



# MY RIVER JOURNEY

*(Mera Nadiyon ka Safar)*

I was quiet young when I had decided I wish to dedicate my life towards society & environment. It will require tremendous efforts for upliftment of Water resources and environment. With a rural background, I had the opportunity to experience the effect of river water and ponds on the lives of rural communities. So I decided to work towards conservation of our natural water resources like ponds, johads and rivers and also promotion of organic ways of farming. The last decade has taught me innumerable aspects of revival of river streams; therefore I have been able to devise an actual model needed for reviving a small/big river stream. We developed this model and have put it to good use for reviving regional rivers.

## **Raman River Revival Model**

Raman Model has been prepared by over all hands on experience gained in groundwork carried out in last decade by Raman Kant himself. Two ways have been suggested which are on fast effective and long effective basis. By following this model methodology, any river body can be revived in 5-10 years of time. It will affect the lives of community residents positively. This model paves the way for revival of the river along with important steps undertaken in the 1km area of both sides of the stream.

### **Five fundamental rules of Raman Model**

1. Management of Liquid and Solid Wastes
2. Community Awareness
3. Dense Plantation
4. Ponds Conservation
5. Chemical Free Farming

- **Management of liquid and solid wastes**

- ***Aao chalo kuda niptaaye***

Urban cities contribute highly in waste production than rural communities. The cities and towns will have to filter their solid and liquid waste disposals and on other hand industries should also be checked on their unfiltered waste disposals in river streams. These actions can only be guaranteed through government's strict actions. An E.T.P should be installed in every industry and should be running properly which leaves no waste unfiltered. Similarly correct capacity of S.T.P. should be running in every city and town.

- **Community awareness**

- ***Haath badhenge-Kaam banenge***

In the one kilometer area at both sides of the river, awareness shall be spread in the villages, towns and cities. This can be accomplished through activities like Nukad-natak, wall logos, school competitions, journey from one village to another, Nukkad meetings and public awareness discussions. The motive of these activities shall be reflection on reasons of river pollution and what should be done to reduce those.

- **Dense Plantation**

- ***Gaon-gaon vriksha-ropan***

It is extremely helpful if dense plantation is done at banks of river within one kilometer of area. Such tree saplings shall be planted which have stronger roots to hold the river water and prove as barrier to the river. The plans of 'baghs' farm should be promoted by government around the river banks so that maximum farmers can develop their lands into dense farms, which will aide in increased rainfall in coming years and increasing ground water levels up.

- **Ponds Conservation**

- ***Gaon-Gaon Talaab***

When the ponds in the villages will be filled with clean water it will directly aide in increased ground water levels and reducing the pollutants present in it. The increased level of ground water will directly aide in flow of river stream as surface water and ground water together provide the river flow. Therefore it is important that all ponds (as marked in state records) shall be revived again and filled with clean waters in all villages and towns.

- **Chemical Free Farming**

- ***Pratyek fasal hogi rasaayan-mukt***

It is extremely important that usage of chemicals in agricultural lands will have to be extensively reduced, especially in area falling under one kilometer of the river sides. This can be achieved through practice of organic farming techniques which will aide in increasing soil quality and nutrient quotient of crops produced. Aftermath of "Harit Revolution" has resulted only on increased chemical usage, which has added these chemicals in the ground water as well. Chemical free agriculture will reduce these chemicals in the ground water table and run-off which flows into the river itself at irrigation or rainy time.

**Note:** If about 80% of the above listed fundamentals are worked upon, any river stream can be brought back to its original glory. Hence, to apply these five fundamentals, a detailed plan specifically for the River body will be devised.

**Plan:** To put the Raman River Revival Model into action, "Meri Nadi – Meri Pehel" program will be put in action first, which puts in all the five fundamentals into systemized process on ground.

**Meri Nadi - Meri Pehel:** It is a social initiative started by NEER Foundation with aim towards protecting Rivers and communities residing on the banks. Its objective is to bring the communities together to spread awareness and protect their rights along with efforts of the governments. It has focus on efforts of local community, activists and common people towards the river. All the actions taken undertaken in this initiative are coordinated with efforts from community and local authorities. Any person can become a part of this initiative through his/her active efforts. It is an opportunity to claim responsibility towards one's rivers, environment and act towards it.

**Team:** A central committee comprising of 5 members is formed under **Meri Nadi - Meri Pehel** initiative. In every district where the river flows, a district committee of 5 members is formed. In every village, within 5 kms of the bank of the river on either side, there is a five member village committee. On central level, there is a two member media committee. District and Media committee are selected by central committee and the village committee by respective district committee. All members of these committees shall be social activists who are concerned about environmental issues, subject specialists and/or retired officers.

