

A hand is shown holding a globe of the Earth. The globe is vertically split down the middle. The left half shows a healthy Earth with blue oceans, green continents, and a single green tree on top, set against a clear blue sky with white clouds. The right half shows a scorched, brown, and cracked Earth with a dead, black tree on top, set against a hazy, orange-yellow sky. The background behind the hand shows a green field and a small blue pond on the left, and a dry, brown landscape on the right.

ENVIRONMENT

Environmental Conservation

Timeline

Legislations

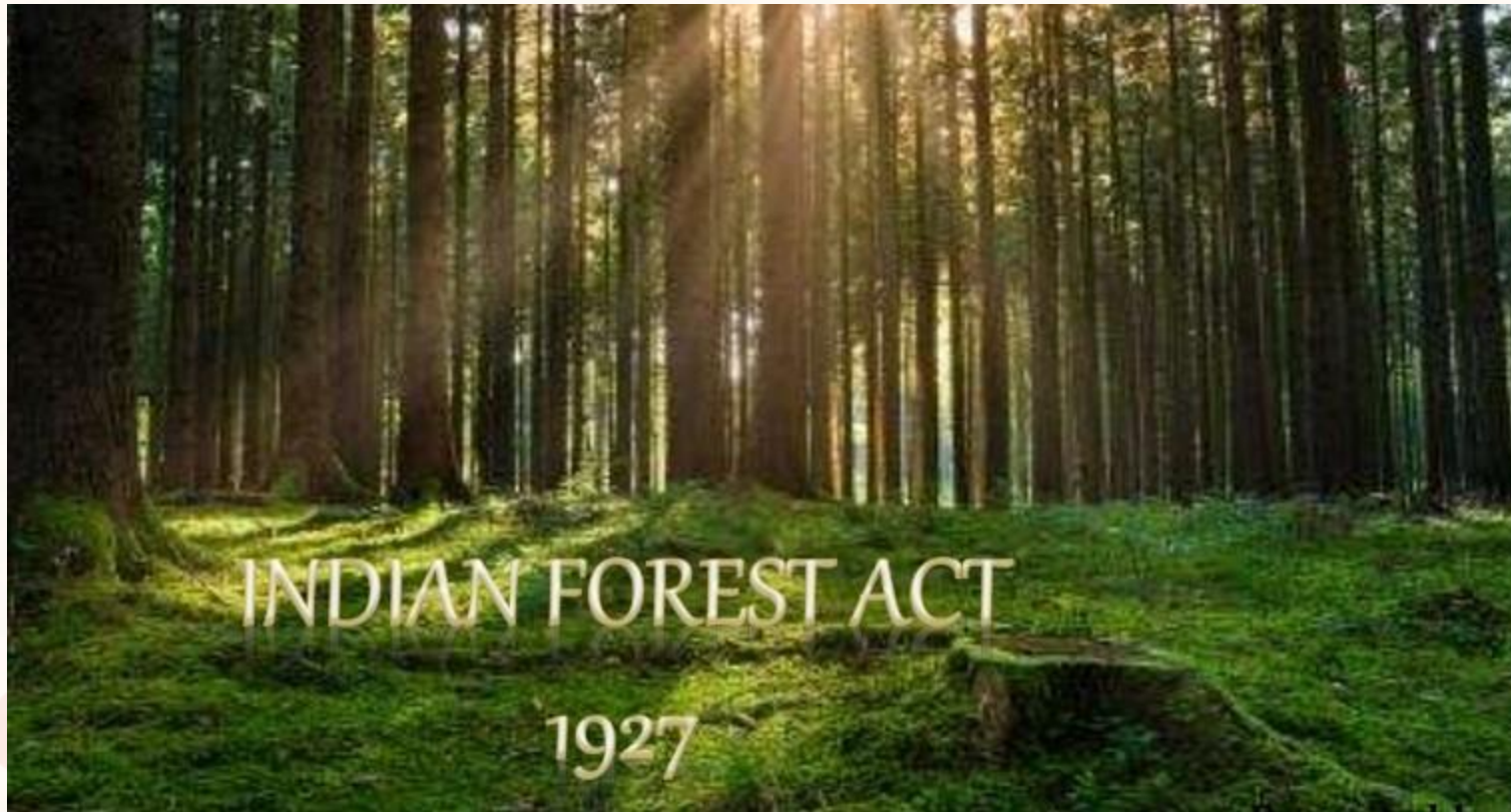
Waste management Rules and other rules

Other pollution control measures

International Initiatives

Constitutional Provisions:

- Part IV (Art 48A-Directive Principles of State Policies) stipulates that the State shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country.
- Part IVA (Art 51A-Fundamental Duties) casts a duty on every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures.

