



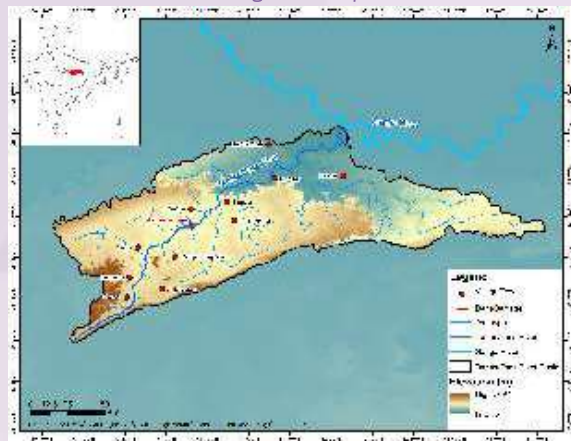
# Tamas

## GENERAL INFORMATION

- Tamas (Tamsa or Tons) River, a right bank tributary of the Ganga River, originates in the Kaimur Hills, from Tamakund (610 m asl), a tank in the Maihar district, Madhya Pradesh, and flows for 338 km through the districts of Maihar, Satna and Rewa in Madhya Pradesh, and Prayagraj in Uttar Pradesh.
- It meets the Ganga river just upstream of Sirsa, Prayagraj district.
- Tamas River basin spans an area of about 16,672 km<sup>2</sup> (Figure 1).
- The basin falls under the Deccan Peninsula (Central Highlands – 6A) and Gangetic Plain (Upper Gangetic Plains – 7A) biogeographic zones.
- The basin experiences a subtropical to semi-arid climate.
- The river flows through the rugged Vindhyan plateau, forming deep gorges, sandstone escarpments, and waterfalls such as Purwa Falls, before transitioning downstream into the alluvial plains.
- Major tributaries of the Tamas are the Belan, Mahana, Beehar, Simrawal, Karihari and Nar.
- The population density along the river is 546.61 persons/km<sup>2</sup>.

- Decadal LULC transitions in the Tamas basin (2008-09 to 2018-19) recorded an increase in double/triple crop (7.40%) and kharif crop (3.06%), and a decrease in current fallow (-5.02%), rabi crop (-4.17%) and wasteland (-1.75%). Marginal increases were noted in waterbodies (0.35%), built-up (0.10%) and scrubland (0.05%), and no change in deciduous forest and plantation (Figures 2a and 2b).

Figure 1: Map of Tamas River basin



## BIODIVERSITY VALUE

- Tamas basin is dominated by non-forest areas (82.27%), followed by open forest (6.98%), moderately dense forest (6.58%), scrub forest (2.06%), waterbodies (1.15%) and very dense forest (0.95%) (Figure 3).
- The basin supports Northern Tropical Dry Deciduous Forest and Northern Tropical Moist Deciduous Forest types, with dominant tree species such as *Shorea robusta*, *Terminalia tomentosa*, and *Anogeissus latifolia*, while floodplains and sandbars are characterized by grasses such as *Saccharum spontaneum*, *Desmostachya bipinnata*, and *Vetiveria zizanioides*. Critically Endangered *Chlorophytum borivilianum* and Near Threatened *Pterocarpus marsupium* are found in the basin. *Boswellia serrata* and *Sterculia urens* have declined regionally due to over exploitation.
- Belan River, a tributary of Tamas River, flows through the Kaimur Hills, near the Kaimur Wildlife Sanctuary (Kaimoor Wildlife Sanctuary).
- Kaimur Wildlife Sanctuary supports rich biodiversity including the Endangered Indian pangolin (*Manis crassicaudata*), Vulnerable four-horned antelope or chousingha (*Tetracerus quadricornis*), sambar (*Rusa unicolor*) and sloth bear (*Melursus ursinus*), and Near Threatened striped hyaena (*Hyaena hyaena*).
- Rewa, Sidhi and Singrauli districts (Madhya Pradesh), in the basin, harbour the Critically Endangered white-rumped vulture (*Gyps bengalensis*), red-headed vulture (*Sarcogyps calvus*) and Indian vulture (*Gyps indicus*), Endangered Egyptian vulture (*Neophron percnopterus*), and Near Threatened cinereous vulture (*Aegypius monachus*).
- 82 fish species (12 orders, 25 families) have been recorded in the basin, including the Endangered wagur (*Clarias magur*) and golden mahseer (*Tor putitora*), and Vulnerable *Bagarius bagarius*, mrigal carp (*Cirrhinus cirrhosus*) and *Wallago attu*.