**Volunteers of Meri Nadi - Meri Pehel:** In this initiative, volunteers shall be appointed in the villages located on the banks of River. The volunteer can be anyone, who wishes to act towards benefit of river body. Any volunteer can participate in the initiative and present his/her suggestions/plans to district/central committee. After the committee passes the plan, it can be put into application. A village volunteer will best know what is good for them. They will act as true safe keepers of their rivers when they feel they have an actual role in it. On regular intervals, volunteer programs will be organized to guide the volunteers to be more effective and informed about the recent developments. A yearly volunteer will be mandatory. All fundamentals of the Raman River Revival Model will be applied through support of central, district and village committees. **Some of the goals of the model are as listed here:**

- River water samples will be tested for pollutants presence and quantity. Samples of river surface water will be collected from start on the river, end of the river where it merges into another stream, at each district where it passes (before it enters another district).
- Water samples of ground water will be tested from the villages which suffer at heavily polluted water sources.
- Data will be collected of all the villages falling on the banks of the river.
- Village awareness meets will be conducted in each village to understand the problems faced by residents due to polluted river, so they can be tackled with the community and local authority.
- The farmers will be advised strongly to avoid irrigating their lands with river water. Wherever river's polluted waters are used, the soil and crop sample will be tested, so the extent can be mapped and shared with residents.
- The villages, whose residents will be suffering from serious illnesses in high number, shall be studied through door to door survey. Also safe drinking waters will be made available with the help of local authorities.
- Awareness program will be conducted in schools of the villages located near river's bank.

**Note:** It is seen that central and state governments are already running various schemes for rivers, water, villages, agriculture, health and animals. These schemes are running at district, Tehsil and Block level, but still the rivers are getting heavily polluted. Four reasons can be mapped behind this situation. Firstly that maybe the schemes are not running effectively on the ground; secondly there may be inadequate awareness among the targeted beneficiaries, thirdly being ineffective processing of the concerned departments and lastly, corruption.

## Awareness mediums of *Meri Nadi – Meri Pehel*

Different mediums will be employed to effectively aide in spreading awareness about the River work. The benefits of Facebook, web portal, Pamphlets, Posters, newspapers (Hindi, English, regional language) stickers, banners, wall logos, documentary, etc will be harnessed to create awareness among public.

## Efforts for Hindon River

When we initiated rejuvenation work for Hindon River in year 2006, there were not many resources available. Neither any proper information about this river was available. Not even a map of the river stream. But this was known that dark polluted waters are getting mixed in Hindon water and villages are suffering from consumption of these waters and serious illnesses are rising in them.

Before starting the work plan, it was required that study of whole of the river body must be conducted. Therefore, Raman toured and studied the whole Hindon stretch for 3 times. This greatly helped in understanding the river flow, locations, where other smaller streams merge in it, drains which flow, and others. Through this study, Raman made a detailed map of Hindon River, which is still being referred to by all government and non – government organizations. First technical study of Hindon was completed in year 2006 itself. The Raman Model for river revival has been devised following the course of efforts during this period.



## Introduction to the Hindon

In Western Uttar Pradesh, Hindon River originates from Shivalik mountain ranges in Saharanpur district; passes through many important districts of Western Uttar Pradesh namely 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. There are about 865 villages situated near Hindon and its tributary rivers. There are two tributaries of Hindon Kali west and Krishni Rivers. Both of these rivers originate from Saharanpur. Kali (west) flows in eastern side of Hindon for about 145 kms before it merge into Hindon near Pithlokar village in Meerut district where as Krishni which flows in western side of Hindon for about 153 kms before merging into Hindon. There are few smaller streams which merge into Hindon near its origination namely Naagdoi, Dhamola and Paavdhoi. The origination of Hindon is formed in the Shivalik Mountains where streams like Handakundi, Peerwali, Sapolia, Dujala and Stroti together form Hindon.