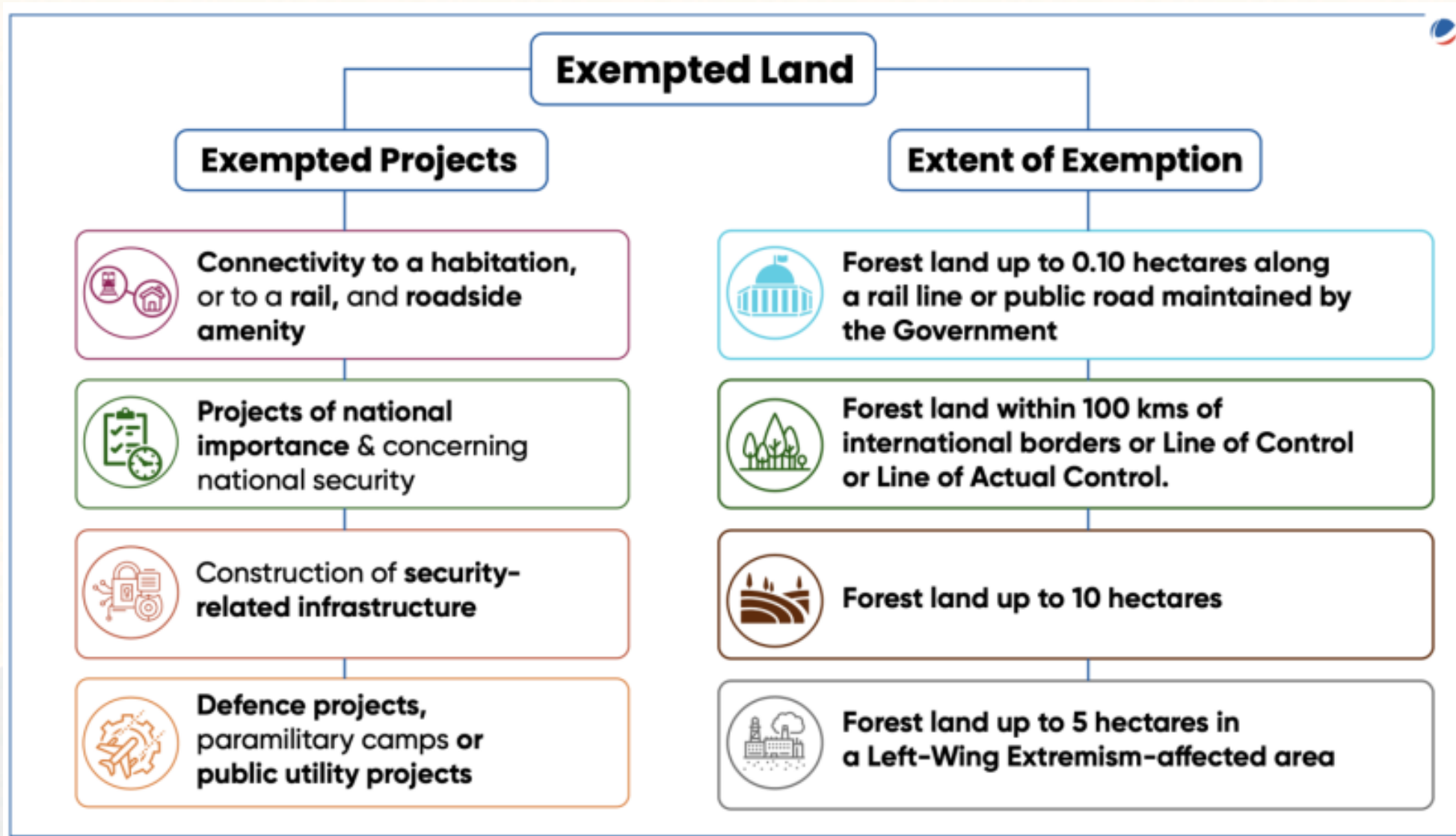




THE WILD-LIFE PROTECTION ACT 1972








Table: Broad comparison of different

National park	Sanctuary
NP is <u>hitched to the habitat of the particular animal like tiger, lion, hangul, rhino etc.</u>	This is <u>generally species oriented</u> (pitcher plant, great Indian bustard)
The size range is 0.04 to 3162 km ² . Most common size is <u>100 to 500 km²</u>	Size range is 0.61 to 7818 km ² . Most common size is <u>100 to 500 km²</u>
<u>Boundaries are circumscribed by legislation</u>	<u>Boundaries are not sacrosanct</u>
<u>Except buffer zone, no biotic interference</u>	<u>Limited biotic interference</u>
<u>Tourism is permissible</u>	<u>Tourism is permissible</u>
Research and scientific management is <u>lacking</u>	Research and scientific management is <u>lacking</u>
No attention is given for <u>gene pool conservation</u>	No attention is given for <u>gene pool conservation</u>



Key changes made in the Biodiversity Amendment bill

Provision	Biological Diversity Act 2002	Biological Diversity (Amendment) Bill 2023
Extension of Exemptions	<ul style="list-style-type: none"> Act requires prior approval or intimation to the regulatory authority for accessing biological resources. 	<ul style="list-style-type: none"> It exempts AYUSH registered practitioners, local people and communities of the area, including growers and cultivators of biodiversity, from giving prior intimation to SBB for accessing biological resources for commercial utilization.
Approval for Intellectual	<ul style="list-style-type: none"> Act specifies that approval of NBA is required before applying for IPR involving biological resources obtained from India. 	<ul style="list-style-type: none"> Amendment changes the requirement and now the approval will be required before the actual grant of the IPR and not before the application.
Property Rights (IPR)		
Benefit Sharing	<ul style="list-style-type: none"> Act requires users of biological resources and associated knowledge to share benefits with local communities. 	<ul style="list-style-type: none"> Bill exempts users of "codified traditional knowledge" from this requirement.
Offences and Penalties	<ul style="list-style-type: none"> Offences like failure to take approvals from the authorities for various activities which were punishable up to 5 years or a fine or both. 	<ul style="list-style-type: none"> Bill decriminalises the offences and makes offences punishable with a penalty between Rs 1 lakh and Rs 50 lakh. Continuing contravention may attract an additional penalty of up to 1 crore rupees (Here, the adjudicating officer should not be below the rank of Joint Secretary).
Expansion of NBA	<ul style="list-style-type: none"> Act requires NBA to have 10 ex-officio members apart from the Chairman. 5 non-official members to be appointed from amongst specialists (including legal) and scientists. 	<ul style="list-style-type: none"> 16 ex officio members representing the Ministries like Tribal Affairs, Biotechnology etc. 4 representatives from SSB. 5 non-official members amongst specialists (including legal) and scientists. 1 Member-Secretary (must have experience in biodiversity conservation), who will be the chief coordinating officer of the NBA.

