



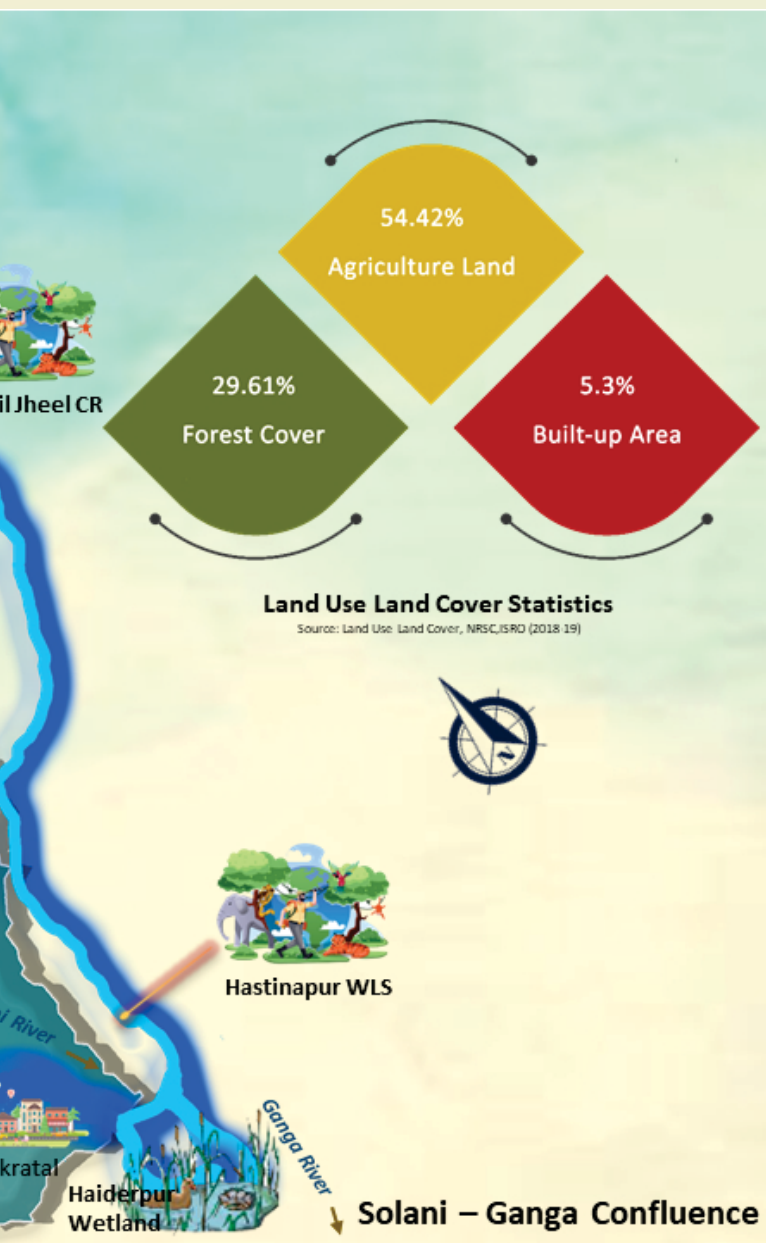
# Solani River

## Source of Solani River



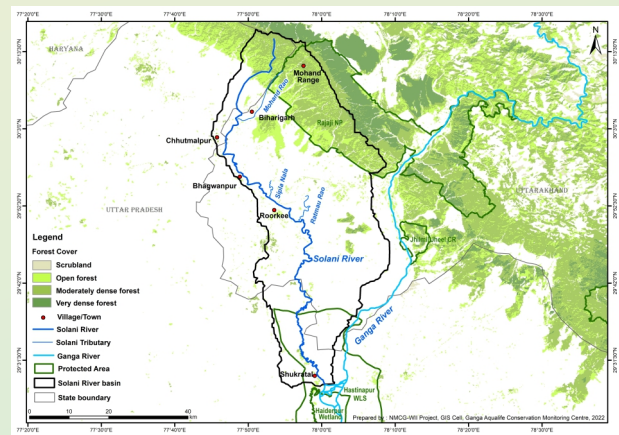
## GENERAL INFORMATION

- Solani is a right-bank tributary of the Ganga River that originates from the foothills of the Himalayas in the Kaluwala Reserve Forest of Saharanpur district in Uttar Pradesh.
- Solani covers a length of ~136 km, of which 71 km flows through Uttarakhand and 65 km through Uttar Pradesh.
- Basin covers a total catchment area of about 1950 km<sup>2</sup>, of which 78.02% falls in Uttarakhand and 21.98% in Uttar Pradesh.
- Solani enters Uttarakhand in Biharigarh and flows through Chhutmalpur, Bhagwanpur, and Roorkee. Then enters Uttar Pradesh in Purkazi and flows through Morna and later joins the Ganga River in Shukratal village in the Muzaffarnagar district of Uttar Pradesh.
- Climate of the Solani River basin is sub-tropical monsoon.
- Solani River flows through only the Gangetic Plains biogeographic zone and the Upper Gangetic Plains (7A) biotic province.
- According to folklore on the banks of Solani under the *Akshaya Vriksha*, the immortal sacred tree, Sage Sukhdev recited the *Shrimad Bhagwat Katha* to Maharaja Parikshit. After this, Maharaja Parikshit got rid of his curse and later on, this place was named *Shukratal*.
- Kaluwala, Chillawal, Shahjahanpur and Mohan are the key tributaries of the Solani river.

