

ROW team Visits Villages on the Bank of Yamuna River in U.P.

ROW team including local coordinators from the Earth Friends Foundation (EFF) conducted water study and awareness activities in 5 villages of Sirsaganj, District Firozabad, Uttar Pradesh, India. May 19-21, 2023



ROW team from Urawar area

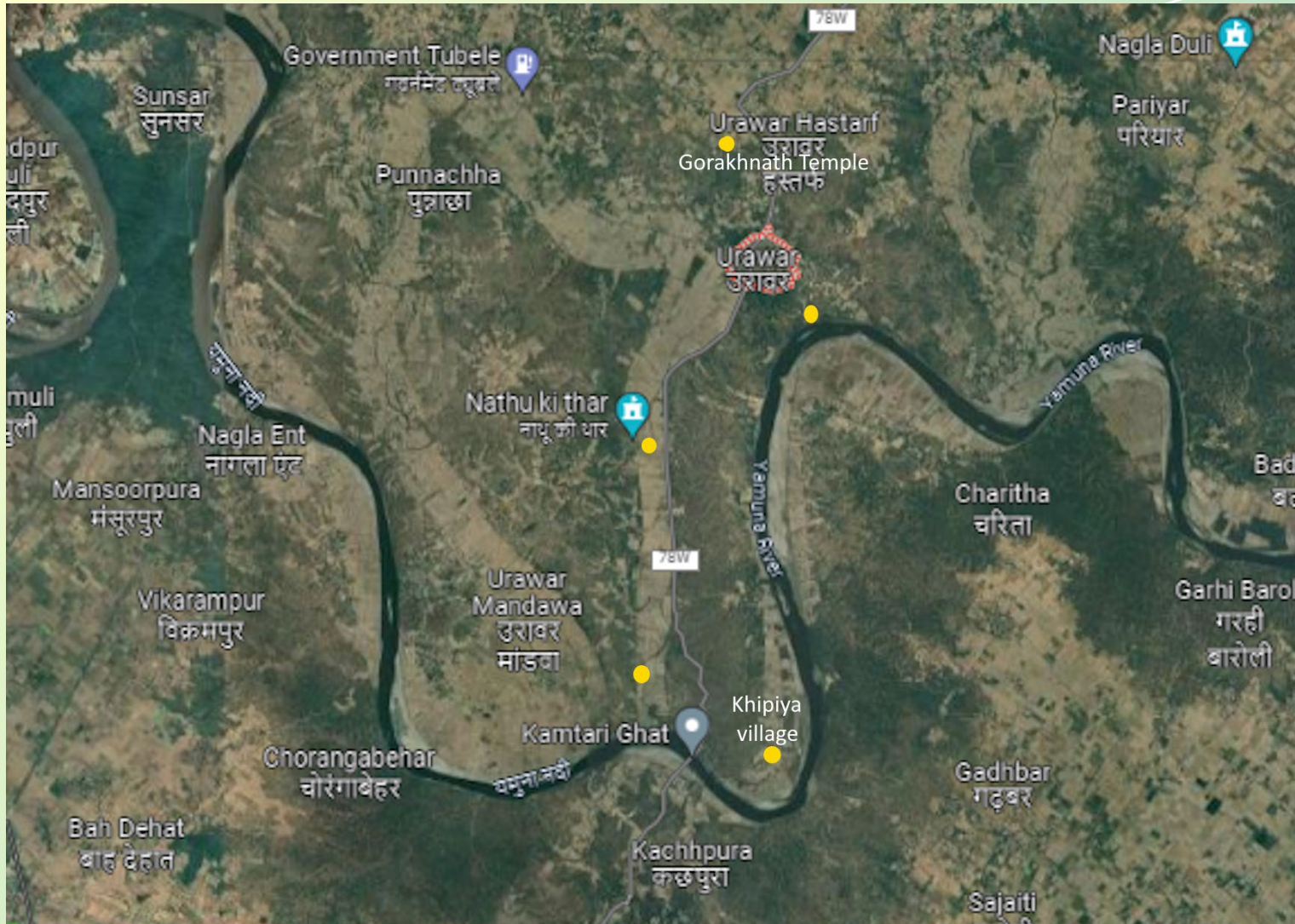
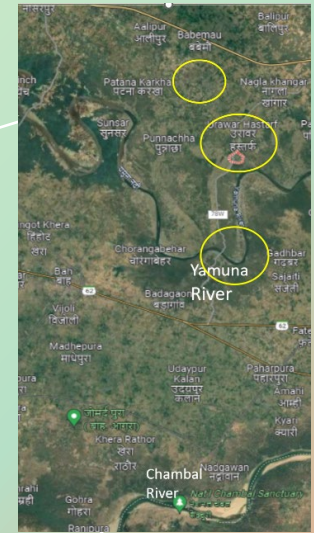
July 31, 2023



