GANGA: THE BLISS TURNED INTO TRAGEDY

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Abstract

This article 'Ganga: The bliss turned into Tragedy' deals with the historical and

geographical importance of River Ganga for India. Ganga has been accorded living status

and is worshipped as a goddess, but still is a home to the major pollutants in the country. The

central idea pervading this article is to identify the problems and their probable solutions for

cleaning Ganga. The article revolves around sources of pollution, how religious activities are

intersecting with the right to clean environment, the role of judiciary, legislature and

executive and how successful has been the journey so far has been highlighted. The article

further aims to explain the environmental jurisprudence and how it is the jurisprudence

involved in maintaining a state of equilibrium in the ecosystem. It also deals with the

awareness and active participation among the citizens and Ganga Panchayats as a future

recourse to enhance mass participation in cleaning Ganga. The article is mainly focussed on

justice for Ganga because individually making collective efforts do matter.

**Keywords:** Ganga, Environment, Clean River, Judiciary, Jurisprudence

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### INTRODUCTION

The journey of river Ganga began thousands of years ago. According, to the Hindu mythology river Ganga came to the Earth after a long struggle of King Bhagirath. King Bhagirath belonged to the Surya clan and his ancestors could not attain salvation because of their bad behavior and deeds. So, this "Goddess of Forgiveness" arrived to the planet of sins. It is said that to control the power and intensity of goddess Ganga, lord Shiva has to fold her in his head. This was a method adopted to use River Ganga only for the benefit of mankind. The River was sent to Earth for Mankind. But certainly, we have left no stone unturned to cripple her body, mind and soul.

# GEOGRAPHICAL LOCATION OF GANGA

The river Ganga is the longest river in the land of Indus stretching across 2,500 km. The Ganga has the one of the largest river basins in the world. It passes through the states of Uttarakhand, Uttar Pradesh, Haryana, Himachal Pradesh, Delhi, Bihar, Jharkhand, Rajasthan, Madhya Pradesh, Chattisgarh and ends up in West Bengal.<sup>1</sup>

Ganga originates at Gaumukh in the Gangotri glacier with the geographical location at 30°55' N, 79°7' E, some 4100 m above the mean sea-level.<sup>2</sup> At its origin, it is called "Bhagirathi". At Rudraprayag, river Alakhnanda joins river Bhagirathi to form the river Ganga. Ganga flows for 2550 kilometres being the longest flowing river in India. When the river enters West Bengal, it gets divided in two parts, one flows into Bangladesh, and the other flows in West

<sup>&</sup>lt;sup>1</sup> Status Paper on River Ganga, National River Conservation Directorate, Ministry of Environment and Forests, Government of India 1, 6 (2009)

<sup>&</sup>lt;sup>2</sup> Rakesh K. Jaiswal, Ganga Action Plan – A Critical analysis 1, 2 (2007)

Bengal where it is called Hooghly before draining in the Bay of Bengal.<sup>3</sup>

#### MYTHOLOGICAL SIGNIFICANCE OF GANGA

Ganga holds utmost importance in the Hindu religion. The largest social gatherings in the world known as "Kumbh Melas" are held alongside a river. Two of the four Kumbh Melas are celebrated at the Ganga river, in the towns of Haridwar (Uttarakhand) and Prayagraj (Uttar Pradesh). This is marked as a very important festival for all the Indians. The importance of this festival is highlighted in the fact that people of all religions and from all parts of India, become a part of it, unknowingly. Every Hindu desires to take a holy dip in the Ganga once before his/her death so that the Goddess of Forgiveness washes away their prints on sand of Life by its holy water. With this believe people, pay homage to river Ganga to ensure their presence in heaven. The holy towns, situated near Ganga include Varanasi, Prayagraj, Haridwar, Rishikesh, etc. The pilgrimage of pilgrims and their self-motivated goals disturb the ecological balance and serenity of these towns. These disturbances caused by invaders of 'Punya' violate the right to life of these cities and Ganga, itself.

The problems of Ganga originate from the thought that it is a self-cleansing river. This thought has motivated people to pollute Ganga it their own way. According to the ancient Hindu text Ganga Purana, Ganga is given a living status. The purity of water of River Ganga gets highlighted in the point that it contains many good viruses which can kill microorganisms. This is the secret behind the purity of its water. The water of this river contains 25 times more dissolved oxygen as compared to normal water. This attributes this water the quality of being the breeding ground for large number of fishes, crocodiles, alligator,

<sup>3</sup> Dipak Paul, *Research on heavy metal pollution of river Ganga: A review*, 15 Annals of Agrarian Science 278, 278 (2017)

<sup>&</sup>lt;sup>4</sup> Kumbh Mela is a major pilgrimage and festival celebrated in India on the banks of rivers in four towns namely, Haridwar, PrayagRaj, Nashik and Ujjain in the span if 12 years.

dolphins etc. The statistics prove that more than 500 million are dependent on river Ganga. It sponsors the irrigation of crops for more than one-third population of the second most populated nation.

### PROBLEMS CAUSED DUE TO RELIGIOUS PRACTICES

In India, people in early stages of civilization were very reasonable and they possessed scientific temper. They gathered information about the quality of the water of the river Ganga and were amazed at its characteristics. The river Ganga traverses the long journey before reaching the plains, which makes it rich in sediments. Moreover, the factor that it flows from Himalayas, the area known for its medicinal herbs makes it rich in the medicinal qualities. This was the reason why people in the earlier days used to go to bathe in the river Ganga. It is said that, Ganga decomposes organic waste 15 times faster than any other river in the world. This was the reason why the entire practice of dumping flowers and garlands offered to the Almighty was evolved. But, at present time we are not only dumping organic waste but also pesticides along with the flowers in the river. The presence of pesticides on flower petals and leaf stalks is a very evident fact in the present world. According to a survey, in the time span of less than 30 years the flow of Ganga will be reduced to half and the population dependent on Ganga will become thrice. The above statement clearly remarks the future of India and its generation.

According to the recent survey by the newspaper The Hindu<sup>6</sup>, it was found that population of India will reach the peak around 2050, but it will drop in the later-half of the century. This research approved that the dependency rate of human beings on river Ganga will increase at a

<sup>&</sup>lt;sup>5</sup> Rishikesh Vlog, *Science Behind Ganga's holy water*, Available at: <a href="https://www.youtube.com/watch?v=suiXDaFD1Hc">https://www.youtube.com/watch?v=suiXDaFD1Hc</a>, (Accessed on: 15.07.2020, 11:30 a.m.)

<sup>&</sup>lt;sup>6</sup> India's population may peak by 2047, The Hindu, 16.07.2020

rapid rate. This research has also opened a door towards a dreadful future ahead. The growth in population in coming years would mean more pollution and excessive use of water of drying river Ganga. The number of ways in which Ganga can be exploited will definitely be on the surge. But, in this phase when 2050 is away we have to start marching towards a better environment. To start a *March For Heavenly Ganga*, we need to identify the key sources and the ways of pollution and how can we restrict the same, to save the river.

