

1. In case of Ramdev Bhai Samtabhai v/s. State of Gujarat, (i.e. Original Application no.616/2019-I.A.No. 463/2019), the National Green Tribunal issued directions on 6th December, 2019 to the Gujarat Pollution Control Board (hereinafter referred to as “GPCB”) and the District collector, Jetpur to take action in accordance with the findings recorded in the report of 17th and 18th May, 2018. The action report was required to be filed so as to prevent pollution, recover compensation for the damage caused and to initiate prosecution against the violators of law including the Common Effluent Treatment Plant (hereinafter referred as “CETP”) of Jetpur Dyeing and Printing Association (hereinafter referred as “JDPA”) by following due process of law.
2. The reports submitted by the GPCB as well as Central Pollution Control Board (hereinafter referred to as “CPCB”) on visits made on 19th and 20th December, 2019 clearly indicate that there is no improvement in the prevention of environmental damage caused to the mother Earth. Apart from the use of chemicals used in process by the industries, the effluent generated is drained openly through different channels for collection in sumps erected in river Bhadar. Some units are in the habit of discharging the effluent in open as it is clear from the report. Some units are discharging in the river while some are discharging in the open channel, which ultimately reaches the river. In the river itself, on one side there are two collection centres called sumps and on the other side of the river, the effluent is kept in open in the river bed and thereafter it is pumped to the treatment plant.
3. The reports are in detail indicating that the units are responsible for pollution by discharging the effluent in open. It is also painful to note that the treated effluent as the Association of Industries conveys, is discharged (not as per the standard) in a lake, known as FATAL TALAV, which is not natural one and the effluent is not meeting with the norms. Even agriculturalists are using this for the purpose of irrigation.
4. Whether, the Collector or the Government or GPCB is justified, in permitting the CETP to discharge the effluent which is not meeting with the norms in open lake? On account of percolation of the effluent stored will adversely affect the groundwater. If, the treated effluent is not meeting with the norms then immediate action should be taken so as to

see that the same is not discharged. At various places open channels (taking Municipal drainage also mixed with polluted or untreated effluent) over flowing in the area causing health hazard and dangerous to the environment were noticed.

5. The industry as a whole is getting required water from the bore well or through water tankers or Municipal water supply lines. It is also required to note at this juncture that the study indicates that the 7 MLD, effluent is treated by the CETP after the same is generated by the industry. 6 MLD Sewage is treated by the Sewage Treatment Plant (hereinafter referred as the STP). It is said that industrial effluent and the sewage together in the ratio of 60:40 is treated by the CETP and STP and thus it accounts for 13 MLD only. As a matter of fact, the Municipality is supplying 15 MLD of water. It appears that instead of household purpose, some units are using the Municipal water for industrial purpose. Over and above, the industries are illegally pumping the water from underground. What would be the total water pumped from underground by the industries situated in the city or nearby whose effluent is being treated by the CETP/STP, is also required to be examined. Only after collecting the total figure of underground water that is pumped out by the industries, one can examine the claim of treatment by the CETP is right or not. Again, it is required to note that the Municipality supplies 15 MLD water. According to the assessment 12 MLD would be the domestic sewage and not 6 MLD as claimed. If it is claimed so, then remaining is discharged in open is very clear. Considering the total figure of CETP as well as STP it comes to 13 MLD while the Municipality is supplying 15 MLD and over and above the industries are using bore wells to pump the water and some cases they get water with the help of water tankers. Considering these aspects, it is very clear that much more industrial effluent and sewage is being discharged and all is not being treated in view of the capacity of the plants namely CETP and STP and therefore, it is very clear that the industrial effluent is discharged in the river as well as in the open.
6. No one has obtained permission from the competent authority, namely, Central Ground Water Authority having its head office at New Delhi and having an office in Gujarat to make the bore well to pump the water. According to the records of the CGWA including the CETP and 7 washing

ghats in all 28 applications were received by the CGWA from Jetpur. Out of these, 11 applications have been rejected and 11 applications have been referred back for compliance for consideration and 6 applications are under process. Thus, it is clear that the industries or units having borewell are illegally pumping the water from the earth. This information has been supplied by the competent officer of the CGWA. It is not understood as to why actions are not taken against the persons operating bore-wells without permission.

