AREA WATER PARTNERSHIP: JAJMAU, KANPUR REPORT

FEBRUARY-OCTOBER 2012

AREA WATER PARTNERSHIP (ZONE -2
JAJMAU- KANPUR NAGAR NIGAM)

Project Supported by
India water partnership and SPWD

Project implemented by SACH, Shramik Bharti
and other partners

Submitted to

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AWP Jajmau project has been supported by India Water Partnership (IWP) and Society for Promotion of Wasteland Development. On the ground implementation has been undertaken by SACH- Society For Action in Community Health with support from Shramik Bharti, Kanpur and other local civil society organizations.

AWP project has been working for the last six months in zone 2 of Kanpur Nagar Nigam, known as Jajmau Area. This zone is in South East location of the Kanpur city, just south of Ganga River. The famous tannery industries of Kanpur are also located in this area. Three main activities have been an initial process of wider consultation in the city leading to formation of Ganga Alliance; ward level conference in April and zonal conference in July 2012. There have been other interaction meetings with Kanpur IIT, Ausaid, and consultations in Delhi and other cities associated with this initiative. Subsequent to this dialogue has been initiated with the councilors of Jajmau Ward.

**Objectives of the Project**

- To develop a Joint Stakeholder Forum in the Zone -2 of Kanpur Nagar Nigam - Jazmau Area located in South East of the city, in the immediate vicinity of Ganga River, as is leaves the city, to discuss the pollution issues and possible strategies and actions to find solutions

- To develop a plan for prevention of pollution to river Ganges arising due to industrial and domestic activities in the area.

**Approach & Methodology**

Promotion of Area Water Partnership in Zone 2 of Kanpur - JaJmau Area
This is a water stressed area of Ganges due to heavy pollution due to industries, particularly tanneries and domestic sewage. The proposed AWP is a multi-disciplinary action group of local stakeholders to explore solution through a platform for water related institutions and stakeholders for interaction to achieve IWRM at the local level.

**Criteria for establishing an AWP**

(i) Conceptual phase- June 2011- December 2011  
(ii) Exploratory phase- January 2012 - a meeting organized in the area- report shared  
(iii) Establishment phase- February 2012-June 2012  
(iv) Network management phase July 2012- December 2012

**Criteria for membership**

Criteria for admission organization/agencies /individuals as partners in the AWPs are: Open to all

**Disciplines proposed to be represented in AWP**

Generally following disciplines are expected to be reflected in the AWP for enabling a comprehensive approach to the management of water.

- Irrigation
- Water supply and sanitation
- Industries
- Grass-root level community organizations
- Media
- Women
- Politicians/administrators
- Environmentalists
- Social workers
- Pollution Control Boards/Authorities
Functioning of AWP

- The style of functioning of AWP will be broad based civil society –urban local body partnership
- One of the partner organizations has to work as host institution for providing the secretarial support to the work of AWP voluntarily on a continuous basis on a partnership mode.
- A small Steering Committee (4 to 8 partner representatives) is to be formed to guide the day to day work of the AWP.

The Core Committee has to meet at least one in a month to promote the objectives of AWP and to pursue the planned activities

The performance Report

The AWP has been able to consolidate the process of making contact with people, NGOs, industrialists, officials and people’s representatives. There is greater realization of the grimness of the situation as far as access to water and sanitation is concerned and its link to macro issues of flow in Ganga river and Ganga pollution. This later resulted in engagement with the Ward members of Jajmau region.

Table: Project Achievement against the targets

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Activity/(s)</th>
<th>Expected deliverables</th>
<th>Achievement</th>
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<tbody>
<tr>
<td>1.</td>
<td>Awareness programme</td>
<td>Two meetings to be held in Zazmau one in March and the other in June</td>
<td>Ward Level meeting organized in April and Zone level meeting organized in July. Zonal interaction with municipal councilors has been held in October.</td>
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<td>2.</td>
<td>Involving men and women through neighbourhood community groups in municipal wards in AWP work</td>
<td>Report</td>
<td>Final report is being prepared, will be submitted separately.</td>
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<td></td>
<td>Involving private sector and tannery industry</td>
<td>Report</td>
<td>Some interactions made with tannery industry initially, however the task is too complex to be achieved with limited project resources.</td>
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<td>4.</td>
<td>Study of causation of industrial and other pollution to Ganges river in Kanpur with focus on issues related to Zone 2.</td>
<td>Report</td>
<td>A report has been prepared and included with the report.</td>
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<tr>
<td>5.</td>
<td>Developing solutions for the same by involving stakeholders for implementing solutions</td>
<td>Report</td>
<td>The stakeholder involvement is being expanded in proposed extension of the project. The solutions are little bit far in the planning line</td>
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<tr>
<td>6.</td>
<td>Preparing Vision Document for Zazmau area- zone 2 of Kanpur</td>
<td>Report</td>
<td>Not possible to achieve within the limits of the project</td>
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**Some highlights:**

i. The Membership of AWP now includes nearly 40 residents of zone 2.

ii. Key informants interviews have been done with the councilors from the 20 municipal wards in Zone 2 to get their views on the access to water and sanitation and Ganga pollution. The report is enclosed.

iii. A formal meeting with the councilors of Zone-2 has been organized. Report enclosed.

iv. AWP has met the mayor to present the findings and seek his intervention. A meeting of the councilors of Kanpur is being planned.

v. At the same time the Civil society organizations in the city should come forward to intervene in the master plan process of the city.

vi. The micro-planning process has been taken up by Shramik Bharti in selected bastes in the zone. But the initiative rests with KNN and jalboard to find solutions to some of the most difficult problems. At the same time, there is a need to bring about a change in people’s awareness and consciousness. The
use of street plays can be very good medium for it. This should be coupled with formation of local people committees and motivate them not to polluted Ganga by immersion of idols and flowers. This should lead in the direction of ward committees to advise the ward councilors and their federation at the zonal level. The AWP Jajmau should take a lead in this process.

