

Annual Report of Project Well of 2014

Summary:

Project Well conducted the following activities in 2014:

- 1) Construction of 38 bi-tech wells;
- 2) Site selection for construction of 18 more bi-tech wells built in December 2014, will be completed in January 2015;
- 3) Training new communities on distribution of disinfectant;
- 4) Renovation of some old dugwells and maintenance of a few bi-tech wells;
- 5) Annual measurement of arsenic concentration of water in a few of the functional wells and all the newly constructed wells;
- 6) Conducting several village meetings during site selection and continuous education of user communities through health meetings and projector programs;
- 7) Attending meetings and conferences (by members and staff of Project Well and its partner organisation in India, Aqua Welfare Society).



PW 291 – Deganga, North 24 Parganas



PW 280 – Chakdah, Nadia

The locational coordinates of 56 bi-tech wells in Nadia and North 24 Parganas districts of West Bengal

Well ID	Lat	Long	Land donor	Village	Block	Arsenic in PPM (wagtech field kit)
PW278	23.22061	88.62514	Horipada Somajdar	Chowgacha/Dewli	Chakdha	0.01
PW279	23.08098	88.62194	Amar Chand Sarkar	Chowgacha/Dewli	Chakdha	0
PW280	23.04376	88.62296	Nitai Biswas	Chowgacha/Dewli	Chakdha	0

Well ID	Lat	Long	Land donor	Village	Block	Arsenic in PPM (wagtech field kit)
PW281	23.05329	88.63655	Mrittunjoy Biswas	Metepara/Hingnara	Chakdha	0
PW282	23.05032	88.63531	Porimal Das	Metepara/Hingnara	Chakdha	0
PW283	23.05494	88.633962	Gopal Biswas	Metepara/Hingnara	Chakdha	0
PW284	23.05237	88.66253	Surojit Sirali	Purulia/Hingnara	Chakdha	0.02-0.04
PW285	23.04987	88.66345	Biren Mondal	Purulia/Hingnara	Chakdha	0
PW286	23.04809	88.65165	Tarun Kanti Sarkar	Ballavpur/Hingnara	Chakdha	0
PW287	23.02335	88.60209	Bhanu Sarkar/Narayanpur Prathomik Vidyalay	Narayanpur/Dewli	Chakdha	0
PW288	23.08064	88.6584	Krishno Paik	Purulia/Hingnara	Chakdha	0
PW289	23.03769	88.66146	Sanjit Biswas	Purulia/Hingnara	Chakdha	0
PW290	22.75184	88.67168	Sirajul Islam	Pukurhati Subarnopur	Deganga	0
PW291	22.74825	88.6775	Amin Kazi	Pukurhati Subarnopur	Deganga	0
PW292	22.75184	88.67168	Wajed Ali	Pukurhati Subarnopur	Deganga	0
PW293	22.72262	88.70787	Jainal Abedin	Subarnopur	Deganga	0
PW294	22.75771	88.76906	Sariful Islam	Patharghata	Deganga	0
PW295	22.74982	88.66104	Arsab Ali	Patharghata	Deganga	0.01-0.02
PW296	22.75056	88.67513	Shahabuddin Islam	Pukurhati Subarnopur	Deganga	0
PW297	22.79824	88.74941	Sahadad Hossain	Mandra	Baduria	0
PW298	22.80455	88.7615	Anarul Islam	Rajapur	Baduria	0
PW299	22.81867	88.7681	Hamidur Tarafdar	Rajapur	Baduria	0
PW300	22.79749	88.75275	Sodpur mandra primary school	Mandra	Baduria	0
PW302	22.89797	88.84985	Chamid Mondal	Kewtali	Swarupnagar	0
PW303	22.80846	88.82156	Jiyarul Biswas	Gopalpur	Swarupnagar	0

