

# We Hear From

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## Adi Ganga River - A Wetland at Present

A tiny turtle, basking in the mud slope, slithers to the water, a gallinule sneaks in the fig bushes, a heron in its knee-dip water cranes its neck in searching of a swimming fish - these are the scenario of Adi Ganga at a glance adjacent to the Krishnamohan station of Sealdah - Lakshmikantapur railways. Adi Ganga, a sick river, still exists here as wetlands with an extension of about two kilometers stretch in and around the Baruipur Municipality. The relics of this river is still seen as patches here and there, in the shape of a pond after excavation either by the then zamindars or by the locals in order to maintain religious rituals in the holy waters of Adi Ganga, though they are rain-water accumulated ponds in Mathurapur, Dakshin Barasat and Joynagar areas. Adi Ganga River has long fallen into decay due to lack of head water supply from the river Hooghly. Major William Tolly, an officer of British East India Company, took initiatives for renovation of a part of Adi Ganga. As this part was excavated and deepened by Major William Tolly in 1773 and connected to river Bidyadhari at Samukpota helping easy transport of goods from Kolkata to Khulna and Barishal, so therefore and thereafter, this part of Adi Ganga bore his name and known as Tolly's Nullah. Adi Ganga was once the main flow of the Hooghly River from the 15<sup>th</sup> to 17<sup>th</sup> century but has subsequently dried up which is also known as Tolly's Nullah, Surman's creek and Gobindapur creek in and around Kolkata metropolis. Adi Ganga is a river of historical interest for Chaitnyadev's Nilachal visit and for the uses of Adi Ganga waterways

by Dhanpati Saudagar, Srimanta Saudagar and Chand Saudagar as mentioned in the *Chandimangal* and *Manasamangal* respectively.

Adi Ganga River, at present, of about two kilometers stretch, in and around the Baruipur Municipality, is a stagnant water body, filled only with the rain water which is static fresh water covered with weeds and marshes, having the depth of water on an average 6 feet in summer time and 16 to 18 feet during monsoon season. The river turned wetland is characterized by herbaceous vegetation, receives drainage from the Baruipur Municipal areas and becomes a shallow marshy wetland. Water moves from this wetland down into underground aquifer recharging groundwater table round the year. The ground water is usually cleaner, due to filtering processes, than it is in the surface. Thus plenty of ground water is available for agricultural purposes and for the human uses in the area. Further, Adi Ganga wetland retains nutrients, most importantly Nitrogen, Phosphorus and Potassium by accumulation of subsoil. This wetland is said to act as sources as the nutrients are returned to the surroundings and that's why Baruipur area is well acquainted for its greenery and orchards for soil fertility particularly due to Adi Ganga. It contains potential energy for human consumption, normally in the form of plant matter and peat. Local farmers usually make compost, a kind of bio-fertilizer, after collecting plenty of water hyacinths floating in the Adi Ganga waters and leaving under the soil for decomposition. Surprisingly, no migratory birds visit this wetland region during winter season,

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although the diversity of fish species is notable. Adi Ganga is also important as a genetic reservoir for certain species of plants, particularly the weeds and herbs, commonly known as wetlands plants.

### Wetland plants of the Adi Ganga

Sapla - *Nyphaea nouchali*  
 Kalmi sak - *Ipomoea aquatica*  
 Kachuripana - *Eichhornia crassipes*  
 Kachu - *Colocasia esculanta*  
 Bera Kalmi - *Ipomoea carnea*  
 Topa pana - *Pistia stratiotes*  
 Chesco, Fatfati - *Scirpus* sp.  
 Sarbajaya, Kalaful - *Canna* sp.  
 Hasnahena - *Cestrum diurnum*  
 Lal pana, Duck weed - *Lemna* sp.  
 Mator dal pana, Duck weed - *Spirodella polyrrhiza*  
 Suji pana - *Wolphea* sp.  
 Indur kan pana - *Salvinia* sp.  
 Jhanjhi - *Hydrilla* sp.  
 Pata Sapla - *Oetelia* sp.  
 Pata Jhanjhi - *Vallisneria* sp.  
 Dumur - *Ficus hispoda*

Adi Ganga wetland supports dense population of phytoplanktons and zooplanktons that fishes and other herbivorous aquatic animals feed on such nutrient-rich microflora and fauna.

Phytoplanktons and zooplanktons from the wetland environments of Adi Ganga

### Phytoplanktons

*Nostoc* sp.  
*Anabaena* sp.  
*Microcystis* sp.  
*Anabaenopsis* sp.  
*Spirolina* sp.  
*Chlamydomonas* sp.  
*Volvox* sp.

*Pandorina* sp.  
*Endorina* sp.  
*Scenedesmus* sp.  
*Pediastrum* sp.  
*Chlorella* sp.  
*Cosmarium* sp.  
*Euglena* sp.  
*Peridinium* sp.  
*Navicula* sp.  
*Nitzschia* sp.

### Zooplanktons

*Filirica*  
*Branchionus*  
*Keratella*  
*Nauplius*  
*Cyclops*  
*Mysis*  
*Copepods*

Adi Ganga wetland has significant impacts upon hydrology of the surrounding areas. Its hydrology leads to a unique vegetation composition that can enhance species richness. Nutrient cycling and nutrient availability are both significantly influenced by hydrologic conditions. The field of Adi Ganga wetland is not yet routinely studied that is to be properly combined in university academic programme as there is great deal of interest of formulating sound policy for the regulation and management of such a wetland. These regulations and management approaches need a strong scientific underpinning integrated as wetland ecology. After all, the efforts of Baruipur municipality will not perish in the dust, they maintain a large sized park at the bank of Adi Ganga along with a picnic spot, though their performance leaves much to be desired. The Adi Ganga wetland, in its sphere, is all about the glow to keep it going.