Chapter: 1

EMERGING ISSUES

The Status of Ganga and access to Clean drinking water and sanitation in Kanpur
The Kanpur city today has acquired the ill reputation of being the city where Ganga is most polluted. The tradition had given utmost importance to the quality of water and Ganga water had the highest rank in this. It is unfortunate that today, Ganga water has become absolutely polluted and it is not even worth bathing quality. The GAP-1 was initiated in Kanpur in 1987. Till date, it has failed to achieve its objective. In fact the situation is much worse than before. The action to supply treated waste water of STPs for agriculture purpose has been total failure. The rose cultivation has failed in these areas, after initial success and large number of people are suffering from skin diseases due to coming in contact with contaminated water of the STPs. The state of access to water and sanitation is pathetic and grim in the city. There is a general crisis on the availability of water. The streets are full of garbage dumps. The sewerage water is flowing on the roads. There was an incidence of police firing in Muslim locality a few days ago (July 2012) on the people rioting against power failure, but real reason for people’s anger was non-availability of water due to power failure. The water tax has increased over the years, from 88 Rs. Per year in 1980s to 1470 Rs. Per year today. Half the city does not have access to water. There is no confidence in quality of drinking water supplied by Jalboard and it is not in the means of common man to install ROs in their homes. The people are getting hard water from piped water supply from chakeri plant and depend on tanker water for drinking purpose

Quantum of water in the river (AVIRAL GANGA)

- The Ganga water from Uttrakhand Himalayas is not reaching Kanpur at all. The water is diverted for other uses like thermal power plants, atomic power plants, irrigation and domestic water supply, on the way through barrages, dams and canals. Kanpur is getting polluted water of Ramganga and Kali River,
water polluted by domestic sewage, the paper mills and sugar mills effluents. The other states also have a right over Ganga water from Uttrakhand and all the water cannot be diverted. This has been also a matter of judicial order recently by Allahabad High Court on the PIL related to Ganga.

- On the whole, the quantum of water in Ganga at Kanpur, especially in the lean season is very low and only the sewer water is flowing into Ganga. The tributaries going into Ganga also are devoid of water.

i. There is practically no Ganga water from the UP Himalayas, reaching Ganges in Kanpur - all the water is diverted into Upper and Lower Ganga canal system - this is the biggest challenge for Kanpur both for managing the pollutants from the city draining into the Ganga river and also for the cultural-religious purposes.

ii. The Ganga was flowing in 1990s 2-3 km away from Kanpur Ghats. A barrage project was planned to divert the Ganges so that it should flow along the ghats. This was completed in the year 1995. However, despite this project, the Ganga is still flowing at the same place, especially during the lean season. What flows along the ghats, is the sewer water and the effluents from the newly constructed housing settlements along the ghats.

**Prevention of Pollution (Nirmal Ganga)**

- There are 29,000 industries in Kanpur whose sewage is going untreated in the domestic sewer network of Kanpur and this is causing pollution of Ganga water. These industries also include 400 tanneries.

- There is an impression that whole underground water in Kanpur is polluted, due to seepage from the sewerage and the polluted Ganga, and it is not of potable quality any more.

**The river front development – the religious and cultural dimension**

i. There is a lot of emphasis in city civil society on cleaning of ghats and preserving the purity of ghats. Is it feasible, considering other dimensions?
ii. Too much of devotional materials like flowers need to be appropriately disposed off…. Which is not happening- The counter view was that this may not be important at all.

iii. The State Agencies should take drastic steps to stop encroachment on the lands belonging to the river- and stop unauthorized construction on the ghats and along the river. This is being totally neglected.

iv. It seems that river front development is one of the most important issue for the civil society

**Appropriate Solutions**

- The diversion of treated sewerage for irrigation in the villages in the vicinity of the city in Zone -2 , has led to destruction of agriculture land in at least 15 villages. People are suffering from serious diseases and ailments. There is no respite for them
- The IITs consortium and large number of transnational waste water treatment companies are promoting the centralized solutions to this problems. However, this is not going to work, just as it did not work in case of GAP-1. We need to explore the decentralized solutions. Construction of a parallel drain in Kanpur also is no solution, as the water will ultimately need an outlet somewhere. The water cannot be used for 365 days a year in Agriculture and hence it will have to flow in Ganga river. All these lessons are very clear from GAP-1 and cannot be ignored.
- The sewerage plans prepared from Kanpur under JNNURM and under NGRBA have no coherence and totally contradictory to each other.
- The same issues are going the plague the rest of the interventions in Ganga cleaning.

**Governance**

The actual powers have not been transferred to the urban local bodies by the State Government. In fact these powers were enjoyed by the local bodies in post independence period but usurped by the agancies of the state in early 1970s and were not returned despite the implementation of 73rd and 74th CAA in 1993. Paradoxically, in the context of implementation of city plans under the NGRBA, more powers are being proposed for the NGRBA and its State Chapters to totally bypass the constitutional mandate given to the urban local bodies.
Only a participatory planning process led by the urban local body can help to find appropriate solutions and implement these. The current plans developed under JNNURM and NGRBA for Kanpur and other cities for prevention of pollution to Ganga are inherently faulty and will fail, irrespective of the issue of corruption. Therefore, even before the effective monitoring of the implementation, it is an issue of effective planning with participation of informed citizens and informed citizen’s representatives.

The issues with A2Z in Kanpur and Lucknow

The contract for A2Z, a private corporation, for the city solid waste management, has been issued by the State Government - Urban Development Department. Kanpur Nagar Nigam- The urban local body or municipal corporation - has no direct role in contract management. The water supply and sewage is also managed by UPJalboard/ UP Jalnigam and jalsanstan which are practically under the control of state government. The KNN is powerless. In the spirit of 74 CAA, the powers for these functions should be transferred to KNN and the planning of solutions to these problems should be worked out by KNN in a participatory planning process.