## Hindon & Its Tributaries

S.no	River Name	Origination	Meet point	Length
1	Hindon River	Shivalik mountain range (Village Kaluwala Rai, Dist Saharanpur, U.P.)	Village Tilwada/Momthal, Dist Gautambudhnagar, U.P.	355
2	Krishni River	Darari village, Saharanpur district, U.P.	Village Barnawa, Baghpat dist, U.P.	153
3	Kali River west	Gangali village, dist Saharanpur, U.P.	Village Atali/Pithlokar, dist Muzafarnagar/Meerut, U.P.	145
4	Sheela River	Village Bhagwanpur, Dist Haridwar, U.K.	Village Matauli, Dist. Saharanpur, U.P.	61
5	Dhamola River	Sansarpur village, Saharanpur dist, U.P.	Village Sharakthal/Sadoli Hariya, dist. Saharanpur, U.P.	52
6	Pavdhoi River	Village Shanklapuri, dist Saharanpur, U.P.	Saharanpur city, U.P.	7
7	Naagdev Rau	Village Khothri, Shivalik mountain range, Saharanpur dist, U.P.	Village Ghorki, Saharanpur dist, U.P.	45
8	Chacha Rau	Village Kaluwala, Saharanpur dist, U.P.	Village Kamaalpur, Saharanpur dist, U.P.	18



### Technical study

It took almost 2 months time to conduct the whole technical study of Hindon and its tributary rivers. Around a dozen water samples were collected which have been tested at certified laboratory of People's Science Institute, Dehradun. Through the test results it has been found that this river has turned to a curse for its communities, cities and lakhs of farmers. Presence of heavy metals and chemical pesticides has been found to be in multiples of 100 of the normal content. Starting from Saharanpur up to Gautambudhnagar, no trace of oxygen was found in the river.

## Complete Technical Study of Hindon

The Hindon River originates from the 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 Momthal village in Gautambudhnagar district. It actually starts with filthy drain water containing unfiltered wastes of Star Paper Mill in Saharanpur. The drain water has tested for 0.34 mg/l of Lead & 1.84 mg/l of Chromium which is 34 & 19 times the acceptable norms. From start to end Hindon River receives unfiltered wastes of numerous sugar factories, paper mills and chemical industries. As it flows forward, Saharanpur city's unfiltered sewage is added to it through few drains. A tributary Dhamola also carries sewage which merges into Hindon soon after in Sharakthaal village.

The waters of Dhamola have tested for 1.79 mg/l of Lead & 4.15 mg/l of Chromium. Moving ahead, a drain carrying wastes from sugarcane mills of Titavi meets Hindon. The drain water has tested for 0.21 mg/l of Lead & 5.72 mg/l of Chromium and as soon it flows into Hindon, the numbers increase to 0.28 mg/l of Lead & 6.64 mg/l of Chromium. It is clear that the river water and the drain are polluted with heavy metals. Similar situation is seen when Bajaj sugar mills drain flows into Hindon. The drain water has tested for 9.43 mg/l of Chromium and no trace of Lead but as soon it flows into Hindon, the numbers increase to 0.04 mg/l of Lead & 12.25 mg/l of Chromium. It is proved now that the industries are not filtering their wastes and disposing it in the rivers.

West Kali river originates from east of Hindon at Dhanakpur village. It flows from Saharanpur and Muzafarnagar district and meets the Hindon at Pithlokar village of Meerut district. After the west Kali River meets the Hindon River, the river water has tested for heavy metals, which have shown presence of 0.92 mg/ltr lead and 5.65 mg/ltr chromium which is 92 and 56 times the normal level. Also present are banned pesticides such as Heptachlor Epoxide and Phiperanil. The Krishna river originating from west of Hindon in Kairi village of Saharanpur itself, is the most polluted river. This river has dried up from its originating point to the Nanota town. The Uttar Pradesh govt. has a sugarcane mill and its distillery at Nanota from where the unfiltered wastage initiates the Krishna River. As the river flows, the wastage and sewage of industries of Charthawal, Thanbhawan, Sikka and Shamli, is dumped into it. At the end, the heavily polluted Krishna River dumps all of its wastage in the Hindon at Barnawa village. The water has heavy metals, 0.12 mg/ltr Lead and 3.50 mg/ltr Chromium and also banned POPs namely Heptachlor, Heptachlor Epoxide, Aldrin and BHC.

After Barnawa the Hindon River pollution rises again with Sardhana paper mills drain adding unfiltered wastes. Here the resulting river water has also been tested, in which 0.153 mg/ltr Lead, 4.84 mg/ltr Chromium and 0.005 mg/ltr Cadmium has been found. After that Sugar mill of Kinauni discharges its unfiltered wastes through a drain into Hindon, which increases the levels of heavy metals in river water. Water samples have been collected from Baleni, Mohan nagar (Ghaziabad), Momnathal and other places which have tested for higher quantities of heavy metals presence.

