

Site visit report
for
Rejuvenation of Dhamola &
Paondhoi rivers
(Saharanpur, Uttar Pradesh)



Date of visit: 3rd & 4th February 2025

Site Visit/ Trip Title:	Rejuvenation of Dhamola and Paondhoi rivers in Saharanpur, Uttar Pradesh	Location:	Saharanpur, UP
Date/Time:	03.02.2025 & 04.02.2025		
#	Agenda items for the site visit / trip		
	1. To examine and inspect the existing condition of rivers Dhamola and Paondhoi in Saharanpur, Uttar Pradesh. 2. Examining the existing Ghats and other infrastructure next to the river edges for assessing the scope of improvement. 3. To understand the challenges of pollutant inflow and its sources in the rivers with the help of local administration such as Nagar Nigam, Jal Board, and Irrigation Department.		

Site Visit / Trip Attendees		
#	Organization	Name
1	NMCG	Mr. Dheeraj Joshi, Director, NMCG
2	NMCG	Ms. Kriti Varma, Project Officer, NMCG
3	PMC	Mr. Alok Srivastava (Ground Water Management Expert)
4	PMC	Mr. Harish Kumar Mahavar (Small River Rejuvenation Expert)
5	KPMG	Ms. Nidhi Dandona, RFD expert

1 Introduction

1.1 Background and purpose of the visit

As per letter received dated 31.01.2025 from Shri Manish Bansal, District Magistrate, Saharanpur, U.P. inviting NMCG team to visit Saharanpur to inspect & examine the rivers in the city on 3rd & 4th February 2025. The following challenges were requested to be addressed:

1. Removing sludge and legacy solid waste from the river basins to improve water flow and quality. The silted course causes annual urban flooding in Saharanpur city.
2. Tapping the municipal liquid waste
3. Biological remediation of water
4. Developing river fronts at available sites
5. Educating citizens and empowering local bodies towards sustainability of rivers.

The Small River Rejuvenation (SRR) Team from NMCG visited Dhamola & Paondhoi rivers in Saharanpur on 03rd and 04th February, 2025 for site survey and interacted with the Local Administration to discuss the emerging issues and suggest the Action Plan in the above mentioned matters.

1.2 Key officials met during the site visit

1. Shri Manish Bansal, District Magistrate, Saharanpur, U.P
2. Mritunjay, Additional Municipal Commissioner, Saharanpur
3. Shri Ram Babu, Executive Engineer, Irrigation Department, Saharanpur
4. Shri Puroshotam, General Manager, Jal board, Saharanpur
5. Shri Alok Srivastava, Executive Engineer, Municipal Corporation,

Saharanpur

6. Shri Ravi Pratap Singh, Project Manager, UP Jal Nigam, Saharanpur

2 Overview of the site visit/trip

2.1 Technical details of the site visited

Dhamola River - Saharanpur, UP

The Dhamola River is a significant waterway in Saharanpur, Uttar Pradesh, India. Historically, the region encompassing Saharanpur was characterized by dense forests and marshlands, traversed by rivers such as the Paondhoi, Dhamola, and Ganda Nala. These rivers contributed to the area's humid climate and frequent malaria outbreaks in earlier times. In contemporary times, the Dhamola River serves as a tributary to the Hindon River. The Paondhoi River, originating from a spring in Sanklapuri village near the Shivalik foothills, flows through Saharanpur city and empties into the Dhamola. Unfortunately, urbanization and industrial activities have led to significant pollution in these rivers. Untreated wastewater from municipal sources, tanneries, and slaughterhouses is frequently discharged into the Paondhoi and Dhamola rivers, degrading water quality and rendering them unfit for bathing.

