2022 United Nations Biodiversity Conference

Once every 2 yrs.
↓
Conference of Parties (COP)

United Nations Biodiversity Conference (COP15) Overview

- Date: 7-19 December 2022
- Venue: Montreal, Quebec, Canada

Province

- Participants: Convention on Biological Diversity member countries

196 parties
195 member States
+ E.U.

- Follows: Sharm-al-Sheikh, Egypt 2018
- Precedes: Turkey 2024

Key Outcomes

- International agreement to protect 30% of land and oceans by 2030 (**30 by 30**)

For 2030 : 23 Targets
For 2050 : 4 major Goals

- Adoption of the **Kunming-Montreal Global Biodiversity Framework** (GBF)

History and Background

- Originally scheduled for October 2020
- Delayed due to the COVID-19 pandemic
- Rescheduled for April 2022 in Kunming, China
- Postponed again to the third quarter of 2022 due to China's zero-COVID policy
- In May 2022, China requested Canada to assume host responsibility
- Held in December 2022 in Montreal, Canada, where the secretariat is based
- China remained the president of the summit
- Second time Montreal served as host city for a UN Conference of Parties meeting (first time being COP11 climate change conference in 2005)

Kunming-Montreal Global Biodiversity Framework (GBF)

- Outcome of the 2022 United Nations Biodiversity Conference
- Adopted by the 15th Conference of Parties (COP15) to the Convention on Biological Diversity on 19 December 2022
- Promoted as a "Paris Agreement for Nature"
- Named after Kunming and Montreal, cities associated with COP15 hosting duties
- Contains 4 global goals (Kunming-Montreal Global Goals for 2050) and 23 targets (Kunming-Montreal 2030 Global Targets)
- "Target 3" referred to as the "30 by 30" target
- Succeeds the Strategic Plan for Biodiversity 2011-2020 (including the Aichi Biodiversity Targets)

To be implemented after Aichi Targets

Four Goals

Ecosystem Restoration & Protection

1. Improve ecosystem health; stop human-caused extinctions; reduce species

extinction risks; boost native species populations and genetic diversity.

2. Promote sustainable use and management of biodiversity; enhance nature's benefits to people; support sustainable development for present and future generations by 2050.

→ Sustainable Use & Mgmt.

3. Fairly share benefits from using genetic resources, digital information, and traditional knowledge; contribute to biodiversity conservation and sustainable use in line with global agreements.

→ ABS

4. Provide adequate resources and support for implementing the framework; close the biodiversity finance gap; align financial flows with the Kunming-Montreal Global Biodiversity Framework and the 2050 Vision for Biodiversity.

→ Funding

Global Biodiversity Framework Targets for 2030

- Protect 30% of land and sea areas by 2030

30 by 30

- Restore 20% of degraded ecosystems by 2030
- Cut pollution, including plastic pollution, by 50% by 2030
- Decrease unsustainable fishing impacts on biodiversity by 50% by 2030

- Raise renewable energy's share in global energy mix to 50% by 2030
- Encourage sustainable agriculture and land-use practices, including reducing pesticide and fertilizer use
- Lower food waste and loss by 50% by 2030
- Utilize nature-based solutions for climate change and other environmental challenges
- Protect and restore 20% of inland water ecosystems by 2030
- Enhance participation of indigenous peoples and local communities in biodiversity conservation
- Foster gender equality and women's empowerment in biodiversity conservation and management
- Boost financial resources for biodiversity conservation and sustainable use
- Increase effectiveness of protected areas for biodiversity conservation
- Mitigate negative impacts of invasive alien species on biodiversity

- Support sustainable forest management and reduce deforestation
- Improve conservation status of species crucial for ecosystem services and livelihoods
- Advocate for sustainable tourism practices respecting biodiversity and ecosystems
- Enhance sustainability of urban and peri-urban areas
- Strengthen ecosystem resilience to climate change and other threats
- Encourage sustainable use of biological resources and fair benefit-sharing from genetic resources
- Increase availability and accessibility of biodiversity data and information

Wetlands and Ramsar Convention

Wetlands

Wetlands are areas where land is covered by water (salt, fresh, or brackish) for at least part of the year, acting as transition zones between dry land and water bodies.

