</p> <p>- Paris Agreement under UNFCCC, 2015 (<a href="https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&amp;mtdsg_no=XXVII-7-d&amp;chapter=27&amp;clang=en">https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&amp;mtdsg_no=XXVII-7-d&amp;chapter=27&amp;clang=en</a>, accessed 25 May 2024)</p> <p>- Agreement under UNCLOS on the Biodiversity of Areas beyond National Jurisdiction, 2023 (<a href="https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&amp;mtdsg_no=XXI-10&amp;chapter=21&amp;clang=en#:~:text=The%20Agreement%20was%20adopted%20in,marine%20biological%20diversity%20of%20areas,">https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&amp;mtdsg_no=XXI-10&amp;chapter=21&amp;clang=en#:~:text=The%20Agreement%20was%20adopted%20in,marine%20biological%20diversity%20of%20areas,</a> accessed 25 May 2024)</p>	World in Data dataset.	(Wetlands)" [dataset]. "Rotterdam Convention (Hazardous chemicals)" [dataset]. "Stockholm Convention on Persistent Organic Pollutants" [dataset]. "UN Convention on the Law of the Sea (UNCLOS)" [dataset]. "UN Convention to Combat Desertification (UNCCD)" [dataset]. "UN Framework Convention on Climate Change (UNFCCC)" [dataset]. "Vienna Convention (Ozone)" [dataset]. "World Heritage Convention" [dataset]. Number of parties to multilateral environmental agreements - UNCTAD [original data].
Protected areas	One of key approaches to biodiversity conservation	Million km2 (cumulative)	World Database on Protected Areas ( <a href="https://www.protectedplanet.net/en/thematic-areas/wdpa?tab=WDPA">https://www.protectedplanet.net/en/thematic-areas/wdpa?tab=WDPA</a> )		UNEP-WCMC and IUCN (2024), Protected Planet: The World Database on Protected Areas (WDPA) [Online], June 2024, Cambridge, UK: UNEP-WCMC and IUCN. Available at: <a href="http://www.protectedplanet.net">www.protectedplanet.net</a> .  WDPA_Jun2024_Public_shp Download
Scientific publications on nature	Indication of scientific knowledge on biodiversity, nature etc.	Number of Publications per year	Transformative change assessment corpus of literature		

	regardless of the content of the publications				
Environmental assessments	Indication of the states' awareness of the status of biodiversity	Dates of Assessments publication	Websites of publishers of reports: Millennium Ecosystem Assessment ( <a href="https://www.millenniumassessment.org/">https://www.millenniumassessment.org/</a> ), Global Biodiversity Outlook ( <a href="https://www.cbd.int/gbo">https://www.cbd.int/gbo</a> ), Global Environmental Outlook ( <a href="https://www.unep.org/geo/">https://www.unep.org/geo/</a> ), ( <a href="http://www.ipbes.net/">http://www.ipbes.net/</a> ), World Ocean Assessment ( <a href="https://www.un.org/regularprocess/content/woa">https://www.un.org/regularprocess/content/woa</a> ), TEEB ( <a href="https://teebweb.org/">https://teebweb.org/</a> ), SDG reports ( <a href="https://unstats.un.org/sdgs/report/2022/">https://unstats.un.org/sdgs/report/2022/</a> )		
Multilateral Environmental Agreements	Indication of states' perception for the need to regulate a new environmental or biodiversity challenge	Adopted Multilateral Environmental Agreements since 1971 at either the global level (UN) or regional level with global outreach (UNECE)	Websites of the Treaty Secretariats; United Nations Treaty Series Online		
Targets	Indication of the accomplishment of targets that the States have set themselves		The fulfilment of Agenda 21 was determined by the Review of Implementation of Agenda 21 and the Rio Principles ( <a href="https://sustainabledevelopment.un.org/content/documents/641Synthesis_report_Web.pdf">https://sustainabledevelopment.un.org/content/documents/641Synthesis_report_Web.pdf</a> )  The fulfilment of Millennium Development Goals was determined by The Millennium Development Goals Report ( <a href="https://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG_2015_rev%28July1%29.pdf">https://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG_2015_rev%28July1%29.pdf</a> ); Our World in Data ( <a href="https://ourworldindata.org/millennium-development-goals">https://ourworldindata.org/millennium-development-goals</a> ).  The fulfilment of the 2010 Biodiversity Target was determined by the Global Biodiversity Outlook 3. The fulfilment of the Aichi targets was determined by the Global Biodiversity Outlook 5. The fulfilment of the Sustainable Development Goals was determined by the SDG Progress report 2020 and SDG Report Special Edition 2023. The fulfilment by the Kunming Montreal Biodiversity		

			Framework has not been assessed and determined to be "in progress".		
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In parallel, the assessment experts conducted an analysis of the level of accomplishment of biodiversity and environmental targets set over the past decades (D), (E) to evaluate target set by the international community as key signposts for action, without implying that no other targets have been set.

The results of these analysis inform the Chapter 1 section 1.2.3.

## Definition of files

ID	Names	File Type	Size	Description
A	1_IPBES_TCA_1.1_07_2024_(A)	Zip	7 KB	Living Planet Index data
B	2_IPBES_TCA_1.1_07_2024_(B)	Zip	865 KB	Number of parties in environmental agreements from Our World in Data
C	3_IPBES_TCA_1.1_07_2024_(C)	Zip	296 KB	Data on other conventions
D	4_IPBES_TCA_1.1_07_2024_(D)	Pdf	401 KB	Description analysis of the level of accomplishment of biodiversity and environmental targets
E	5_IPBES_TCA_1.1_07_2024_(E)	Pdf	430 KB	Table analysis of the level of accomplishment of biodiversity and environmental targets