

## POLLUTION OF GANGA – A SOCIO-ECONOMIC, ENVIRONMENTAL AND CULTURAL THREAT



regard Ganga as the holiest river of India and revere it as Goddess Ganga. The Ganga River Catchment Basin covers an area of 1,000,000 sq km and supplies water to about 43% of India's population in eleven states in its entire basin. The livelihoods of over 500 million people in India depend on Ganga, and nearly one third of India's population lives within the Ganga basin. The average depth of Ganga is 16 m and the highest depth is 30 m. In 2008, Ganga has been proclaimed as the National River of India.

Mythology says that

The river Ganges, widely known as Ganga in India, is the largest river in India in terms of water flow. It is 2,525 km long, has its origin in the Western Himalayan Ranges in Uttarakhand and binds five states, viz. Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal along its main stem. The Hindus

King Bhagiratha, an ancestor of Rama, meditated for one thousand years and faced immense hardship to bring down Goddess Ganga from the heaven to the earth in the form of a river so that the holy waters of river Ganga could purify and release the souls of his ancestors. For centuries since then, pilgrims from all over India worship and take bath in Ganga to purify themselves. The river Ganga is unrivalled in terms of reverence, religious and emotional values. Despite this enormous physical, spiritual and cultural influence of Ganga, this river is facing a severe threat from environmental damage and man-made pollution.

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First, the environmental issue – the Gangotri glacier in the Himalayas, which is around 30 km long and 0.5-2.5 km wide, feeds the river Ganges. But it has been receding since 1780 due to global warming, and the recession has worsened since 1970. In fact, Gangotri glacier is estimated to have receded more than 850 m over the last 25 years, and more than 10% of this recession has taken place during the period 1996-1999. Satellite measurements show an average retreat of 18 m/yr. during 1990 to 2009, which casts doubt on the future of the river Ganga.

But more alarmingly, man-made abuse of Ganga over the past few decades has been causing an increasing threat to the very life of the river itself and consequently to the livelihood and the religious, cultural and emotional values of the millions of people who are materially or emotionally attached to it. Numerous dams, barrages and hydel projects built on the upper courses of Ganga, the release of untreated municipal sewage, discarded garbage, agricultural run-offs containing pesticides, insecticides and weedicides, toxic and non-biodegradable waste from industries including chemical plants and textile mills, distilleries, tanneries, slaughterhouses and hospitals, domestic usage like bathing, laundry and public defecation, dumping of flowers, half-burnt corpses and carcasses, immersion of idols, etc. have severely poisoned the Ganga river and converted it into an unholy, toxic mess. Ironically, once one of India's most treasured resources, Ganga has been cited in 2007 as one of the top five most polluted rivers of the world.

The presence of coliform bacteria in water is considered to be highly dangerous to human health. In response to a directive from the Calcutta High Court in 2005, Kalyan Rudra, the then Adviser to the Govt. of West Bengal on Environmental Affairs, said that the level of coliform bacteria present in Ganga water in Kolkata is far above the level considered fit for drinking, bathing and even agriculture. Gangetic dolphin, which is our national aquatic animal, is almost extinct in Ganga. Even Hilsha, the most favourite fish for the Bengalees, has lately been shirking the Hooghly river (another name for Ganga in West Bengal) and flocking towards the Irabati river of Mayanmar via Bangladesh.

On June 14, 1986, Shri Rajib Gandhi, the then Prime Minister of India, launched The Ganga Action Plan (GAP) with the main objective of abating the pollution of Ganga and improving the quality of its water. The ultimate objective was to build up a phasewise, integrated river basin management based on dynamic interactions between abiotic and biotic eco-systems. In the following 15 years, a sum of Rs. 1100 crore was officially spent, but the mission miserably failed and the quality of Ganga water has worsened instead. Mr. Vijay Panjwani, A Counsel for the Central Pollution Control Board (CPCB), contradicted the

sum, claimed it be close to Rs. 2,000 crore and further said that although the GAP failed, it made some bureaucrats, contractors and politicians very rich. The mission was withdrawn on March 31, 2000.

The failure of GAP triggered many movements to save Ganga and motivated a number of environmentalists and social activists to fight with the Government for a clean Ganga. The "Save Ganga Movement", a Gandhian non-violent movement initiated by National Women's Organisation, Pune in 1998 and "Ganga Mahasabha" led by its National General Secretary, Acharyya Jitendra since 2000 are two notable examples. Veer Bhadra Mishra, a Haudralic Engineer and Chief Priest of Sankatmochan Temple, Varanasi made tireless efforts to stop the flow of sewage into Ganga until his death in 2013. In recognition, the Time magazine, New York listed Mr. V.B. Mishra as a "Hero of the Planet" in 1999.

In 2009, the Govt. of India constituted National Ganga River Basin Authority (NGRBA), an empowered planning, financing and coordinating body to clean Ganga. Chaired

by the then Prime Minister, Dr. Manmohan Singh, NGRBA included 24 Members including the Union Ministers and the Chief Ministers of the states through which the river flows. In 2010, a consortium of seven IITs (Kanpur, Delhi, Madras, Bombay, Kharagpur, Guwahati and Roorkee) was given the responsibility of

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developing a Ganga River Basin Management Plan (GRBMP) for the restoration of Ganga's wholesomeness. Mr. Jairam Ramesh, the then Minister for Environment and Forests, claimed it to be an important step in the Government of India's Mission Clean Ganga which aims to ensure by the year 2020 that no untreated sewage enters Ganga.

All these efforts notwithstanding, no tangible progress was made. In fact, only two meetings of NGRBA were held till early 2012. In protest, Professor G.D. Agarwal, Founder Member and Secretary, CPCB and a former Professor, IIT Kanpur fasted twice in 2008 and 2009, and three Members, viz. Magsaysay Award Winner, Rajender Singh, R.H. Siddiqui, a former Professor, Aligarh Muslim University and Ravi Chopra, Director, People's Science

Institute, Dehradun resigned from the NGRBA. The third meeting of NGRBA was later held in mid-2012.

There was a glimmer of hope when Mr. Narendra Modi contested the national election from Varanasi with a Clean Ganga as an important issue. A day after he won the election, he stood on the bank of Ganga and vowed to restore the sanctity of the river. After he became the Prime Minister, he appointed Uma Bharati as the Minister, Ministry of Water Resources with Ganga Rejuvenation as one of its major agenda. In his “Namami Gange” project, Mr. Modi has allocated a fund of Rs. 2,037 crore and has set aside another sum of Rs. 100 crore in the union budget of Rs. 2014-15.

The Ministry of Environment and Forests, Govt. of India has taken up the following actions for cleaning the

river Ganga : (i) intercepting untreated municipal sewage and industrial wastewater flowing into river and letting treated effluent into Ganga, (ii) setting up of sewage Treatment Plants (STPs), (iii) construction of biogas / electrical crematoria and bathing ghats / toilets along Ganga, (iv) improvement of and afforestation along river bank, and (v) management of solid waste to prevent dumping of solid waste into the river.

Undeniably, many lives have been wasted and many decades have elapsed in trying to restore Ganga to its former glory, mostly in vain. Let us just hope that things should now work out in the right direction before it is too late. □

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