### MAIN POLLUTERS OF GANGA

The problems in Ganga have mainly arisen because of the socio-economic development.<sup>7</sup> The Ganga of today is far different from the Ganga of Satyuga.<sup>8</sup> The rapidly changing conditions and characteristics of the river in this Yuga of Machines (Kaliyuga) can only be attributed to the actions of greedy human beings. The whole conspiracy of polluting the river began with the thought that dumping waste in the river will clean the land. But this ironical theory failed because we forgot that rivers too run on land. There are innumerable reasons for polluting the longest river of India. The degradation caused in the rivers is mainly due to rapid increase in population, rising standards of living, industrialization<sup>9</sup> and urbanization.<sup>10</sup> All these factors combined together have wretched havoc in the statues of Ganga. The thinking of majority of Indians that Ganga is a self-cleansing river has led it to the end-result of the world's second most populated state's dustbin.

<sup>&</sup>lt;sup>7</sup> Ganga River Basin Planning Assessment Report no. 1220123-002-ZWS-0003, ix (2018)

<sup>&</sup>lt;sup>8</sup> Satyuga is one of the four yugas, according to Hindu mythology and in this yuga people were virtuous and had full faith in God.

<sup>&</sup>lt;sup>9</sup> Industrialization refers to the act or process of industrializing: the widespread development of industries in a region, country, culture, etc. Available at: <a href="https://www.merriam-webster.com/dictionary/industrialization">https://www.merriam-webster.com/dictionary/industrialization</a>, (Accessed on: 12.09.2020)

<sup>&</sup>lt;sup>10</sup> Supra note 1

India has 12 major river basins, 46 medium river basins and 14 minor rivers and desert basins. Ganga river basin is the largest of these extending over the states of Uttarakhand, Uttar Pradesh, Haryana, Himachal Pradesh, Delhi, Bihar, Jharkhand, Rajasthan, Madhya Pradesh, Chhattisgarh and West Bengal. The biggest reason behind such pollution is the unchecked flow of industrial waste into the river. The industrial pollution constitutes around 20% of the total pollution by volume, but its contribution is greater to Ganga due to higher constituents of pollutants. Page 12.

The numerous streams, carrying polluted water and directly pouring it in Ganga on the outskirts of the city are a common sight. The city municipal waste is another source of pollution for the river. Since, Ganga flows through multiple states and many towns, the municipal wastes of all the places contribute to the pollution of river Ganga. The untreated municipal waste is a major problem; wastes generated from the towns situated on the banks of Ganga are largely responsible for polluting Ganga. This happens because of lack of sewage treatment plants.<sup>13</sup> Patna and Varanasi contribute 80% of the sewage wastes that pollute the Ganga.<sup>14</sup> In Varanasi the water quality is very poor and it is no longer suitable for holy dips. The city lies between the two tributaries of Ganga namely Varuna and Assi which are vast sources of sewage.<sup>15</sup> This is not the story of one city but he unending painful tale of Ganga. All the settlements situated near the river have become passage grounds for sewage. The runnels and small rivers draining into the river are the reality of even smart towns and cities.

<sup>11</sup> Supra note 1 at 1

<sup>&</sup>lt;sup>12</sup> Ibid at 12

<sup>&</sup>lt;sup>13</sup> Ibid at 9

<sup>&</sup>lt;sup>14</sup> Basant Rai, *Pollution and Conservation of Ganga River in Modern India*, 3 International Journal of Scientific and Research Publications 1,1 (2013)

<sup>&</sup>lt;sup>15</sup> Karteek Kommana, *Pollution in River Ganga Problems and Prospects in Varanasi, India\_*Trita 12:25, 21 pp, 3 (2011)

The establishment of industrial cities on the banks of the Ganga like Kanpur, Prayagraj, Varanasi and Patna, which host countless tanneries, chemical plants, textile mills, distilleries, slaughterhouses, and hospitals, prosper and grow along the Ganga and contribute to the pollution of the Ganga. The total number of grossly polluting units along Ganga and its tributaries is 478 near Varanasi, 378 units out of them have ETP<sup>16</sup> operating satisfactorily, while 64 units ETPs do not operate satisfactorily and 79 such units have been closed down. One coal-based power plant on the banks of the Pandu River, a Ganga tributary near the city of Kanpur, burns 600,000 tons of coal each year and produces 210,000 tons of fly ash. The ash is dumped into ponds from which slurry is filtered, mixed with domestic wastewater, and then released into the Pandu River. Fly ash contains toxic heavy metals such as lead and copper. The amount of parts per million of copper released in the Pandu before it even reaches the Ganga is thousand times higher than what is there in the uncontaminated water. Thus, industrial pollution is soaring great heights in each and every city located on the banks of Ganga and such pollution if left unchecked will further escalate the issue of pollution.

The stretch from Kannauj to Kanpur and Allahabad to Varanasi remains critical and it needs focussed attention whereas water in upper stretches of Rishikesh and Haridwar is found safe for bathing standards.<sup>19</sup> This data clearly manifest that pollution is different at different places. The level of pollution increases when Ganga enters into the northern plains. The most significant factor responsible for increase in pollution is insignificant flow in the river due to

<sup>&</sup>lt;sup>16</sup> ETP (Effluent Treatment Plant) process designed for treating the industrial waste water for its reuse or safe disposal to the environment, Available at: <a href="http://web.iitd.ac.in/~arunku/files/CVL100">http://web.iitd.ac.in/~arunku/files/CVL100</a> Y16/Lecture% 201% 20ETP% 20Textile verII.pdf, (Accessed on: 12.09.2020, 5:30 pm)

<sup>&</sup>lt;sup>17</sup> Supra note 12

<sup>&</sup>lt;sup>18</sup> Major General (Retd.) Ajay Kumar Chaturvedi, AVSM, VSM, River Water Pollution - A New Threat to India: A Case Study of River Ganga, Vivekananda International Foundation 1, 7 (2019)

<sup>&</sup>lt;sup>19</sup> Supra note 11 at 25

various activities like irrigation, drinking water and power generation.<sup>20</sup> Thus, we need different plans and strategies for cleaning the river at different places. The flow of water must also be maintained constant.

Moreover, the temples situated in almost lane too are the cause of displeasure to the river. Ganga is the most accessible dustbin for approximately 2 million temples and 202 million Hindu households. In early India, the practice was initiated to immerse the offerings, flowers, clay statues of God etc, in the river. But, at present we are dumping flowers full of pesticides, deity clothes made up of synthetic material, statues made up of plaster of Paris, and all other stuffs used in temples. In the present world, when nothing is deprived of the use of plastic, river bed has no ability to escape. All the ground level problems in relation to dumping of waste in Ganga, that humans invented are related to the religious beliefs but are not supported by any religious texts. People go to take holy dips and bath in the Ganga, but they carry soaps and shampoos along with them. No religious text gives account for using chemicals in shape of soaps. If the people have full faith and believe that the Ganga can wash their sins, then why there is increase in the use of soaps along the ghats? Sins do not require any chemicals to get neutralised. The presence of Dhobighats along the banks of river Ganga has augmented the problem. People wash their clothes along the banks of the river using soaps and detergents. The froth thus generated, causes harm to the aquatic life of the Ganga and is detrimental to the water quality of the river. This factor has also resulted in the hardening of the water of river Ganga.

