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RESEARCH ARTICLE

GANGA DETERIORATION AND CONSERVATION OF ITS SANCTITY

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ABSTRACT

River Ganga (Ganges) of India has been held in high esteem since time immemorial and Hindus from all over the world cherish the idea of a holy dip in the river under the faith that by doing so they will get rid of their sins of life. 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'. Gall bladder cancer along the course of the river are the second highest in the world while incidences of prostate cancer are the highest in the country. In place of the present practice of allowing treated sewage into the river, the policy of zero discharge into the river be adopted promoting Reuse and Recycle of wastewater after treatment up to tertiary-level.

INTRODUCTION

The Holy Ganges

Ganga is the largest and the most sacred river of India with enormous spiritual, cultural, and physical influence. It provides water to about 40% of India's population in 11 states. It is estimated that the livelihoods of over 500 million people in India are dependent upon the river, and that one-third of India's population lives within the Ganges Basin(4).

Despite this magnitude of influence and control by the river over present and future generations, it is allegedly under direct threat from various manmade and natural environmental issues. River Ganga (Ganges) of India has been held in high esteem since time immemorial and Hindus from all over the world cherish the idea of a holy dip in the river under the faith that by doing so they will get rid of their sins of life.

Ganga Pollution

Due to establishment of a large number of industrial cities on the bank of river Ganga like Kanpur, Allahabad, Varanasi and Patna, countless tanneries, chemical plants, textile mills, distilleries, slaughterhouses, and hospitals prosper and grow along this and contribute to the pollution of the Ganges by dumping untreated waste into it(6).

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'.

Establishment of the Ganga Action Plan

The Ganga Action Plan was launched by the then Prime Minister Rajiv Gandhi on 14 January 1986, with the main objective of pollution abatement, to improve water quality by Interception, Diversion and treatment of domestic sewage and present toxic and industrial chemical wastes from identified grossly polluting units entering into the river (2).

The objectives of the Ganga Action Plan are as under

Control of non-point pollution from agricultural run-off, human defecation, cattle wallowing and throwing of unburnt and half burnt bodies into the river.

- Research and Development to conserve the biotic diversity of the river to augment its productivity.
- New technology of sewage treatment like Up-flow Anaerobic Sludge Blanket (UASB) and sewage treatment through afforestation has been successfully developed.
- Rehabilitation of soft-shelled turtles for pollution abatement of river have been demonstrated and found useful.

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- Resource recovery options like production of methane for energy generation and use of aquaculture for revenue generation have been demonstrated.
- To act as trend setter for taking up similar action plans in other grossly polluted stretches in other rivers (7).
- But efforts to decrease the pollution level in the river became abortive even after spending Rs 9017.1 million, so the plan was withdrawn(5). Ganga is life, all Indians must join to save it.

Health Impact due to Ganga Pollution

A recent study conducted by the National Cancer Registry programme has found that those living along the banks of the river Ganga are more prone to cancer than others in the country: the river is laden with heavy metals and lethal chemicals that cause cancer. Cases of Gall bladder cancer along the course of the river are the second highest in the world while incidences of prostate cancer are the highest in the country (1).

Steps for Ganga Purity Conservation

The bactericidal, health promoting, non-putrefying and self-purifying properties of the water of Ganga should be restored and conserved. It is claimed that Ganga has the unique quality of self-purification capacity due to the presence of high levels of bactericidal copper and chromium and perhaps of uranium, thorium and different types of beneficent bacteria coli phages in the sediments of the river (3).

The highly earth quake prone, eco-fragile, ecologically invaluable Uttarkhand region of the Ganga Basin must be declared "Ecological Fragile " and its rivers "wild river" and all steps must be taken to protect them and the natural eco-systems they support. Treatment of the sewage through "Pond System and Plant Based Management of Sewage and Waste Treatment" and using the nutrient reach treated waste water for organic forming, which is the cheapest and durable and need least management and electricity, should be preferred wherever possible. In place of the present practice of allowing treated sewage into the river, the policy of zero discharge into the river be adopted promoting Reuse and Recycle of wastewater after treatment up to tertiary-level.

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