

Ganga – Crisis in the life of the lifeline

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Spread over four nations of India, China, Bangladesh and Nepal, Ganga basin is one of the largest river basins in the world covering an area of over 10 crore hectares and supporting over 40 crore people. It is one of the few river basins in India in which lots of water is still available. But when one visualizes Ganga two conflicting images emerge: on the one hand it is the epitome of holiness symbolizing religion and purity, but on the other it is a large polluted stagnant body of water filled with dirt, half burnt carcasses and plastic.

We have to look closely over the river's 2,500 kms journey to understand the different types of challenges faced by the river. In the upstream stretches, the pollution loads in the Ganga is the highest due to lesser flow and higher demands! This is compounded by rampant construction of hydropower stations and dams which affect the continuity of the water flow. Religious leaders have also insisted that the flow of the river must always be enough to undertake rituals and remain continuous (*aviral dhara*).

When the river enters the plains, the major culprits of pollution are the large cities, towns and villages on the banks of the river which indiscriminately dump domestic waste and industrial effluents. Cities such as Haridwar, Kanpur, Varanasi, Allahabad and Patna are a testament to this. Such large settlements come at a price, large number of tanneries, foundries, textiles, drug and chemical plants and domestic industries making saris and bangles discharge toxic waste and heavy metals in the river. Abetted by insufficient regulations and tendency to bypass them, these toxic discharges are highly harmful not only for human life but also for the fragile aquatic life of the river.

Poor planning in the past and bad sanitation has resulted in unchecked dumping of untreated domestic sewage and fecal sludge in Ganga. Both cities and rural areas contribute to the existing pathetic condition. Whereas the city waste enters the river through large drains, the massive rural waste finally reaches the river through surface run off. Faecal coliform, an indicator of sewage contamination is exponentially higher than permissible bathing limits of 500 mpn/100 ml at many places. In Varanasi, faecal coliform was found to be 40,000 mpn/ 100ml in 2011. Agriculture has flourished in the fertile plains of Ganga. However imbalanced and sometimes excessive use of fertilizers, pesticides and chemicals has become a common practice in this region. Due to monsoonal climate condition, these chemicals reach the Ganga and add on to its woes.

Moving a little further when Ganga reaches its end stretches in Bihar, West Bengal and Bangladesh, it faces different challenges. Overexploited groundwater tables, and misuse of river banks have resulted in complicated problems of arsenic poisoning in these stretches. The unchecked withdrawal of groundwater has disturbed the delicate balance of nature. When farmers dig deeper for tube wells arsenic gets disturbed and becomes soluble in water making it highly dangerous for human and animal use. Even vegetables, fruits and milk in the stretches between Balia to West Bengal to parts of Bangladesh and Nepal terai have become poisonous.

Deforestation and exploitation of the environment are also impacting the health of the river and the life it supports. A transboundary river, Ganga has many stakeholders. Numerous water sharing treaties

between India, Nepal and Bangladesh have been devised to meet demands of different set of people with adverse impacts on the river. Take the example of Farakka barrage whose construction has severely affected the aquatic life in the river impacting millions of livelihoods. The barrage restricted the migration path of the iconic fish Hilsa resulting in near extinction of the species. Pollution in the river has also severely reduced the population of Dolphins and Ghariyals. Disturbance of the delicate circle of life has far reaching implication which sometimes even the best of human minds cannot imagine.

Despite our reverence of the Ganga, we have exploited the river by taking more water, obstructing the flow of water, dumping garbage and waste and placing extra demands which cannot be met through natural processes. Our cultural ethos itself adds on to the problems of the river. Activities such as immersion of idols, human ashes and bodies contribute to the pollution.

On one hand we worship our river and offer *aarti* at Haridwar and Varanasi for few minutes in the evening but on the other we destroy it 24 hours a day and throughout the course of the river. The river Ganga and how public and institutions interact with it is no doubt full of perplexing paradoxes!

(With inputs from Nitasha Nair)