Polyethylene Terephthalate	High-Density Polyethylene	Polyvinyl Chloride	Low-Density Polyethylene	Polypropylene	Polystyrene	Other Plastic
						
PET	HDPE	PVC	LDPE	PP	PS	OTHER
Drink bottles, polyester fabrics, food packaging	Chemical containers, toys, milk bottles	Pipes, window frames, disposable gloves	Plastic bags, shrink wrap, pallet wrap	Food containers, rugs, medical items	Packaging, car parts, appliance parts	Car parts, bottles, safety equipment, food containers
Usually Recycled	Generally Recycled	Occasionally Recycled	Sometimes Recycled	Generally Recycled	Occasionally Recycled	Rarely Recycled
Light, clear	Solvent resistant, UV resistant	Electric insulator, durable, flame retardant	Impact resistant, chemical resistant	Hinges, heat resistant	Heat resistant	Impact resistant, soluble, UV resistant

The symbol does not depict the number of times that the plastic has been recycled, as is commonly believed. Instead, the symbol is used to tell recyclers and waste management handlers what the plastic is made from.

Banned Single Use Plastic items

Effective from 1 July 2022



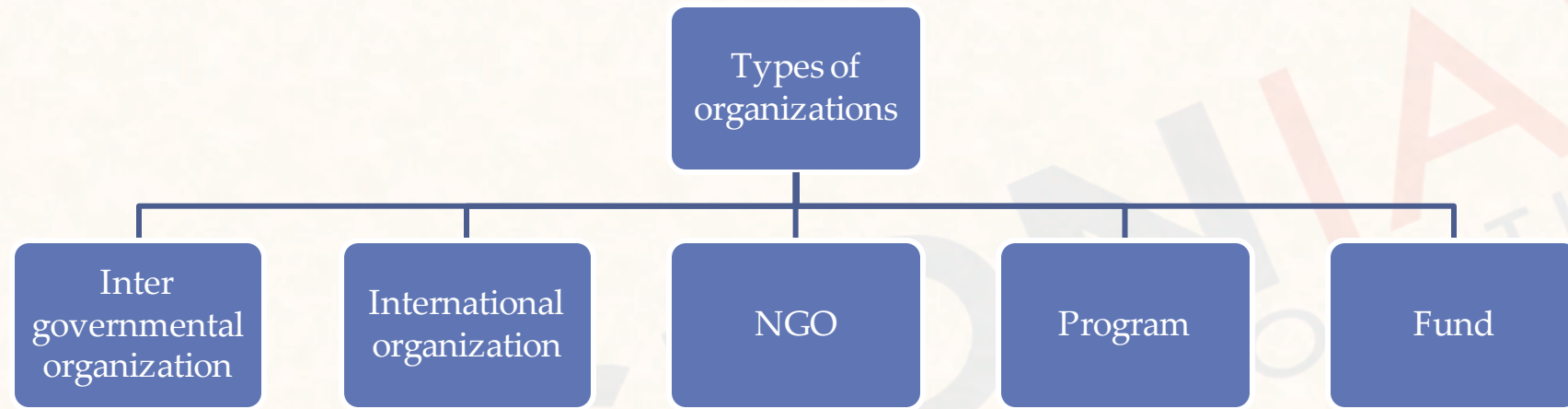
What is a Single Use Plastic?

"Single-use plastic commodity" means a plastic item intended to be used once for the same purpose before being disposed of or recycled

- 1  Ear-bud with plastic stick
- 2  Balloon with plastic stick
- 3  Plastic Flags
- 4  Candy Sticks
- 5  Ice-cream Sticks
- 6  Thermocol for decoration
- 7  Plastic Plates
- 8  Plastic Cups/Glasses
- 9  Plastic Cutlery
- 10  Plastic Straws
- 11  Plastic Tray
- 12  Wrapping or Packing film around sweet boxes
- 13  Plastic/PVC Banners (Not less than 100 Microns)
- 14  Wrapping or Packing film around invitation cards
- 15  Wrapping or Packing film around cigarettes
- 16  Plastic Stirrer

Coastal Regulation Zone Notification, 2018





Convention

- UNFCCC,
Ramsar

Treaty or
Agreement

- Paris
Agreement

Protocol

- Kyoto
Protocol

RAMSAR Convention

work towards wise use of all wetlands;

designate suitable wetlands for the list of Wetlands of International Importance (the “Ramsar List”) and ensure their effective management;

cooperate internationally on transboundary wetlands, shared wetland systems and shared species