Functions of Wetlands

- Improve water quality by filtering sediment and removing inorganic nutrients
- Reduce coastal damage, floods, and erosion during storms
- Act as flood control by absorbing and storing water during storms
- Provide habitat for diverse wildlife species adapted to aquatic environments
- Support ecosystem productivity through ideal conditions for food web development
- Store carbon, preventing its release into the atmosphere as carbon dioxide

- Offer economic benefits through timber, plant, and fish harvests

Threats to Wetlands

- Hydrologic alterations: changes in soil chemistry and ecosystems caused by fill material, draining, dredging, channelization, flow diversion, or impervious surfaces
- Pollution: excessive pollutants (e.g., sediment, fertilizer, sewage, animal waste, road salts, pesticides, heavy metals) can degrade wetlands
- Vegetation damage: changes in hydrology and pollution can harm wetland plants; grazing, non-native plants, and peat mining also pose threats
- Invasive species: introduction of invasive species can outcompete and displace native plants

Ramsar Convention

Introduction to Ramsar Convention

- Intergovernmental treaty for national action and international cooperation for

conservation and sustainable use of wetlands and their resources

- Named after the town of Ramsar in Iran
- Only global environmental treaty focused on a specific ecosystem, with member countries from all regions of the world

Definition of Wetlands in Ramsar Convention

- Broad definition, including lakes, rivers, swamps, marshes, wet grasslands, peatlands, oases, estuaries, deltas, tidal flats, near-shore marine areas, mangroves, coral reefs, and human-made sites
- Wise use of wetlands is defined as maintaining ecological character through ecosystem approaches within the context of sustainable development

Adoption and Headquarters

- Adopted on February 2, 1971, in Ramsar, Iran, and entered into force on December 21, 1975
- February 2 is celebrated as World Wetlands Day

- Headquarters located in Gland, Switzerland, shared with the IUCN

Conference of the Contracting Parties (COP)

- Signatories meet every three years at the COP, with the first held in Cagliari, Italy, in 1980
- Amendments to the original convention agreed upon in Paris, France (1982), and Regina, Canada (1987)
- COP 14 took place in Wuhan, China, in 2022

Ramsar Sites

Wetlands of National & International Significance

- Over 2,300 Ramsar Sites across 172 Contracting Parties + Plus → 75 in India
- The United Kingdom has the highest number of sites; Bolivia has the largest area of listed wetlands (approx. 148,000 square km)

Montreux Record

Threatened Wetlands

- Register of wetland sites experiencing changes in ecological character due to technological developments, pollution, or human interference
- Part of the Ramsar List

- India's Keoladeo National Park (Rajasthan) and Loktak Lake (Manipur) are in Montreux Record

International Organization Partners (IOPs)

- Ramsar Convention collaborates with six IOPs:
  1. Birdlife International
  2. International Union for Conservation of Nature (IUCN)
  3. International Water Management Institute (IWMI)
  4. Wetlands International
  5. World Wildlife Fund (WWF)
  6. International Wildfowl & Wetlands Trust (WWT)

Criteria for Ramsar Sites

- Sites must meet at least one of the nine criteria:
  1. Contains representative, rare, or unique natural/near-natural wetland types in the biogeographic region

2. Supports vulnerable, endangered, or critically endangered species or threatened ecological communities

3. Supports plant/animal populations important for maintaining the biological diversity of a biogeographic region

4. Supports plant/animal species at critical life stages, or provides refuge during adverse conditions

5. Regularly supports 20,000 or more waterbirds

6. Regularly supports 1% of a population of one waterbird species or subspecies

7. Supports significant proportions of indigenous fish subspecies, species, families, life-history stages, species interactions, or populations representative of wetland benefits/values contributing to global biological diversity

