

GANGA REJUVENATION MISSION- SUCCESS OR FAILURE

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Abstract

Natural resources are existed naturally without the interference of human beings like sunlight, minerals, rain, wind, trees etc. disturbing of natural environment became a human phenomena on the name development and competitive growth. In the process of environmental degradation many perennial river turned into non perennial or reservoirs of dumping yards. Rapidly growing population, equally fast growing industrialization and urbanization has exposed water resources to various kinds of degradation Ganga a Mythological and agricultural source for northern part of India has about 80% of the river's basin is in India and remaining with Bangladesh and Nepal. It has been turned into a bed for various polluters as pesticides, heavy metals, bleaches and dyes as well as tanneries, food processors, textile and paper industries, pharmaceutical companies release their industrial waste into the river channel. In saving the river Goddess, One such attempt has been made by the Indian Government to clean the River i.e. through a National River Ganga Basin Project(NRGBP) funded by World bank, under the National Mission for Clean Ganga(NMCG).. The research is focused on the efforts being put by the ministry in cleaning up the river, and I would further discuss the challenges and strict measures to be taken by the government in mitigating such type of occurrence in future.

Keywords: Ganga River, National River Ganga Basin Project (NRGBP), pollutants, industrialization, natural resource.

INTRODUCTION

A river is a natural flowing watercourse, usually freshwater, flowing towards an ocean, sea, lake or another river. In some cases a river flows into the ground and becomes dry at the end of its course without reaching another body of water. The rivers flowing in India are Ganga, Indus, Chenab, Ravi, Satluj, Beas, Brahmaputra, Krishna, Godavari, Narmada, Sabarmati, Mahi etc. All these rivers have great importance locally and nationally.

Rivers have been used as a source of water, for obtaining food, for transport, as a defensive measure, as a source of hydropower to drive machinery, for bathing, and as a means of disposing of waste. Rivers help to determine the urban form of cities and neighborhoods and their corridors often present opportunities for urban renewal through the development of foreshore ways such as river walks.

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But the physical wellbeing of the rivers show that we have totally failed in keeping our reverence for rivers. Rapid growth in industrialization to support the country's growing population and economy has polluted our rivers like never before. Most of these rivers have turned into sewage carrying drains. This poses a serious health problem as millions of people continue to depend on this polluted water from the rivers.

The Importance of River Ganga

The Ganga is not an ordinary river in India. It is a life-line, a symbol of purity for countless people of India. Millions of Ganga devotees still throng to the river just to have a holy dip, Achman (Mouthful with holy water), and absolve themselves of sins. The Ganga drains 9 states of India. Today, the 2,525 km long river supports 29 class I cities, 23 class II cities and 48 towns, plus thousands of villages. The tributaries of Ganga are Yamuna, Mahananda, Kosi, Mahakali etc. The Ganga flows through five states

such as Uttarakhand, Uttar Pradesh, Jharkhand, Bihar and West Bengal

The Hindus consider it sacred to take a dip in the holy waters of River Ganga, they believe that this would get them rid of their sins. Ganga is the daughter of Meru also known as the Himalayas and his second daughter is Uma who is companion of Lord Shiva. The aarti is performed every evening on the banks of River Ganga to pay regards to Goddess Ganga. Goddess Ganga is also referred as Ganga Ma. Her name has been stated in the Rig Veda an ancient scriptures of Hindus. It is also considered as the crossing point for all the human beings whether dead or alive. The Hindus consider the banks of River Ganga in Varanasi the most sacred for all the last rites. This is also referred as the Greatest Cremation ground The last rites of the Hindus performed at the Ganges are considered most sacred and it has also been mentioned in epic of Mahabharata that says the dead only receives heaven when their last ashes are flown in the holy waters of Ganges River.