The site of river Ganga after Ganesh Chaturthi and Durga Puja speaks of our dubious holy theory of worship. The immersed idols of lord Ganesh or Goddess Durga speak about the choking effect, which the river is subjected to. The dumping of plastic waste in the river is a

124

<sup>&</sup>lt;sup>20</sup> Supra note 11 at 26

way of cursing the river. During the festive season when the idols are immersed in the river, that too contributes to the pollution on a very higher scale. The immersion of idols takes with it plastics, chemicals, paints, garlands which make the water highly contaminated.<sup>21</sup>

The floating corpses and carcasses present an awful sight of the state of our mother Ganga. The deforestation and settlements in the catchment area of the river is another great threat to its existence. Large scale deforestation in the catchment areas further reduces soil's capacity to arrest flow of water and accentuates silt getting carried with the water. The environment activists, all across the world oppose this idea of residing near river banks. The people in different parts of India are settled near river banks to avail fresh water. The construction of ghats along the river is another type of encroachment along the river bank. All these construction activities violate the natural flow of river. The presence of trees along the river ensures that flow of river can be unidirectional and also prevent soil erosion. The deforestation has aided the flow of rivers and leads to flood in many parts of the country. The removal of trees in the catchment area of river Kosi makes it the sorrow of Bihar, leading to floods each year.

A major problem that still exists despite the cleanliness drive, "Sawacch Bharat Abhiyaan" lead by the Honorable Prime Minister Mr. Narendra Modi, is open defecation along the Ganga. The people are found defecating alongside Ganga. Ganga is seen as a solution to every problem, so we humans are deteriorating it to such extent, that we are using the pure goddess for reforming our waste. The problem of building toilets and spending money is getting resolved by much economical way of defecating along the banks of river Ganga. People in the villages, even those who have toilet use it hardly and prefer the open

<sup>&</sup>lt;sup>21</sup> Supra note 18

<sup>&</sup>lt;sup>22</sup> Supra note 18

environment. We all are aware of the diseases that can be generated because of defecation in open. The waterborne diseases are a result of open defecation. Moreover, Ganga is also the bathing tub for animals. The World Bank estimates that eighty percent of all diseases and illness in India and one-third of casualties are because of the waterborne diseases.<sup>23</sup>

### POLLUTION CAUSED BY AGRICULTURAL PRACTICES

The water of Ganga is also polluted by the surface- runoff from the agricultural farms situated near the river Ganga. The crops in India are grown with the help of fertilizers and pesticides. All these pesticides and fertilizers containing chemicals get washed away from the fields and either directly or through the streams and channels flow into the river. Accordingly, 10-15% of fertilizers get run off from the surface. Horover, the crop growing pattern of Indian agriculture system requires a large amount of water for irrigation. All this irrigation water is mainly derived from rivers through small channels and canals. Indira Gandhi Canal is one such example which is built on the confluence of Satluj and Beas River and provides water in the desert region. All these activities further disturb the flow of river. Dams and barrages for storing and diverting water for irrigation, domestic consumption and industry, affect the flow, particularly during dry months. This has serious implications for water quality and aquatic life in the river. The 140 fish species, 90 amphibian species, reptiles such as Gharials and mammals like South Asian River Dolphin are now included in the International Union for Conservation of Nature's (IUCN) critically endangered list and a threat to their survival is of grave consequences.

<sup>&</sup>lt;sup>23</sup> Ibid

<sup>&</sup>lt;sup>24</sup> Pranav Awasthi, Conservation of River Ganga – Is Public Participation the Key? 5 Environmental Law & Practice Review 107, 109 (2016)

<sup>&</sup>lt;sup>25</sup> Supra note 11

<sup>&</sup>lt;sup>26</sup> Ibid

There are endless problems. It has been centuries since we are deteriorating our environment. A large number of small streams join the river during her journey in the mountains, however over a period of time, due to increasing pressure of the population, people have settled next to these small streams and thus the flow of these streams into the main course of the river gets blocked.<sup>27</sup> Such activities block the supply of fresh water into the river rendering its quality to get, further deteriorated.<sup>28</sup> This is a major problem which disturbs the flow of river, hampers aquatic life and leads to clogging of chemicals and waste in river bed. All this even disturbs the pattern of irrigation in the country. At present, when our agriculture is mostly dependent on crops which need good amount of water, accumulation of chemicals and reduction in water needed for irrigation will disturb the crop pattern of a large population.

As per the research performed by SWARA (State Water Resources Agency—Uttar Pradesh), the agriculture-water share of about 96% in the year 2001 will get reduced to about 79% by the year 2050, primarily because of increasing domestic and industrial demand.<sup>29</sup> The decreasing level of water in river Ganga, increasing population and increase in business sense, all these factors combined together will deteriorate the conditions in near future.

The climatic conditions too are affecting the rivers in a unique manner. Global warming is one such factor, which has toppled the entire environment. Global warming is resulting into faster melting of glacier (22 meters/year) and that will result into increase in floods during the monsoon and increasingly, reduced flow of water in the main stream of the river in coming

<sup>&</sup>lt;sup>27</sup> Classifying Rivers – Three Stages of River Development, Available at: <a href="https://sswm.info/sites/default/files/reference-attachments/IMMOR%202006%20Classification%20Rivers.pdf">https://sswm.info/sites/default/files/reference-attachments/IMMOR%202006%20Classification%20Rivers.pdf</a>,

<sup>(</sup>Accessed on: 26.06.2020, 5:40 pm)

<sup>&</sup>lt;sup>28</sup> Supra note 22

<sup>&</sup>lt;sup>29</sup> Nitin Kaushal, Suresh Babu, Arjit Mishra, Nilanjan Ghosh, Vinod Tare, Ravindra Kumar, Phanish Kumar Sinha and Ram Ujagir Verma, *Towards a Healthy Ganga - Improving River Flows Through Understanding Trade Offs*, 7 Frontiers in Environmental Science 1, 3 (2019)

years.<sup>30</sup> This clearly highlights the irregularity of flow of water in the river which may result in extreme conditions, both drought and flood in coming days. The dams and barrages used for storing and diverting water for irrigation, domestic consumption and industry, affect the flow, especially during dry months<sup>31</sup>. The varying rain pattern and increasing pollution, together contribute towards irregular flow of water. The annual average rainfall in the basin differs from 39 to 200 centimeters, with average being 110 centimeters. Between June to October eighty percent of rainfall takes place. There is fluctuation in the flow characteristics of the river, reason being large temporal variations in precipitation taking place round the year.<sup>32</sup> The irregular flow in the river also leads to soil erosion at different places.

# HOW POPULATION IS AFFECTING GANGA?

The deforestation leads to decline in the land use pattern, making it prone to soil erosion. The sediment yield and its deposit on the river bed were not monitored.<sup>33</sup> Mountain soils, Sub-Montane soils and Alluvial Soils, covering 58% of the basin area, are very highly erodible, about 12% red soil also gets eroded easily.<sup>34</sup> All this ultimately leads to the loss of soil fertility and creates problems in farming techniques. The problem of changing weather conditions if left unheard will make Ganga, the sorrow of India.

The river Ganga is the source of drinking water to a large population. The Food and Agriculture Organisation (FAO) suggested that the water usage has been growing at more than twice the rate of the pollution increase.<sup>35</sup> This increase in water usage per person has

<sup>30</sup> Supra note at 22

<sup>&</sup>lt;sup>31</sup> Supra note at 25

<sup>&</sup>lt;sup>32</sup> Supra note at 16

<sup>&</sup>lt;sup>33</sup> Supra note at 20

<sup>&</sup>lt;sup>34</sup> Supra note 2 at 15

<sup>&</sup>lt;sup>35</sup> Supra note 18 at 4 (2019)

resulted in a lot of pressure on water resources of the country. In 1951, water availability in India was 5177 cubic metres per capita per year, which had got reduced to 1342 cubic metres per person per year by 2000.<sup>36</sup> This data manifests that increasing need is not substantiated by increasing water resources. This is leading to the great water crisis in the near future.