7. It is also required to be noted that according to ANNUAL REPORT 2016 - 17 issued by CENTRAL WATER COMMISSION at page 25, it is stated that *“the Central Water Commission is monitoring water quality at 406 key locations covering all the major river basins of India. At present the water quality network covers 67 main rivers, 138 tributaries and 55 sub-tributaries. CWC is maintaining a three-tier laboratory system for analysis of the physico-chemical parameters of the water. The Level-I laboratories are located at 406 field water quality monitoring stations on major rivers of India where physical parameters such as temperature, colour, odour specific conductivity, total dissolved solids, pH and dissolved oxygen of river water are observed. There are 18 Level-II laboratories located at selected division offices throughout India to analyse 25 nos. of physico-chemical characteristics and bacteriological parameters of water. 5 Level-III/II + laboratories are functioning at Varanasi, Delhi, Hyderabad, Coimbatore and Guwahati where 41 parameters including heavy metals / toxic parameters and pesticides are analysed. The National River Water Quality Laboratory, CWC, New Delhi has been accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL) in accordance with Standard ISO/IEC 17025_2005 in the discipline of Chemical as well as biological testing. The water quality data generated is computerized in Database system and disseminated in the form of Water Quality Year Books, Status Reports and Bulletins. The data being so collected are put in various uses viz. planning and development of water resources projects, climate change studies, water availability studies, inter-State issues, research related activities, etc.”*
8. Water Quality Monitoring Network in CWC.: - At present, Central Water Commission follows a three-tier laboratory system for providing analytical

facilities for the analysis of river water samples collected from 531 water quality monitoring stations belonging to the Water Quality Monitoring Network and covering all the major river basins of India. The three-tier laboratory system consists of: 1. Level-I Laboratories: These are the field laboratories which are located at field water quality monitoring stations on various rivers of India where in-situ values of six, five physical parameters and one chemical parameter (Dissolved Oxygen) of river water are monitored. There are a total number of 295 level-I laboratories located at field water quality monitoring stations on various rivers of India. (Level 1 WQ Laboratories are indicated in the map published by CWC which includes Bhadar River.)

9. Therefore, CWC is expected to examine the quality of water of river Bhadar. They should collect the samples not only from the reservoir but from the places where there are chances of river water being polluted by human beings and their other activities such as industries. Whether the Commission referred above (CWC) is aware about the use of river bed by the Association for collection of effluent?
10. Man's influence on the quality of water is quite apparent and is now a major concern. Mixing with municipal and industrial waste waters may result in drastic changes in the water quality of natural waters. Agriculturally oriented activities such as irrigation, use of fertiliser, pesticides, herbicides, etc., may lead to diffuse pollution of both surface waters and ground water. Irrigation return waters also tend to increase total salts in the receiving water. Construction schemes, such as those connected with river training, flood control, low flow augmentation, etc., considerably influence the quality regime. Mining activities often cause substantial water quality changes. http://www.cwc.gov.in/sites/default/files/Acticiers_WQM_2019.pdf. http://www.cwc.gov.in/sites/default/files/Activities_WQM_2019.pdf
11. GPCB to request the Authority for the analysis report of samples, if any collected and analysed.
12. It must be remembered by the officers of the pollution control Board as well as the industries, that with a view to develop and disseminate technologies, and monitor and implement national policies for the Scientific and Sustainable development and management of India's

Ground Water Resources, including their exploration, assessment, conservation, argumentation, protection from pollution and distribution, based on principles of economic and ecological efficacy and equity is the mandate. Sustainable Development and Management of Ground Water Resources of the Country is vision and that must be achieved.