The experiment of corporatization of solid waste collection through A2Z seems to have failed completely and garbage is not being collected. People are not ready to contributed Rs. 20 per month to the garbage collectors. The garbage dumps in the streets are becoming bigger. The garbage is being thrown in parks and the stink is unbearable. It was also pointed out that there was no involvement of KNN in arriving at contract with A2Z and the contract was given by the State Government which is against the constitutional provision of 74CAA. The containers and vehicles were purchased by the State Government for the A2Z company. However it has failed to perform its role to keep the city clean. The proposed plant for tertiary disposal of the garbage near Transport nagar has also caused resentment and people would like it to be shifted due to bad stink emanating from the plant. The issue of payment of users charges to A2Z is mired in controversy. It has become a political battleground. The City Mayor ( before the recent Elections to the Urban Local Bodies - in March 2012) in Kanpur had issued a statement asserting citizen’s right not to pay users charges to the A2Z. The company is already said to be in dire financial constraints and bound to fail and close down its operations.
Civil society conflicts: Tragedy of the Commons

The process of commercialization of water has affected the civil society consciousness also. Today, there is a competition to get deeper boring and extract more water for one’s own family and the commitment to share water with one’s neighbor is completely lost. This has most ulterior consequences. The ponds in the area have been encroached over by the vested interests. The handpumps which supply good water are usurped by the vested interests and they sell the water at cost.

The civil society participation and ganga panachayats /other issues in civil society participation /role of small actions

i. Ganga panchayats are being promoted by the some of the official civil society representatives in the NGRBA. At the moment it is not clear what their exact role is, in the total scheme of NGRBA. It is expected that they will do some kind of social audit. However they have not been assigned any role in the planning process itself. In other words, at present there is no forum at present wherein the views and wisdom of civil society/aware citizens can be included in the planning stage itself.

ii. One of the industrialist –expert from the tannery industry admitted that there are many persons in the tannery industry who are totally illiterate but they have the experience and wisdom to pin point problems and suggest solutions. However the 'IIT-Experts' do not have the skills to interact with them and seek their wisdom.

iii. It has been claimed by the IITs consortium that process of consultation with Kanpur Nagar Nigam and with tanneries association has been completed. However we found that the consultation with tannery associations was symbolic only and consultation with KNN has not included any consultation with civil society, which is totally in dark about the new dispensation.
Public Consultation on Environment and Social Management Framework (NGRBA Program),
held at Kanpur, Uttar Pradesh, Date: 28th December 2010. Venue: Nagar Nigam, Guest House, Kanpur, Uttar Pradesh
Attended by: State Nodal agency (Ganga Pollution Control Unit, U.P Jal Nigam): Mr. C M. Chaudhary (General Manager), Mr. Mukesh Kumar (Project Manager) Consultancy team from TERI: Ms. Sonia Grover, Ms. Swati Dabral, Mr. C. G Hiremath Number of participants: 38 (Mayor, Commissioner, Additional Municipal Commissioner, elected members of Kanpur Municipal Corporation, representatives from NGOs and Schools, concerned government officials, list attached as Annexure IV).

A summary of the important points discussed during the meeting are mentioned below:

Management of City Wasterwater
- Provision of segregated wastewater treatment from industry and domestic sectors.
- Adopt bioremediation techniques for treating wastewater until the new STPs become functional.
- Prohibition of reverse boring of wastewater by the industries which are likely to pollute groundwater.
- Facilitate reuse of treated wastewater for agricultural practices, parks, fire fighting, etc.

Management of City Solid waste:
- Facilitate proper solid waste management along with the provision of utilisation of compost in agricultural/gardening activities.

Riverfront Development
- Provision of proper sanitation facilities during religious occasions and other festivals.
- Disposal of unburnt or half burnt dead bodies into the river Ganga should be prohibited and promotion of social institutions to perform last religious rites of unidentified and unclaimed dead bodies.
- More crematoriums should be built and existing ones should be renovated to cater to the need of growing population.
- Involvement of local communities (Pandits) for maintaining the river ghats to curb pollution. Initiative to start same rituals with the bodies specified for
burning in electric crematorium as is done with normal bodies to enhance acceptance of e-crematoria.

- Provision of buffer zones (no-man zone)/integrated river front development for protection of river ghat against pollution (solid and liquid waste disposal, infrastructural development). Facilitate usage of this buffer zone for afforestation or flower plantation)

**Community Participation**

- Promotion of awareness generation at community and school levels especially in the fields of better solid waste disposal (idols, calendar, flowers, polythene), promote usage of crematoriums, etc.
- Stakeholders’ involvement at both project planning and implementation phase of the projects.
- Inclusion of social development projects in the projects portfolio proposed by NGRBA program

**Urban Governance**

- Administrative and financial support for regular operation and maintenance of the projects.
- Proper coordination between different government agencies during appraisal of the proposals and environmental impact assessment of the projects which may cause time delay for execution.
- Creation of Ganga Heritage Zone to focus development and protection against pollution.
- Establishment of institutional facilities for monitoring and maintaining the minimum flow (at least 50% of the volume generated) in the river, which is currently being interrupted by infrastructural activities (dams, barrages, diversions) on the upstream side of river Ganga.
MACRO-POLICY CONCERNS RAISED DURING DIALOGUES

- The issues of access to water and sanitation and management of prevention of pollution to Ganga river are intimately linked in the riparian cities.
- The NGRBA has played a residual role in governance, i.e. provision of extra financial resources to city urban local bodies. Its advisory arm- IIT consortium has remained a non-performer.
- One set of civil society players have demanded more powers for NGRBA to deliver the goods. We are not advocating this path. Our approach is to strengthen the participatory urban governance at city level, the building block of which will be ward advisory committees federated at zonal level to bring about pressure for effective urban management and governance for prevention of pollution and access to water and sanitation.
- There are competing demands for the ganga water – irrigation, domestic water, industrial water e.g. thermal and nuclear power plants and religious. The shortsighted management and absence of governance as well as historical factors have led to an ecological crisis of drying up of Ganga bed in lean season in the riparian cities. The city governments and district planning committees need to come together to reverse this process.
- The centralized solutions for waste water treatment being proposed by IIT consortium require thorough appraisal to avoid failures of the GAP-1, GAP-2 and the JNNRUM.
- The river front development to meet the religious and cultural needs of the communities is an important dimension and should get appropriate recognition.
- There is no short term quick fix solution and relatively long term support is required for the effective civil society action.

