

The Sunderbans

Introduction:

Sunderbans, the largest mangrove belt of the world, is a famous heritage declared by UNESCO in the year 1987. The belt forms part of 24 Paragans which was ceded to the East India Company by a treaty of 1757 which subsequently became the Jagir of Lord Clive. Sunderbans falls a little south of tropic of cancer. Up to August, 1947 the Indian Part of Sunderbans was under erstwhile Sunderban division with headquarters at Khulna District, now in Bangladesh.

Sunderbans covers a total area of 9630 Sq kms. Rivers namely Kalindi, Ichhamati, Raimangal and Haribhanga are dividing the two countries i.e, India and Bangladesh. The midstream of these rivers is mutually agreed as International Boundary. 60% of Sunderbans area falls in Bangladesh and 40% in India. It is the only mangrove Tiger land in the world, famous for its *flora and fauna*.

Sunderbans Tiger Reserve occupies a major part of the Indian Sunderbans. Of the total forested area of 4263 sq kms of Indian Sunderban, a total of 2585 sq km has been designated as Sunderbans Tiger Reserve w.e.f. 23.12.1973.

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Sunderbans at a Glance:

Total area of Sunderbans	:	9630 Sq Kms
Mangrove Forest	:	4263 Sq Kms
Reserve Forest	:	2585 Sq Kms
Land area	:	1600 Sq Kms
Water body	:	985 Sq Kms
Core Area	:	1330.12 Sq Kms
(Declared as Sunderban National Park in 1984)		
Sajne Khali Wildlife Sanctuary	:	1976
Buffer Zone	:	362.335 Sq Kms
Declared World Heritage site	:	1987
Declared Biosphere Reserve of earth	:	1989



Sundari



Mangrove Tree

Flora: The dominant mangrove species in Sunderbans is "*Heriteria fomes*" locally known as Sundari, after which the Sunderban is named. The other varieties of plants are Bean, Passur, Dhundul, Golpata, Hental, Khalsi, Gurjan, Guran, Gnewa & Keora.

Fauna: Sunderbans is the natural habitat for animals and innumerable variety of beautiful birds. Of which the most famous are Tiger, Salt water crocodile, Fishing Cat, Leopard Cat, Gangetic Dolphin, Bengal Monitor Lizard, Hawk's Bill Turtle, Green Turtle, Lesser Adjutant stork, Chital, Wild boar, King Crab, Olive Ridlay Turtle and River Terrapin.

Terrain And Weather:

Climate: The climate of Sunderbans is tropical. The temperature varies from 20^o (Dec - Jan) to 28^o (June - July). Humidity ranges between 70% to 80% and average rainfall is approximately 1763 mm.

Terrain : The entire Sunderbans is spread into number of land masses. The land masses are criss-crossed with river, *nullahs* and *khals* which can be negotiated with navigational aids. The thick forest and marshy land restricts the movement. Movement in the water channels is difficult as well as dictated by High Tide/ Low Tide phenomenon.

Demography:

Sunderbans is densely populated and majority of the population depends on agriculture supported by other occupation like fishery, forestry and handicrafts, poverty is rampant. Habitation is exposed to cyclone, storms etc. which generally occurs during onset of monsoon and also during post monsoon period.

International Trade Route:

The International Trade Route between India and Bangladesh goes through Sunderbans area which is as under:-

Old Route:

Kolkata - Diamond Harbour - Kakdwip - Namkhana - Pathar Pratima - River Thakuran - River Matla - Nethi Dopani - River Gosaba - Haribhanga Junction - Beharikhhal - IB - Bangladesh.



Royal Bengal Tiger



Salt Water Crocodile

New Route:

Kolkata – Diamond Harbour – Kakdwip – Namkhana – Pathar Pratima – River Thakuran
– River Matla – Gomtikhali-Hemnagar- T Junction – Kachakatikhal – Bangladesh.

These routes have salient features as :-

- Used for cargo crafts only.
- Craft size 90 -140 metre
- 8-12 crafts per day (incoming as well as outgoing)
- Water remains available throughout the year on these routes.
- Distance Namkhana to IB
 - Appx 85 km aerial.
 - 160-170 km through water.
 - 10-12 hours travel from Namkhana to IB.

Threat:

Sunderban area is less populated and may be utilized by anti-national elements as well as smugglers/pirates/criminals to enter India from Bangladesh. Also the cargo ships that sail between India to Bangladesh are checked generally at Kolkata/Namkhana during entry / exit and following illegal activities cannot be ruled out :-

- Smuggling of arms/narcotic from Bangladesh to India
- Unload such items before reaching at Namkhana
- Smuggling of goods from India to BD during return of crafts by way of loading between Namkhana and IB
- Movement of militants.

Domination of IB in Sunderbans :

International Boundary between India and Bangladesh passes through a channel of rivers namely Kalindi, Ichhamati, Raimangal and Haribhanga. The international boundary is dominated by BSF with the help of land based Border Out Posts (BOPs) as well as by available water crafts. Presently, 03 Floating BOPs, 04 Medium Crafts and 12 Speed Boats are available with BSF for domination of IB in Sunderbans. Modern surveillance equipments are also used as force multiplier towards domination of IB.



Floating BOP



Medium Vessel



Speed Boat