13. It appears that no action has been initiated against the persons pumping the water from the underground without any authority. The pollution was noticed in all the four drains from where the samples were taken on 20th December, 2019 clearly indicate that the industrial effluent discharged in the river was not treated.
14. So far as the construction of washing ghats by the units or through the units or for the use of the units by others is concerned, the reports indicate many things. The act of the Collector or his subordinate officer authorising/allowing/ permitting the occupiers of the agricultural lands to use/allow the use of the agricultural lands for other than the agricultural use, is in contravention of the provisions contained in the Gujarat Tenancy and Agricultural Lands Act, 1948 and the Bombay Land Revenue Code, 1879. It seems that the Collector has not taken any initiative and action in the matter against the persons who have directly/indirectly allowed the use of agricultural land for other than agricultural use and in contravention of the tenancy, the revenue and the environmental laws. The officers of the GPCB and CPCB with the help of police and revenue officers demolished the washing ghats, however, the debris can be utilised again for the construction and within no time the construction can be carried out and therefore, mere demolishing the washing ghats will not assist unless strict actions are taken against the persons who have authorised their agricultural lands for industrial purpose or other than agriculture use. The Collector or his subordinate would know from the record as to who are the occupiers of the land where the violation has taken place, therefore, it is for him to take appropriate action in the matter for the use of agricultural lands. It is a sorry state of affairs that despite the direction issued by the National Green Tribunal, no action has been taken so as to see that the directions are fully complied with and there is no repetition of construction of washing ghats.

15. Bhadar River having length of about 200 km is a river in the Saurashtra peninsula, in the Western Indian state of Gujarat. It flows south from its origin through Jasdan, then turns south-west and generally west until it empties into the Arabian Sea near Porbandar. The total catchment area of the basin is 7,094 square kilometres. It is impounded by two reservoirs, Bhadar-I reservoir and downstream Bhadar-II reservoir. The Map at page 67 of the report of GPCB gives an idea about the situation of Jetpur between the two Dams. Approximately, at a distance of 20 km from Bhadar Dam 1 downstream of river Bhadar, Jetpur is situated on the bank of the said River. River moves downstream and at distance of approximately 25 km downstream from Jetpur, Bhadar Dam II has been constructed.
16. In the river bed itself there are 2 collection sumps of CETP from where the industrial effluent is being taken to the other side of the river in a collection of sumps which are also situated in the river bed. If the map is perused it will be very clear that the system is operating in the river itself. Apart from the sumps there are other 3 structures, out of which 2 are joint for collection of the effluent. When on inspection it was found that collection of effluent was on the both the side of riverbed itself, the officers of the Municipality as well as the officers of the Revenue and others were asked to indicate in what circumstances they have allowed the construction in the riverbed for collection of untreated effluent, to which there was no answer. On account of discharge of untreated effluent in the riverbed, storage in the river bed, the untreated effluent would percolate and would adversely affect the underground water. Looking to the size of collection sumps, large quantity of trade effluent remaining round the clock will have adverse effect otherwise also. Now let us see how the sumps for collection of effluent and even channels are laid in the river bed.



(A)



(B)



(C)

A is the photograph of two sumps together.

B is the photograph of two sumps together with a well, where pump is installed to pump effluent to CETP.

C is a photograph of a large collecting area. On enlarging another will be seen with the effluent near about connected with a channel for effluent.



(D) In this picture a large sump for collection of effluent can be seen in the river bed. On the right side, a well with a pump to pump the effluent to CETP can be seen. A well can be seen in picture B above. On enlarging it will be clear that it is in the river bed. One can see the bridge from that it will be clear that it is in river bed.

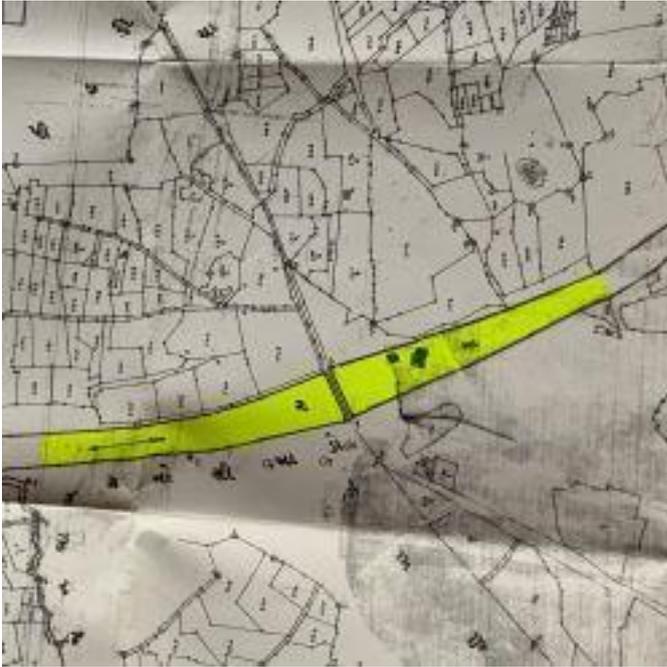
(D1) Building constructed for the use of JDPA in the Riverbed.