Ramsar Convention

The Ramsar Convention has **6 International**

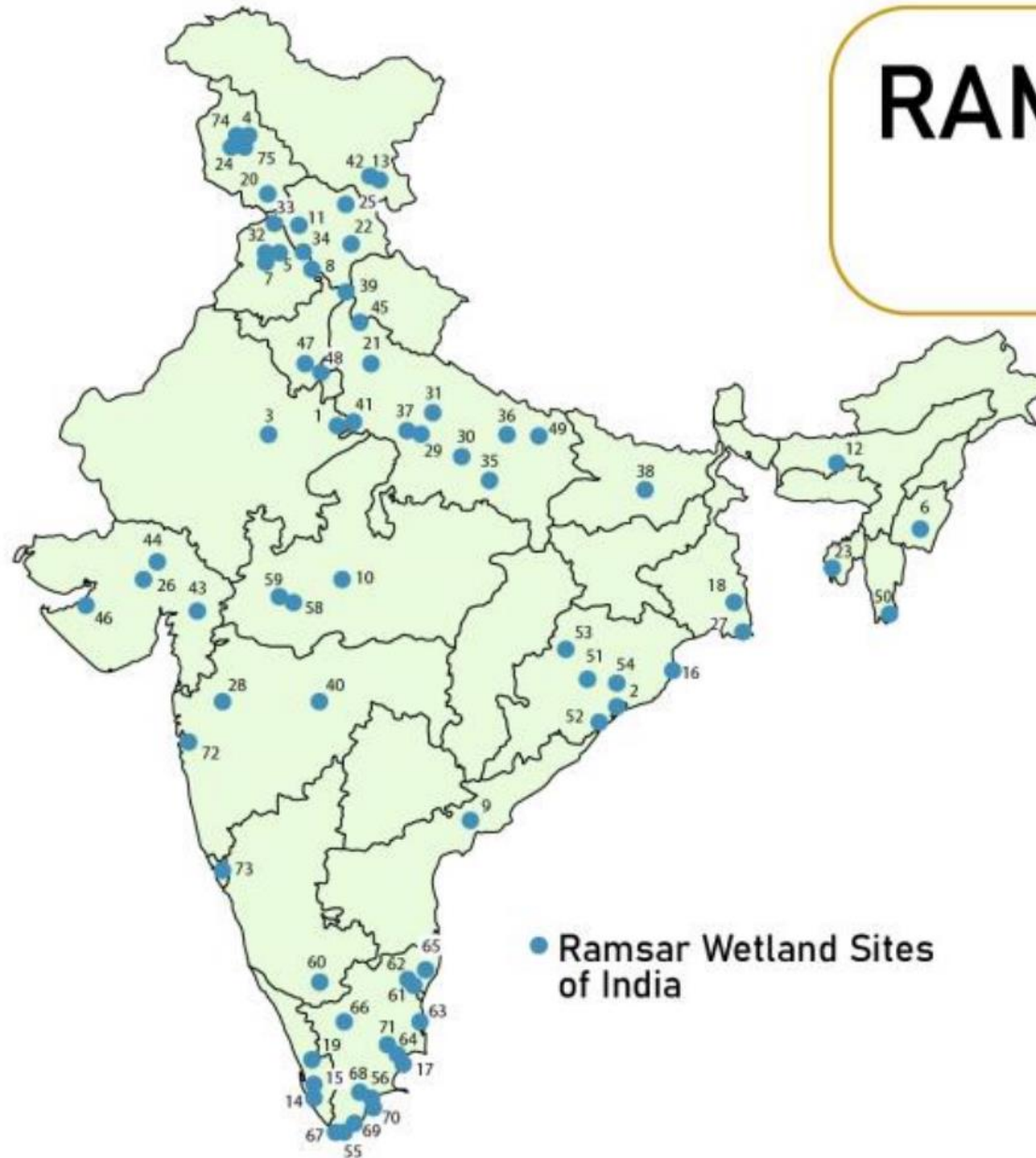
Organisation Partners:

- **Birdlife International**
- **International Union for Conservation of Nature (IUCN)**
- **International Water Management Institute**
- **Wetlands International**
- **World Wide Fund for Nature (WWF)**
- **Wildfowl & Wetlands Trust (WWT)**

Nine criteria for identifying Wetlands of International Importance

1. Contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.
2. Supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
3. Supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.
4. Supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.
5. Regularly supports 20,000 or more waterbirds.
6. Supports 1% of the individuals in a population of one species or subspecies of waterbird.
7. Supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.
8. Important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend. Specific criteria based on other taxa
9. Supports 1% of the individuals in a population of one species or subspecies of wetland-dependent nonavian animal species.