Vision for Ganges

i. What is our vision for Ganges, was one of the most crucial question raised in the meeting.
ii. Is Aviral Ganga (no obstruction in the flow of Ganges anywhere in its path, from Gangotri to Gangasagar), a real possibility or mere rhetoric? It was said that as long as we are building dams and diverting water from the river into the canals, there is no possibility for Aviral Ganga.
iii. We are diverting water for canal construction for agriculture. Is that really necessary or useful? This question is not being raised at all.
iv. STPs: The objective of zero-discharge systems - is it feasible/desirable.
v. What is the impact of drawing too much underground water on the stream and ecology of Ganges - this question is not being raised at all.

vi. What is the impact of change of ecology of Ganges on the Indian Monsoon and regional dimensions of climate change - this question is not being raised at all.

vii. What should be our priority? Industrial pollution or pollution from domestic sewerage or pollution from flowers and dead bodies or something else like solving the flow issues first which will provide the solution to everything else. It is very important to prioritize the most critical

1. Decentralized and centralized sewerage /impressions that river is being sold away

i. The IIT documents clearly say that centralized STPs may not be appropriate solution for Indian cities. At the same time, They have also issued guidelines for centralized STPs and CETPs etc.

ii. The guidelines for the decentralized STPs are yet to be produced.

iii. Is tertiary treatment feasible in Indian conditions, as recommended by IITs?

iv. There is a strong impression in civil society that PPP in the STPs is a mechanism to sell away the Ganges river to the transnational corporations.
Chapter: 2

Engagement with the Councilors of Jajmau
Kanpur Nagar Nigam consists of 110 municipal wards divided into 6 municipal zone. Jajmau area - Zone-2 of Kanpur Nagar is situated in the eastern end of the city, south of the Ganga River. It is the most vulnerable and seriously challenging region of KNN. The Zone 2 has 18 municipal wards.

The process of constructing the Area water Partnership in Jajmau area (zone 2 of KNN) has been slow and tedious. One major reason is lack of clarity on the role and responsibilities and accountability of different institutions of the State Government, Parastatal Agencies and Urban Local Governance for the access to water sanitation and prevention of pollution to river Ganges.

In order to build up on the processes set in motion during the ward level meetings in April 2012 and Zone level meetings in July 2012 and other consultations in cities of Allahabad, Varanasi, Patna and Delhi on the macro-framework of NGRBA, the project decided to have a closer interactive process with the councilors of zone 2, to understand their perceptions on access to water and sanitation and issue of Ganga pollution and the institutional responsibilities to address these issues. The process of interaction and interviews is ongoing. An open ended questionnaire was prepared to do semi-structured interviews with the Municipal Councilors. Till date, interaction process has been completed with 8 councilors and the rest will be covered by the 2nd week of October, 2012. This will be followed by a joint meeting with these councilors in the third week of October. Following is the initial picture which is emerging with these interactions in seven wards.

Interaction with the councilors in zone 2

Good quality Drinking Water is one of the biggest challenges for residents and the councilors are aware of it. most of the ward councilors claimed insufficient water supply by Jal Sansthan (half an hour to 1 hour daily). The privatized waste collection system through A2Z has proved inefficient and causes conflict among councilors and the company employees. People are suffering the development process rather than using it, is the overall conclusion that emerges. Failure of various agencies is visible along the GT road as well as NH-91. The roads have been under construction, since a long time and there is still no clear time line to finish the task, causing immense public sufferings. Excavated roads and garbage dump
along the roads is a common culture and public have clearly adopted it as fate. There is no single competent authority to address these issues. Apart from highways and roads in the zone-2 a huge mismanagement in the ward level planning and problems due to inadequacies. Councilors Other than party basis have very limited communication among each others. Constitutional illiteracy and inadequate training are another key challenges at councilor as well as common people level. Average water supply in whole ward is nearly half an hour indicates level of insufficient water supply

Ward wise challenges: ( also see the report in tabular form)

(i) Ward-19

This ward consists of nearly 8000 households which includes 5 slum areas (Ahirawan, Chhatimara, Gauriya and Sanigawan). This is a mix of urban and semi urban area of farmers and other communities. There is no water line and hand pumps are the only water sources. The councilor claimed about the that more than 70% ground water sources are contaminated and polluted. Community toilets are not available and public has to go for open defecation. The area is not included under the solid waste management contractor. Water Treatment plant is under construction, but pace is slow due to corruption. Roads are very poor. Insufficient Drainage and waste water infrastructure becomes a big challenge in rains. Water logging and waste water accumulation becomes a source of mosquitoes which causes diseases sometimes. Baburam Sonkar local congress councilor have very good understanding of the public suffering and committed to cooperate with AWP programs.

(ii) Ward-28

This ward consists nearly 6000 households which includes 3 slum areas (Shivkatra, Gangaganj and Shahdullapur). Handpump is the main source of water supply. Water supply is insufficient as claimed by local councilor. No formal complaints regarding water quality. Sufficient number of submersible pumps to tap ground water, suggested to meet the water insufficiency challenge. Due to insufficient staff and infrastructure, Primary garbage collection is a problems faced by the residents. To avoid open defecation at least one community is required on urgent basis in Shahdullapur area of the ward. No visible filth is seen on the roads and councilor, due to hard work of councilor and ward council. A group of retired professionals are helping is their councilor to perform his role better. BJP
Councilor Smt. Shakuntala Gupta and her husband have shown a committed dedication to meet the drainage and waste water challenges. Still some waste water can be seen easily in the downstream of the over bridge. Mr. Umashankar Rai a retired professional and a key associate to the councilor have a good idea how the administrative mismanagement have resulted as chaos within the zone. A historical background was made clear by the gentleman. He commits to be a part of AWP in further activities.

(iii) Ward-44

Ompurwa ward consists nearly 10000 households including 5 slum areas (Ompurwa, Pokharpur, Ompurwa Nai Basti, Chandranagar and Charari Dhaal). Waterlines are badly damaged. The Handpumps are main source of water supply. Intensive repairing of hand pumps is required to meet the water supply need . People have to walk nearly half a KM to have the access of drinking water, within a locality named Chandranagar Khalwa. Sanitation is a key challenge in the narrow streets of the ward. There is a huge low income communities and it is very difficult for them to meet the cost for public utilities. It is recommendation by the councilor to ensure the access of free toilets for the above said communities. Existing ones are badly mismanaged and communities have to suffer for that. So it is again a need to recheck the facility operation and maintenance by KNN. Waste bin containers are installed on main roads and it has a measurable distance from households. The ward level sanitation officers have only two hand carts for primary collection which is insufficient capacity to serve such a dense ward. Few more containers should be installed within the streets as suggested by the councilor. Again it is a big challenge for low income group to meet the cost of garbage collection. Water logging is a common problem. Sewage line choking creates filth and sewage flow in the narrow streets. They have to clear the water logging using water pump in the ramp zone of Charari Dhal Khalwa. Still there are no formal complaints of diseases and health problems within the area. BJP councilor Poonam Rajput have a very prominent background of social activism and committed for the people of the locality. She commits to cooperate in AWP activities.