(D2) Building. Pipes can be seen for lifting effluent to CETP as claimed.



(E) The map bellow issued by the Revenue Authorities clearly indicates that the Association is collecting the effluent in the river bed. That is admitted position by the Association before the High Court also. That order is also referred later on.



(F) Map from GOOGLE clearly showing Channels, sumps, twin collecting tank, a large tank and a well with pump which are clearly indicated.



	<p>(G) 'Fatel Talav' the place where according to GPCB the effluent claim to have been treated is discharged. The same is used for irrigation by agriculturist. In view of the repo in detail the same cannot be used.</p>
	<p>(H) on side of the river bed where a channel connecting a sump can be seen for collection of effluent. One can see the fire having been ignited to dispose of the unwanted material.</p>

The snaps (A) to (H) are given at the end which can be enlarged.

17. CWC ought not to have allowed the erection of the sumps and large tanks as collection ponds for collecting the effluent in the river. The Local Authorities, namely the Municipality and the Collectorate who are also required to see that water bodies are not used by the industries or other commercial establishments, have allowed the use of river for collection of effluent. If the Association needs land for the purpose of treatment plant or collection centre etc, the Government may be approached for requirement of lands and on payment, the Government may consider their case. But how the authorities allowed the use of the river for collection of effluent in river bed could not be explained. Large area in the river is occupied for storage can be seen. The water bodies, ponds, lakes and rivers are required to be protected but, in this case, there is total negligence shown by the authorities, why?
18. As pointed out in the statement of objects and reasons of the Water (Prevention and Control of Pollution) Act, 1974" *The problem of water pollution of rivers and streams has assumed considerable importance and urgency in recent years as a result of the growth of the industries and the increasing tendency to urbanisation. It is, therefore, essential to ensure that the domestic and industrial effluents are not allowed to discharge into*

the water-courses without adequate treatment as such discharges would render the water unsuitable as source of drinking as well as for supporting fish life and for use in irrigation. Pollution of rivers and streams also causes increasing damage to the country's economy.

19. *Considering the definitions of occupier, outlet, pollution, sewage effluent, Sewer, stream, and trade effluent, it is very clear that in view of section 24 of the Water (Prevention and Control of Pollution) Act, 1974, penal action ought to have been taken in accordance with law in the facts and circumstances of the case.*

20. *It is very difficult to understand under what circumstances, the State Government or CWC allowed the construction of sumps in the riverbed as well as large size of collection area in the riverbed itself for collection of trade effluent. Apart from percolation, during the monsoon the collected effluent will move with the river water and will be stored in Dam No. 2. Every day there is illegal discharge of the trade effluent in the river directly or through other streams which are indicated in the report. The act of collecting the trade effluent in the river bed is contrary to law and is illegal. The office of the Mamlatdar, Jetpur City has issued a certified copy of the map indicating collection of sumps of CETP located in the riverbed. The same map is also signed by the Regional Officer of the GPCB. (In the court proceedings namely Special Civil Application No. 254 of 2009 before the High Court, earlier in an order dated 9th May, 2013 at page 3 observed as under: -*

” According to Ms Raval 6MLD STP has yet not been set up by the respondent No. 5 Association despite there being clear direction of this Court issued in the order dated 12 September, 2012. The GPCB suggested a long-term measure in the form of shifting the sump away from this riverbed and the short-term measure would be to direct Association to take measures to ensure that the river does not get polluted either during the monsoon or during heavy rains.