RAMSAR WETLAND SITES IN INDIA



● Ramsar Wetland Sites
of India

S.NO	STATE LOCATION	DATE OF DECLARATION	AREA	S.NO	STATE LOCATION	DATE OF DECLARATION	AREA		
1	Andhra Pradesh	Kolleru Lake	19.8.2002	901.00	39	Odisha	Tampara Lake	13.08.2022	3.00
2	Assam	Deepor Beel	19.8.2002	40.00	40	Punjab	Beas Conservation Reserve	26.9.2019	64.29
3	Bihar	Kabartal Wetland	21.07.2020	26.20	41	Punjab	Harike Lake	23.3.1990	41.00
4	Goa	Nanda Lake	06.08.2022	0.42	42	Punjab	Kanjli Lake	22.1.2002	1.83
5	Gujarat	Khijadia Wildlife Sanctuary	13.04.2021	5.12	43	Punjab	Keshopur-Miani Community Reserve	26.9.2019	3.44
6	Gujarat	Nalsarovar Bird SanctuarY	24.09.2012	120.00	44	Punjab	Nangal Wildlife Sanctuary	26.9.2019	1.16
7	Gujarat	Thol Lake Wildlife Sanctuary	05.04.2021	6.99	45	Punjab	Ropar Lake	22.1.2002	13.65
8	Gujarat	Wadhvana Wetland	05.04.2021	6.30	46	Rajasthan	Keoladeo Ghana NP	1.10.1981	28.73
9	Haryana	Bhindawas Wildlife Sanctuary	25.05.2021	4.12	47	Rajasthan	Sambhar Lake	23.3.1990	240.00
10	Haryana	Sultanpur National Park	25.05.2021	1.43	48	Tamil Nadu	Chitrangudi Bird Sanctuary	13.08.2022	2.60
11	H&P	Chandertal Wetland	8.11.2005	0.49	49	Tamil Nadu	Gulf of Mannar Marine Biosphere Reserve	04.08.2022	526.72
12	H&P	Pong Dam Lake	19.8.2002	156.62	50	Tamil Nadu	Kanjirankulam Bird Sanctuary	13.08.2022	0.97
13	H&P	Renuka Wetland	8.11.2005	0.20	51	Tamil Nadu	Karikili Bird Sanctuary	04.08.2022	0.58
14	J&K	Hokersa Wetland	8.11.2005	13.75	52	Tamil Nadu	Koonthankulam Bird Sanctuary	11.08.2021	0.72
15	J&K	Hygam Wetland Conservation Reserve	13.08.2022	8.02	53	Tamil Nadu	Pallikaranai Marsh Reserve Forest	04.08.2022	12.48
16	J&K	Shallbugh Wetland Conservation Reserve	13.08.2022	16.75	54	Tamil Nadu	Pichavaram Mangrove	04.08.2022	14.79
17	J&K	Surinsar-Mansar Lakes	8.11.2005	3.50	55	Tamil Nadu	Point Calimere Wildlife and Bird Sanctuary	19.8.2002	385.00
18	J&K	Wular Lake	23.3.1990	189.00	56	Tamil Nadu	Suchindram Theroor Wetland Complex	13.08.2022	0.94
19	Karnataka	Ranganathittu Bird Sanctuary	15.02.2022	5.18	57	Tamil Nadu	Udhayamarthandapuram Bird Sanctuary	04.08.2022	0.44
20	Kerala	Asthamudi Wetland	19.8.2002	61.40	58	Tamil Nadu	Vaduvur Bird Sanctuary	13.08.2022	1.13
21	Kerala	Sasthamkotta Lake	19.8.2002	3.73	59	Tamil Nadu	Vedanthangal Bird Sanctuary	04.08.2022	0.40
22	Kerala	Vembanad Kol Wetland	19.8.2002	1512.50	60	Tamil Nadu	Vellode Bird Sanctuary	04.08.2022	0.77
23	Ladakh	Tso Kar Wetland Complex	17.11.2020	95.77	61	Tamil Nadu	Vembannur Wetland Complex	04.08.2022	0.20
24	Ladakh	Tsomoriri Lake	19.8.2002	120.00	62	Tripura	Rudrasagar Lake	8.11.2005	2.40
25	Madhya Pradesh	Bhoj Wetlands	19.8.2002	32.01	63	Uttar Pradesh	Bakhira Wildlife Sanctuary	29.06.2021	28.94
26	Madhya Pradesh	Sakhya Sagar	01.07.2022	2.48	64	Uttar Pradesh	Haiderpur Wetland	8.12.2021	69.08
27	Madhya Pradesh	Sirpur Wetland	01.07.2022	1.61	65	Uttar Pradesh	Nawabganj Bird Sanctuary	19.9.2019	2.25
28	Madhya Pradesh	Yashwant Sagar	13.08.2022	8.23	66	Uttar Pradesh	Parvati Agra Bird Sanctuary	2.12.2019	7.22
29	Maharashtra	Lonar Lake	22.7.2020	4.27	67	Uttar Pradesh	Saman Bird Sanctuary	2.12.2019	5.26
30	Maharashtra	Nandur Madhameshwar	21.6.2019	14.37	68	Uttar Pradesh	Samaspur Bird Sanctuary	3.10.2019	7.99
31	Maharashtra	Thane Creek	13.08.2022	65.21	69	Uttar Pradesh	Sandi Bird Sanctuary	26.9.2019	3.09
32	Manipur	Loktak Lake	23.3.1990	266.00	70	Uttar Pradesh	Sarsai Nawar Jheel	19.9.2019	1.61
33	Mizoram	Pala Wetland	31.08.2021	18.50	71	Uttar Pradesh	Sur Sarovar	21.8.2020	4.31
34	Odisha	Ansupa Lake	13.08.2022	2.31	72	Uttar Pradesh	Upper Ganga River	8.11.2005	265.90
35	Odisha	Bhitarkanika Mangroves	19.8.2002	650.00	73	Uttarakhand	Asan Conservation Reserve	21.7.2020	4.44
36	Odisha	Chilka Lake	1.10.1981	1165.00	74	West Bengal	East Kolkata Wetlands	19.8.2002	125.00
37	Odisha	Hirakud Reservoir	13.08.2022	654.00	75	West Bengal	Sunderbans Wetland	30.1.2019	4230.00
38	Odisha	Satkosia Gorge	10.12.2021	981.97					



CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora)

Genesis



- An international agreement between governments which was drafted as a result of a resolution adopted in 1963 at a meeting of members of IUCN . The text of the Convention was finally agreed in 1973 and entered in force in 1975 .