(iv) Ward-66

The mixed population (Hindus and Muslims) ward Jajmau South consists of nearly 5000 households including 3 slum areas (Raidas Vihar, Ambedkar Nagar and Gaushala). Average water supply per day is nearly 25 minutes, have proven insufficient by all means as claimed by Congress councilor Haji Md. Shamim Azad.
Sewage mix and TDS value 638 is a key challenge of water quality. Insufficient power supply at tube well and water line leakages must be seen key challenges. Water issue has been raised by the councilor on several levels. The sanitation is variable quality in different areas of the ward. Some areas have serious challenges. An open land of KDA has open water stagnation and huge garbage dump along the water. The animals! Are kept here and filth creates mosquito breeding. It is a source of potential community conflict. Most of the households have toilets but the sewer lines have problems of choking and blockades. Slum areas require a couple of more community toilets. A2Z have not performed up to the mark and it is a claimed by their employees that insufficient infrastructure causes improper services. Sewer line blockages and inappropriate drainage infrastructure causes water logging in rains. Sewage pumping stations should be checked for proper sewage supply to the Treatment plants.

(v) Ward-70
This ward consists nearly 10,000 households which includes 4 slums. Water lines provide nearly 1.45 hour daily supply. In some areas, where hand pumps are source of water, repairing is required to meet the challenge of insufficient water supply. Ground water consists chromium and other undesired minerals. Line leakage is a key challenge in some waterlines. Slums require community toilets to meet the challenge of open defecation. Inconsistent collection of garbage causes creation of nearly 10-20 smaller dump yards near by the waste bins installed by A2Z. Silt disposal within the streets can be seen after rains. Big amount of filth is seen on roads and choking of sewage lines causes challenges of water logging and waste water. BJP councilor Kailash Pandey has clear idea of chaos and public sufferings and attended workshop of AWP earlier. He has committed to cooperate in other activities of AWP.

(vi) Ward-71
This ward consists of nearly 7000 households. Major problem is drinking water and water logging. Water quality is very poor. There is complain from public about the bad odor water from supply lines and hand pumps. The ward has 4 slum areas which include Shivkatra Dalit Basti, Vinoba Nagar, Patel Nagar and Patel Nagar railway crossing. Community toilets are need of the slum areas as it creates consequences as open defecation by the communities. It is a serious challenge to find the piece of land to develop the community toilet. Inconsistent garbage collection is causing insanitary conditions. Level of suffering seems to be serious in the slums within the ward. Drainage is one of the biggest challenges for most of the residents of
the ward. They have to suffer water logging, and waste water accumulation within the streets. This problem is a cause of improper planning of the colonies. The ward has serious challenges due to inconsistent planning and infrastructure development. The society developers left very limited space even for basic utilities. Local councilor Manoj Yadav has very good understanding of the public suffering and committed to cooperate AWP programs. Requested for a draft on 74th constitutional amendment for self enlighten.

(vii) Ward-77

This ward consists approximately 10000 households which include three declared and two undeclared slum areas. Drinking water quality is a challenge for the whole ward including slums. Water tank is under construction which is a ray of hope. However, The councilor and the people but they have limited understanding about the execution agency. Irregular collection and insufficient infrastructure (as claimed by A2Z guys) creates Waste management problem, same as other wards. Community toilets are need for the slums where the people have insufficient infrastructure and services. Unavailability of community toilets in all of the market places for ladies is another challenge. People have to suffer water logging and sewage. Sewage lines choking and waste water becomes very critical in rains. Local BJP councilor Poonam Dwivedi is clear about the most of the problems. She is committed to cooperate with AWP for further activities.
### NAGAR NIGAM - TOTAL WARDS 18