According to Ms Raval, the problem of accumulation of sludge for the present could be taken care of it if the height of the wall of the sump which is situated in the riverbed is increased up to four feet.

Mr. R. D. Raval, the learned advocate appearing for the respondent No. 5 submits that as far as possible, the Association has abided by the directions issued by this code vide its order dated 12th September, 2012 and they propose to take care of the sludge problem by immediately undertaking the work of increasing the height of the wall of the sump which is situated in the riverbed.

At this stage, we suggested to Ms Raval, the learned advocate for the GPCB that instead of asking the respondent No. 5 Association to undertake the work of increasing

the height of the wall of the sump, it will be appropriate if the GPCB takes the services of an agency and entrusts this work of increasing the height of the wall of the sump. Ms Raval, on instructions from Mr V.R. Patel, Sr. Environmental Engineer of the GPCB and Mr. S.H. Bagde, Regional Officer of the GPCB, who are present in the court to assist her, submits that they will be able to undertake this work by appointing any agency and the cost of construction of the wall should be borne by the respondent No. 5 Association. Mr. R. D. Raval, submits that the Association will fully cooperate with the GPCB in taking care of this problem as a short-term measure and all the expenses shall be borne by the respondent Association."

In the last paragraph of the order the Court has observed "At this stage Mr Raval request the Court that the GPCB may be asked to consider the suggestions of the Association in so far as the relocation of the sump at other appropriate places is concerned. In response to the same, Ms Raval, for the GPCB submits that if any suggestions are made by the Association, the same would be considered by the GPCB."

21. *It was not a petition urging the court to permit the Association to raise the wall. It was a petition by a citizen against the State. It is clear that the Court was monitoring the construction of STP and construction of clarifier and aeration tank. No details were provided indicating the progress for separate collection and conveyance system for domestic effluent for which NOC was granted. There was no question of erecting the collection tanks in the river bed but, for a temporary measure, to solve the problem considering the request, the Court suggested the measures to be taken. That was temporary as the sumps were to be relocated. Despite the adverse effect even today the sumps are found as appearing in the map. Learned counsel appearing for the GPCB was aware that the sump should be removed from the riverbed, however, it was suggested that the Association be directed to take measures to ensure that the river does not get polluted. As indicated above it is clear that till today no action has been taken by the Association to remove the sumps. Under the circumstances, the GPCB must initiate action immediately so as to see that the riverbed is not used for the purpose of storing the trade effluent. And the sumps as well as collection tanks for effluent are removed from the riverbed at the earliest.*
22. *Before the final report is submitted with a view to see that no illegality is perpetuated, immediate action must be taken by the GPCB, the Collector and other authorities concern to restrain CETP/Association from collecting and storing the trade effluent in the river bed for any purpose*

including for transportation from one side of river bed to the other side of the river.

23. *There are many units operating in the city at various places and many are operating in the areas where approach is difficult or is not easy. These are the residential areas. Many units for their requirement of water for industrial use, through water tanker get water. Through open channel the trade effluent is allowed to flow and at certain places the same is allowed to flow with sewage which is not only health hazard but causes nuisance to the people at large. It was also indicated that from the units located in the city, arrangement is being made to collect the industrial effluent through automobile tankers. Looking to the number of units situated in the city and the quantity of water to be transported and the industrial effluent required to be transported to the CETP through number of vehicles moving in the city causing not only pollution but causing traffic hazards. In a small and old city where the roads are very narrow, the District Administration, the Municipal Administration and the Police Administration ought not to have allowed movement of tankers within the city for transportation of industrial effluent. It may be noted that the industrial effluent containing the chemicals on account of accident it may cause a lot of problems.*

24. *Considering the topography of the city, small roads, the industries operating from houses situated in lanes have provided open channels to drain the industrial effluent or the sewage effluent or both. The Municipality has commenced the work of the close gutter line and in some areas they've done. However, looking to the number of industries situated in the city, looking to the nature of the industrial effluent, considering the inadequate size of the treatment plant for the industrial effluent, inlet norms for CETP are found in breach in most of the cases and storage of the industrial effluent in the riverbed are hazardous and against the public interest and therefore, in view of all the circumstances the operators of sari printing and such other units must be shifted out of the city in an industrial zone so that with proper technology, the Industrial Estate can be erected which would take care of various problems and Jetpur will be free from hazards of industrial effluent. No doubt, it would not be at one place and may be at 2 or 3 places where all the units working at present can be*

accommodated and convenient places can be given to the units. The state government will have to take initiative by providing the land nearby area at a reasonable rate or to undertake the establishment of Industrial area through its own Gujarat Industrial Development Corporation so as to solve various problems arising.