In India, the economic growth is not taking place at the same phase as compared to pollution growth. This has pushed a large number of people below the poverty line. There are millions who depend directly on Ganga's water for drinking and sanitation. During the meeting of UNGASS held in New York in June 1997, the then Vice President of World Bank said that "By 2050 two out of every three persons in the world might not have access to fresh water and sanitation". The increasing poverty will lead to the increase in pollution as population will increase, more industries will come up, to sustain the increased population, waste will grow, sewage will grow, and consumption of fresh water will increase. Hence, depression in economy will lead to inflation in pollution.

The Comptroller and Auditor General Report (CAG) disclosed that pollutants in the river across Uttar Pradesh, Bihar and Bengal were six to 334 times higher than the prescribed levels during the period 2016-17.<sup>38</sup> This report is clearly indicative of the failure of previous plans undertaken to clean river Ganga by the Government from time to time. The first such plan was launched in 1985.

# INITIATIVES TAKEN BY THE GOVERNMENT TO CLEAN GANGA

The Prime Minister Rajeev Gandhi was the first person to draw his attention towards the rapidly deteriorating state of Ganga. In June 1986, he came up with Ganga Action Plan which

<sup>&</sup>lt;sup>36</sup> Ibid at 4-5

<sup>&</sup>lt;sup>37</sup> Supra note 15

<sup>&</sup>lt;sup>38</sup> Supra note 18 at 11

covered 25 Class I towns (6 in Uttar Pradesh, 4 in Bihar and 15 in West Bengal) and Rs 862.59 crores were spent.<sup>39</sup> Its main objective was to improve the water quality by the interception, diversion and treatment of domestic sewage and to prevent toxic and industrial chemical wastes from identified polluting units from entering the river. The GAP also held an objective to control pollution from non-point sources. The ultimate objective of the GAP was to manage river basin, taking in account the various dynamic interactions between a-biotic and biotic eco-system<sup>40</sup>.

Ganga Action Plan Phase II was launched in the year 1993, seeing and acknowledging the taste of failure by the Ganga Action Plan Phase I. Under the second phase the National River Conservation Plan was included in the year 1995 to include some other major rivers under the plan. It included several rivers like Yamuna, Gomti and several other tributaries of river Ganga. The second phase also involves construction of sewage treatment plants because this is one of the major sources of pollution of the Ganga. It included laying down 34 kilometres of sewers, renovation of the old sewerage system, and introduction of three new pumping stations which can bring improvement in the water quality of Ganga at Varanasi. 43

<sup>&</sup>lt;sup>39</sup> Ganga Action Plan – How Poorly Planned Sewage Treatment Plants Led to Overall Plan Failure, Available at: <a href="https://swarajyamag.com/politics/ganga-action-plan-how-poorly-planned-sewage-treatment-plants-led-to-overall-plan-failure">https://swarajyamag.com/politics/ganga-action-plan-how-poorly-planned-sewage-treatment-plants-led-to-overall-plan-failure</a>, (Accessed on: 27.07.2020, 7:30 pm)

<sup>40</sup> Critical Analysis of GAP, Available at: <a href="http://www.ecofriends.org/main/eganga/images/Critical%20analysis%20of%20GAP.pdf">http://www.ecofriends.org/main/eganga/images/Critical%20analysis%20of%20GAP.pdf</a>, (Accessed on: 27.07.2020, 5:12 pm)

<sup>&</sup>lt;sup>41</sup> National Mission for Clean Ganga, Available at: <a href="https://nmcg.nic.in">https://nmcg.nic.in</a>, (Accessed on: 27.07.2020, 11:30 pm)

<sup>&</sup>lt;sup>42</sup> Ganga Action Plan II was launched in 1993. Which Rivers are included under this action plan? Available at: <a href="https://www.iastoppers.com/flashcard/ganga-action-plan-ii-was-launched-in-1993-which-river-are-included-under-this-action-plan/">https://www.iastoppers.com/flashcard/ganga-action-plan-ii-was-launched-in-1993-which-river-are-included-under-this-action-plan/</a>, (Accessed on: 27.07.2020, 12:57 a.m.)

<sup>43</sup> Ganga Action Plan Project Phase II, Varanasi, Uttar Pradesh, Available at: <a href="https://www.watertechnology.net/projects/ganga-actionplanprojectphaseiivaranasiuttarpradesh/#:~:text=The%20Phase%20II%20of%20the,stations%2C%20namely%20Phulwaria%2C%20Chaukaghat%20and, (Accessed on: 27.07.2020, 12:30a.m.)</a>

The studies undertaken during Ganga Action Plan indicated that a large proportion of pollution load in the river came from the municipal waste water generated in 25 Class I towns located on the banks of the Ganga, with a population exceeding one lakh. Therefore, the main focus under the plan was on interception and diversion of wastewater and its treatment in Sewage Treatment Plants, before being discharged into the river. <sup>44</sup> But, this plan failed due to the low efficiency of Sewage Treatment Plants. The presence of Coliform bacteria throughout Ganga remained high, which further proved to be a drawback of Ganga Action Plan (GAP). <sup>45</sup>

The Ganga Action Plan launched in two phases could hardly improve the status of Ganga.

This plan suffered from various limitations. They are listed as follows:

- The plan focused on very limited sources of pollution. This was the main reason behind ineffectiveness of this program.
- It concentrated on improving the water quality by focussing on organic pollution and dissolved oxygen levels.
- Only the wastewater of towns flowing through the drains to the river was targeted.
   Connections of household toilets to the sewer system, solid waste management, and some other vital aspects of municipal activities, which impinge on the water quality were not addressed.

The issue of ensuring environmental flows in the river was not attended to. This has become increasingly important in view of the competing demands of the Ganga water for drinking, irrigation and power generation. Adopting more efficient water conservation practices could have reduced the need for abstraction of water from Ganga.<sup>46</sup>

<sup>&</sup>lt;sup>44</sup> Supra note 1 at 16

<sup>&</sup>lt;sup>45</sup> Supra note 19

<sup>&</sup>lt;sup>46</sup> Supra note 20

This program only focussed on class I towns, ignoring villages and other settlements near the banks of the river.

The schemes under the Ganga Action Plan were generally centralised, which meant that sewage was transported to the outskirts of the town for treatment before the disposal. This made the sewer systems long, involved pumping and treatment, which involved in-depth capital and exhaustive energy. This scheme witnessed poor control and management on the part of authorities. There was no central authority to which the officers associated with this plan were answerable. This scheme also set a bad example when it comes to corruption, as it was totally a centre funded scheme. It lacked State participation, which was its major drawback. The large amount of fund (nearly 451.70 crores under GAP-1) allotted under this plan could not be utilised in the manner it was destined but was lost in the middle path.