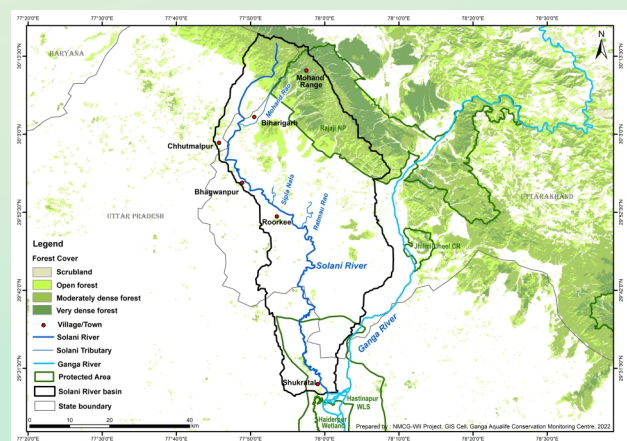


## FOREST COVER

Catchment of Solani River is dominated by non-forest cover, followed by moderately dense forest, open forest, very dense forest, and scrubland.



Forest cover in 2015



Forest cover in 2019

## SALIENT FEATURES

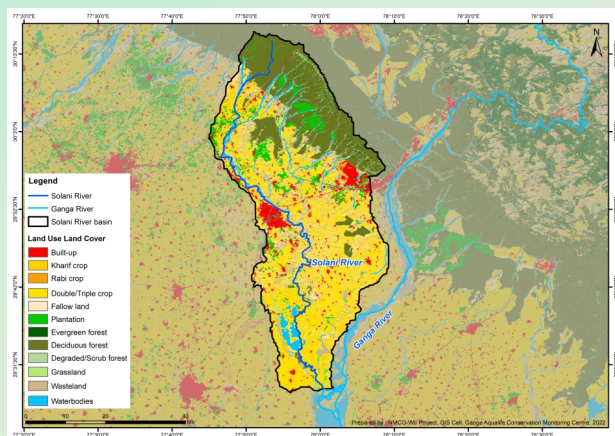
- Around a 28 km stretch of Solani River flows through Hastinapur Wildlife Sanctuary and has been protected since 1986.
- Two major forest types, the dry Siwalik sal forest (5B/C1a) and the northern mixed deciduous forest (5B/C2) dominate the Basin.
- Vegetation of the Basin is represented by *Shorea robusta*, *Anogeissus latifolia*, *Buchanania lanzan*, *Bauhinia variegata*, *Ougeinia oojenensis*, *Acacia catechu* and *Terminalia tomentosa*.
- Gangetic dolphin (*Platanista gangetica*) and smooth-coated otter (*Lutrogale perspicillata*) have been reported from the Basin.
- Among birds, red-headed vulture (*Sarcogyps calvus*), Pallas's fish eagle (*Haliaeetus leucoryphus*), Egyptian vulture (*Neophron percnopterus*), Indian skimmer (*Rynchops albigollis*), sarus crane (*Grus antigone*) have been reported from the Basin.
- Among reptiles, gharial (*Gavialis gangeticus*) and Indian tent turtle (*Pangshura tentoria*) have been reported from the Basin.
- Golden mahseer (*Tor putitora*), snow trout (*Schizothorax richardsonii*), silver mahseer (*Tor tor*), Spotted barb (*Puntius sophore*), wallago (*Wallago attu*) are some of the important fish species reported from the Basin.
- Solani River basin supports a human population of 25.63 lakh people, of which 13.61 lakh are in Uttarakhand and 12.02 lakh in Uttar Pradesh.



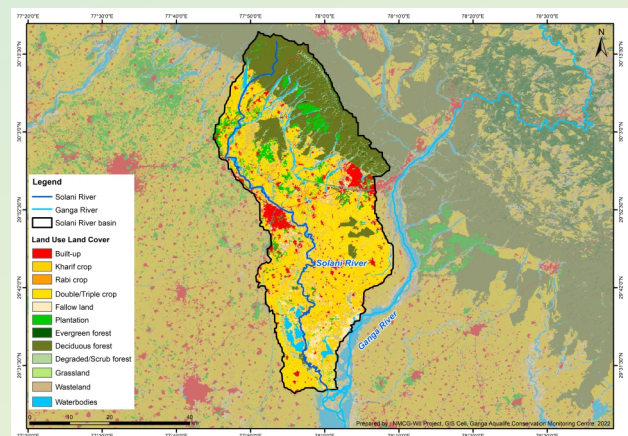


## LAND USE AND LAND COVER

Land Use and Land Cover (LULC) maps (2008-09 & 2018-19) revealed that over a period of ten years, there was an increase in Kharif crop (11.28%), Rabi crop (2.83%), waterbodies (0.47%) and deciduous forest (0.42%); and a decrease in the wasteland (8.12%), double/triple crop (4.27%) and fallow land area (2.63%).



LULC map of 2008-09



LULC map of 2018-19

## DRIVERS OF RIVERSCAPE CHANGE

- Encroachment due to urbanisation and rapid expansion in agriculture.
- Discharge of untreated industrial effluents into the River, especially in the lower stretch of Solani in Uttar Pradesh, deteriorating the River's water quality and affecting the riverine habitat of aquatic biodiversity.
- Religious offerings by locals and tourists into the River also affect the water quality.



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