<table>
<thead>
<tr>
<th>S. N.</th>
<th>Ward &amp; Councilor</th>
<th>Access to Water</th>
<th>Toilets and solid waste management</th>
<th>Drainage and waste water problems</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Sanigawan, 19, Baburam Sonkar, Congress</td>
<td>Hand Pumps - India Mark II- are the only water sources. 70% of ground water sources considered to be polluted and contaminated. No water supply line has been laid here- rural ward</td>
<td>Community toilets are not available and public has to go for open defecation. No connectivity of the area under the solid waste management contractor.</td>
<td>Insufficient Drainage and waste water infrastructure becomes a big challenge in rains. Water logging and waste water accumulation becomes a source of mosquitoes which causes diseases sometimes.</td>
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<td>2</td>
<td>Ward-28 Smt. Shakuntla Gupta, BJP</td>
<td>Water supply is insufficient. No formal complaints received regarding water quality..</td>
<td>At least, one community toilet is required on urgent basis in Shahdullapur area of the ward to overcome the problem of open air defecation. Due to insufficient staff and infrastructure is Primary garbage collection is a problems faced by the residents No visible filth is seen on the roads due to hard work done by the councilor</td>
<td>Some committed dedicated work has been done to meet the challenge of drainage and waste water. Still som collection. Still, the waste water collection can be seen easily, in the downstream of the over bridge.</td>
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<tr>
<td>Ward</td>
<td>Water Supply</td>
<td>Sanitation</td>
<td>Water Logging</td>
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<tr>
<td>3. Ompurwa, Ward-44, Poonam Rajput, BJP</td>
<td>Water-supply lines are badly damaged. Indian Mark II Hand pumps are main source of water supply. Intensive repairing of hand pumps is required to meet the water supply need. In one locality- named Chandranagar Khalwa people have to walk nearly half a KM to access the drinking water.</td>
<td>Waste bin containers are installed on main roads and it has a measurable distance from households. The ward level sanitation officers have only two hand carts for primary collection which is insufficient capacity to serve such a dense ward. Sanitation is a key challenge in the narrow streets of the ward</td>
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<tr>
<td>4. Jajmau South, Ward-66, Haji Md. Shamim Azad, Congress</td>
<td>Average water supply per day is nearly 25 minutes, insufficient by all means. The quality of water is very bad due to mixing of Sewage in water supply. TDS value 638. Insufficient power supply at tube well, water line leakages,</td>
<td>Most of the households have toilets but the sewer lines have problems of choking and blockades. Slum areas require a couple of more community toilets. A2Z have not performed up to the mark and it is a claim from their employees that insufficient infrastructure causes improper services.</td>
<td>Sewer line blockages and inappropriate drainage infrastructure causes water logging in rains. Sewage pumping stations must be checked for proper sewage supply to the Treatment plants. An open land of KDA in the area- water stagnation and huge garbage dump</td>
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<tr>
<td>5. Ward-70, Water lines</td>
<td>Slums require</td>
<td>Big amount of filth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kailash Pandey, BJP</td>
<td>provide nearly 1.45 hour daily supply. Line leakage is a key challenge in some waterlines. In some areas India Mark II Hand Pumps are source of water supply, repairing is required. Ground water consists chromium and other undesired minerals.</td>
<td>Community Toilets to meet the challenge of open defecation. Inconsistent collection of garbage causes creation of nearly 10-20 smaller dump yards near by the waste bins installed by A2Z.</td>
<td>is seen on roads and choking of sewage lines causes challenges of water logging and waste water. BJP councilor Kailash Pandey has clear idea of chaos and public sufferings and attended workshop of AWP earlier. Silt disposal within the streets can be seen after rains</td>
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<tr>
<td>Gandhigram, Ward-71, Manoj Yadav Raja, Independent</td>
<td>Water quality is very poor. Bad odor from water from supply lines and hand pumps. Along with water quantity and quality crisis</td>
<td>Community toilets are need of the slum areas. Even Open defecation prevalent. One of the challenge is to find the piece of land to construct community toilet. inconsistent garbage collection leading to lack of cleanliness</td>
<td>Drainage is one of the biggest challenges for most of the residents of the ward. They have to suffer water logging, waste water accumulation within the streets as they have insufficient infrastructure facilities of the water as well as waste water drainage. This problem is caused due to improper planning of the colonies The society</td>
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Chapter: 3

Other activities of the AWP

At the same time contacts were also established with Mallah-Panda community at Gnaga Ghat, Jal sansthan, Ganga pollution control unit of UP Jalnigam, IIT Kanpur, the Amicus Curie of the Allahahabd High Court- Shri Arun Gupta for the ongoing PIL on the Ganga Pollution and with Swami Gyan Sanand- G.D. Agarwal in Varanasi to understand his perspective.

Following is a brief report on the above:

| Ward-77, Poonam Dwivedi, BJP | Drinking water quality is a challenge for the whole ward including slums. A Water tank is under construction which is a ray of hope. They have limited understanding about the roles and responsibility of execution agency | Irregular collection and insufficient infrastructure (as claimed by A2Z guys) creates Waste management problem- same as in other wards. Community toilets are the need for the slums where the people have insufficient infrastructure and services. Unavailability of community toilets in all of the market places for ladies is another challenge. | People have to suffer water logging and sewage overflow. Due to Sewage lines choking, the waste water collection in huge amounts , becomes very critical in rains. |
1. **A Note on Consultation with, Ganga Pollution Control Unit of UP Jal Nigam**

Uttar Pradesh Jal Nigam (Jalboard) is a key agency engaged in capitol works of water resource management in Uttar Pradesh. This is a state owned agency which has centralized the power to look after the infrastructure development in rural and urban regions of the state. Its working methodology includes coordination of various central government departments and local bodies of the state. It is seen that for urban of the infrastructure development projects, Uttar Pradesh Jal Nigam assigns operation - maintenance and public relation management cum revenue collection part to the Urban Local Bodies. The department has a special wing working on Ganga Pollution Control. It is said as Ganga Pollution control Unit of Uttar Pradesh Jal Nigam.

Multiple projects have been executed under GAP-I, JNNURM and other central schemes some of them are as following:

i. Six cities of UP selected under GAP-I. Within Kanpur Nagar Nigam 69 KM of sewage lines installed and renovation of the old lines done with an objective of urban infrastructure development. Sufficient treatment capacity installed under the same scheme.

ii. Within another scheme 130 KM sewer lines installed with 42 MLD sewage treatment plant under construction in Saniganawan near Chakeri in Zone-2.

iii. Sufficient waterlines and water supply infrastructure installed under the same umbrella organization of the state. (Detailed in CSE Report)

**Key Challenges for Uttar Pradesh Jal Nigam:**

a. Inadequate infrastructure: It is a very common pattern of answers by the bureaucrats but it becomes very serious in environment as well as water resource management. Water resource management does not seem to be a priority agenda of the state. It can be concluded as following facts:
   i. Heavy power cut (5-6 hours) in the sewage pumping stations causes to inadequate sewage supply to the STPs, still the STPs have sufficient privileges for round the clock power.
   ii. Insufficient capacity of sewage treatment is also a key issue.

b. Lack of multi party coordination and public feedback framework: The government departments may have very good coordination but when the civil society and community response is counted there is very limited space for multi party and public interaction framework at the planning and
authorization of state or the centre. Some activists observe this condition as a serious disconnection of different stakeholders of the issue.

c. Public acceptability: Limited space for multi stakeholder framework and civil society creates challenges of public acceptability. It is observed that GAP-I is regarded as failed initiative by various groups as it had very limited scope for communities which didn't delivered sufficient level of public acceptance. Post implementation conflicts also have been observed in the decade of nineties. Some sociologists claim that the modern means of Ganga related challenges (Germ theory, fecal matters, and notion of ecological disaster) and pollution control have western definitions and patents. It should be rechecked to meet local mass with heritage and spiritual measures (or can be related to social psychology). As many authorities have been found correlating Thames river basin management with Ganga basin, still leaves no space to evaluate the comparative behavior patterns of the stakeholders of the two different events.