The Ganga Action Plan if looked in the background of a steep increase in population as well as organic pollution load, it helped in preventing further deterioration of Ganga. <sup>49</sup> The time period of fifteen years between 1985 and 2000, witnessed a spent around US \$226 million on the Ganga Action Plan (GAP). This initiative, which was considered to be "the largest single attempt to clean up a polluted river anywhere in the world," did not fetch the desired results. <sup>50</sup> Thus, this plan which was launched with high hopes hardly saw fulfilled dreams. This plan also suffered due to lack of technological intelligence. The flow of the program was not

<sup>&</sup>lt;sup>47</sup> Supra note 1 at 28

<sup>&</sup>lt;sup>48</sup> National River Conservation Plan, Available at: <a href="https://www.jagranjosh.com/general-knowledge/national-river-conservation-">https://www.jagranjosh.com/general-knowledge/national-river-conservation-</a>

plan14416210951#:~:text=The%20objective%20of%20National%20River,implementation%20of%20pollution%20abatement%20Schemes, (Accessed on:24.06.2020, 12:05 pm)

<sup>&</sup>lt;sup>49</sup> Supra note 1 at 18

<sup>&</sup>lt;sup>50</sup> Supra note 13

certain, which aroused great confusions and let people shirk off from their responsibilities.

The obstruction posed by religious authorities was another setback to this problem.<sup>51</sup>

According to the demands of various States and Government's plan, Ganga Action Plan was expanded in 1996 to National River Conservation Plan (NRCP). The new plan covered almost 36 rivers in 20 different states. The objective of NRCP is to reduce the pollution in rivers by switching to pollution abatement works.<sup>52</sup> These works were mainly concerned with setting up Sewage Treatment Plants, opening ways for low cost sanitation works to prevent open defectation on river banks, river front development, plantation in catchment areas, setting up electric crematoria, etc.<sup>53</sup>

Succeeding the Ganga Action Plan and National River Conservation Plan (NRCP), National Ganga River Basin Authority came, which was established in the year 2009 with its objectives being to reduce pollution, conserve Ganga, maintain environmental flows, improve the water quality of Ganga and focus on sustainable development. National Ganga River Basin Authority comes under the Ministry of Water Resources, River Development and Ganga Rejuvenation. With formation of this body Ganga was declared as the National River of India on 20 February, 2009.<sup>54</sup> The National Ganga River Basin Authority (NGRBA) was established through a Gazette Notification of the Government of India. It was established with the following objective:

<sup>&</sup>lt;sup>51</sup> Supra note 18 at 9

<sup>&</sup>lt;sup>52</sup> National River Conservation Directorate Ministry of Environment, Forest & Climate Change Government of India, Available at: <a href="https://nrcd.nic.in">https://nrcd.nic.in</a>, (Accessed on 15.08.2020, 3:30pm)

<sup>&</sup>lt;sup>53</sup> National River Conservation Plan, Available at: <a href="https://www.manifestias.com/2019/06/24/national-river-conservation-plan">https://www.manifestias.com/2019/06/24/national-river-conservation-plan</a>, (Accessed on 22-06-2020, 4:50 pm)

<sup>&</sup>lt;sup>54</sup> Supra note 1 at 7

- Ensuring Effective Abatement of Pollution and conservation of the Ganga by adopting a Ganga basin approach.
- To promote inter-sectoral co-ordination for comprehensive planning and Management
- Maintaining environmental flows in the river Ganga with the aim of ensuring water quality and environment sustainable development.<sup>55</sup>

This too focuses on sewerage infrastructure, catchment area treatment, to protect the flood plains, and most importantly to create awareness amongst people so that they understand the need of the hour to keep the Ganga clean and safe. The powers and functions include mainly abatement of pollution, maintain ecological flow, rainwater harvesting, decentralised sewage treatment plants for proper, efficient and effective functioning. This involves Environmental Protection Act, 1986 to exercise and execute the functions. <sup>56</sup>

The Ganga cannot be cleaned despite several steps. In 2014, Bharatiya Janata Party came to power in the Centre with its Prime Minister candidate getting elected from the city of Moksha, Banaras. Thus, the focus of the government shifted to river Ganga. In July 2014, the Government of India announced an integrated Ganges Development Project titled 'Namami Gange'. It had a total budget designed at Rs 20,000 Crores. This program was way ahead of earlier programmes and was on the working platform with two objectives to be achieved. The first objective was effective abatement of pollution and second was of Rejuvenation of the National River Ganga.<sup>57</sup>

This project has improved the conditions of river Ganga in certain areas. They are listed as follows:

<sup>&</sup>lt;sup>55</sup> Supra note 1 at 10

<sup>&</sup>lt;sup>56</sup> Supra note 41

<sup>&</sup>lt;sup>57</sup> Supra note 18 at 10

- The navigability has been improved by connecting Varanasi to Kolkata through river Ganga.
- The Sewage Treatment Plants have increased and the number of toilets near the banks of Ganga too has increased. Through these steps the, rise of faecal Coliform bacteria can be controlled.
- The sewage treatment facilities are being developed to tackle additional 1187.33MLD capacity municipal waste.
- The 28 river front development projects are being carried out. The renovation of 182 ghats and 118 crematoria were installed.
- The river surface cleaning was carried out and an attempt was made to clear floating solid waste from the surface of ghats.
- The five bio diversity centres respectively at Dehradun, Narora, Allahabad, Varanasi and Barrackpore have been developed.
- The Forest Research Institute, Dehradun has been developed for forestry interventions for a period of five years (2016-2021) at a cost of Rs. 2300 crores. This project will help a lot in researching about the medicinal qualities of the plants.
- The mass media, social media, print and digital media campaigns to ensure public participation and raise public awareness are being carried out.
- The industrial effluent monitoring of 1072 number of Grossly Polluting Industries (GPIs) were identified in April, 2019. These are inspected on annual basis according to the set environmental standards.

The Ganga Gram Panchayats is instituted in 1674 Panchayats in Five villages. A number of villages are being adopted by various Indian Institute of Technology (IIT) and Non-Governmental Organisation.<sup>58</sup>

The 35 out of 86 planned Sewage Treatment Plants (STP) can only be built in the five years. The planned Sewer Network of 4031.41 kilometres cannot be completed even in the three years of time, but only 1114.75 kilometres could be laid down.<sup>59</sup> The pollution level of Ganga has not gone down till date. The level of pollution and water-borne diseases both are increasing at a rapid rate.

Under the project, 'Namami Gange,' district level task forces were set up with official and non-official members. This task force is headed by either the divisional commissioner or the district magistrates. The main work of these task forces is to monitor the effective working of these committees and to suggest new methods through which he methodology of cleaning the river Ganga could improve. The Ganga Project Directorate (GPD) envisages involving NGOs in the working of these committees.<sup>60</sup>

On the official government website of the National Mission for Clean Ganga, a deadline has been clearly mentioned that by the year 2020 no untreated municipal sewage or industrial effluent will flow into the river Ganga. But, no plan could adhere to the deadline, and we find our Ganga still polluted. The fact that could not be denied here is that, it is already 2020; pollution must have increased multiple times from what it was before, rather than getting decreased drastically.