8. Serves as an important food source for fishes, spawning ground, nursery, or migration path impacting fish stocks

9. Regularly supports 1% of a population of one wetland-dependent non-avian animal species or subspecies

Ramsar Sites in India

S. No.	State Location	Name of Site	Date of Declaration	Area in square km
1	Andhra Pradesh	Kolleru Lake	19.8.2002	901.00
2	Assam	Deepor Beel	19.8.2002	40.00
3	Bihar	Kabartal Wetland	21.07.2020	26.20
4	Goa **(State with smallest wetland area)**	Nanda Lake	06.08.2022	0.42
5	Gujarat	Khijadia Wildlife Sanctuary	13.04.2021	5.12
6	Gujarat	Nalsarovar Bird Sanctuary	24.09.2012	120.00
7	Gujarat	Thol Lake Wildlife Sanctuary	05.04.2021	6.99
8	Gujarat	Wadhvana Wetland	05.04.2021	6.30
9	Haryana	Bhindawas Wildlife Sanctuary	25.05.2021	4.12

S. No.	State Location	Name of Site	Date of Declaration	Area in square km
10	Haryana	Sultanpur National Park	25.05.2021	1.43
11	Himachal Pradesh	Chandertal Wetland	8.11.2005	0.49
12	Himachal Pradesh	Pong Dam Lake	19.8.2002	156.62
13	Himachal Pradesh	Renuka Wetland **(Smallest Ramsar site)**	8.11.2005	0.20
14	Jammu and Kashmir	Hokera Wetland	8.11.2005	13.75
15	Jammu and Kashmir	Hygam Wetland Conservation Reserve	13.08.2022	8.02
16	Jammu and Kashmir	Shallbugh Wetland Conservation Reserve	13.08.2022	16.75
17	Jammu and Kashmir	Surinsar-Mansar Lakes	8.11.2005	3.50
18	Jammu and Kashmir	Wular Lake	23.3.1990	189.00

S. No.	State Location	Name of Site	Date of Declaration	Area in square km
19	Karnataka	Ranganathittu Bird Sanctuary	15.02.2022	5.18
20	Kerala	Asthamudi Wetland	19.8.2002	61.40
21	Kerala	Sasthamkotta Lake	19.8.2002	3.73
22	Kerala	Vembanad Kol Wetland	19.8.2002	1512.50
23	Ladakh	Tso Kar Wetland Complex	17.11.2020	95.77
24	Ladakh	Tsomoriri Lake	19.8.2002	120.00
25	Madhya Pradesh	Bhoj Wetlands	19.8.2002	32.01
26	Madhya Pradesh	Sakhya Sagar	01.07.2022	2.48
27	Madhya Pradesh	Sirpur Wetland	01.07.2022	1.61
28	Madhya Pradesh	Yashwant Sagar	13.08.2022	8.23

S. No.	State Location	Name of Site	Date of Declaration	Area in square km
29	Maharashtra	Lonar Lake	22.7.2020	4.27
30	Maharashtra	Nandur Madhameshwar	21.6.2019	14.37
31	Maharashtra	Thane Creek	13.08.2022	65.21
32	Manipur	Loktak Lake	23.3.1990	266.00
33	Mizoram	Pala Wetland	31.08.2021	18.50
34	Odisha	Ansupa Lake	13.08.2022	2.31
35	Odisha	Bhitarkanika Mangroves	19.8.2002	650.00
36	Odisha	Chilka Lake **(Oldest)**	1.10.1981	1165.00
37	Odisha	Hirakud Reservoir	13.08.2022	654.00
38	Odisha	Satkosia Gorge	10.12.2021	981.97
39	Odisha	Tampara Lake	13.08.2022	3.00
40	Punjab	Beas Conservation Reserve	26.9.2019	64.29

