



# IMPACT OF GANGA POLLUTION AND REMEDIES

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**Abstract-** There is universal reverence to water in almost all of the major religious aspects in the world. Most of the beliefs involve some ceremonial use terms as “Holy water”. In India, the water of the river Ganga is treated with such reverence. It occupies the unique position in the cultural ethos of India. Legends say the river is descended from Heaven on earth as a blessing of God to well beings of human beings. However, the river is not just a legend, it is also a lifeline for the people of India. But due to our negligence and carelessness Ganga was ranked as the fifty most polluted river of the world in 2007. According to CPCB survey report, total municipal sewage generated in the 25 towns in 1985 is of 1340 million litres per day and 9000 tonnes of pesticides are used in the agriculture in its basins, waste of water while farming and other religious and social customs are responsible for Ganga pollution. Civilization and industrialization also does harmful effect on Ganga water pollution. The quality of water changes directly or indirectly by the different activities of the human being play an important role on the health of human, and wild life



## I. INTRODUCTION

The Ganga is a historical river of India. Ganga drives the lifecycle of 500 million peoples and thousands of aquatic and forests in its ecosystem. It achieves the honour to be the world's longest river of length 2525 km. Ganga rises from the great Himalayan valleys through Indian state of Uttarakhand and flows south and east through the Ganges plains of North India into Bangladesh and submerged into the Bay of Bengal. But due to lack of environmental planning and awareness, the continuous depletion of waste in an uncontrolled manner it gets intensely polluted.

The major cities along its bank like Kanpur, Varanasi, Allahabad contributed largely in its pollution. So it is our responsibility to return the honour of Ganga which she deserves, because in Hindu mythology Ganga is treated as mother. Ganga has its own largest river basin, it covers 26% of the country's landmass and supports 43% of its population. This population which is very dense is a real threat to Ganga, all the human waste, industrial waste are directly dumped into the river to overcome this threat all this population must be aware that they were slowly extinct in their own life





stream. In the year 1986, the government of India launched the "Ganga Action Plan" to monitor and to take essential action to secure the river.

## II. FACTORS RESPONSIBLE FOR GANGES POLLUTION

Ganga provides water for agricultural and drinking, there are so many points which are responsible for Ganges Pollution are as follows:

**(i) Resistant Flow Of River :** Due to depletion of lots of solid waste into the river, it gets submerged beneath the river and when the time passes with continuously water flow sand and garbage create a heap of garbage which creates the obstacle in the flow of river. This also causes the reduction in depth of river causes less water conservation and during heavy rainy seasons it causes flooding outside its banks.

Digging of river beds and removal of solid waste is the only way to overcome this situation. With the help of heavy machinery like "Earth Movers and Marine Oigger" are perfect for this operation.



**(ii) Sewage and Industrial Waste Management :** It is one of the biggest reasons for Ganga pollution due to heavily populated areas along the river. Lots of people and industries like - paper mill, textile mill, fertilizer plant and chemical factories are settled along with the river. They use its water and after use throw those waters into the river back. All the waste materials of industries are solid and liquid waste materials, solid wastes are sometimes metallic and polymers which never decompose and create pollution apart from this liquid waste is chemically treated, causing imbalance to the ecosystem.

### **(iii) Religious factor**

Mass bathing in Ganga river during festivals is another environmentally harmful practice. The biological oxygen demand (B.O.D) goes up drastically when thousands of people come to Ganga snan. Dead bodies are cremated on the river banks, partially burnt bodies are also flung into the river. After religious worship of God, people throw some materials like flowers, ash and old figurines in the Ganges for spiritualistic reasons.

### **(iv) Agricultural & Solid waste management system with the use of renewable energy:**

These are also the major sources to produce dangerous elements as a waste causing harm to the ecosystem. Lots of agricultural activities are occurring in our country due to more demand and less production, people use dangerous chemicals and fertilizers which contaminate soil, kill all its microbes and also pollute the water. Pesticides - like atrazine, Benomyl, Linuron etc. cause pollution on water. DDT which is a common use fertilizer is the biggest threat to Ganga river. In cities, use of plastic, polythene-made items are vigorously manufactured and tons of plastic with other trash are thrown into Ganga river.