<sup>&</sup>lt;sup>58</sup> Supra note 41

<sup>&</sup>lt;sup>59</sup> Supra note 18 at 11

<sup>&</sup>lt;sup>60</sup> Ibid at 12

<sup>&</sup>lt;sup>61</sup> Supra note 41

### **GANGA DRIVEN BY POLITICS**

Ganga is no more just a river in India, it has shifted to being a subject of politics and arguments Ganga is seen lost, somewhere in politics. Uma Bharti, the then, Minister of Water Resources, River Development and Ganga Rejuvenation had announced that the Ganga will be pollution free by October 2016. The Ganga lost in politics is very evident because Uma Bharti made claims that the "Namami Gange" project was delayed because it was completely a center-funded project. The states were not giving any grants. <sup>62</sup>

Later, in 2017, when the cabinet reshuffled, Uma Bharti took charge of Ministry of Drinking Water and Sanitation. She announced to fast unto death, if the plans and projects designed to clean Ganga and make it pollution free, do not get started by October 2018. As it is, the 'Namami Gange' project had a deadline of three years declared by the Government to clean the Ganga completely, and make it pollution free.<sup>63</sup>

# Judicial Steps to Secure Ganga

The censures have been imposed by the Supreme Court, later upheld by National Green Tribunal, which clearly remarked that even after spending 20,000 crores and 200 years, by the officials who are unaware of the importance of River Ganga.<sup>64</sup>

In a landmark case, *Mohd. Salim* v. *State of Uttarakhand & others*<sup>65</sup>, the division bench gave the status of "juristic persons" to Ganga and Yamuna. The court backed up the decision by

Ganga will be Pollution-free by October 2016, says Uma Bharti, Available at: <a href="https://www.thehindu.com/news/national/ganga-will-be-pollutionfree-by-october-2016-says-uma-bharti/article7283793.ece">https://www.thehindu.com/news/national/ganga-will-be-pollutionfree-by-october-2016-says-uma-bharti/article7283793.ece</a>, (Accessed on: 31.07.2020, 9:00 pm)

<sup>&</sup>lt;sup>63</sup> Ibid

<sup>64</sup> It will take more than a Prime Minister to Clean up the Ganga, Available at <a href="https://thewire.in/environment/is-a-clean-ganga-too-much-to-ask-for">https://thewire.in/environment/is-a-clean-ganga-too-much-to-ask-for</a>, (Accessed on 01.08.2020, 12:30 a.m.)

<sup>65 2017</sup> SCC OnLine Utt 367

the reasoning that for socio-political-scientific development the shifting and evolution of fictional personalities to juristic personalities is necessary.<sup>67</sup> This recognition is with regard to the needs, faith and belief of the society. The rights and duties of the juristic person are that of the same as any natural person. Law has granted personality to juristic persons for good sufficient reasons.<sup>68</sup> Additionally court observed that protecting the rights and duties towards the rivers will help in preserving and conserving them.<sup>69</sup>

Thus, Ganga and Yamuna were declared as the legal persons/living persons. Hindus have immense belief in these rivers and connect to them. The rivers have provided physical and spiritual sustenance, well-being of the people.<sup>70</sup> They are the support system since the time of inception of human existence.

The judiciary is making repeated efforts to bring Ganga back to its glory. A different tribunal exists altogether to look after the cases related to environmental laws. One of the landmark judgements of NGT include the Alaknanda case, in which 9 crores were taken as the compensation for the loss of lives and livelihood of the residents. The case is landmark because there was occurrence of a natural calamity; it was an act of God (Vis Major) famously known as Kedarnath floods. But the environmental jurisprudence, granted justice to the society by establishing the fact that the landslide and heavy rainfall lead to the occurrence of floods because of the construction of a dam.

# JURISPRUDENCE OF THE RIVER GANGA

<sup>&</sup>lt;sup>66</sup> Ibid at para 13

<sup>&</sup>lt;sup>67</sup> Ibid at para 14

<sup>&</sup>lt;sup>68</sup> Ibid at para 16

<sup>&</sup>lt;sup>69</sup> Ibid at para 19

<sup>&</sup>lt;sup>70</sup> Ibid at para 17

The Legislative significance of the river cannot be undermined owing to the atrocities committed on the river. The environmental jurisprudence clearly highlights importance of environment in the human life. The environment is the indispensable part of life and to save life we require safe environment. Right to life doesn't amount to mere existence it brings into picture qualitative existence. Environmental jurisprudence establishes that human life is dependent on the environment and a balance in the ecosystem needs to be established. The Right to Clean Environment is greater than the mere Right to Life itself is, because without sustainable environment there can be no life.

The various legislations have been made in the past to reserve Environment. The environment provisions were incorporated under Article  $48-A^{71}$  and  $51-A(g)^{72}$  by the Constitution of India in its  $42^{nd}$  Amendment in 1976 as a: "Fundamental Duty for the state as well as the citizens of India to protect and improve the natural environment." Thus, this amendment clearly highlights the importance of environment. A healthy environment sustains a healthy life.

The United Nations Conference on Human Environment organised in Stockholm in the year 1972 laid down certain important principles for the protection of Environment.<sup>74</sup> They believed that most of the issues posed to the problem are caused by the under development. The numerous reasons like increase in population, unsustainable growth, poverty alleviation, etc. increase the risk to harm the environment.

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<sup>&</sup>lt;sup>71</sup> Article 48-A, Constitution of India, 1950

<sup>&</sup>lt;sup>72</sup> Article 51-A(g), Constitution of India, 1950

Indian Constitution and Environmental Protection, Available at: <a href="https://shodhganga.inflibnet.ac.in/bitstream/10603/230538/16/15%20chapter%206.pdf">https://shodhganga.inflibnet.ac.in/bitstream/10603/230538/16/15%20chapter%206.pdf</a>, (Accessed on: 22.07.2020 at 03:50 pm)

<sup>&</sup>lt;sup>74</sup> Declaration of the United Nations Conference on Human Environment, United Nations Stockholm Conference 1972 Report

The principle laid down in this conference states, "Man has the fundamental right to freedom, equality and adequate conditions of life, qualitative environment that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations."

In the context of above stated principle, by doing irreparable damage to Ganga, we are not only hampering the right to safe environment of the present generation but Right to Life of our posterity, too. This declaration adopted in the conference demands an integrated and coordinated approach, in order to achieve sustainable development with liveable environment.

Moreover, the problems associated with pollution of Ganga lead to public nuisance to the entire population depending on the river. The negligent actions of certain industries and authorities running Sewage treatment plants are harming such a great population and causing irreparable damage to human health and environment.

The Water (Prevention and Control of Pollution) Act, 1974 was a legislation moved in order to reduce the pollution of various water bodies but its application is still a far-reaching effect. It defines "Pollution" as contamination of water or alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent which simply affects, public health, at large. This unchecked pollution flow in the river also hampers the life of several species of aquatic life and living organisms, thus this flow from factories and cities in the river is taking deteriorating environment. This Act prescribes for the formation of Pollution Control Boards at State and Central level. The Central Pollution Control Board holds regular meetings to keep a check on pollution level in the river, but it has hardly been able to make much difference through its efforts. The Section 24 of this Act restricts the flow

<sup>&</sup>lt;sup>75</sup> The Water (Prevention and Control of Pollution) Act, 1974

of toxic materials into the river.<sup>76</sup> The construction of settlements near the river bank is the root cause of many problems as discussed above, but the Act fails to provide any sanctions against those individuals. The Act gives immense power to the State Pollution Control Boards to take action against those who are dumping untreated waste in the river but fail to establish their accountability for increasing pollution.

The Environment (Protection) Act, 1986<sup>77</sup> is well known by the name of "Umbrella Act" since it covers water, air, land, and the inter-relationship which exists among and between water, air, and land and other living creatures, plants, micro-organisms and property.<sup>78</sup> The ambit of the Act is very wide and this Act, not being specific, in nature involves judicial reasoning to reach conclusions. The presence of loopholes in the Act has been quite evident in the journey of dispensing justice. To overcome the problem, National Green Tribunal Act, 2010 was passed.