Figure 2a: LULC map of Tamas River basin (2008-09)

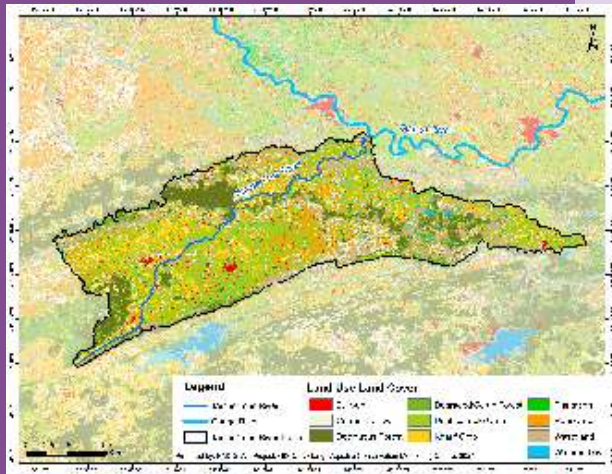


Figure 2b: LULC map of Tamas River basin (2018-19)

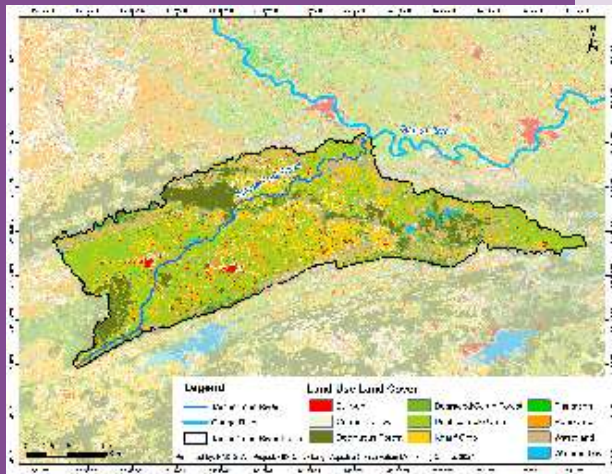
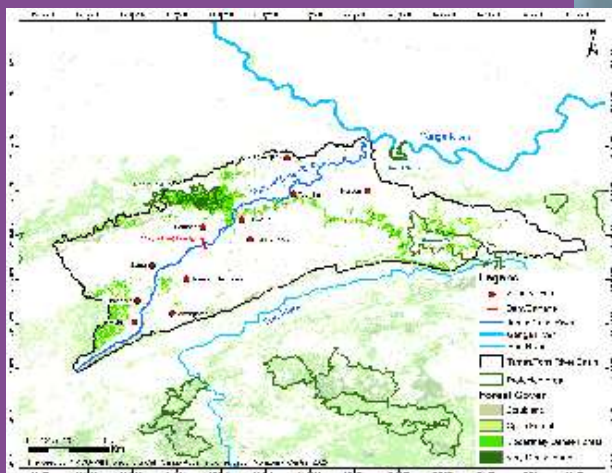


Figure 3: Forest cover of Tamas River basin (2019)



## CONSERVATION SIGNIFICANCE

### ENDANGERED

#### Avifauna

Egyptian vulture *Neophron percnopterus* (Linnaeus, 1758)

Steppe eagle *Aquila nipalensis* (Hodgson, 1833)

#### Fish

Wagur *Clarias magur* (Hamilton, 1822)

Golden mahseer *Tor putitora* (Hamilton, 1822)

### VULNERABLE

#### Avifauna

Common pochard *Aythya ferina* (Linnaeus, 1758)

River tern *Sterna aurantia* (Gray, 1831)

Sarus crane *Grus antigone* (Linnaeus, 1758)

#### Fish

Bagarius *bagarius* (Hamilton, 1822)

Mrigal carp *Cirrhinus cirrhosus* (Bloch, 1795)

Wallago attu (Bloch and Schneider, 1801)

### KEY PROTECTED AREAS

Ranipur Wildlife Sanctuary

Kaimur Wildlife Sanctuary

Bagdara Wildlife Sanctuary

Blackbuck (*Antelope cervicapra*) | ©Bipattaran Paramanik



## DRIVERS OF RIVERSCAPE CHANGE

- Frequent hydrological droughts, particularly in the Satna and Rewa districts, reduce discharge and carrying capacity, promoting channel contraction and vegetation encroachment within the riverbed.
- The Bakiya (Tons) barrage traps sediments upstream, generating sediment-starved flows downstream that enhance riverbed incision and bank erosion.
- Discharge of sewage from urban centres along the river, such as Satna and Madhavgarh, degrade water quality.

## INTERESTING FACTS

- Madhavgarh Fort (Satna district) is a 400 year old fort situated on a rocky hill along the banks of the Tamas River and was constructed by the Maharaja Vishwanath Singh Judeo, a Baghel Rajput ruler of the Rewa state of Madhya Pradesh. Its strategic placement allowed rulers to monitor river crossings and control access along this important corridor, while also relying on the river and its catchment for water security during times of conflict. The fort is also noted for its Bagheli-style architecture and artistic elements.
- Purva Falls (Rewa district), a vertical drop where the river plunges approx. 70 m into a deep sandstone gorge, is a prime example of nick-point caused by river rejuvenation.
- According to the ancient Indian epic *Ramayana*, the Tamas River is the birthplace of Sanskrit poetry. It is said that the Sage Valmiki was bathing in the Tamas when he witnessed a hunter kill one of a pair of mating cranes (Krauncha birds). His grief and anger spontaneously burst forth in a rhythmic couplet, which became the first Sloka (verse) of the Sanskrit language. Consequently, Valmiki wrote the entire *Ramayana* at his ashram, which was situated on the banks of this river.
- Tamas holds a deep connection to the life of Lord Rama, the chief protagonist of the *Ramayana*. When Rama, Sita (wife), and Lakshmana (brother) began their 14 year exile from Ayodhya, their first night away from the kingdom was spent on the banks of the Tamas River.



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