The Paondhoi River - Saharanpur, UP

The Paondhoi River, originating from a spring in Sanklapuri village near the Shivalik foothills, flows through Saharanpur city in Uttar Pradesh, India. Historically, it served as a vital source of drinking water for the city. The river's name, "Paondhoi," is derived from the practice of travelers washing their feet in its waters upon entering the

city. Over time, urbanization and industrial activities have led to significant pollution in the Paondhoi River. Untreated wastewater from municipal sources, tanneries, and slaughterhouses is frequently discharged into the river, degrading water quality and rendering it unfit for bathing. Efforts have been initiated to address these environmental challenges. The Paondhoi Bachao Samiti, a local organization, has been actively advocating for the cleanup and restoration of the river. Their initiatives have included public awareness campaigns and proposals for comprehensive riverfront development under the Smart Cities Mission. The proposed plans aim to widen the riverbanks, deepen the riverbed, and implement effective waste management and sewage treatment systems to rejuvenate the river ecosystem.

Both the rivers hold historical significance and continues to play a crucial role in the environmental and cultural landscape of Saharanpur. Ongoing efforts to restore and protect this waterway are essential for the well-being of the local community and the preservation of the region's natural heritage.

2.2 Details of visit- Agenda

ED (P), NMCG directed the Small River Rejuvenation team to visit the proposed sites to assess the current situation of Dhamola and Paondhoi rivers at Saharanpur, for evaluating the need, feasibility, and further action to be taken for the proposed project. The SRR team visited Saharanpur with the following objectives:

- a. To examine and inspect the existing condition of rivers Dhamola and Paondhoi in Saharanpur, Uttar Pradesh.
- b. Examining the existing Ghats and other infrastructure next to the river edges for assessing the scope of improvement.

- c. To understand the challenges of pollutant inflow and its sources in the rivers with the help of local administration such as Nagar Nigam, Jal Board, and Irrigation Department.

2.3 Project background

As per the email received by DM, Saharanpur on 31.01.2025, two of the significant rivers of Saharanpur namely Dhamola & Paondhoi are severely polluted from solid and liquid waste from the city. The two rivers merges in the city and further confluences with Hindon River, which ultimately falls into the Yamuna River. It was brought to our knowledge that Dhamola & Paondhoi are seasonal rivers which are facing the issue of siltation as well alongside heavy pollution. He also requested NMCG to provide technical expertise by sending a resource team which can help District Administration to conduct a survey of the rivers and draft a DPR for rejuvenation of these rivers and beautification of Ghats. He also mentioned that such a project will go a long way to further the objectives of NMCG in protecting the ecology of Rivers Yamuna and Ganga as river Hindon is an important tributary of Yamuna. The following concerns regarding the rejuvenation of Dhamola & Paondhoi rivers were raised in the e-mail by DM, Saharanpur:

1. Removing sludge and legacy solid waste from the river basins to improve water flow and quality. The silted course causes annual urban flooding in Saharanpur city.
2. Tapping the municipal liquid waste
3. Biological remediation of water
4. Developing river fronts at available sites
5. Educating citizens and empowering local bodies towards sustainability of rivers.

2.3.1 Key Observations during the visit & report

1. Paodhoi & Dhamola are seasonal rivers and merging with the Hindon river downstream. Hindon is tributary of Yamuna, therefore for the rejuvenation of Paondhoi and Dhamola is of utmost importance.
2. Both the rivers were found to be silted during the visit of 3rd and 4th Feb 2025.
3. There was an existing STP of 38 MLD in the city, however it was found to be incapable of handling the current load of about >100 MLD of Saharanpur.
4. Under Namami Gange program, another STP of 138 MLD is proposed to be constructed. The site for the same has been identified and is being cleared for construction as found during the visit on 4th Feb, 2025.
5. The proposed interception and diversion network along the riverbed, need to be assessed by the Municipality, so as it can be laid on the river bank.
6. A number of chemical, pulp & paper, and other industries exist in the area which discharge effluent into the river. However, it was informed by the Municipality that the industries are complying by the norms through ETPs situated in their respective industries.
7. River Dhamola and Paondhoi are under a major threat because of water pollution in both the rivers.
8. The sewage and storm water both are flown into the rivers without much treatment.
9. A reduction in the aquatic life was observed once the river enters the city.