The canal flowing from Hindon River at Mohanangar Dam carries 0.145 mg/ltr Lead, 4.53 mg/ltr Chromium and 0.016 mg/ltr Cadmium. This canal meets Yamuna River at Kalindi Kunj dam. From the origination and merging point of Hindon, all the chemical pesticides and fertilizers used by farmers on their fields, gets in the river in some form. Alongside unfiltered wastes of numerous industries, presence of pesticides has also been found in the river water. The level of banned POPs in river water has been detected to be 2000 times!

In drain water of Star Paper mill, levels of Heptachlor, Fipronil and BHC (Gamma) have been found to be 0.65, 0.28 and 0.67 mcg/l. Waters of Dhamola river have tested for BHC (Beta), Heptachlor Epoxide, Fipronil and Aldrin in levels 2.24, 2.82, 1.4 and 3.36 mcg/l. Water sample Hindon at titavi have BHC (beta), Heptachlor Epoxide, Fipronil, Aldrin, BHC (Delta) and Indo sulphate in 0.96, 0.42, 2.6, 0.76, 2.9, 2.02 and 0.26 mcg/l levels. Hindon river samples from Budhana have BHC (Gamma), Heptachlor, Fipronil, Indosulphan, Aldrin and BHC (beta) in 0.67, 1.8, 1.6, 1.4, 2.46 and 5.7 mcg/l. After Kinauni sugar mill drain flows into Hindon, the river water has Heptachlor, Heptachlor Epoxide, Fipronil and BHC (Delta) in 0.86, 0.66, 0.82 and 1.2 mcg/l. Just before this mill, at kalia village, the river water tested only for Heptachlor Epoxide in 0.34 mcg/l. Before the Hindon enters Yamuna waters, it has been tested for BHC (alpha), Heptachlor Epoxide and Aldrin in 0.52, 0.32 and 0.32 mcg/l. After it merges with Yamuna, the waters tested for Indosulphan II, BHC (alpha), Heptachlor and Fipronil in 0.122, 5.05, 1.2 and 0.22 mcg/l.

The river waters of Hindon and tributary rivers are flowing with extreme pollution which has seeped into groundwater tables of hundreds of villages. The hand pumps are throwing up heavily polluted waters which are the only source of drinking water in those communities. Samples from handpumps of Simlana, Bhanera Khemchand, Chandnamal (Saharanpur), Barnawa (Baghpat), New Hindon colony & Arthala (Ghaziabad), Saifipur & Momnathal (Gautambudhnagar) have been tested at laboratory of Center for Science & Environment (CSE) New Delhi.

The water samples have tested positive for heavy metals such as Lead, Chromium and Cadmium along with harmful pesticides Linden, Hexachlorocyclohexane (HCH), Indosulphane and chlorpyrifos. Linden pesticide has been found in variations of multiples of between 3 to 28 times. According to India standard bureau, 1991 rule, level of Linden should not exceed 0.0001 mg/l but except Chandnamal village, all other 11 village samples have higher quantities of it. In a sample from private handpump of Bhanera Khemchand village, the level of Linden has been found to be 0.0028 mg/l. Linden is a very dangerous pesticide which harms a human body in two ways, one it increases body temperature quickly and two, it affects the liver and kidney. Children can be cancer affected since birth and Women have higher risk of breast cancer. Linden also affects animals by causing cancer, liver and lung diseases.

HCH is listed in banned Persistent Organic Pollutants of above 100 countries, which has been found in eight water samples. It affects the human body by disturbing neuron system, increasing risk of cancer in human body. Children and animals are adversely affected by it. Indosulphane is also dangerous pesticide which causes skin ailments, impotency, neuron disorders and cancer. It has been found in many samples. In a sample from private handpump of new Hindon colony, the level of Indosulphane has been found to be 0.0004 mg/l. In a private handpump sample from Chandnamal, level of lead has been found to be 341.66 PPB (Parts per billion), which should not exceed 50 PPB. The presence of high levels of Lead in drinking water source is the alarming reason behind increasing number of cancer cases in these villages. This water is being consumed to fulfill the thirst, but is proving to be taking lives. In this scenario, less water intake looks better, even though doctors suggest one should drink lots of water daily.

Numerous organizations in world are working towards safer drinking water availability for all, but residents of these hundreds of villages on banks of Hindon and tributary rivers are being deprived of their basic rights. In a country like India, where rivers are so famous, lakhs of people suffer at hands of polluted water drinking source, is unfortunate.

