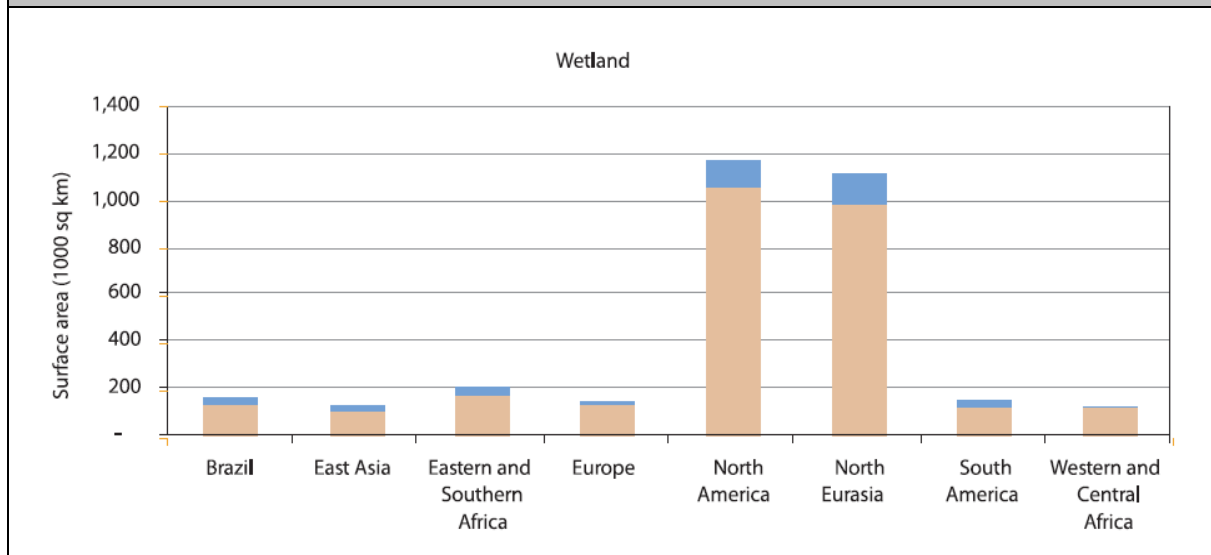


Indicator name	Trends in freshwater habitat protection
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Prepared by	UNEP
Example	WWDR2, Chapter 5, Figure 5.7
Rationale	Protection of wetlands and aquatic ecosystems illustrates society's recognition of the importance of these ecosystems and their willingness to take concrete steps to protect these valuable resources.
Position in DPSIR chain	State and Response
Definition of indicator	The percentage of area of different types of freshwater habitat set aside for protection over time, preferably from 1990 or before.
Underlying definitions and concepts	The indicator is based on knowledge of the different types of freshwater habitats, biomes and ecosystems and their geographic delineation and area, and the definition and location of different types of protection status, as categorized by IUCN and the Ramsar Convention.
Specification of determinants needed	Area of major freshwater ecosystems and for each Area and degree of protection of each freshwater habitat by type either in IUCN Protected Areas status or as Ramsar sites
Computation	The index is generated using GIS data on ecosystem, biome and habitat extent and the degree of protection, based on data from the UNEP-WCMC GIS database on area protected under IUCN (categories I-IV) and the extent of coverage of Ramsar sites.
Units of measurements	Expressed in percent of coverage and the change in percent coverage over time (from 1990 or other base year).
Data sources, availability and quality	Data sources for freshwater ecosystems have been compiled at UNEP-WCMC, but are also held at other sources (WRI, etc.) in a GIS data base with different stages of updates for different habitat types. A GIS database on protected areas IUCN (I-IV) and GIS coverage of Ramsar sites is held by UNEP-WCMC. Wetlands International holds additional information on the habitat coverage within each Ramsar sites compiled through country based information. Information on some habitat types, specially the seasonally changing wetlands and floodplains as well as peat-land sites is either not available, incomplete or varies in quality by regions. GIS information is derived from remote sensing and other data sources, including Ramsar site data in RIS (Ramsar Information Sheets) format.
Scale of application	Mostly globally, on 1: 1,000,000, based on regional protected-area data.
Geographical coverage	Global and regional.
Interpretation	The indicator describes the status and trend in the protection of ideally each

	type of freshwater ecosystem, biome or habitat.
Linkage with other indicators	The most obvious linkages exist with the CBD indicators for immediate testing, (according to CBD/ CoP 7 /INF/33). The indicator also responds very well to the proposed indicator set for the measurement of the effectiveness of the Ramsar Convention (Ramsar/STRP/WG6/Indicator 1). Linkages with indicators on restoration and management measurements are valuable additions, yet still under development.
Alternative methods and definitions	Ideally, the extent of freshwater ecosystems should be part of the indicator. However, data on freshwater ecosystems is only available for certain biomes and habitats. Hence this indicator relies for the most part on national data on the coverage of freshwater biomes and habitats by Ramsar sites.
Related indicator sets	None known.
Sources of further information	All countries and country agencies, providing various sources on the coverage on freshwater ecosystem, biome and habitats in addition to its protection.
Other institutions involved	UNEP-WCMC, IUCN, Wetlands International, Ramsar Secretariat, WRI