Well ID	Lat	Long	Land donor	Village	Block	Arsenic in PPM (wagtech field kit)
PW304	22.85665	88.80132	Tarun Vatta	Chotto Mirjapur	Swarupnagar	0
PW305	22.81866	88.84592	Jiyad Mondal	Barghoria	Swarupnagar	0
PW306	22.8781	88.81535	Nur Hossain Mondal	Kanchdha	Swarupnagar	0
PW307	22.87017	88.828	Mrs.Rawnjita Mondal	Kopileshwar	Swarupnagar	0
PW308	22.92101	88.8259	Bimal Das	Moddhom Barasat	Gaighata	0
PW309	22.91247	88.79006	Raman Das	Bisnupur	Gaighata	0
PW310	22.91266	88.79752	sushanto Tarafdar	manikhira	Gaighata	0
PW311	22.92369	88.8505	binoy pal	pabnapara	Gaighata	0
PW312	22.9238	88.84692	kali mandir pabnapara	pabnapara	Gaighata	0
PW313	22.92248	88.82536	Prodip Sarkar	Moddhom Barasat	Gaighata	0
PW314	22.91266	88.79752	jatin bala	Nagbari	Gaighata	0
PW315	22.91524	88.82125	Tapon Poddar	Sutia	Gaighata	0
PW316	22.94482	88.81951	Prodip Kumar Vawyali	Molaypur Math Para	Gaighata	pending
PW317	22.95219	88.85562	Tapan Halder	Jhawdanga	Gaighata	pending
PW318	23.00441	88.84605	Biswadeb Biswas	Anrail	Gaighata	pending
PW319	23.00357	88.84497	Adhir Biswas	Anrail	Gaighata	pending
PW320	22.86565	88.79529	Khidir Mondal	Damhati	Swarupnagar	pending
PW321	22.86571	88.71529	Miyaraj Mondal	Kanchdaha	Swarupnagar	pending
PW322	22.83851	88.81693	Mijanur Biswas	Laskarpota	Swarupnagar	pending
PW323	22.85876	88.80274	Kalipada Biswas	Chotto Mirjanur	Swarupnagar	pending
PW324	22.82566	88.75782	Mosaref Molla	Raipur	Baduria	pending
PW325	22.80078	88.81245	Narayan Das	Buruj	Baduria	pending
PW326	22.81142	88.76328	Jahangir Mondal	Rajapur	Baduria	pending
PW327	22.82494	88.76797	Daud Molla	Binerhati	Baduria	pending

Well ID	Lat	Long	Land donor	Village	Block	Arsenic in PPM (wagtech field kit)
PW328	22.81669	88.76598	Nilpada Kahar	Rajapur	Baduria	pending
PW329	23.07125	88.60229	Shyamal Mal	Sohispur	Chakdha	pending
PW330	23.08351	88.6039	Krishana Parui	Porali	Chakdha	pending
PW331	23.08327	88.60724	Nayan Sarkar	Porali	Chakdha	pending
PW332	24.19633	88.67537	Bijoy Sikdar	Sohispur	Chakdha	pending
PW332	24.19633	88.67537	Bijoy Sikdar	Sohispur	Chakdha	pending
PW333	23.03506	88.61764	Mithun Parui	Chowgacha	Chakdha	pending

Construction:

During the year, 38 bi-tech wells were constructed, of which 26 wells are in the district of North 24 Parganas and 12 bi-tech wells in Chakdha block of Nadia district. 35 bi-tech wells were funded by MSSCT through Blue Planet Network (BPN), two were funded by Amrita Seattle and one by a private donor. Additionally, at the end of the year, BPN sent funds from MSSCT for 18 wells, including 4 wells for which the funds were raised by Ms. Stephanie Hellman, an employee of Wells Fargo Bank. Ms. Hellman had made an extensive visit this year to the villages in India as part of the community outreach WASH program of Wells Fargo.

For the construction of the first set of 38 wells, site selection began in November of 2013. For the second set of 18 wells, site selection was done in October and November of 2014. During site selection, water sample collection from two tubewells close to the proposed sites were tested. In total, 115 + 159=274 sources of both shallow and deep tubewells were analysed for 52 sites. 38% of 159 sources contained arsenic levels higher than 40 ppb.