ROW team with Women from Khipiya Village, who are lacking clean drinking water

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Villages Visited - ●



Maps- courtesy Google Map

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Purpose of the visit

The Earth Friends Foundation, a local group contacted the ROW Foundation, USA to look into the following water and environmental issues faced by several local villages along the bank of the Yamuna River in Uttar Pradesh (U.P.), India.

1. Local people lacked clean water for drinking and other potable use.
2. The Yamuna river, their lifeline for centuries, has been progressively carrying contaminated water for the past 15 years causing major issues for the people.
3. The villagers couldn't perform their rituals involving bathing in the holy river or worshipping with the water from the river.
4. The fisherman community who were dependent upon the river for their livelihood are not getting any fish from the river because of the poor water quality.
5. Impact on local biodiversity involving birds and aquatic species as they are rarely visible now and disappearing from these villages.
6. Look into possible steps needed to resolve these issues.

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Impacted Rivers/Streams and Villages

In response to an initial query by the ROW Foundation –

“How the villagers meet their water needs now?”

The EFF team conducted a survey and reported the following :

Team members included: Arvind Kumar, Shankar Sharma, Rishav Yadav, Raj Kumar, and Rakesh Kumar



- Yamuna river – Local People of *Urawar, Madwa, Charita, Madai* etc. villages are avoiding water from the river for household need, because the water is highly polluted. Dead animals are also thrown in the river.
- They use groundwater wells, but these groundwater sources also get affected by the polluted water of the Yamuna river. They were using Yamuna river water for taking snan (bath) in the their holy festivals, like Dusserah, Purnima, Ekadashi, Shrad days, but now they are unable to do that.

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Nathu ki thar is a small village situated near Yamuna river bank. The main source of income for the people is agriculture. They use their well water for drinking for the past 50 years. “...Earlier the water was quite good, but after a severe flood in the Yamuna, a few years ago, the well water got impacted and now it is not suitable for drinking.” said Pooran Devi (65) a housewife .



A farmer, Shri Nath (70) said “Ground water is of poor quality in this village, but some years ago water quality was good. No one knows how the drinking water got polluted.”



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Khipiya is a small village on the bank of the Yamuna with a population of about 160 people.

- There is no School in this village and no basic facilities are there. Children in this village are not getting any education.
- Only one groundwater well with a handpump and the water is contaminated.
- Main source of income was fishing and growing vegetables.
- Due to the high level of pollution in the river, they can't get any fish these days.



Dheemar Teela Nagra, a village, near Bah, U.P. with about 500 residents from the Nishad community.

- The villagers, mainly fisherman community, dependent upon the Yamuna river
- Due to the high level of pollution, they are unable to fish there, and are slowly migrating from this area.
- They use groundwater from the well with handpumps. The contaminated water is causing illness and sufferance from the use of that water.

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- Chambal river – people of *Ghora, Baswara, Kyari, Dewala* etc village use the Chambal river water to meet their household and drinking water needs. They carry water in small containers, locally known as matka, and balti.
- Lower Ganga Canal – local people near the canal use water only for irrigation and cattle.

The ROW foundation discussed the above listed issues with the EFF after receiving the information from the survey.

The EFF stepped forward to conduct a world water day WWD 2023 at the end of March to raise awareness and get community participation in their effort.

They requested the ROW Foundation to visit their villages and conduct a study on possible steps that can be undertaken to resolve their issues.