The National Green Tribunal Act, 2010 passed by the legislature contributed a little more towards dispensing justice related to the environmental issues. The National Green Tribunal established by the National Green Tribunal Act, 2010 focuses on disposing cases related to the environment protection, and to recognise rights and duties of the citizens through cases relating to the same. The tribunal shall have appellate jurisdiction. The tribunal in Section 20 mentions to follow certain principles while passing the decision or order, they include principles of sustainable development, precautionary principle and the polluter pays principle.<sup>79</sup>

<sup>&</sup>lt;sup>76</sup> Section 24, The Water (Prevention and Control of Pollution) Act, 1974

<sup>&</sup>lt;sup>77</sup> Environmental Protection Act, 1986

<sup>&</sup>lt;sup>78</sup> Section 2(a), Environmental Protection Act, 1986

<sup>&</sup>lt;sup>79</sup> Section 20, National Green Tribunal, 2010

The NGT in one of its decision *Tata Power Delhi Distribution Ltd.* v. *Manoj Misra*<sup>80</sup> decided the case and ordered the case based on the polluter's principle. The river Yamuna was blocked and encroached, but the tribunal ordered to collect the compensation of the damage caused by the households that caused harm. The sewerage charges were collected from those households. The National Green Tribunal Act, 2010<sup>81</sup> in Section 24 clearly mentions that the deposit amount payable for environment, whatever amount collected as fine will be used for the environment. This Act has comprehensively laid rules towards sustainable development. The Tribunal shall be guided on the principles of natural justice and shall not be bound by the procedure laid down by the Code of Civil Procedure(1908)<sup>82</sup> is a good step in the process of justice delivery.

The National Green Tribunal is a step towards fast and steady sustainable development, protection of the environment. NGT in its order dated December 6, 2019, directed local bodies and concerned departments to ensure 100 percent treatment of sewage drinking water across the country.<sup>83</sup>

The Ganga Council meeting held in 2019 and chaired by Prime Minister Narendra Modi discussed about the concept of 'River Cities' and sustainable use of agricultural water. In this meeting the focus shifted from 'Namami Ganga' to 'Arth Ganga,' so that Ganga can pose as a site of sustainable economic development.<sup>84</sup> The meeting changed the focus of Government on three important issues like, 'Swachchta', 'Nirmalta', 'Nirmalta', and 'Aviralta', of

<sup>80 (2019) 10</sup> SCC 104

<sup>81</sup> Section 20, National Green Tribunal, 2010

<sup>82</sup> Section 19, National Green Tribunal, 2010

<sup>&</sup>lt;sup>83</sup> 10 Critical Steps for Ganga Revival, Available at: <a href="https://www.downtoearth.org.in/blog/water/10-critical-steps-for-ganga-revival-68482">https://www.downtoearth.org.in/blog/water/10-critical-steps-for-ganga-revival-68482</a>, (Accessed on 23.05.2020, 2:30 pm)

<sup>84</sup> Ibid

<sup>&</sup>lt;sup>85</sup> Swachta refers to the status of the river where it is free of all types of pollution.

Ganga. 88 But, till today the policies and the ideas talked about in the meeting could not be implemented even in their initial phases. This meeting paved a way to new beginning because now Government for the very first time in history thought of involving people in cleaning the river Ganga. This might prove to be a milestone in accomplishing the objective of clean Ganga.

The environmentalist M.C. Mehta filed a writ petition of Mandamus in Supreme Court to stop the tanneries from discharging their waste and trade effluent into the river. The Court referred to 'an Action Plan for Prevention of Pollution of the Ganga' prepared by the Department of Environment, Government of India which stated that the main sources of pollution in the Ganga are sewage, industrial run-off of cultivated land, where cultivators use chemical fertilizers and pesticides and industrial solid wastes.<sup>89</sup>

This decision clearly explores the idea that judiciary is restricted in its approach to clean Ganga and to an extent, and can only pass judgements and penalise to clean Ganga, but the main action of implementation lies in the hands of executive. The executive wing of the government can implement decision of the judiciary and legislations of the legislature. However, the slow and sluggish attitude of the executive has always posed a problem for the cleanliness drive of the Ganga. However, with certain changes in the functioning of the judiciary the cleanliness drive can yield a better result.

<sup>&</sup>lt;sup>86</sup> Nirmalta refers to the state of a river where it is clean.

<sup>&</sup>lt;sup>87</sup> Aviralta refers to the phase when the river will flow throughout, without any impediment.

Prime Minister Chairs First Meeting of Ganga National Council, Available at: <a href="https://pib.gov.in/PressReleasePage.aspx?PRID=1596482#:~:text=Prime%20Minister%20Shri%20Narendra%2">https://pib.gov.in/PressReleasePage.aspx?PRID=1596482#:~:text=Prime%20Minister%20Shri%20Narendra%2</a> <a href="https://pib.gov.in/PressReleasePage.aspx?PRID=1596482#:~:text=Prime%20Minister%20Shri%20Narendra%2">https://pib.gov.in/PressReleasePage.aspx?PRID=1596482#:~:text=Prime%20Minister%20Shri%20Narendra%2</a> <a href="https://pib.gov.in/PressReleasePage.aspx?PRID=1596482#:~:text=Prime%20Minister%20Shri%20Narendra%2">https://pib.gov.in/PressReleasePage.aspx?PRID=1596482#:~:text=Prime%20Minister%20Shri%20Narendra%2</a> <a href="https://pib.gov.in/PressReleasePage.aspx?PRID=1596482#:~:text=Prime%20Minister%20Shri%20Narendra%2">https://pib.gov.in/PressReleasePage.aspx?PRID=1596482#:~:text=Prime%20Minister%20Shri%20Narendra%2</a> <a href="https://pib.gov.in/PressReleasePage.aspx?PRID=1596482#:~:text=Prime%20Minister%20Shri%20Narendra%2">https://pib.gov.in/PressReleasePage.aspx?PRID=1596482#:~:text=Prime%20Minister%20Shri%20Narendra%2</a> <a href="https://pib.gov.in/PressReleasePage.aspx">https://pib.gov.in/PressReleasePage.aspx</a> <a href="https://pib.gov.in/PressReleasePage.

<sup>&</sup>lt;sup>89</sup> M.C. Mehta v. Union of India and others, (1987) 4 SCC 463

This judgement affixed the duty of the industries to treat their effluent before discharging in to the river. Thus, the profit-making industrialist should be responsible to an extent.

# **REFORMS TO CLEAN GANGA**

Till now, the problems of Ganga have been highlighted, extent of pollution, governmental initiatives and Ganga Action Plans taken at different levels, their effectiveness and various legislations. Despite, so many steps taken at various levels, hardly any effects can be visualised in today's environment. Hence, the need for suggestions and changes increases.

The reformation has to start at a very initial level. The change has to take place from villages. Decentralisation of the schemes is a necessity. The focus of the schemes has to be on villages, small settlements and districts, instead of the whole state. A committee should be set up under the chairmanship of Gram Pradhan, consisting of 5 progressive villagers, which has to scrutinize the waste collection techniques and treatment of sewage water. Many such committees can form a cluster and must be directed by the District Collector of the district. The collector of the district has to come forward to take responsibility and promote executive awareness in his district and State.

