Hindon River Revival Program



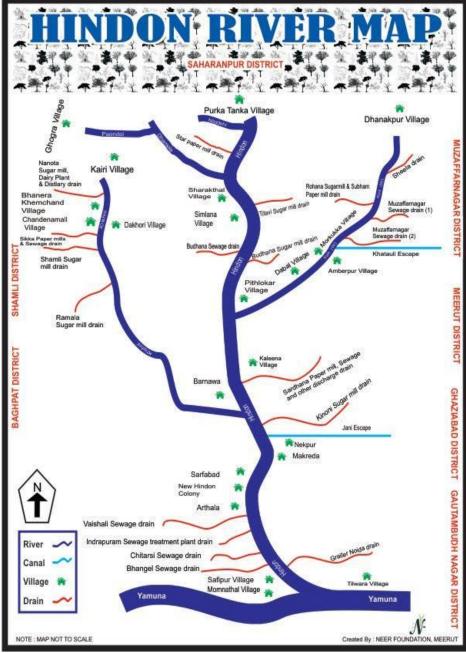
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I. Introduction to the Watershed

In Western Uttar Pradesh, Hindon River originates from Shivalik mountain range in Saharanpur district and passes through many important districts before flowing into Yamuna waters at Gautambudhnagar district.



Map Source: NEER Foundation (2006)

Hindon River was thought to originate from forests of 'Pur kaTanda' village in Saharanpur village but according to British Gazetteer and Satellite mapping, it actually originates from the Kaluwala village at Shivalik mountain range in Muzaffarabad block of Saharanpur district. It passes from districts Saharanpur, Muzafarnagar, Meerut, Baghpat and Ghaziabad travelling for 355 kms before finally meeting the Yamuna River at forests of Momnathal village situated about 500 m from Tilwada village in Gautambudhnagar district. The river is known by various local names in the region such as Barsani, Kaluwalakhol and Guleria, but these are used only to distinguish different lengths of the stream.

The river has been a major source of water for over 865 villages along its banks. The highly populated and predominantly rural catchment is entirely dependent on the Hindon River as a water resource for domestic, agricultural and industrial use. Like all other rivers, Hindon River was also once pious and free flowing.

Monsoon rainwater collected at 'Purkatanda' village flows as a stream, i.e. Kaluwalakhol, which carries crystal clear waters from Shivalik mountain range, at forests of Kamaalpur village. Irrigation department has also constructed two small check dams in the forests here to collect water. About 90% of Hindon's water comes from this stream and the rest is contributed by stream of 'Purkatanda'.

Under the issued order of National Green Tribunal, large numbers of hand pumps have been removed from villages located near Hindon and its tributaries. Once these rivers were the reason to cause communities reside near them but now their condition is forcing them to evacuate. The pollution level has become so high making it totally untouchable but even hard to stand nearby. According to aged residents, once these waters were so clear that one could look at a coin lying under water but today one cannot see one's own palm lines when river water is taken in hand.

II. Threats to Watershed

Four main threats in Hindon are non-treated wastes of industries, city sewage, agricultural chemical runoff, and drought (& dried river bed).

A. Industrial Waste Disposal: There are about 316 manufacturing industries &factories that are situated on/near banks of Hindon and its tributaries in all seven districts. Apart from these, 7 industries (5 Pulp and paper & 2 Sugarcane mills) are located near Sheela River's bank which flows in Haridwar district, and merges with Kali WestRiver which finally merges into Hindon. Hence, total of 323 industries pollute Hindon directly/indirectly with their non-treated liquid and solid wastes.



Hindon River outside Saharanpur city, flowing with unfiltered wastes of Star Paper Mill.

B. **City Sewage**: According to Uttar Pradesh Water Dept, **1215.43 MLD** of sewage is produced from Saharanpur, Muzafarnagar, Budhana, Baghpat, Meerut, Ghaziabad and Noida city and transported through 68 drains. About **450 MLD** of

this sewage is being filtered in different city systems but rest **765.43 MLD** is unfiltered due to unavailability of sewage treatment system. All of it is disposed in Hindon River and its tributaries.

C. Agricultural chemical run off has poisoned Hindon River, its tributaries, and underground water of nearby villages. But some farmers still use these polluted waters for irrigating their crops due to unavailability of alternate water source; the presence of banned Persistent Organic Pollutants is in field soil and crops. Also the field soil is losing its growing power at a greater speed which pushes the small scale farmers to use more and more of chemical manures and fertilizers in the field and on crops.



Hindon River at different locations in different conditions

D. Drought & Dried River bed: There are many stretches where the river bed has dried up and does not witnesses any water flow. This is the result of lesser rainfall every year. Conditions of drought have been reported in extreme summer months in the villages, since past few years.

This has also resulted in depleted ground water levels. The river beds are dried and until the water is brought back on surface, it is nearly impossible to revive it.



Dried River bed of Hindon at various location

III. Action Plan:

A. <u>My Hindon – My Initiative</u> is a social initiative with aim towards protecting Hindon and communities residing on its banks. Its objective is to bring these communities together to spread awareness and protect their rights with the help of Uttar Pradesh government. It has focus on efforts of local community activists and common people towards the river. The community residing on the banks of the river has shown eagerness in the initiative.

My Hindon – My Initiative is an ongoing program initiated by NEER to rejuvenate the Hindon River. Under this volunteer program, Hindon's true origin was located in year 2017 through a detailed journey into Shivalik mountain ranges near Mohand region of Saharanpur district.

Already one such clean up drive has been undertaken successfully last year. More than a thousand volunteers came up from nearby villages to help the My Hindon – My Initiative team along with activists from the Meerut city to help clean out about 15 kms (9 mi) stretch of Hindon River where water flow was blocked due to standing bushes and other garbage. It took around 50 days to finish the job.



River clean up under My Hindon – My Initiative

Number of meetings has been undertaken by the team to reach out to different sectors of the public to raise awareness towards Hindon's current situation.



Meeting of My Hindon – My Initiative

- B. <u>River Clean Up</u> A quarterly river cleanup program will be organized in selected villages of all eight districts. This activity will be about much more than picking up trash. It would motivate the community to demonstrate their desire for clean water and healthy river. It would provide an opportunity to learn about the importance of Hindon River and would bring the community to accomplish something vital and worthy.
- C. <u>Plantation</u>: Engage in plantations wherever the banks are baron and river beds are dry.
- D. <u>Control & Restrict Pollution</u>: Restrain industries from further dumping their wastes into river by reaching out to Pollution control board and demanding stricter enforcements of laws. Community demonstrations will also be employed if needed.

City departments will also be questioned and sewage filtering STPs of correct capacity will be demanded. Litigation, wherever required, will be raised.

- E. <u>Organic Farming promotion</u>: Through our ongoing organic farming techniques and irrigation processes, we will aim at reducing chemical usage in the fields and increase usage of organic rich manures produced by the farmers on their fields itself.
- F. <u>Water Quality Monitoring</u>— The monitoring of the river water quality would be undertaken by a team of Principal Investigator and a Co-Investigator, who will be hired on contract. Laboratory tests will be employed to get accurate results.

A series of fourteen water samples (two from each district) would be taken twice from the river at appropriate locations; seven ground water and seven surface water samples would be taken from appropriate locations in villages. Both groundwater and surface water sampling would be done during May/June (pre-monsoon season) and November/December (post monsoon season).Samples would be sent to an approved laboratory where they would be analyzed for a range of parameters according to standard specified laboratory practice.