Due to presence of heavy metals and chemical pesticides in groundwater table, adverse effects are being witnessed by communities. A health research study has been conducted of villages Bhanera Khemchand, Simlana, Chandenamal, Dhakhori, Dabal, Barnawa, Nekpur, Sarfabad, Makrera, Arthala, Saifipur and Momnathal. From every village, medical information was collected from 25 households each, amounting to total 671 families from these 12 villages. The number of persons went upto 5661. The villages of medical research study were kept same from where the water samples had also been taken. In last 5 years, total of 142 deaths due to water borne diseases have been recorded. Currently thousands of residents are suffering from heart, blood pressure, brain fever, neuron, Paralysis, cancer, skin ailments and other serious diseases. These 671 families spend about 2,71,250 INR on medical expenses every month. It amounts to a considerate part if their incomes. Some villages are suffering than most where news of someone dying rises every few days.

These villages live in a fearful condition, because they have no source of safe drinking water. The villages where the pollution hasn't reached much are worried about the future of their children. They have no other source. Some people get their handpumps installed on deep bores which also fails in sometime. Then when left with no choice, some residents decide to leave the village for good. The village communities are filled with rage and anger for the polluting industries and their government who is doing nothing for their rightful expectations.

#### **Important notes:**

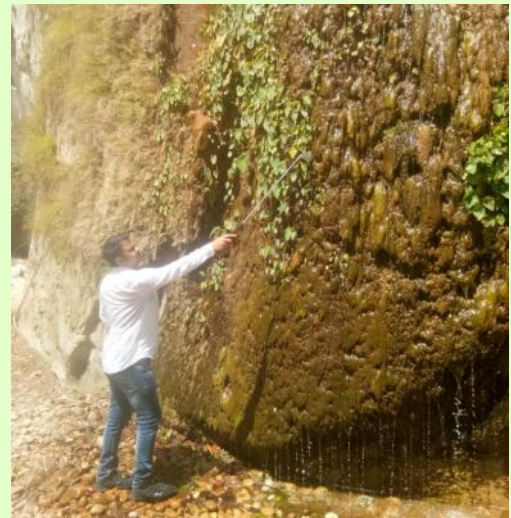
- **The polluted waters have turned kitchen utensils into yellowish color tone.**
- **Approx. 360 handpumps are not being used anymore.**
- **Difficulties in marriage.**
- **Improper food and tea preparation using these waters.**
- **Even clothes are turning yellowish in color when washed.**
- **Financial issues at rise.**
- **Increase in family disputes.**



## Actual origin place of Hindon River found

Since 1950s, main tributary of Holy Yamuna River, Hindon River was supposed to be originating from forests of Pur ka Tanda village in Saharanpur village, but new discovery has been made following recent confusions on its originating point. According to British gazetteer and National Institute of Hydrology, Roorkee, the actual origination point of River Hindon is under mountains of Shivalik ranges. The water collects from waterfalls in the dense forest and flows to be the river Hindon. This origin point falls under Saharnapur district, Tehsil Behat and Block Muzafarabad and region Kaaluwala. This water trail is known as Kaaluwala khol and Guleria by residing Van-Gujjars here. The water source from Pur ka Tanda village meets Hindon River at Khajnavar in Saharanpur district. This acts as support to Hindon River only in monsoons when it is brought alive by rainy water.

On 28 March 2017, the origin place of Hindon River has been found by team of NEER Foundation. This place is also similar as indicated in gazetteer as it shows the origin of Hindon River at Shivalik range situated at borders of Uttarakhand. On this basis, this discovery was led with help of satellite mapping. This origin point falls under Saharanpur district, Tehsil Behat and Block Muzafarabad and region Kaaluwala. At this point, there is water reservoir at the top of mountain range from where water flows whole year. In rainy season, water level increases. At this place this is known as *Barsani jharne*. A team of NEER Foundation visited the new found origination again on 12 April 2017.



When the team started their journey to find about the origination of the river, they reached Mohand village from Chuttmalpur (dist. Saharanpur) towards Dehradun. At the Check post in Mohand, they entered the Shivalik forest range and after around 10 kms another forest check post came. At the right side from this post, the team went forward entering Hindon River bed and covered another 5 kms by jeep but later 3-4 kms had to be covered on foot, to reach the water fall. The water was clean and came from waterfall of height about 50 feet. The mountain is covered with green grass and moss.

There is also a reservoir in the Hindon bed which is covered from top is about 10 feet deep. It is filled with clean water and numerous fishes. Different kinds of birds, reptiles, buffaloes, goats and other forest animals are seen during this journey. This forest is also home to leopards. At both sides of Hindon River, huts of 'van – gujjars' can be seen at some distance. They live here along with their families. Water from the Running River and stable spots was tested to be 250 – 280 TDS levels and pH value of 7.5 – 8.0. The river bed is surrounded by tall mountains and Guler trees.