The pioneer of Sulabh International Bindeshwar Pathak came up with a great methodology to treat waste and ensure judicious use of the unused waste. He has established more than 6000 toilets all over India and makes use of the Sulabh Thermophilic Aerobic Composting (STAC) technology. This technology helps in the biodegradation of any organic matter within ten days. Through these inventions and smart moves, Sulabh is working as the pioneer of biogas generation from the public toilet complexes. <sup>90</sup> The human excreta are used to produce biogas

<sup>90</sup> Dr. Bindeshwar Pathak, Sulabh Sanitation Technologies to achieve Millennium Development Goals on Sanitation Delhi Sustainable Development Summit 1,5 (2004)

and the leftover material is used as manure. They treat water used in toilet and then it is used in the fields. Thus, this is a complete action plan which leads to no waste generation, at all.

This is an emulative plan for all the districts and villages. It is cost- effective as well as suited for environment. The villages should work on the Sulabh model. It will not only help in cleaning the rivers and water bodies but will also help in achieving the ultimate aim of Swachh Bharat Mission.

To ensure proper sewage treatment, we need to work on our drainage system. This will ensure proper disposal and quantity of water for fields as suggested by Mulayam Singh Yadav.<sup>91</sup> Thus, to follow these steps of transformation we have to start with primary accomplishments like a proper drainage system in city and villages, separating degradable and non-biodegradable waste and setting up sewage treatment plants.

There are a number of more suggestions which if implemented will enhance the cleanliness drive for Ganga. The immersion of deities in river after Durga Puja or Ganesh Chaturthi should be completely banned. Moreover, Hindu temples and societies immersing the temple waste into the river must be stopped. There needs to be stringent laws for the same and deterrence effects like penalisation should be adopted, to set up precedents for posterity to follow.

Besides, this the tress should be planted near the banks of the river and in the catchment areas to ensure prevention of floods during rainy season and retention of water during summer season. All the industries should be shifted away from the areas near Ganga. A certain distance must be prescribed by the legislature to ensure that no industries are functioning near Ganga. The ghats of Ganga that are decorated and are home to number of temples and

145

<sup>&</sup>lt;sup>91</sup> Supra note 62

pilgrims must be declared as plastic free zones. No shops should be allowed to sell anything made up of plastics, for example plastic bottles or plastic packets containing eatables. The District Collector of Haridwar Deepak Rawat has launched a cleanliness drive in Harki Paudi Ghat, Haridwar and has banned all the plastics in the nearby area. Thus, local administration has to come forward for Green Governance. The people should be stopped for using plastic bottles for filling Ganga water. The step launched by National Mission for Clean Ganga for supply of holy Ganga water is an important step towards this change.

The waste which is dumped in the rivers during Chath Puja, Kumbh, Ardh Kumbh, Ekadashi Snan etc., must be stopped and awareness should be spread. The Ganga Volunteers should be appointed in all the towns near the river, to stop the people by promoting awareness. Swayam Sevaks for Ganga is the need of the hour.

The construction of canals and dams must also be restricted as they disrupt the natural flow and water carrying capacity of river. No doubt, these methods serve us in many ways but harm us in uncountable ways.

The use of water intensive crops will further help in preserving the flow of national river of India. These crops use very less water as compared to the water extensive crops, i.e., they use 2% of the total water used by normal crops. This will not only reduce the use of water, but will also decrease the burden of irrigation on farmers.

A lot of water is used in manufacturing of soft drinks, juices and other beverages, which ultimately reduces the supply of fresh water available to the needy ones. Hence, a limit should be made for ensuring the judicious use of water.

The concept of rain water harvesting has to take shape in the real world. India needs rain water harvesting plants. We have to shift our dependency from rivers to purest form of water

which is wasted. The rainwater can help in providing drinking water, water for irrigation, etc. for the large part of our population.

The idea of Dhobi Ghats on the bank of river Ganga has to be halted without further delay because the chemicals increase toxicity in the water of the river and disturb aquatic life. Thus, washer men should be penalised for all unwanted activities carried along the river.

Ashes of the burnt corpses deposited in the river are another major source of pollution for Ganga, so government should promote use of Electric Crematorium. The half burnt dead bodies are a common sight in the river. Thus, with changing time we have to change our methodologies and religious practices. The carcasses of animals must be buried, instead of throwing them in the river. For all these suggestions to be implemented a proper guideline shall be framed by the Government and Local Administration has to come at front stage, to deal with the issues.

The problems of Ganga from being polluted to being dry emerge from the increased load of population. The recent trends depict that India will soar new heights of population growth in coming years. So, instead of lamenting over the issue of increasing population we can use it for the river which has been polluted, knowingly or unknowingly. We are the nation having a large number of youth populations. So, in the drive to clean Ganga contribution of reliable and energetic hands is needed, just like the people of Mauritius who have come forward to clean the ship wreck that is destroying their marine. We have to come together to take a number of steps and involve mass contribution for the national cause. We have to ensure public participation through Ganga Panchayats <sup>92</sup> in all the wards and villages once in a year.

<sup>&</sup>lt;sup>92</sup> Pranav Awasthi, *Conservation of River Ganga – Is Public Participation the Key?* 5 Environmental Law & Practice Review 107, 109 (2016)

The National Green Tribunal Chief Justice Adarsh Kumar Goel said that, "It is a pity that even after constant monitoring by the Supreme Court for 34 years and by this tribunal for 6 years, 46 years after enactment of the Water Act, making discharge of pollutants in water bodies is a criminal offence-pollutants continue to be discharged in the most holy river." This statement highlights the need of new legislation and guidelines. We need a separate Act and a body to monitor the cleanliness drive for river Ganga.

#### **CONCLUSION**

Ganga: the bliss turned into tragedy, Ganga: the lost glory, Ganga the inseparable part of our soul. Ganga is this very important to all of us, then why do we degrade it? Ganga is suffering from millions of problems; hardly any could have been mentioned above. The problems are looking for one solution that is sustainable use of the resources. The human greed should be curtailed, since it has been years that we are increasing our selfishness. Mahatma Gandhi rightly said "there is enough for everybody's need and not for everybody's greed." The human race should understand how important it is to conserve Ganga and make repeated efforts to clean it. The arrival of the COVID -19 pandemic in India marked nation-wide lockdown. This is the time when humans intervened with Mother Nature the least. The water of Ganga became less polluted and more transparent making a safe way for aquatic life during this period. Imprisoned humans marked free Ganga.

This is a clear indication that now is the time we shall stop polluting Ganga, whether knowingly or unknowingly. India will have to produce more Mahesh Chandra Mehta, Guru Das Agrawal again who will fight and urge to clean our environment. In future these feats look impossible. However, we need to individually make collective efforts to clean our Ganga, to give recognition to the significance it holds. It is very difficult, but we must begin

<sup>93</sup> NGT tells States to monitor Ganga Rejuvenation, The Hindu, 18.08.2020

Lex Revolution

somewhere. It will be Long struggle for Ganga but ultimately either we will lose Human Race or Ganga. In the words of Indira Babellapati:

"Ganga Mai who sustains and devours Maa Ganga I approach you a child hungry and forlorn longing to retreat into your womb to be nurtured and to be re-born"

Now it is the time to do justice to our environment and river Ganga and in the words of renowned Environmentalist Wendell Berry, "Whether we and our politicians know it or not, nature is party to all our deals and decisions and it has, more votes, a longer memory, and a sterner sense of Justice than we do."

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