Objective



- To ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species

Headquarter



Membership



- **CITES Secretariat** is administered by UNEP and is located at **Geneva, Switzerland.**

184 Parties

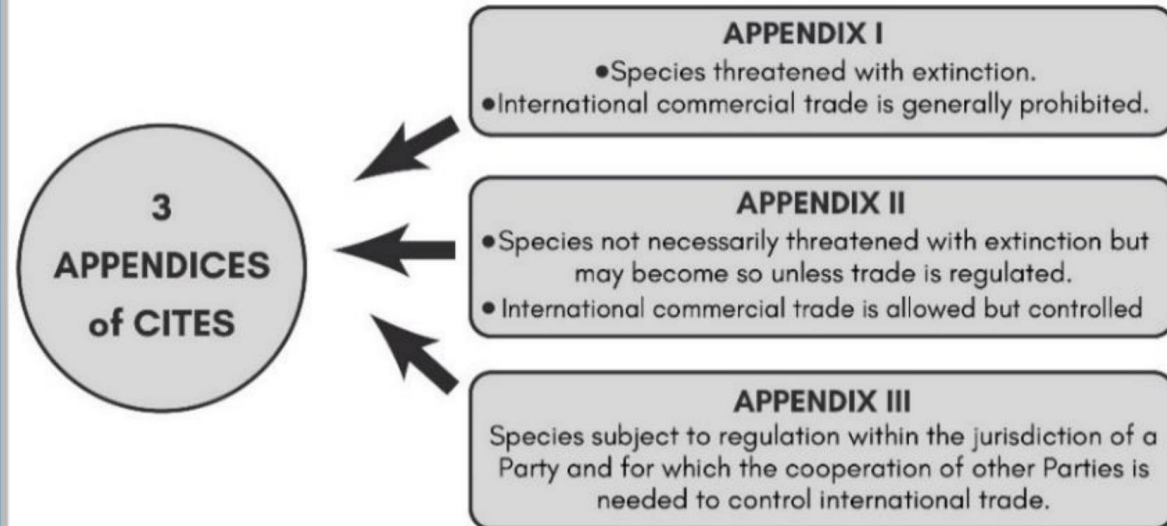
Is India a Party?