25. *Originally, when the printing work of Saris commenced at Jetpur, there were very few units however, the work of printing has increased a lot and it is not that the work is limited to printing saris only but are printing clothe for export also. With the increasing number of the units using chemicals and other material industrial effluent is generated and therefore, it is absolutely necessary that for scientific disposal of the industrial effluent, the collection also should be scientific causing no nuisance to anyone. It can be done only if industrial estates are operating with latest facilities according to the nature of the units operating which would help in decreasing the level of pollution. If the new industrial estates are erected, there that can be appropriate greenery to protect the environment and also there can be appropriate method for rain harvesting so as to see that the natural/Rain water is stored.*
26. *About the treatment of sewage, very recent news item published in the Times of India, dated 29th February, 2020 cautions everyone indicating adverse effects of use of treated sewage water. However, no remedy is indicated. Whether chlorination as per standard or as per requirement would remove the effects of E coli noticed is not indicated. The news item reads as under.*

A short report has been published on 29th February, 2020 by Times of India, Ahmedabad, under the title 'Ahmedabad: Treated waste water turns bacteria drug resistance' the article further states that

"what does not feel you, makes you stronger" said renowned German philosopher Friedrich Nietzsche. This ode to re-silence ironically applies to micro-organism which are apparently not seen by naked eye.

Treated water more dangerous?

40% E coli in treated water of Jaspur resistant to fluoroquinolone prescribed to treat respiratory and urinary tract infections.

20% E. coli of Chandkheda resistant to levofloxacin (LVX), norfloxacin (N F X) and tetracycline (T C); 40% resistant to kanamycin mono sulphate (K M C).

why you should be concerned?

Drug and multidrug resistant bacteria to make common infections life-threatening and costlier to treat.

By 2050, more deaths may be due to antimicrobial resistant infections compared to other significant causes.

A joint study by researchers from India, Shri Lanka and Japan on 3 waste water treatment plants (WWTPs) in Ahmedabad in India and three places in Shri Lanka revealed that multidrug resistant bacteria are more prevalent in the treated water of these plants.

“The study included three plants at Jaspur, Chandkheda and Vasna in Ahmedabad. Maximum E. coli prevalence was found at Vasna, which was highest across the 6 places studied. The study measured bacteria level in the influent, a discharge point, 20 m and 50 m from the point “said Prof Manish Kumar of IIT Gandhinagar (IIT-Gn.), lead author of the study.

Polluted water used for irrigation.

It is a cause of worry because treated water from Jaspur and Chandkheda issued for irrigation 769 hectares collectively, as recorded in 2018. The Vasna plant’s water is released into Sabarmati River.

Titled ‘Treatment enhances the prevalence of antibiotic resistant bacteria and antibiotic resistance genes in waste water of Shri Lanka and India’ the study was published recently in Environmental Research’ by Elsevier. Other authors include Bhagwan Ram from IIT Gandhinagar (IIT- Gn), Himaya Sewwandi and Tushar Chaminda from University of Ruhuna in Shri Lanka, Sulfikar and Ryo Honda from Kanazawa University, Japan.

Prof. Kumar added that while the treatment-done by activated sludge process (ASP) - does not reduce the overall prevalence of faecal bacteria significantly, the bacteria that survives the process are majorly the of drug-resistant ability.

‘E. coli prevalence was reduced during treatment, but seemingly the remaining bacteria could adapt in the presence of antibiotics that led to a further increase in resistance.... As far as the gravity of the situation is concerned, the resistance to fluoroquinolone is worse and thus Shri Lankan condition seems better than India’ mentioned the study

the study also mentioned that E. coli strains of all the locations in both countries exhibited multidrug resistance implying a serious health concern in the near future. Strains showed a varying level of

resistance for quinolone and non-quinolone groups of the antibiotics.

