

### Ramsar Sites (Wetlands of International Importance) of India:

There are a total of 75 Ramsar sites in India covering 1,326,677 ha in area.

Below the table some important wetlands have been discussed in little detail.

S. No.	State Location	Name of Site	Area
1	Andhra Pradesh	Kolleru Lake	901.00
2	Assam	Deepor Beel	40.00
3	Bihar	Kabartal Wetland	26.20
4	Goa	Nanda Lake	0.42
5	Gujarat	Khijadia Wildlife Sanctuary	5.12
6	Gujarat	Nalsarovar Bird Sanctuary	120.00
7	Gujarat	Thol Lake Wildlife Sanctuary	6.99
8	Gujarat	Wadhvana Wetland	6.30
9	Haryana	Bhindawas Wildlife Sanctuary	4.12
10	Haryana	Sultanpur National Park	1.43
11	Himachal Pradesh	Chandertal Wetland	0.49
12	Himachal Pradesh	Pong Dam Lake	156.62
13	Himachal Pradesh	Renuka Wetland	0.20
14	Jammu and Kashmir	Hokera Wetland	13.75
15	Jammu and Kashmir	Hygam Wetland Conservation Reserve	8.02
16	Jammu and Kashmir	Shallbugh Wetland Conservation Reserve	16.75
17	Jammu and Kashmir	Surinsar-Mansar Lakes	3.50
18	Jammu and Kashmir	Wular Lake	189.00
19	Karnataka	Ranganathittu Bird Sanctuary	5.18
20	Kerala	Asthamudi Wetland	61.40
21	Kerala	Sasthamkotta Lake	3.73
22	Kerala	Vembanad Kol Wetland	1512.50
23	Ladakh	Tso Kar Wetland Complex	95.77
24	Ladakh	Tsomoriri Lake	120.00
25	Madhya Pradesh	Bhoj Wetlands	32.01
26	Madhya Pradesh	Sakhya Sagar	2.48
27	Madhya Pradesh	Sirpur Wetland	1.61
28	Madhya Pradesh	Yashwant Sagar	8.23
29	Maharashtra	Lonar Lake	4.27
30	Maharashtra	Nandur Madhameshwar	14.37
31	Maharashtra	Thane Creek	65.21
32	Manipur	Loktak Lake	266.00
33	Mizoram	Pala Wetland	18.50

34	Odisha	Ansupa Lake	2.31
35	Odisha	Bhitarkanika Mangroves	650.00
36	Odisha	Chilka Lake	1165.00
37	Odisha	Hirakud Reservoir	654.00
38	Odisha	Satkosia Gorge	981.97
39	Odisha	Tampara Lake	3.00
40	Punjab	Beas Conservation Reserve	64.29
41	Punjab	Harike Lake	41.00
42	Punjab	Kanjli Lake	1.83
43	Punjab	Keshopur-Miani Community Reserve	3.44
44	Punjab	Nangal Wildlife Sanctuary	1.16
45	Punjab	Ropar Lake	13.65
46	Rajasthan	Keoladeo Ghana NP	28.73
47	Rajasthan	Sambhar Lake	240.00
48	Tamil Nadu	Chitrangudi Bird Sanctuary	2.60
49	Tamil Nadu	Gulf of Mannar Marine Biosphere Reserve	526.72
50	Tamil Nadu	Kanjirankulam Bird Sanctuary	0.97
51	Tamil Nadu	Karikili Bird Sanctuary	0.58
52	Tamil Nadu	Koonthankulam Bird Sanctuary	0.72
53	Tamil Nadu	Pallikaranai Marsh Reserve Forest	12.48
54	Tamil Nadu	Pichavaram Mangrove	14.79
55	Tamil Nadu	Point Calimere Wildlife and Bird Sanctuary	385.00
56	Tamil Nadu	Suchindram Theroor Wetland Complex	0.94
57	Tamil Nadu	Udhayamarthandapuram Bird Sanctuary	0.44
58	Tamil Nadu	Vaduvur Bird Sanctuary	1.13
59	Tamil Nadu	Vedanthangal Bird Sanctuary	0.40
60	Tamil Nadu	Vellode Bird Sanctuary	0.77
61	Tamil Nadu	Vembannur Wetland Complex	0.20
62	Tripura	Rudrasagar Lake	2.40
63	Uttar Pradesh	Bakhira Wildlife Sanctuary	28.94
64	Uttar Pradesh	Haiderpur Wetland	69.08
65	Uttar Pradesh	Nawabganj Bird Sanctuary	2.25
66	Uttar Pradesh	Parvati Agra Bird Sanctuary	7.22
67	Uttar Pradesh	Saman Bird Sanctuary	5.26
68	Uttar Pradesh	Samaspur Bird Sanctuary	7.99
69	Uttar Pradesh	Sandi Bird Sanctuary	3.09
70	Uttar Pradesh	Sarsai Nawar Jheel	1.61
71	Uttar Pradesh	Sur Sarovar	4.31
72	Uttar Pradesh	Upper Ganga River	265.90
73	Uttarakhand	Asan Conservation Reserve	4.44
74	West Bengal	East Kolkata Wetlands	125.00
75	West Bengal	Sunderbans Wetland	4230.00