A site visit was arranged with the help of EFF by the ROW Foundation, USA in May 2023.

Summary information with pictures from the visit to various villages by ROW and EFF team is provided in the next few pages.

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May 19th, 2023, Friday –

Mr. Subijoy Dutta, Environmental Engineer and Founding Director of Rivers of the World (ROW) Foundation, USA arrived Urawar Village, Uttar Pradesh, India.

- The Earth Friends Foundation (EFF) team met with Mr. Dutta and discussed the plan and schedule for visiting 5 villages on the bank of Yamuna on the next day, and the day after.

May 20th, 2023, Saturday –

A water quality survey and awareness program was conducted on the banks of Yamuna River, with a joint field team of Earth Friends Foundation (EFF), and Rivers of the World (ROW) Foundation in 5 villages in Sirsaganj, Urawar area, District Firozabad, Uttar Pradesh, India.

Several groundwater wells were tested and awareness program organized by EFF, under the guidance and supervision of ROW Foundation, USA.

May 21st, 2023, Sunday –

The team visited the Chambal River Area about 30 kms from Urawar. The team met with two scientists, who were working on Turtle survivals and Gharials in the Chambal river

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The EFF team, led by Arvind Kumar, arranged for a welcome for Mr. Dutta, visiting from ROW Foundation at the Urawar Temple, graced by the Mahant (chief), Adhar Baba and other dignitaries from the area.

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The ROW-EFF team L-R : Subijoy Dutta, Ratan Kumar, two Local volunteers, and Arvind Kumar, Coordinator on the bank of Yamuna, testing water on May 20th .

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URAWAR VILLAGE

At Urawar Village, we met with the local people there, and some water awareness activities were conducted with young kids and school children. An awareness session with the village community including youths, women, and men was arranged. Mr Subijoy Dutta briefed the villagers about Environmental issues and importance of water quality.



A few pictures from the awareness session above

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Fun activities, such as “Carrying water in palms and filling in a bottle” competition for local school students were arranged by EFF in Urawar

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The ROW and EFF team visited possible sites and locations for building “Pavitra Snan Ghat”, a clean bathing pond for the villagers to meet their regular holy needs as they are unable to use the polluted Yamuna river water, which had been their tradition for centuries.



Local women conducting their puja on the bank of polluted Yamuna River

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The team under the supervision of Mr Dutta, tested water quality at the Urawar Yamuna Ghat for Turbidity, pH, Total Dissolved Solids (TDS), Conductivity, and Temperature.

The local temperature in the area was above 107 °F (41.6 °C)

- The test results, tabulated later, indicated high TDS level and a very high Turbidity level in the River. No fish or other aquatic life could survive under such stressful condition.
- A draft plan was developed by ROW in discussion with EFF to build a bathing pond followed by a wetland treatment system and an oxygenation pond, which was shared with the villagers. A tentative Location of the bathing pond is shown later in this report.
- The team also met with the Village Pradhan (Head) Shri Meghnath Yadav ji, and discussed the plan of “Pavitra Snan Ghat” who assured all his support for such an innovative move.

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URAWAR HASTARF (Gorakhnath Temple)

At the Gorakhnath Temple we met with the local swami, who lives there and performs the worship at the temple.

The well water was tested for TDS, Conductivity, and Temperature. Results tabulated at the end. Water quality was relatively better compared to other wells in the area, possibly because of the higher depth of the well.



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L-R : Rakesh, Swami ji, and Arvind Kumar

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KHIPIYA VILLAGE

- The EFF team began their introductory water survey under the guidance of Mr. Dutta at the Khipiya village (pop. 160) on the bank of the Yamuna river, upstream of Urawar.
- The team tested the water quality of the well with a hand pump. TDS value of the well water (40 ft. deep) was very high, more than polluted Yamuna water.
- This was discussed with the housewives and young people and Mr. Dutta recommended some preventive steps to disinfect the polluted water from the well by boiling it and keeping overnight before using it for drinking and cooking purposes.



Water Well in Khipiya Village

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- The team also recommended the need for lowering the depth of the well to the second horizon for better water quality.
- Provided some education and awareness to the local children about water pollution.
- The team encouraged some local people by providing gifts for household use.