(A) Photograph of a twin collection tank in river Bhadar.



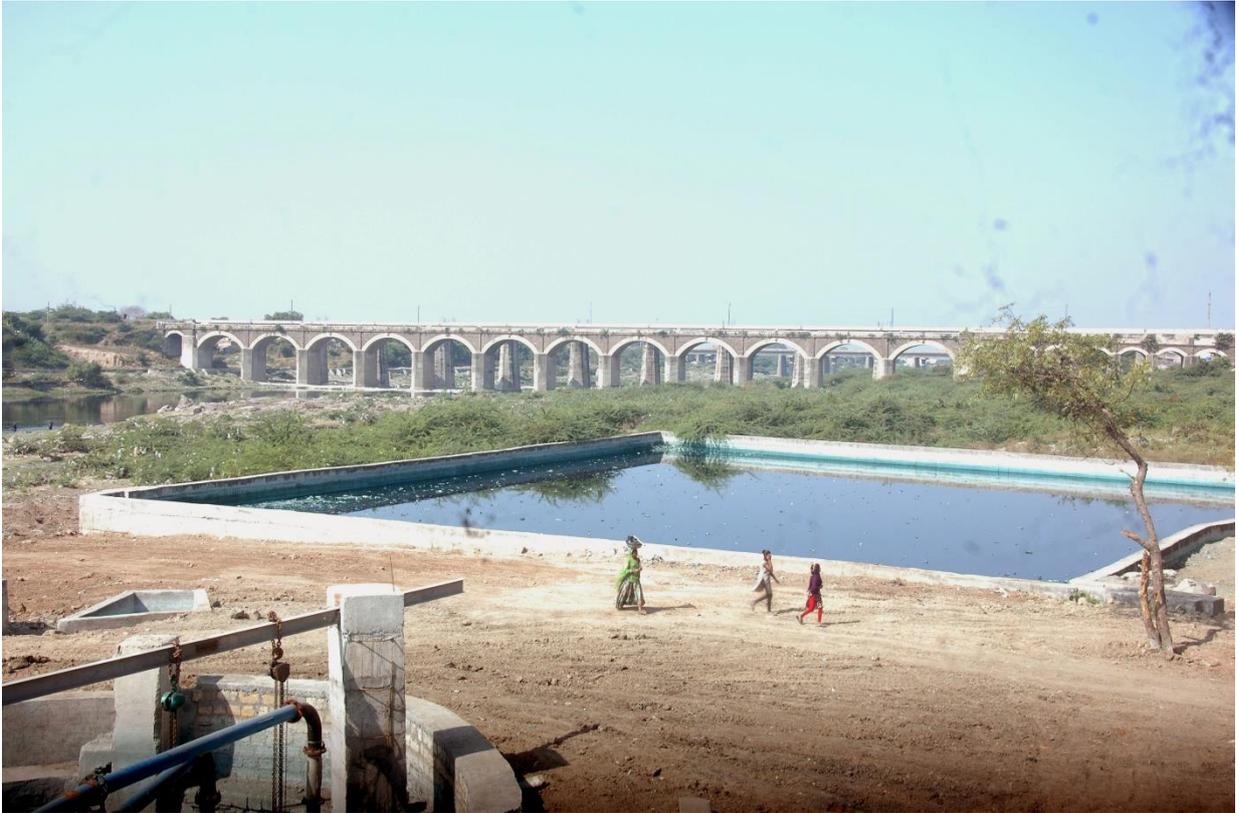
(B) Photograph of a well structure wherein a pump is installed to pump effluent to the plant.



(C) Photograph. Opposite to collection tank where a channel can be seen in the river.