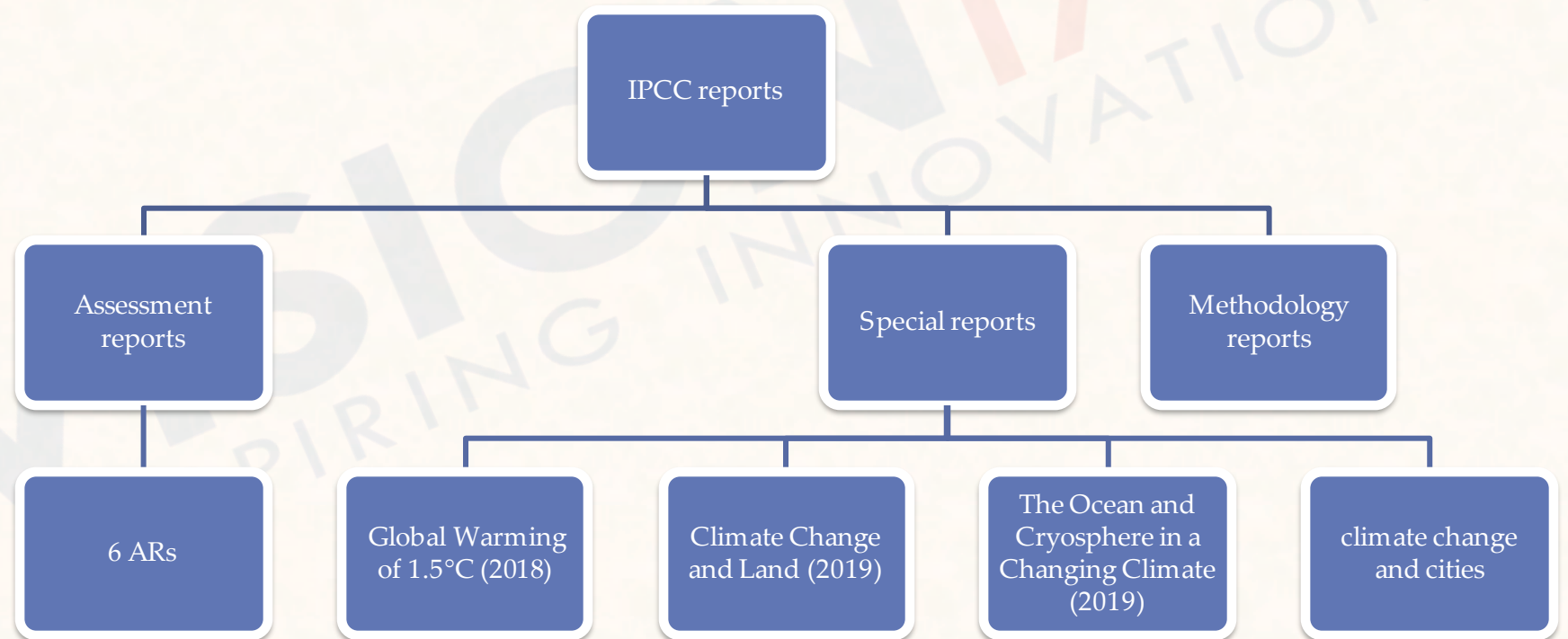
Other key information

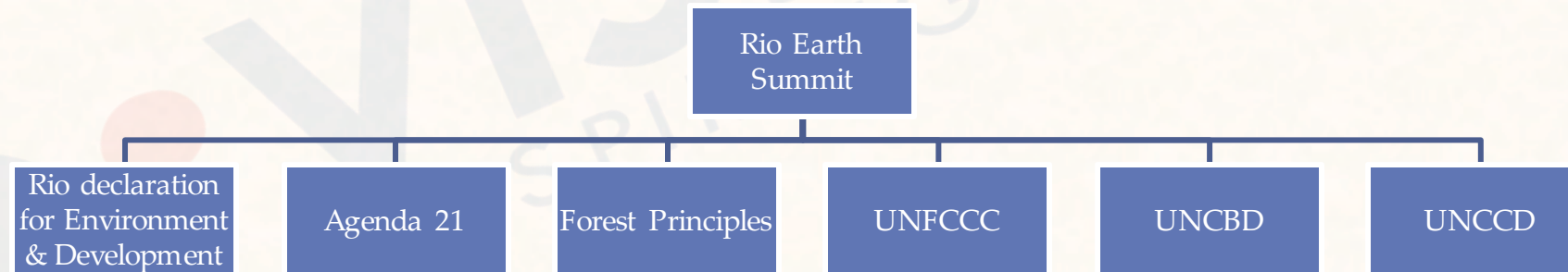
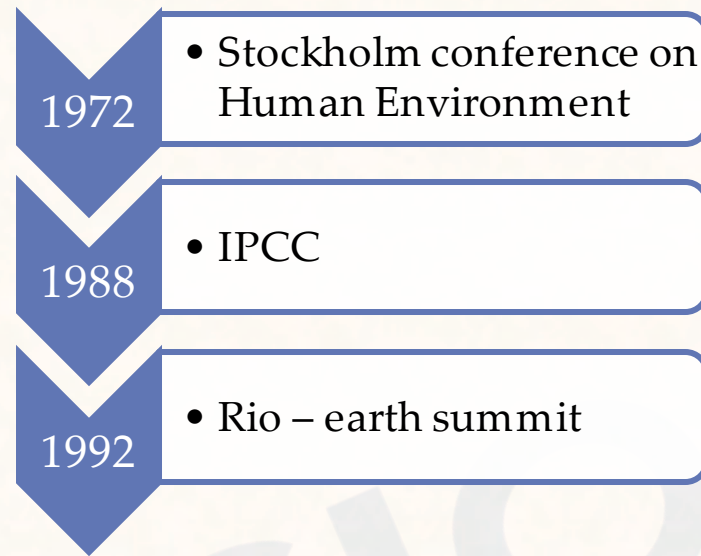


- Although CITES is legally binding on the Parties – in other words they have to implement the Convention – it does not take the place of national laws.
- CITES works by subjecting international trade in specimens of selected species to certain controls. The species covered by CITES are listed in three Appendices, according to the degree of protection they need.



About IPCC







United Nations Framework Convention on Climate Change



Genesis: Intergovernmental treaty opened for signature at the “Rio Earth Summit” in 1992 and entered into force in 1994.



Objective:

- To **stabilize greenhouse-gas concentrations** in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, within a time-frame sufficient to allow ecosystems to adapt naturally to climate change.
- To ensure that **food production is not threatened**.
- To enable **economic development to proceed in a sustainable manner**.



Membership: Has near-universal membership, **198 parties**.



Other key information:

Key Agreements established under the Convention: Kyoto Protocol and Paris Climate Agreement



Operating Mechanism of UNFCCC



Conference of the Parties (COP)

- Supreme decision-making body of the Convention.
- All States that are Parties to Convention are represented at COP.
- Meets every year, unless the Parties decide otherwise.



Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP)

- Oversees implementation of Kyoto Protocol.
- All States that are Parties to the Kyoto Protocol are represented.
- States that are not Parties participate as observers.



Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA)

- Oversees the implementation of the Paris Agreement and takes decisions to promote its effective implementation.
- All States that are Parties to the Paris Agreement are represented.
- States that are not Parties participate as observers.

UNFCCC

- Signed -1992
- Into force - 1994
- COP 1 – Berlin




Kyoto protocol

- Adopted in 1997
- into force – 2005
- 1st period – 2008 to 2012
- 2nd period – 2013 to 2020






Paris Agreement

- COP 21 - 2015
- Into force – 2016

QUANTITATIVE TARGETS

Targets for 2030	Previous NDC, 2015	Updated NDC, 2022	Progress
 Reduce the emissions intensity of its GDP	Reduced by 33% between 2005 and 2019	By 45% by 2030 from 2005 level.	Reduced by 33% between 2005 and 2019
 Cumulative electric power installed capacity from non-fossil fuel-based energy resources with the help of transfer of technology and low-cost international finance including from Green Climate Fund (GCF).	About 40%	About 50%	43.81% (31st October, 2023)
 Create an additional carbon sink through additional forest and tree cover.	2.5 to 3 billion tonnes of Co2 equivalent	Same as earlier	

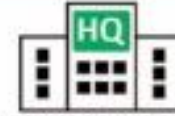
QUALITATIVE TARGETS

Previous NDC, 2015	Updated NDC, 2022
 Put forward and further propagate a healthy and sustainable way of living based on traditions and values of conservation and moderation	Put forward and further propagate a healthy and sustainable way of living based on traditions and values of conservation and moderation, including through a mass movement for ' LiFE-Lifestyle for the Environment ' as a key to combating climate change.
 Adopt a climate friendly and a cleaner path than the one followed hitherto by others at corresponding level of economic development.	Same as earlier
 Better adapt to climate change by enhancing investments in development programmes in sectors vulnerable to climate change, particularly agriculture, water resources, Himalayan region, coastal regions, health and disaster management.	Same as earlier
 Mobilize domestic and new & additional funds from developed countries to implement the above mitigation and adaptation actions in view of the resource required and the resource gap.	Same as earlier
 Build capacities, create domestic framework and inter- national architecture for quick diffusion of cutting edge climate technology in India and for joint collaborative R&D for such future technologies.	Same as earlier



Convention on
Biological Diversity

United Nations Convention on Biological Diversity (CBD)



Montreal, Canada



Genesis: An international legally binding multilateral treaty, opened for signature in 1992 at the Rio "Earth Summit".