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NATHU KI THAR VILLAGE

- After completing the work at the Khipiya village, we moved to Nathu ki Thar village. The open water well there is being used for over 70 years. The well depth was 45' and the water quality was relatively better and is used by the people there.
- The team also tested the water quality of other water wells nearby using hand pumps. The TDS value of a shallow well at 40' depth was very high, but a deeper well, completed at 80' had good water quality as reflected by a significantly lower TDS value as listed in a Table later.
- The team encouraged active women and men, who have participated in the EFF ground water survey earlier, by rewarding them with some usable gifts for their household.



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MADWA & DHEEMAR TEELA VILLAGE

- At the Urawar-Madwa Ghat, our team met with World Water Day -2023 participants and the youth team and had a brief discussion with them about Yamuna river bank clean up drive. There were a few college graduates among the participants.
- Madwa lead coordinator, Rajkumar (center) is working with the EFF team for better water quality and clean environment for this village.



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- The ROW-EFF team awarded Certificates of Appreciation to most of the active volunteers there.



One of the active volunteers, Devendra Yadav receiving a certificate



Another active volunteer, Ashish Yadav receiving a certificate

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- The team along with local volunteers went on a boat to the Yamuna River, nearby and tested the water quality of the river. The Yamuna water had a turbidity level of 24 NTU (corresponding clarity 1 ft), reflecting highly turbid and unsuitable water for fish or any other aquatic life.



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Water Quality Test Results - May 2023

Urawar and other Villages, U.P.

Date	Location, U.P	TDS ppm (mg/l)	Conductivity μmho/cm	Temp. °C	Clarity NTU	Remarks
20-May-23	Urawar Yamuna Ghat	651	1302	37.6	24	Poor water quality *
20-May-23	Khipiya Village, Water well	1727	3454	35.8		
	Khipiya Village, Yamuna River	696	1392	37.5	>24	Poor water quality *
20-May-23	Urawar Gorakhnath Mandir	425	850	35		Well depth 80' fairly good water quality
20-May-23	Nathu Ki Thar Village Open Well	1006	2012	33		Open well 45' to surface
20-May-23	Nathu Ki Thar Village Well Depth 80'	390	780	34.5		fairly good water
20-May-23	Nathu Ki Thar Village Well Depth 40'	1772	3544	35		Well 40' deep Bad water
20-May-23	Urawar Madwa Well Depth 300'	816	1632	34		Well Depth 300'
20-May-23	Yamuna River- Madwa	698	1396	37.5	24	Poor water quality *
* - highly turbid and unsuitable for fish or aquatic life.						

PLANS/OPTIONS TO RESOLVE THE ISSUES

As the site data revealed poor water quality in the Yamuna River and in wells used by a number of villages, the team discussed plans to resolve the issues as follows:

- Drilling new, deeper wells, 80 to 300 feet (24 to 91 meters), depending upon the locations, in Madwa, Khipiya, and Nathu Ki thar villages is expected to provide clean drinking and potable water for the villagers.
- Constructing a bathing pond followed by a wetland treatment system and an oxygenation pond near Madwa Yamuna Ghat is expected to help the local people in meeting their rituals, potable water and other domestic needs.
- A draft plan was developed by ROW in discussion with EFF to build a bathing pond followed by a wetland treatment system at a tentative Location shown on the next page.

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Proposed location of the bathing pond system



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A few more pictures from the site visits in the area

Urawar - Yamuna River



Khapiya village – Water well with hand-pump



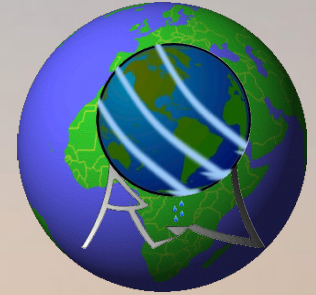
Nathu ki Thar village



Madwa village – Yamuna river



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QUESTIONS?

Thank You

Please send your questions and comments to
rowfoundation@gmail.com

Rivers of the World Foundation

<https://rowfoundation.org>