Causes of Pollution

Water-borne diseases are a common cause of illness in India today. The bad effects of river pollution are not limited to human population only. Pollution of river has affected animals, fish, and bird's population. There is no sign of river pollution being stopped. It is increasing day by day. There are several sources of water pollution, which work together to reduce overall river water quality. Industries discharge their liquid waste products into rivers. Our agriculture practice that uses chemical fertilizers and pesticides also contribute to river pollution as rainwater drains these chemicals into the rivers. Domestic wastes that we throw into rivers adds to pollution levels. As population grows, the size of towns and cities also grows. With that the amount of domestic wastes that we throw into river increases. In most of the towns and cities, the municipal drains carry our wastes to rivers. There are examples of rivers catching fire because of high pollution levels. This shows how seriously polluted our rivers are.

The Ganges River Pollution is now at such a high level that the amount of toxins, chemicals and other dangerous bacteria found in the river are now almost

3000 times over the limit suggested by the WHO as 'safe'.

Some facts are:

- Approximately 1 billion litres of raw, untreated sewage are dumped in the river on a daily basis. The amount has more than doubled in the last 20 years and experts predict another 100% increase in the following 20 years.
- The rapid explosion of India's population in the last 25 years coupled with lax regulations on industry has put a huge strain on the river leading to an explosion in Ganges river pollution.
- Polybags are tossed in publicly and casually; piles of refuse tumble down slopes to the river edge in Varanasi.
- Thousands of bodies are cremated on the banks of the river yearly with many being released into the river with hopes that their souls may have a direct path to heaven.

Main Polluters of Ganga

- A large proportion of the sewage waste from various cities which is higher in organic load is diverted to Ganga.
- Establishment of a large number of industries like tanner is, slaughter houses, textile mills and hospitals that flourish on the bank of Ganga in cities like Kanpur, Allahabad, Varanasi contribute to the pollution by dumping untreated waste which is toxic and non-biodegradable.
- Hundreds of unwanted or 'illegitimate' babies, cattle and other animal carcasses are also dumped in the Ganges again with religious significance.
- A lot of human carcasses are also dumped in Ganga by poor families who do not have money for cremation.



Figure 1



Figure 2

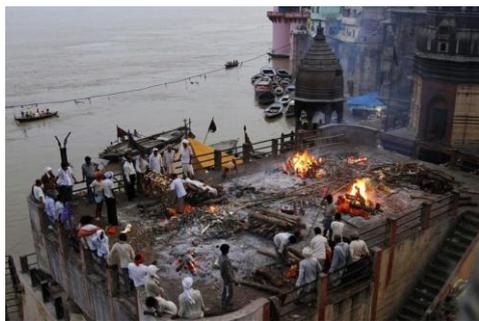


Figure 3



Figure 4

GANGA ACTION PLAN

Ganga today is more polluted than when the Ganga Action Plan was initiated by the late prime minister Rajiv Gandhi back in January 1986. The efforts to decrease the pollution were unsuccessful even after spending Rs.9,017 million.

The GAP-I was extended as GAP-II from 1993 onwards covering 4 major tributaries of Ganga, namely, Yamuna, Gomti, Damodar and Mahanada. The program was further broad-based in 1995 with the inclusion of other rivers and renamed as National River Conservation Plan (NRCP). Ganga could not be cleaned but 34 other rivers have been taken up for cleaning with the same failed model of "GAP".

In the last years, leadership and staff of GAP have come and gone, often without any vision and commitment. There have been reviews and monitoring from time to time at different levels but the problems identified were never addressed and the decisions taken were never enforced. The lower level officials most often were unfamiliar with the work done by previous groups. GAP needs a critical examination, a thorough review and a complete overhaul. It has become so infamous and stale that it needs to be done away with completely. A new plan with a fresh name, more real and practical objectives, concrete action plans is needed to restore the health of the river Ganga. A committed, visionary, dynamic and practical man needs to be given the charge of cleaning and restoring the ecological health of river Ganga. Serious and honest efforts are needed. Casual approach and cosmetic efforts will only worsen the condition of river Ganga. This plan was withdrawn on 31st March 2000.