Source: [http://www.wiienviis.nic.in/Database/ramsar\\_wetland\\_sites\\_8224.aspx](http://www.wiienviis.nic.in/Database/ramsar_wetland_sites_8224.aspx)

## Details of some of the important sites:

### 1. Kolleru Lake, Andhra Pradesh

- A natural eutrophic lake, situated between the two major river basins of the Godavari and the Krishna,
- It functions as a natural flood balancing reservoir between the deltas of the two rivers.
- It provides habitat for a number of resident and migratory birds, including declining numbers of the vulnerable Grey Pelican (*Pelecanus philippensis*).

### 2. Deepor Beel, Assam

- A permanent freshwater lake in a former channel of the Brahmaputra river, near the city of Guwahati.
- Some globally threatened birds are supported, including Spotbilled Pelican (*Pelecanus philippensis*), Lesser and Greater Adjutant Stork (*Leptoptilos javanicus* and *dubius*), and Baer's Pochard (*Aythya baeri*).

### 3. Kabartal wetland, Bihar

- Aka Kanwar Jheel
- The Wetland is an important stopover along the Central Asian Flyway, with 58 migratory waterbirds using it to rest and refuel.
- Five critically endangered species inhabit the site, including three vultures –
  - the red-headed vulture
  - white-rumped vulture and
  - Indian vulture
- and two waterbirds,
  - the sociable lapwing and
  - Baer's pochard

### 4. Nanda Lake, Goa

- freshwater marshes that lie adjacent to one of the major tributaries of the Zuari River.
- Notable bird species include black-headed ibis, common kingfisher wire-tailed swallow, bronze-winged jacana brahminy kite

### 5. Nalsarovar Bird sanctuary, Gujarat

- A natural freshwater lake that is the largest natural wetland in the Thar Desert.
- It is an important stopover site within the Central Asia Flyway, with globally threatened species such as the critically endangered Sociable Lapwing (*Vanellus gregarius*) and the vulnerable Marbled Teal (*Marmaronetta angustirostris*) stopping over at the site during

migration

- the vulnerable Sarus Crane (*Grus antigone*) takes refuge there during summer.
- The wetland is also a lifeline for a satellite population of the endangered Indian Wild Ass which uses this area in the dry season.

#### 6. Sulthapur National Park, Haryana

- Known for critically endangered sociable lapwing, and the endangered Egyptian vulture, saker falcon, Pallas's fish eagle and black-bellied tern.

#### 7. Pong Dam Lake, Himachal Pradesh

- A water storage reservoir created in 1975 on the Beas River
- Hydrological values include monsoon-season flood prevention, groundwater recharge, prevention of soil erosion; electricity is generated for this and neighboring states, and irrigation water is being channeled to fertile areas of the Punjab and Rajasthan deserts

#### 8. Wular Lake, J&K

- The largest freshwater lake in India
- extensive marshes of emergent and floating vegetation, particularly water chestnut, that provide an important source of revenue for the State Government and fodder for domestic livestock.

#### 9. Ranganathittu Bird Sanctuary, Karnataka

- a part of the Kaveri River
- It supports populations of mugger crocodile, smooth-coated otter and hump-backed mahseer.
- It is classified as an Important Bird and Biodiversity Area (IBA).
- The Site is classified as an Eco- Sensitive Zone

#### 10. Vembanad Kol Wetland, Kerala

- largest brackish, humid tropical wetland ecosystem on the southwest coast of India, fed by 10 rivers and typical of large estuarine systems on the western coast,
- renowned for its clams and supporting the third largest waterfowl population in India during the winter months.