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On request of NEER Foundation, Hindon Udgam Yatra was undertaken on 05 August 2017 under leadership of Dr. Prabhat Kumar (Former Commissioner, Meerut and President, Hindon committee, Uttar Pradesh Govt.) and Mr. Deepak Agarwal (Commissioner, Saharanpur and Vice President, Hindon committee, Uttar Pradesh Govt.). The team consisted of Ms. Anita Singh (Advisor, Ministry of Water Resources, River Development and Ganga Rejuvenation, GOI), D.M. Saharanpur, District Forest Officer Saharanpur, Secretary of Hindon Committee Mr. H.N.Singh and few social activists.

Afterwards a research committee was formed through Dr. Prabhat Kumar by efforts of NEER Foundation, which visited the Hindon River & its tributaries along with their origins, who afterwards suggested for their betterment. Specialists of Irrigation dept, Forest dept, Revenue dept and others are members of this committee.



## Suggestions of the Committee

1. Develop Barsani Fall for Eco – Tourism.
2. Conduct needs assessment to bring waters of Sahansh-dhara to Naagdeh River as they are only 2 kms apart.
3. A detailed and specific map should be constructed where Hindon is shown with its tributaries.
4. A contour plan of the all 7 districts should be made where Hindon or its tributaries flow.
5. A small booklet should be composed where information about origination, length, flow and merging of the river & tributaries should be listed along with information about the various discharges it receives.
6. Boards shall be put up where the Hindon and its tributaries originate and merge.
7. As the stream flowing from Kaluwala is 100 m wide and Pur ka tanda stream is quite small, kaluwala stream shall be declared as the origin of Hindon River and all plans should be based on this fact ahead.
8. The region of the basin of Hindon which starts from mountains at Kaluwala shall be declared as Eco Sensitive Zone. It will aide in betterment of its bio – diversity.
9. Establishment of small dams at Barsani, Andha-Kundi and Dujala coming from Kaluwala Mountains, so that water is available all round the year. This will make sure water flows downstream whole year and all animals have drinking water. It will require need assessment before commencing this project.
10. The Van-Gujjars residing in these forests have stay permit from Mohand Forest Dept. There number runs about 500. As soon as March approaches, they migrate from here to Himachal Pradesh as water and grass for their animals become scarce. They come back in October. There should be a Nirmal Jal school for their kids, as their kids stay behind with one or two male family member. The school can be a weekly arrangement.
11. A Nirmal Hindon research centre can be established at Mohand or Shahjahanpur forest area.
12. A drone survey is required to collect information from Sharagthaal village where Dhamola stream meets Hindon, towards Shivalik Mountains at Hindon's origination.
13. Technical teams from Survey of India, Groundwater dept., Designing wing Irrigation dept., National Institute of Hydrology should conduct a survey of Hindon and its tributaries. Facts and figures about Basin, groundwater level, availability of water all round year, river mapping, biodiversity shall be reported so this can become base for future schemes.
14. Ban on plastic shall be followed strictly.
15. The residents of these areas shall be introduced to Nirmal Hindon program so they become an informed *Hindon Mitr*.
16. To increase water flow in Hindon, a stream from Sahansdhara can be brought to Naagdeh in monsoons. It will aide Hindon through Dhamola.
17. A Nirmal Hindon Bio Diversity Park shall be established in Shivalik range.

## Hindon SEWA – Community and Govt unique confluence

Not Tomorrow but today, not today but now .... With this feeling in July 2017 a decision was made to improve the deteriorating condition of Hindon River. Nirmal Hindon Program was born which in its about one year tenure has made its progress and presented unique combined efforts of community and govt. This whole plan was made a success by important role of Former Commissioner Dr. Prabhat Kumar. The motive behind this program is to bring back Hindon and its tributaries rivers to their original glories through the intervention of community. This is a volunteer program for those who actively want to contribute towards this mission. These rivers have always provided for the communities in one way or another, so it is our responsibility to take its plights in our hands from which they are suffering from last decades. It was wonderful to see the contributing efforts of the community; they did not let the mission down. The discussion was held, plan made and Hindon Sewa was started. On 22 April 2018, the day witnessed first day of Sewa by volunteers from community and govt depts., to make their river pollution free. The Hindon Sewa continued till 22 May 2018.



Hindon sewa program started near Pura Mahadev where it flows. Hindon River marks the division between Meerut and Baghpat districts which flow in east and west side respectively. The drive was simultaneously started at both sides in both districts. About 1500 volunteers accompanied by govt. authorities, Village pradhans, social organization representatives, social activists and political activists from both districts formed the work force behind the drive. Extreme pollution had made the Hindon river stretch unbearable, but the vast dedicated team of volunteers jumped in the waters to remove the wastes, clearing up to 1 km of river stretch on first day itself!