d. Tanneries: In the light of findings and proposal by Central Leather Research Institute the installed treatment capacity has supposed to be increased from 9 MLD to 50 MLD. A multiple contributor's framework has been advised. The department senior officials state its proportion as 50:25:25 where 50% by central government, 25% by state and the rest 25% by the polluters. It became a bone of contention among the tanners and the government agency. Multiple dialogues resulted unsuccessful. It is heard that tanners have consulted with IL&FS for a level of project assessment. The equation between the tanners and the private organization is still to be explored.

i. An incident of Banthra near Lucknow: A tannery owners owned and operated (officials state it similar to community owned community operated kind) treatment plant was installed for treatment of their specific waste. It was proved underperformed as the people paid very less attention on its operations and maintenance.

ii. Revision of the treatment rates of hide and salt used: Again it is a controversial matter when the state is willing to review the present rate of Rs. 3.81 per hide to some comfortable price but tanners have very strong resistance on the price hike. A multiparty consultation may create some positive differences. Per hide rates are much higher in other stats (It is said by senior officials that hide rates in Chennai are near about Rs. 40 per hide)
e. Limited scope for local bodies: Local bodies have very limited scope in the present institutional power structure pattern. Centralization of the decision making may be temptation of the state top authorities. In many states empowering local bodies has been observed to be more effective tool to local governance. But again inadequate capacity of local bodies has to be compensated by technical excellence centre or other appropriate actions.

f. Status of parallel drainage proposed by KNN: There was a very unrealistic proposal created by Retd. Engineer R.P. Shukla for Kanpur Nagar Nigam, which concluded for drainage parallel to the River Ganga. Before formal tendering process, the DPR was offered for a comment by Ganga Pollution Control Unit Jal Nigam. Senior most officials found it unrealistic on the basis of core technical grounds. Still request for proposal appeared in leading print media. It creates a funny situation as this preposition was made public in the presence of senior most activists and prominent public groups and they supported for the idea. The overall activity clear view of the insufficient technical competence of Kanpur Nagar Nigam.

g. Tertiary treatment: It is seen that the most prominent authorities engaged into Ganga River pollution control and policy making have a common agreement on the need of the tertiary treatment. Still they can visualize the limitations into inadequate resources and cost estimations.

2. Consultation with Advocate A.K. Gupta (Legal Expert on cases related to Holy River)

About Advocate Arun Kumar Gupta:
Mr. A.K. Gupta is senior lawyer at Allahabad High Court and has retained prominent position of Amicus Curie in many cases related to state and The Holy River. He has a very effective social presence and committed for green and clean Ganga Basin. He has been regarded by many organizations (including govt. and non-govt. institutions). With all his commitment and dedication for River Ganga he is regarded as a true activist by various groups.

The relation of the Mother River with the basin residents and direct dependents is a key concept which may be helpful to retain some sustainable solution for The Transnational River which has its basin expansion in more than half dozen states. This is important because this could be helpful to formulate a applicable, equitable, acceptable and appreciable sociological order as well as ecological balance for flora and fauna.
A few of the judgments have very important role in defining the character map of the NGRBA or other of the regulatory authority or governing bodies. A few deliberations by the advocate Gupta are as following.

a. **Ratio of the maximum water discharge and extraction of water from the river:**
   This is an important judgment as it is directing the agencies engaged in water extraction and equitable sharing to different bodies. Irrigation, drinking and industrial requirements may have their limitations with reference to their water intake from the River Ganga.
   This judgment has its most important significance with respects to Water availability in the Holy Fair Mahakumbh. Still there is a controversy in the judgment as UP Jal Nigam has filed some compliance for being unable to fulfill the conditions.
   Still a big challenge is to measure the total discharge of The River which could justify equitability of the water usage for dependent flora and fauna. Probably the court has adopted the figure of water discharge to be 500 cumec as claimed by some authorities.

b. **Area of The River:**
   It is also one of the biggest challenges to define the area of the river. The land occupied by the free flow of the river plays a very important role in ensuring her natural free flow. The Court has tried to define it in one of their judgment. "Area within 500 meter from the point of highest flood level" must be considered under the area of the river. Mr. Gupta says "Highest flood level must be considered within a span of 100 years flood and its expansion."
   Again this judgment creates huge conflict among the government bodies engaged in planning and development of the river basin area. Many of the new and old colonies, industrial clusters, government buildings fall into the area of the river Ganges. The situation came to a point of conflict into some cases where this judgment is implemented properly. In future no construction is permitted within the area of the river in the light of this judgment. Projects started by some corporations have been challenged and finally pending in courts or rejected.

c. **Restriction of dam construction:**
   A few of the dams are barred under the light of some judgment of The court. This is again a big achievement by the activist groups as dams are regarded one of the major causes of obstruction for the natural free flow of the Holy River Ganges.

d. **Stay and rejection of Ganga Expressway project:**
This project rejection can be taken as a judgment of the court against the so-called development, as Mr. Gupta says “can be a milestone to review the other projects which are claimed to be dangerous to ecology of the Rivers.”

Challenges ahead:
Still the miles have to go under the judiciary scanning process. As the judgments are implemented and executed very slowly and creating big challenges to review the development by the concerned authorities by the government bodies. Public awareness is a key challenge and as it is difficult to review the judgment and possible claims over such a large area of consideration. Some formal and non-formal courses should be included in urban academics with respect to the judgments and provisions related to River Management and urban development. This task may have some long term effect within the area of Ganga Basin.

3. A note on consultation with Swami Gyan Swarup Sanand (Prof. G.D. Agarwal) at Sri Vidya Mutt, Varansi

Background
Swami Sanand has become an inspiration for many activist groups. He has been able to put pressure on government authorities and the key policy makers by sheer force of his devotion and tapas to The Mother Ganga. Presently he is leading one of the most prominent activist Ganga Activist groups named “Ganga Seva Abhiyanam”. His new role of a sanyasi activist is questioned by some of their groups working on Ganga. Science communities give due recognition to his prominent contributions in establishing and operationalising the of early phase of Central Pollution Control Board. Yet, they are not forthcoming to support his new role for advocating the protection of religious and spiritual heritage of the River Ganges. Although religious and spiritual properties of Gangajal has been claimed by many media and religious groups, there is very limited space in government bodies to adopt it a basis of decision making. Swamiji demands that govt. should set up some competent authority to verify the prepositions related to religious and spiritual properties of Gangajal. However, this argument by Swamiji has been challenged by the scientist communities and its acceptance is controversial. His suggestion to consider the “Keeping Property” of water of the Holy River aka Gangajal should be examined from all angles to preserve the spiritual heritage of River Ganges.