#### 10. Asthamudi Wetland, Kerala

- The site supports a number of mangrove species

#### 11. Tso Kar Wetland Complex, Ladakh

- This high-altitude wetland complex - the freshwater Startsapuk Tso and the larger hypersaline Tso Kar;
- Known for endangered saker falcon and Asiatic wild dog or dhole and the vulnerable snow leopard (*Panthera uncia*). The Site also acts as an important stopover ground for migratory birds along the Central Asian Flyway and is one of the most important breeding areas in India for the black-necked crane

#### 12. Tsomoriri Lake, Ladakh

- A freshwater to brackish lake lying at 4,595m above sea level, with wet meadows.
- only breeding ground outside of China for one of the most endangered cranes, the Black-necked crane (*Grus nigricollis*), and the only breeding ground for Bar-headed geese in India.
- The Great Tibetan Sheep or Argali (*Ovis ammon hodgsoni*) and Tibetan Wild Ass (*Equus kiang*) are endemic to the Tibetan plateau, of which the Changthang is the westernmost part.
- The barley fields at Korzok have been described as the highest cultivated land in the world.
- Ancient trade routes and now major trekking routes pass the site.
- The 400-year-old Korzok monastery attracts many tourists, and the wetland is considered sacred by local Buddhist communities and the water is not used by them.
- The local community dedicated Tsomoriri as a WWF Sacred Gift for the Living Planet in recognition of WWF-India's project work there.

#### 13. Bhoj Wetlands, Madhya Pradesh

- Two contiguous human-made reservoirs - the "Upper Lake" was created in the 11<sup>th</sup>
- It is surrounded by the city of Bhopal. The lakes are very rich in biodiversity,

#### 14. Thane Creek, Maharashtra

- The Site is one of the largest creeks of Asia and hosts many birds migrating on the Central Asian Flyway.
- As a sanctuary for flamingos and other important bird species, it is in the list of Important Bird and Biodiversity Areas (IBAs).
- Thane Creek falls under the Marine Ecoregions of the World (MEOW) but is fed by numerous freshwater sources, making the water brackish.
- Its mangrove forests provide nurseries for several fish species, sustaining the local fisheries, and also act as a natural buffer against floods, cyclones and seawater intrusions, enhancing the resilience of surrounding areas to such climate-related hazards.

- Known for vulnerable Sulawesi fruit bat, Mozambique tilapia and river tern and the endangered great knot .

#### 15. Loktak Lake, Manipur

- A large, but shrinking freshwater lake and associated swamplands supplied by several streams.
- Thick, floating mats of weeds covered with soil (phumids') are a characteristic feature.
- Included on the Montreux Record in 1993 as a result of ecological problems such as deforestation in the catchment area, infestation of water hyacinth, and pollution.
- The construction of a dam for hydroelectric power generation and irrigation purposes has caused the local extinction of several native fish species.

#### 16. Bhitarkanika Mangroves, Odisha

- Also a National Park.
- One of the finest remaining patches of mangrove forests along the Indian coast
- The site's Gahirmatha beach is said to host the largest known Olive Ridley sea turtle nesting beach in the world, with half a million nesting annually,
- It is a major breeding and wintering place for many resident and migratory waterbirds and is the east coast's major nursery for brackish water and estuarine fish fauna.

#### 17. Chilka Lake, Odisha

- Was part of Montreux Record, but removed in 2002.
- Brackish lake separated from the Bay of Bengal by a long sandy ridge and subject to sea water exchange, resulting in extreme seasonal fluctuations in salinity in different sections of the lake.
- Saline areas support aquatic algae.

#### 18. Hirakud Reservoir, Odisha

- It is one of the largest man-made reservoirs in India, built across the Mahanadi River.
- The reservoir helps regulate the water level of the river and moderates the impact of floods in the Mahanadi Delta.
- The reservoir also produces around 350 megawatts of hydropower and irrigates 436,000 hectares of land.

#### 19. Satkosia Gorge, Odisha

- Satkosia Gorge is a mosaic of rivers, marshes and evergreen forests at the meeting point of two biogeographic regions, the Deccan Peninsula and the Eastern Ghats.
- These wetland habitats support a variety of plant and animal communities. Notable plant species include asan, dhaura, simal, Indian thorny bamboo and Calcutta bamboo, while animal species include red-crowned roofed turtle Indian narrow-headed softshell turtle, tiger and black-bellied tern.

#### 20. Harike Lake, Punjab

- A Bird Sanctuary.
- A shallow water reservoir with thirteen islands, at the confluence of two rivers Beas and Sutlej.