Delay in completion

Initially it was expected that the program would be completed in 6-7 years. However, it has been delayed considerably due to following reasons:

- Being the first program of its kind and magnitude, there was lack of experience both at the central and the state levels

- Litigations and court cases resulted in considerable delays.
- The schemes of some of the sewage treatment plants had to be tendered several times. There were contractual problems also.
- Externally aided components were delayed considerably due to initial formalities between the governments.
- Diversion of funds by State Governments resulted in delayed release of central funds.

THE NATIONAL GANGA RIVER BASIN AUTHORITY

The Central Government, set up „National Ganga River Basin Authority“ (NGRBA) as an empowered planning, financing, monitoring and coordinating authority for the Ganga River on 20 February 2009, in exercise of the powers conferred under the Environment (Protection) Act, 1986. The Prime Minister is ex-officio Chairperson of the Authority, and it has as its members, the Union Ministers Concerned and the Chief Ministers of states through which Ganga flows, viz., Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal, among others. The objective of the Authority is to ensure effective abatement of pollution and conservation of the river Ganga by adopting a holistic approach with the river basin as the unit of planning. The functions of the Authority include all measures necessary for planning and execution of programmes for abatement of pollution in the Ganga in keeping with sustainable development needs.

The first meeting of the National Ganga River Basin Authority (NGRBA) was held on 5th October, 2009 under the Chairmanship of the Hon^{ble} Prime Minister. In 2010 Union Budget of India a budget of 500 crore rupees was allocated to NGRBA.

Main function of NGRBA will revolve around addressing the problem of pollution in Ganga in a holistic and comprehensive manner. This will include water quality, minimum ecological flows, sustainable access and other issues relevant to river ecology and management.

In July 2014 the NGRBA was transformed from Ministry of Environment and Forests to the

Ministry of Water Resources, River Development and Ganga Rejuvenation.

Functions of NGRBA

- The NGRBA would be responsible for addressing the problem of pollution in Ganga in a holistic and comprehensive manner. This will include water quality, minimum ecological flows, sustainable access and other issues relevant to river ecology and management.
- The NGRBA will not only be regulatory body but will also have developmental role in terms of planning & monitoring of the river conservation activities and ensuring that necessary resources are available.
- The NGRBA would work for maintaining the water quality of the river Ganga upto acceptable standards. The pollution abatement activities will be taken through the existing implementation mechanisms in the State and also through special Purpose Vehicles (SPVs) at the pollution hotspots.
- The NGRBA will ensure minimum ecological flow in the Ganga by regulating water abstraction and by promoting water storage projects.
- The NGRBA will plan and monitor programmes for cleaning of Ganga and its tributaries.
- To begin with, it will concentrate on Ganga main stream.
- The NGRBA would draw upon professional expertise within and outside the Government for advice on techno-economic issues.
- The technical and administrative support to NGRBA shall be provided by the Ministry of Environment & for advice on techno-economic issues.

NANAMI GANGE

An Integrated Ganga Conservation Mission called “Namami Gange” has been proposed to be set up and a sum of Rs. 2,037 crores has been set aside for this purpose. In addition a sum of Rs. 100 crores has been allocated for developments of Ghats and beautification of River Fronts at Kedarnath, Haridwar, Kanpur, Varanasi, Allahabad, Patna and Delhi in the current financial year. Namami Gange approaches Ganga Rejuvenation by consolidating the existing ongoing efforts and planning for a concrete action plan for future.

Recognizing the multi-sectoral, multi-dimensional and multi-stakeholder nature of the Ganga Rejuvenation challenge, the key Ministries comprising of (a) WR, NRD&GR, (b) Environment, Forests & Climate Change, (c) Shipping, (d) Tourism, (e) Urban Development, (f) Drinking Water and Sanitation and Rural Development have been working together since June, 2014 to arrive at an action plan.