(D) Photograph. Big collection tank near well for pumping



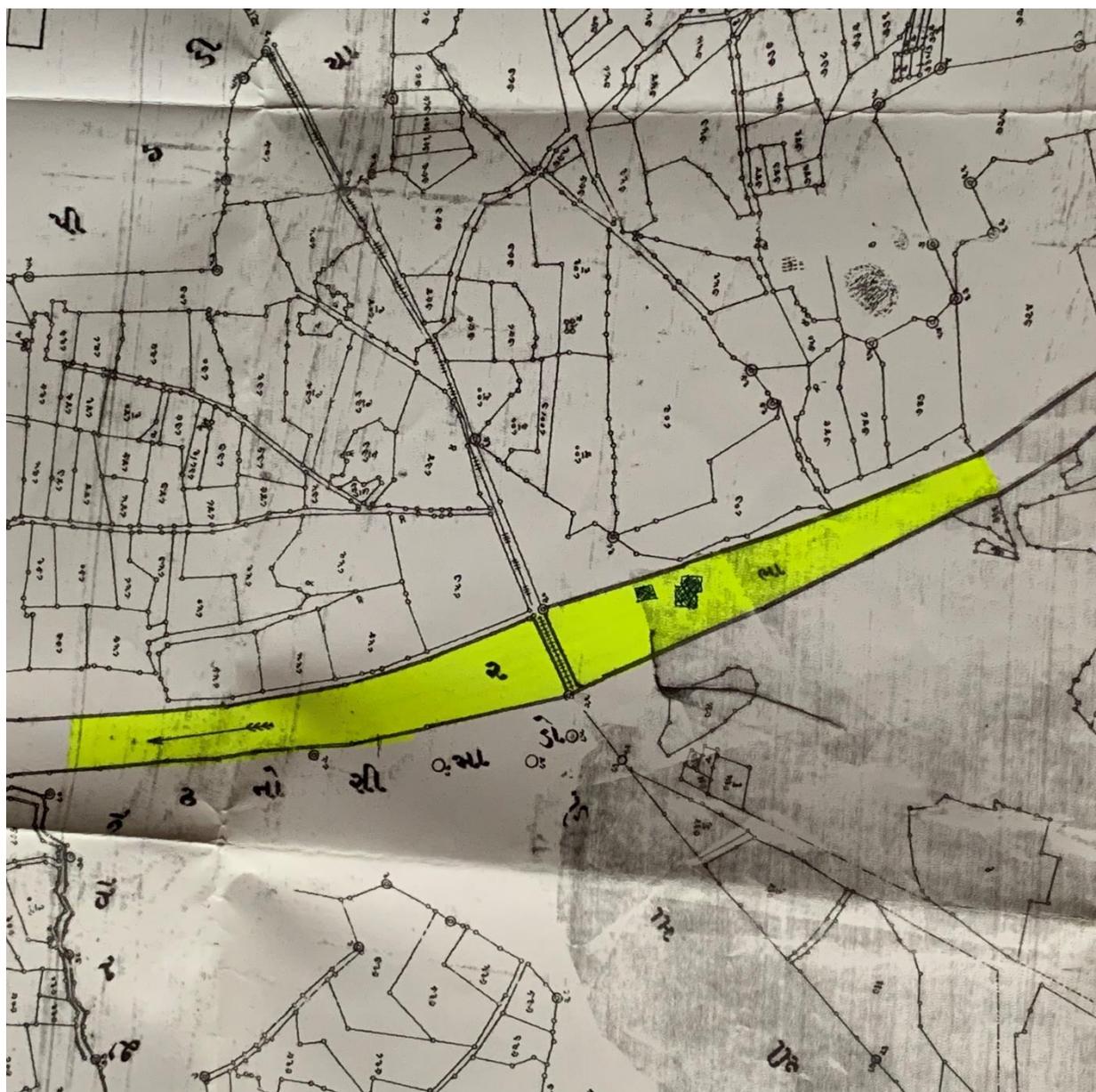
(D1) Photograph adjacent to well.



(D2) Photograph of the building with pipes for transporting effluent.



(E) Revenue Map indicating collection tank in River



(F) Google Map. Channels, sumps, collection tanks and a well wherein a pump is installed for pumping effluent can be seen and all in river bed.



(G) Photograph of Fattel Talav, where treated effluent is stored which is used for agricultural purposes by cultivators.



(H) Photograph sump and channel in river.