#### 21. Keoladeo Ghana NP, Rajasthan

- Placed on the Montreux Record in 1990 due to "water shortage and an unbalanced grazing regime".
- Additionally, the invasive growth of the grass *Paspalum distichum* has changed the ecological character of large areas of the site, reducing its suitability for certain waterbird species, notably the Siberian crane.

#### 22. Sambhar Lake, Rajasthan

- A large saline lake
- It is surrounded by sand flats and dry thorn scrub and fed by seasonal rivers and streams.
- The site is important for a variety of wintering waterbirds, including large numbers of flamingos.

#### 23. Gulf of Mannar Marine Biosphere Reserve, Tamil Nadu

- Located at the south-eastern tip of India, the Gulf of Mannar Marine Biosphere Reserve is the first Marine Biosphere Reserve in South and South-East Asia.
- The Gulf is where the southward extension of the Bay of Bengal meets the Indian Ocean.
- Globally threatened species include the dugong, whale shark, green sea turtle, hawksbill turtle and Indo-Pacific humpback dolphin.
- The local communities are mainly Marakeyars, with fishing their main livelihood.
- classified as a Marine National Park and recognized as a World Heritage Site.

#### 24. Point Calimere Wildlife and Bird Sanctuary, Tamil Nadu

- A coastal area consisting of shallow waters,
- the vulnerable species Spoonbill Sandpiper and Grey Pelican and some Greater and Lesser Flamingos.
- Visitors come to the site both for recreation and for pilgrimage, as it is associated with Lord Rama.

#### 25. Rudrasagar Lake, Tripura

- A lowland sedimentation reservoir in the northeast hills, fed by three perennial streams discharging to the River Gomti. T
- It is an ideal habitat for IUCN Redlisted Three-striped Roof Turtle *Kachuga dhongka*.
- Vijaya Dashami, and various sports events, attracts at least 50,000 tourists and devotees every year.

## 26. Haiderpur Wetland, Uttar Pradesh

- This human-made wetland was formed by the construction of the Madhya Ganga Barrage on a floodplain of the River Ganga.
- It is located within the boundaries of Hastinapur Wildlife Sanctuary.
- This diverse habitat supports more than 15 globally threatened species, such as the critically endangered gharial and the endangered hog deer, black-bellied tern, steppe eagle, Indian skimmer and gold mahseer.
- It serves as a breeding site for the near-threatened Indian grassbird and provides refuge to the northern subspecies population of the vulnerable swamp deer during its seasonal flood-driven migration.

## 27. Upper Ganga River, Uttar Pradesh

- A shallow river stretch of the great Ganges with intermittent small stretches of deep-water pools and reservoirs upstream from barrages.
- The river provides habitat for IUCN Red listed Ganges River Dolphin, Gharial, Crocodile, 6 species of turtles, otters, 82 species of fish and more than hundred species of birds.
- Major plant species, some of which have high medicinal values, include Dalbergia sissoo, Saraca indica, Eucalyptus globulus, Ficus bengalensis, Dendrocalamus strictus, Tectona grandis, Azadirachta indica and aquatic Eichhorina.
- This river stretch has high Hindu religious importance for thousands of pilgrims and is used for cremation and holy baths for spiritual purification.

## 28. East Kolkata Wetlands, West Bengal

- World-renowned as a model of a multiple use wetland.
- The wetland forms an urban facility for treating the city's waste water and utilizing the treated water for pisciculture and agriculture, through the recovery of nutrients in an efficient manner - the water flows through fish ponds covering about 4,000 ha, and the ponds act as solar reactors and complete most of their bio-chemical reactions with the help of solar energy.
- Thus the system is described as "one of the rare examples of environmental protection and development management".

## 29. Sunderbans Wetland, West Bengal

- Sundarban Wetland is located within the largest mangrove forest in the world,
- in the delta of the Rivers Ganges and Brahmaputra on the Bay of Bengal in India and Bangladesh.
- The Sundarban Tiger Reserve is situated within the Site and part of it has been declared a "critical tiger habitat" under national law and also a "Tiger Conservation Landscape" of global importance.
- The Sunderbans are the only mangrove habitat which supports a significant population of tigers, and they have unique aquatic hunting skills.
- The Site is also home to a large number of rare and globally threatened species such as the critically endangered northern river terrapin, the endangered Irrawaddy dolphin, and the vulnerable fishing cat.



Only for nagendraiput9753@gmail.com