### TEAM

Nirmal Hindon Chairman Dr. Prabhat Kumar, Upper District Commissioner Meerut Satya Prakash Patel, & Baghpat Ms. Annapurna, D.P.R.O Meerut Alok Sharma & Baghpat Hubu Lal, Tehsildar Meerut & Baghpat Nagar Nigam, S.D.O. Panchayat Meerut & Baghpat, DM Office officers & staff Meerut & Baghpat, Village heads & *Patwaris* of Meerut & Baghpat, community volunteers Meerut district namely Rasoolpur, kalyanpur, Kinauni, Karnawal, Uksiya, Daaluheda, Mirzapur, Raasna, Lahoregarh, Aalamgirpur, Jitaula and Kaithwadi; from Baghpat district about a dozen villages including Pura, Manager of My Clean City organization Amit Agarwal and their volunteers, members of Kadam Foundation, members of Nehru Yuva Kendra, Political activist Rahul Dev, Sachin Ahlawat, Sunil Rohta, Budhana executive officer Om Giri heading the nagar palika team, nagar palika teams from Khiwai, Harra, Siwalkhas, Sardhana, Baghpat, Badaut, Pilana and Khekhra, along with nagar panchayats, sweepers of numerous villages of Meerut & Baghpat, large number of Hindon *Mitr*, Doordarshan team headed by Mr. Tumul Kakkad, all amounting to about 1500 volunteers!

**Behind the Strategy** For about 5 kms near Pura Mahadev, Hindon river stretch was at stagnancy condition due to dense *jalkumbhi* plantation. The actual river was nowhere to be seen. Hence it needed to be removed so that the river surface could receive air and sunlight and flow like a river would do. To propose this action, a meeting with different govt. authorities was organized under Nirmal Hindon Program, so the work plan can be strategized. This kind of intervention requires resource mobilization and step by step plan. Along with these, it was decided to work on both sides of the river together which fall in different districts. Every kilometer of the river was divided into 200 m smaller stretches and five teams were designated in both districts. Every team was supposed to work in one 200 m area of river. Required equipment and manpower (govt. & community) was allotted to each team through effective resource mobilization. Every team had about 150 Hindon volunteers, headed by a coordinator.



**Sewa of Hindon Sewaks** Villages Lahoregarh, Mirzapur, Raasna and Pura had arranged for daily meals of the Hindon volunteers. These villages made all the arrangements of food for whole duration. Approximately 200-300 volunteers would benefit from the meals offered every day. The arrangement teams included Rajeev Tyagi, Sachin Kumar, Amreesh Tyagi, Sharanveer Singh and their teams.

**Doordarshan Team** Doordarshan team headed by Mr. Tumul Kakkad covered the whole drive of Hindon sewa so that this unique confluence of communities and govt. reaches out to whole nation. They shot a program on this sewa and telecasted it on the channel. It was showcased along with Sawchta Abhiyan program of our PM Shri Narendra Modi on TV on 30<sup>th</sup> April 2018.

**Ballotbox Team** From BallotboxIndia, an organization dedicated to society, two members of Swarntabh and Rishabh not only volunteered in the sewa but also filmed the event which they have edited into a short documentary on YouTube.

**Inspiration to Ghaziabad & Budhana** Hindon Sewa inspired Municipal Commissioner of Ghaziabad to organize similar volunteering program at Hindon *bairaz*. Similarly Budhana executive officer Om Giri organized Hindon clean up at Hindon stretch near Budhana town on 5<sup>th</sup> May 2018. The team of Upper Divisional officer Bhupendra Kumar, Budhana nagar palika staff, residents and social activists cleaned about one kilometer of the river.

**Pradhan Panchayat** A pradhan panchayat was held on 11 May 2018 with objective to bridge all the villages located on both sides of banks of the river in Meerut and Baghpat to the Hindon Sewa Program. Gram Pradhans, Gram Secretaries and Patwaris of 42 villages of Baghpat and 22 villages of Meerut which fall within one km of the river bank participated in it. Each pradhan was asked to take up cleaning of Hindon River which is in front of their village, assisted by Manrega workers and Nirmal Hindon samiti of the village. Each village which cleans their part of the river shall also manage that it is not polluted again.