Objective:

- Conservation of biological diversity.
- Sustainable use of the components of biological diversity.
- Fair and equitable sharing of the benefits arising out of the utilization of genetic resources.



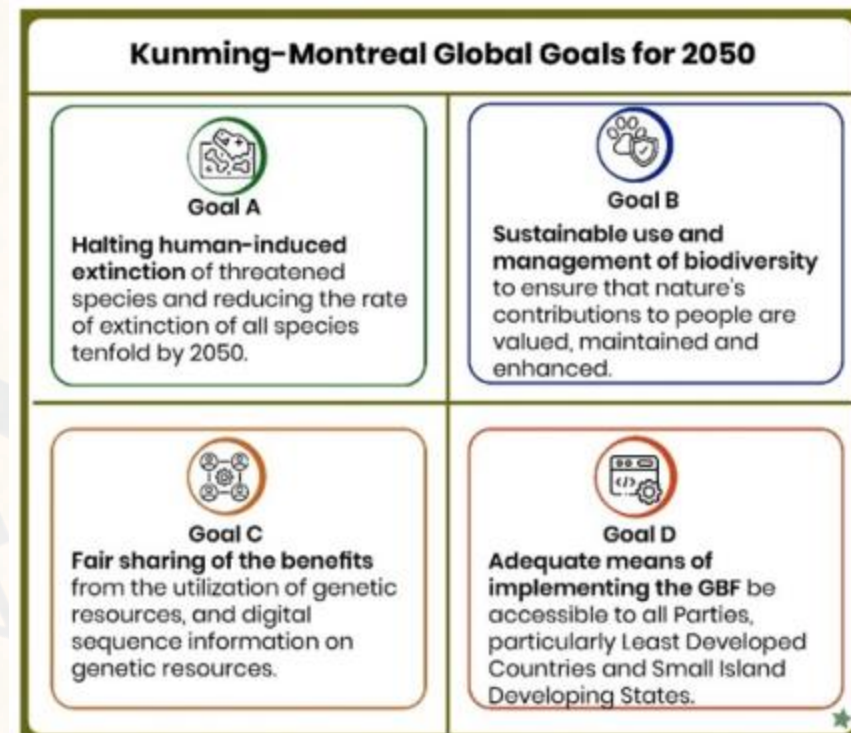
Signatories: 196 parties.



Other key information:

- **Conference of the Parties (COP)** is the governing body of the Convention which meets every two years, or as needed.
- At COP10, governments agreed to the **Strategic Plan for Biodiversity 2011-2020** and its **Aichi Biodiversity Targets**.
- **Has 3 Supplementary agreements:** Cartagena Protocol on Biosafety; Nagoya Protocol on Access and Benefit-sharing; Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety.
- United Nations General Assembly declared the period **2011-2020 to be the "United Nations Decade on Biodiversity"**.

Kunming-Montreal 2030 Global Targets		
Reducing threats to biodiversity	Meeting people's needs through sustainable use and benefit-sharing	Tools and solutions for implementation and mainstreaming
<ol style="list-style-type: none"> 1. Effective management of land- and sea-use change, loss of highly important biodiverse areas close to zero by 2030. 2. Effective restoration of at least 30% of degraded ecosystems by 2030. 3. Effective conservation and management of at least 30% of land and 30% of oceans by 2030. 4. Halt human-induced extinctions and maintain and restore genetic diversity. 5. Sustainable use, harvesting and trade of wild species. 6. Mitigate or eliminate the impacts of invasive alien species, reduce the rates of establishment of invasive species by 50% by 2030. 7. Reduce pollution risks and impacts from all sources by 2030, reduce excess nutrients lost to the environment and the overall risk from pesticides by at least half. 8. Minimise the impacts of climate change and ocean acidification on biodiversity. 	<ol style="list-style-type: none"> 9. Ensure sustainable use and management of wild species, while protecting and encouraging customary sustainable use by indigenous peoples and local communities. 10. Sustainable management of areas under agriculture, aquaculture, fisheries and forestry. 11. Restore and enhance ecosystem function through nature-based solutions and ecosystem-based approaches. 12. Increase the area and quality of green and blue spaces in urban and densely populated areas sustainably. 13. Fair and equitable sharing of the benefits arising from the use of genetic resources and from digital sequence information and traditional knowledge on genetic resources. 	<ol style="list-style-type: none"> 14. Integration of biodiversity into policies and development across all sectors. 15. Enable large and transnational companies and financial institutions to monitor, assess and disclose their impacts on biodiversity. 16. Encourage sustainable consumption, including by reducing food waste by half by 2030. 17. Strengthen capacity for biosafety measures and ensure benefits-sharing from biotechnology. 18. Eliminate, phase out or reform harmful subsidies in a just way, reducing them by \$500bn by 2030. 19. Substantially increase financial resources, mobilise \$200bn per year by 2030 from all sources, including at least US\$ 20 billion per year by 2025, and US\$ 30 billion per year by 2030 from developed to developing countries. 20. Strengthen capacity-building and technology transfer. 21. Integrated and participatory management, including the use of traditional knowledge. 22. Equitable representation and participation of Indigenous peoples and local communities. 23. Ensure gender equality in the implementation of the framework.



Questions??



- Online query (For faster reply)
- Read and revise what is taught
- Read the reference material
- Mentoring sessions

If Dil Maange beyond MORE...

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