2.3.2 Key Issues identified

1. Karegi nalla, with a huge inflow of solid waste in the centre of the city, is a major concern. It is the confluence point/sangam of Dhamola and Paondhoi rivers. Karegi nalla has been proposed to be tapped under the proposed 138 MLD STP under the Namami Gange program.
2. Both rivers were found to be silted, particularly in the lean period.
3. There is presence of huge amount of solid waste in the rivers that adds to the water pollution.

2.3.3 Way forward

✓ Data acquisition:

Our team has requested the various agencies to share the following data:

- Details of existing STPs and drainage system of both the rivers.
- Groundwater data, rainfall & water quality reports.
- Water related data – depth, water flow in peak season and lean season of Dhamola and Paondhoi.
- GIS map of land use and ward boundary and other GIS layers of Saharanpur smart city.
- Any other existing survey or DPR already done for the river, river bed, wetlands, ponds, gardens or study of blue green networks.
- Details of the existing Ghats, encroachments & ownership details.

- Revenue records/ maps or Topographical survey whatever is available to start the ground work.

✓ **Detailed study:**

- A detailed scientific study is required considering the facts that all the Municipal Liquid Waste (MLW) of present and future will be taken care of by the proposed 138 MLD STP under Namami Gange scheme. However, the water quality as well as quantity of the Dhamola and Paondhoi rivers should be maintained in a comprehensive manner.
- The e-flow needs to be maintained throughout the year that may require detailed scientific studies including catchment area treatment, detailed topographic survey, and hydrological studies, groundwater studies with numerical modelling for the baseflow enhancement and water availability along with comprehensive water quality parameters, socio-economic aspects, and biodiversity assessments and preparation of DPR for the above interventions for an effective and efficient rejuvenation of Dhamola and Paondhoi rivers.

✓ **Possible interventions:**

- A riverfront may be developed near Haqikat Nagar bridge by reducing the solid waste in the river, thereby maintaining and making it a tourist attraction.
- A constructed wetland at Madh gaanv needs to be redeveloped in order to treat the 1 KLD water discharging into the river.

- A natural wetland may be constructed at Devendra Nagar with relevant species of plants given the ample space available in the area.
- The existing Ghat at Baba Laldas Bada may be renovated by treating the water through Nature-based Solutions (NbS) alongwith the maintenance and further beautification of the Ghat.

2.3.4 Way forward

1. A detailed Scientific study needs to be conducted for a comprehensive assessment of the water quality and quantity along with biodiversity and socio-economic aspects.
2. DPR of the natural wetland at Devendra Nagar, riverfront development at Haqikat Nagar bridge, and Baba Laldas Bada Ghat development for immediate interventions may be taken up.
3. There is need for fencing on all edges of river to prevent the entry of the solid waste into the river. This will keep a check on the encroachments also.
4. A water quality test should be conducted to know the exact condition of rivers & type of pollutants.
5. People's participation in the river rejuvenation has to be designed for long term effectiveness like involving schools, colleges, NGO's, rotary club or other likeminded groups etc. to participate in the river rejuvenation with the city authority.

6. Creating more riverfront edges for the city to use as a public space with a green & blue network. The connections next to the edges can be made as shortcut to the green and blue network for pedestrians.
7. Recharge the ground water through wetlands and water recharge zones, as a resource for the city's water table.



Team from Delhi with Shri Manish Bansal, District Magistrate, Saharanpur U.P. at the Sangam of both rivers



Municipality team & Jal board team at the river side with the NMCG team



Discussion of key issues at Nagar Nigam, Saharanpur



Holy Ghats at Paondhoi



Dhobi Ghat next to the STP



Constructed wetland situated in Madh village



River before entering the city- close to the source



Haqikat nagar road - view from the bridge



Existing Holy Ghats at Baba Laldas Ka Bada Temple



Devendra nagar