**Dense Plantation** Van Mahotsav was celebrated with Forest Dept and civil organizations in which 350 saplings of different tree species were planted on the banks of river. Uptil now, about 30,000 tree sapling have been planted on banks of Hindon and its tributary rivers Kali west, Krishni, Paavdhoi and Naagdeh in Meerut, Saharanpur, Muzafarnagar, Ghaziabad, Gautambudh nagar, Shamli and Baghpat.

**Promotion of Chemical free farming** To reduce the burning of agricultural wastes in this region, which releases high amount of greenhouse gases in atmosphere and reduces soil nutrient, which in turn calls for greater chemical usage in fields to raise crop production, LR compost pits are being established in farmer's fields in partnership with HCL Foundation. We are also making progress in Seed to Market program for farmers to take up organic farming efficiently.

**Public Awareness Program** In the villages located on banks of Hindon and its tributaries, river discussions, Nukkad Nataks, wall logos, Pad yatras are being organized to raise awareness among the communities. These programs will be conducted in all seven districts where the river flows. Some of the villages are Bhanera Khemchand, Simlana, Khaprana, Milana, Ranchad, Kaabdaut, Kudana, Rohana, Barnawa, Balaini, Nekpur, Kalina, Saifipur, Soharkha, Momnathal and Tilwada. A documentary film is also being made.

**Health Camp** In more than a dozen villages namely Khaprana, Milana, Ranchad, Barnawa, Tilwada, Soharkha and others, health check up camps have been organized till date. These have been supported by city and local doctor's team and also teams from P.H.D.C.C.I. New Delhi and IFFCO. This is an ongoing part of the program in which all ages group of residents get themselves checked. Most cases which have come up are for skin, stomach, brain, neurological ailments and cancer. District administration also sends out teams in the villages for conducting the camps.



## Prabhat Bio Diversity Park

At the origination Point of Hindon River in Shivalik mountain forest range, to restore the original bio diversity of the region, a bio diversity park is being developed under Nirmal Hindon Campaign. Almost 100 hectares of the land will be devoted to conserving and growing diverse range of flora and fauna of the region. On the suggestion of the gram panchayats, the park has been named upon Dr. Prabhat Kumar, now former agriculture production officer of the state. The foundation was inaugurated by Padamshree Anil P. Joshi, awarded environmentalist, on 21st December 2018.



This park is first of the future parks planned under this campaign which will be established in the region where Hindon flows, near numerous villages. It will also aid in conserving waters of the streams flowing into Hindon. One more objective of the bio diversity park is to free the fields from *lantana grass* which spreads rapidly, barricading growth of other plants. This is also included in development missions of United Nations. This park falls near Naagdev & Sahansara streams, tributaries of Hindon which is near village Kothri Bahlolpur. Hence, the park is being constructed and maintained with help of gram sabha Kothri Bahlolpur itself.

According to the village residents, more than 3000 types of plants grew in the Hindon region and many small—big animals survived here. But this cycle is now broken and many things are now lost. The technical and resource support will be provided by NEER Foundation and Yamuna Biodiversity Park (nominated by National Green Tribunal). A nursery is being developed in the ground base of the park where saplings of different plants and trees will be grown for plantation in wild. Similar parks will be developed in Budhana, Meerut, Ghaziabad, Shamli, Muzafarnagar, Gautambudhnagar & Baghpat districts.



**Visit of Secretary, Ministry of Jal Shakti** On the request of NEER Foundation, Mr. U.P.Singh, secretary, Ministry of Jal Shakti visited the Hindon and tributary rivers on 2<sup>nd</sup> February 2019, along with officer's team. They witnessed the plight of rivers itself and nearby villages. This team comprised of officers from Namami Gange, Irrigation dept, Jal Nigam and Pollution control board. They visited Barnawa, Pithlokar, Pura Mahadev, Atali and other villages.



**Research study with U.P. Ground Water Board** In year 2017 a team of U.P. Ground Water Board had conducted research on ground water samples of villages located near Hindon and its tributary rivers in which NEER team played a supportive role. Two members of the foundation namely Mayank Malik and Monu Tyagi accompanied the team in their conduct assisting in selecting the village and sample collection.

**Availability of Safe drinking water** We had been pursuing the state government and local authorities for making safe drinking water resources available in around 50 villages which suffer from heavily polluted groundwater table, from few years time. Our organization has been able to provide water filtering systems to each household of two villages namely Dabal & Morkuka with the support of U.S.A. based organization Water Collective. About 400 families of both the villages have received their own water filters. Water tanks are being established in nearly 100 villages situated on banks of Hindon and tributary rivers, which will start receiving safe drinking waters in one year time.