In early days of his activism as a scientist, many substantial solutions had been developed been by Prof. Agarwal and his colleagues to prevent pollution of Ganga.
Prof. Agarwal claims that these important cost effective solutions did not receive attention from the concerned departments.
River basin sociology and social references have not very much attraction for Swamiji. As a technocrat he discarded the social components and similar things visible in GAP-I and other activities.
The power conflict and crisis in the local govt. bodies is a reason to worry for Ex. Professor as he identifies the central bodies responsible for the River Crisis.
Tapa, which is performed by Swamiji is a part of strategic conclusion to challenge the concerned govt. bodies and attract the people by media. “By associating with Sri Vidya Mutt the followers and the infrastructure could be consumed for the cause” could be the motivation of him.
No doubt his commitment is to the Mother River have created some substances, but the public and policy makers must be compliment in further proceedings. We hope Swamijiji will create appropriate space for others too.

Chapter: 4

Report on Pollution issues in Jajmau Rural Area

Under the small area water partnership project in Jajmau area (zone 2 of Kanpur) located in downstream side of Ganga. I visited the villages affected by Tannery sewage water. Nearly 35,000 people in seventeen villages namely Shekhpur, Kisanpur, Madarpur, Motipur, Paiwandi, Wajidpur, Aulapur, Kulgaon, Jana, Sukhnipur, Trilokpur, Hania, Khajria, Khalar, Mawaiya, Gandanpur and Atwa are badly affected. The villages near the STP (sewage treatment plant) are worst affected.

A map of villages being affected by sewage drain water from STP is given below.
Since Jajmau is located at the downstream of Ganga, not only the tannery sewage but the sewage water of entire city flows through Jajmau. All above 17 villages are using treated/partly treated water from STP for irrigation.

STPs are not running efficiently due to power shedding even up to 5-6 hours every day, causing free passage to untreated sewage water which is being used for irrigation.

The colour of sewage water is black and mixed with chemicals and other pollutants emitting green house gases throughout the year, polluting the soils, crops, environment and ecology.
The resulting sludge from the treated waste water is left to dry on sludge beds and subsequently dumped outside of the treatment plant on village tracts. Discussions with village people revealed that during monsoon, the sludge doesn’t dry, which helps in sinking of toxins into soils and water. Summer heat and winds also distribute dust particles from the sludge containing toxins - very harmful when inhaled.

Contaminated land and ground water is a problem of growing concern in the area. Chemical crustations are becoming progressively visible on cultivated land using sewage water.
The trees near the sewage drains are drying up, especially this water doesn't suit to mango and shisham.
Pulses like Arhar and gram do not survive now.

The sewage water has brought parthenium weeds in the area, the area where this water doesn’t go, there is no parthenium.

Buffalo rearing for milk production is the secondary occupation in the villages.
Buffaloes often go to these drains to wet themselves and drink this water and eat grasses naturally produced in fields contaminated with sewage water resulting in losing their health, fat percentage in milk, infertility and abortion. Milk produced in these villages is not worth for drinking by human beings.
Fat is extracted from dead animals in villages, outside the tanneries in open spaces resulting in a continuous bad odour throughout the year.

Animals hides and bones etc are also dried in open spaces.
Before laying out of sewage in villages, there were trees of Guvava, shisham, mango, jackfruit, mulberry, papaya etc which are now no more in the area. Area had lot of desi babool, now only vilayati babool are thriving in the area.

Previously Ganges water mixed with treated sewage at 50:50 ratios was supplied for irrigation which helped in raising the production of staple food crops (paddy and wheat) in the area. Few farmers raised marigold and rose flowers and berseen (a nutritious fodder) for cattle in their fields which gave good returns.

Open sewage drains flowing through their cultivated fields is being used for irrigation. When there was no sewage water in the villages, cultivators used to grow maize, jowar, gram which is totally vanished from the fields as these crops don’t survive in the present condition.

Field visit to these villages revealed sharp decline in productivity of food crops especially staple food i.e Paddy and Wheat.
Paddy yield reduced to one-third.

Transplanted tender paddy seedlings get rotted in the field.

Grain produced is discoloured and taste not palatable.

Wheat yield reduced to one-third. Wheat gets dried in the field at its last stage of growing.

Tillering in paddy and wheat is effected, reduced to almost half.

Grains setting in wheat and rice are affected, grains are not formed in the panicles.
Whatever grains of rice and wheat are produced, it is shriveled containing heavy metals and not fit for human as well as animal consumption, but the people are not only eating their produce but also selling in the market though at reduced prices.

There is a threat to widespread contamination of food chains, sharp decline in productivity of food crops, vegetables, livestock, and even milk.

The crops are cultivated with excessive use of fertilizers and pesticides further damaging the environment.
Continuous increasing contamination of agricultural land and environment, reduction in productivity of crops, there are possibilities of farmers losing their farmlands. Main source of income in the area is agriculture which is not providing sufficient income to people compelling them to migrate from villages disposing of their lands. A village Paiwandi located on the bank of river Ganga well known for marigold cultivation, now with sewage water the area under flower cultivation reduced drastically besides its production is decreasing year after year.
Due to open sewage drains, breeding of mosquitoes and other insects is causing health hazard in all villages.

The prevalent diseases in the area are asthma, chronic bronchitis, tuberculosis, dermatitis, ulcers, lung congestion cancer, malaria, dengue, stone in kidney and gall bladder, eczema, leprosy etc. Discussions with village people revealed many deaths due to cancer.

Birds are generally not visible in the area, vultures and sparrows are almost extinct sometimes crows are seen near households.

Contamination of ground water has grave public health implication. Hand pumps, the only source of drinking water, yielding water yellow in colour with bad odour, oftenly dries up during summers, even the raised platforms around the hand pumps develops a layer of yellow colouration due to excessive chromium content in the ground water.
We have to find out the ways and means for sustainable prosperity of the people in these villages who are living in distressed conditions.

While there is need for a clean and hospitable environment to be accessible for future generations, the present environmental condition of these villages is compelling people to migrate.