S. No.	State Location	Name of Site	Date of Declaration	Area in square km
41	Punjab	Harike Lake	23.3.1990	41.00
42	Punjab	Kanjli Lake	22.1.2002	1.83
43	Punjab	Keshopur-Miani Community Reserve	26.9.2019	3.44
44	Punjab	Nangal Wildlife Sanctuary	26.9.2019	1.16
45	Punjab	Ropar Lake	22.1.2002	13.65
46	Rajasthan	Keoladeo Ghana NP	1.10.1981	28.73
47	Rajasthan	Sambhar Lake	23.3.1990	240.00
48	Tamil Nadu **(State with highest number of sites)**	Chitrangudi Bird Sanctuary	13.08.2022	2.60
49	Tamil Nadu	Gulf of Mannar Marine Biosphere Reserve	04.08.2022	526.72

S. No.	State Location	Name of Site	Date of Declaration	Area in square km
50	Tamil Nadu	Kanjirankulam Bird Sanctuary	13.08.2022	0.97
51	Tamil Nadu	Karikili Bird Sanctuary	04.08.2022	0.58
52	Tamil Nadu	Koonthankulam Bird Sanctuary	11.08.2021	0.72
53	Tamil Nadu	Pallikaranai Marsh Reserve Forest	04.08.2022	12.48
54	Tamil Nadu	Pichavaram Mangrove	04.08.2022	14.79
55	Tamil Nadu	Point Calimere Wildlife and Bird Sanctuary	19.8.2002	385.00
56	Tamil Nadu	Suchindram Theroor Wetland Complex	13.08.2022	0.94
57	Tamil Nadu	Udhayamarthandapuram Bird Sanctuary	04.08.2022	0.44
58	Tamil Nadu	Vaduvur Bird Sanctuary	13.08.2022	1.13
59	Tamil Nadu	Vedanthangal Bird Sanctuary	04.08.2022	0.40

S. No.	State Location	Name of Site	Date of Declaration	Area in square km
60	Tamil Nadu	Vellode Bird Sanctuary	04.08.2022	0.77
61	Tamil Nadu	Vembannur Wetland Complex	04.08.2022	0.20
62	Tripura	Rudrasagar Lake	8.11.2005	2.40
63	Uttar Pradesh	Bakhira Wildlife Sanctuary	29.06.2021	28.94
64	Uttar Pradesh	Haiderpur Wetland	8.12.2021	69.08
65	Uttar Pradesh	Nawabganj Bird Sanctuary	19.9.2019	2.25
66	Uttar Pradesh	Parvati Agra Bird Sanctuary	2.12.2019	7.22
67	Uttar Pradesh	Saman Bird Sanctuary	2.12.2019	5.26
68	Uttar Pradesh	Samaspur Bird Sanctuary	3.10.2019	7.99
69	Uttar Pradesh	Sandi Bird Sanctuary	26.9.2019	3.09
70	Uttar Pradesh	Sarsai Nawar Jheel	19.9.2019	1.61

S. No.	State Location	Name of Site	Date of Declaration	Area in square km
71	Uttar Pradesh	Sur Sarovar	21.8.2020	4.31
72	Uttar Pradesh	Upper Ganga River	8.11.2005	265.90
73	Uttarakhand	Asan Conservation Reserve	21.7.2020	4.44
74	West Bengal **(State with largest wetland area)**	East Kolkata Wetlands	19.8.2002	125.00
75	West Bengal	Sunderbans Wetland **(Largest Ramsar site)**	30.1.2019	4230.00

11 New Ramsar Sites Added in August 2022

Imp.

Name of wetland	State
Tampara Lake	Odisha
Hirakud Reservoir	
Ansupa Lake	
Yashwant Sagar	Madhya Pradesh
Chitrangudi Bird Sanctuary	Tamil Nadu
Suchindram Theroor Wetland Complex	
Vaduvur Bird Sanctuary	
Kanjirankulam Bird Sanctuary	
Thane Creek	Maharashtra
Hygam Wetland Conservation Reserve	Jammu and Kashmir
Shallbugh Wetland Conservation Reserve	

Ramsar Sites of India