### III. REMEDIES

**1. Operation and maintenance research:** Ganga Action Plane of government is essential for sustainability of river. All the operation of Government bodies and the work of them must be maintained. The maintenance of treatment plants and continuously working on the more capacity of sewage treatment plants, to control the metro city sewage. If state government with help of central gov. Expand the such resources. A proper well trained crew are also essential to run the plants and other operations, it is required to gov. that issue some capital for research work of new technologies to handle big pollution causing situation.

**2. River Water Quality Monitoring:** GAP has very comprehensive programme by obtaining data from 27 monitoring stations. Some time Overseas Development Agencies (ODA) also help in installation of such stations. It also conclude and watch the toxicity level of water regularly. To evaluate the result of water treatment independent researches are occurred.

**3. Implementation Of Law:** It is very important to strictly impose those laws which applies in the favour and well beings of river. "National Green Tribunal" strictly impose those laws and change those who violate these laws

### IV. TECHNOLOGICAL APPROACH & AWARENESS TO CURE GANGA

Technological approach is very necessary to improve the situation of Ganga. Machines such as river cleaner and water treatment plants are able to purify the polluted water. It is very dangerous to release chemicalised water directly into rivers to avoid this water treatment plant were used, which remove highly pollutants from water and solid waste materials, which causes long lasting instability to river get reduced.



Nowdays lots of machines were invented to clean the surface pollution of rivers who collect tonnes of garbage ones and does not cause any negative effect on atmosphere, along with these. Awareness among the people makes large changes along with government. Its individually our responsibility to support our promise to clean Ganga. Social media, Internet's other sources are good ways to spread awareness among people.



### V. GOVERNMENT PLANS FOR CLEAN GANGA

Government of India working on many projects to clean Ganga and its supporting rivers. For this in the annual budget session 2016-2017 rupees 2000 coroe are sanctioned for "NamamiGange" mission but this mission has certain draw backs. To support this mission the participation of each and every people is very important and helpfully implementation of laws clean Ganga is to be done.



### VI. IMPACT OF POLLUTION

Impact of pollution causes drastic changes on fauna and flora, biodiversity of river ecosystem

**Marine Life:** It is directly affected with the pollution in Ganga. It has a vast species of marine animals and fishes whose lifecycle is totally depend upon Ganga. In this case Gangatic "Dolphin" which is one of the



brilliant and sensitive aquatic animal, they can only survive only clean ,noncontaminated water but due to major pollution it slowly get extinct. These Dolphins termed as national aquatic animal of India, another species named Alligators are also on the stage of extinction due to loss of aquatic life.

**Surface Life :** Surface life is also badly affected due



to ganga's pollution and the involvement of human in natural flow of rivers. Due to waste material in rivers in the form of dead animals, plastics, chemicalsetc. Contaminated the water and when it is used for drinking purpose causes huge risk to waterborne diseases like- cholera, Typhoidetc, which is common in these days. Due to making of dams and reservoirs the transfer of vegetation is not occurring properly . lots of forests and natural vegetation who has its own importance in ecology get vanished and soil erosion causes. In India large no peoples depend on agriculture and related works for their livelihood deficiency of water affect the crops sometimes creates condition of starvation for animals and humans.

#### VII. CONCLUSIONS

Ganga action plan is successfully performed action of environmental awareness at government level. The most important lesson learnt which are , that we can

change the state and condition if we have strong willpower , good strategy and planning .



The prime minister of India starts a initiative of cleaning Ganga. The whole country men's participation is very important so the biggest question arise how we can successfully complete the mission NAMAMI GANGE. The answer is our priest and honourable person who can spread awareness among the people about the religious and lifegiving importance of river. Our participation will make the dream clean Ganga reality.

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