Following are proposed to be taken up under Namami Gange:

1. Nirmal Dhara- ensuring sustainable municipal sewage management
 - Project prioritization in coordination with Ministry of Urban Development.
 - Incentive for states to take up projects on Ganga Main-stem by providing an additional share of central grants for sewerage infrastructure.
 - Uniform standards for both MoUD scheme and Namami Gange programme, 10 years mandatory O&M by the same service provider at par with NGRBA programme and PPP, Mandatory reuse of treated water
 - Expanding coverage of sewerage infrastructure in 118 urban habitations on banks of Ganga- estimated cost by MoUD is Rs 51000 Crores
2. Nirmal Dhara- managing sewage from Rural Areas
 - Mo DWS scheme for all Ganga bank Gram Panchayts (1632) free from open

defecation by 2022, at a cost of Rs 1700 Crores as central share

3. Nirmal Dhara- managing Industrial discharge
 - Making ZLD mandatory
 - Rationalized water tariff to encourage reuse
 - Real time water quality monitoring
4. Aviral Dhara
 - Enforcing River Regulatory Zones on Ganga Banks
 - Rational agricultural practices, efficient irrigation methods
 - Restoration and conservation of wetlands
5. Ensuring ecological rejuvenation by conservation of aquatic life and biodiversity
6. Promotion of Tourism and Shipping in a rational and sustainable manner
7. Knowledge Management on Ganga through Ganga Knowledge Centre

To achieve the objectives of MND, certain activities must be prohibited in the NRGB as soon as possible. The list of prohibited activities in the NRGB include, i) discharge of sewage (either treated or untreated) from Class I towns, either directly or indirectly, into any river; ii) discharge of industrial effluents (either treated or untreated) from any large, medium or cluster of small industries, either directly or indirectly, into any river; iii) direct injection of sewage and industrial effluents (either treated or untreated) into the subsurface; iv) disposal of unburnt and partially burnt corpses and animal carcasses in any river or riverbank; v) open defecation and dumping of municipal/industrial solid wastes or sludge in any river or its active flood plain; vi) Construction of new permanent structures in river flood plains for residential, commercial and industrial purposes, but excluding bridges and associated roads, jettys/ghats and hydraulic structures for storage/diversion/control/chanelisation of river waters.

NEW STEPS

Recently, after being rebuked by the Supreme Court, the central government filed an affidavit envisaging a three phase plan – short-term, medium-term and long-term – to clean and rejuvenate the river. Government informed court that the process to clean Ganga will take 18 years and several programmes like Rs 51,000 crore worth project of the Union urban development ministry wherein 118 towns across India would get sewerage infrastructure including waste water treatment and solid waste management.

- Other major steps for cleaning Ganga which central government has envisaged includes a scheme for making all 1649 Gram Panchayats on Ganga banks open defecation free and a plan for zero liquid discharge by grossly pollution industries located in Ganga basin states.
- The government has also promised to tackle pollution in Kanpur, a city in Uttar Pradesh infamous for its polluting leather industry, which discharges toxic waste straight into the river. But again, it fails to mention how this will be done.

REASONS OF FAILURE

Since its formation in 2009 by UPA government as the nodal body to handle Ganga cleaning, NGRBA has been a non-starter with only three meetings in the last five years, the last meeting held in April 2012. But the NDA government recently told the supreme court that it intends to modify and restructure NGRBA to make it more effective.

Of 24 people, who were to be transferred from the environment ministry to water ministry for NGRBA work, only seven have come leaving 17 posts vacant. Now how will Ganga rejuvenation programme run when we don't have scientists and experts to work on it?

Ineffectiveness of NGRBA and apathy of previous governments had led to civil society experts like Water rights activist Rajendra Singh, Ravi Chopra and Professor Rashid Hyatt Siddiqui.

In 2013 the Central Pollution Control Board inspected 51 of the 64 existing sewage treatment plants along the Ganga and found that less than 60% of the installed capacity was being used and 30% of the plants were not even functioning.

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