Two sites, PW317 and PW322, could not be completed as planned, because of the site location. Construction of the latter 18 wells took place after the monsoon season and pressure from the water in the soil on the sides of the well caused a near-collapse of the sides while the well was being dug. These two wells will be completed in March 2015 when the water level will reduce.

Maintenance of the wells was carried out throughout the year. All the field staff were engaged in conducting awareness meetings before and after construction of the new wells, in addition to village health meetings wherever there were problems that led to the well water not being used or being underused. Projector programs were also held in schools and communities to educate on the importance of not drinking arsenic-tainted water and on other health issues relevant to the audience (detail information is given below).

The reports on all the 58 bi-tech wells completed in 2014 are uploaded on the Blue Planet Network website:

1. <http://my.blueplanetnetwork.org/projects/2272-arsenic-safe-drinking-water-north-24-parganas-set-8a-26> (MSSCT-BPN (24), Amrita Seattle (1) and Philip & Jennifer Milner (1) - PW290 to PW315 - \$22,444);
2. <http://my.blueplanetnetwork.org/projects/2261-arsenic-safe-drinking-water-nadia-set-8d-12> (MSSCT-BPN (11), Amrita Seattle (1) - PW278 to PW289 - \$10,359);
3. <http://my.blueplanetnetwork.org/projects/2472-arsenic-safe-drinking-water-nadia-set-8c-5> (MSSCT-BPN (5) PW329 – PW333 - \$4,316);
4. <http://my.blueplanetnetwork.org/projects/2478-arsenic-safe-drinking-water-north-24-parganas-set-8b-13> (MSSCT-BPN (13) PW316 - PW328 – \$11,222);

A glance at activities during 2014:

Awareness Programs

The Awareness team carried out field activities such as surveys of the communities, recording the number of users and administering Theoline doses, organizing health meetings, and motivating the villagers to drink arsenic-safe water and practice proper personal hygiene to avoid falling sick from water- and food-borne bacterial diseases. Due to efficient planning, there were 132 health meetings discussing the health benefits of using arsenic-safe chlorinated water from the bi-tech wells, practice of personal hygiene, proper sanitation and maintaining cleanliness around the house. There were 56 village meetings



Projector Program in Diyara Junior High School, Gaighata, on January 31st 2014



Village meeting at Sirajul Islam's house (PW290), Deganga, on March 31st, 2014.

before the construction of 56 bi-tech wells and 46 after construction of the wells; a few are still pending. During the village meetings, the staff and community discussed maintenance of the wells to be undertaken by the community. During the monsoon months and in January, 16 projector programs were held, mainly in schools. As a rule, health meetings are held in

the communities where the number of user families is less than seven, and projector programs are held where response to the wells is extremely poor, including sites where the water is not being used at all. At almost every meeting, pictures are taken for documentation.

In March, Stephanie Hellman of Fairfield, California, visited the Project Well sites in West Bengal; her trip was sponsored by Wells Fargo Bank, where she works. Her objective was to visit a few schools in the village to create awareness of the practice of hand washing. Her visit was very successful. She raised funds for four bi-tech wells.



At the St. Annes Girls School in Bamandanga on March 12th 2014



Hand washing program at Mohiishakati school, Swarupnagar, on March 14

A street show was held on 29th August by about 20 students from the co-education school of Kolkata, Lala Laxmipat Singhania Academy, in a community where a bi-tech well was installed. A report was published in the newspaper 'Times of India' student edition entitled 'LSA students visit Maslandpur'

In addition to meetings in the communities and schools in the target villages, Project Well also gave a presentation on February 24th at Foothill College, Los Gatos, California, to create awareness amongst the students on the holistic approach of the Project Well program (an approach that includes construction, education and monitoring and maintenance, all crucial in making a program sustainable). This meeting was initiated by California-based not-for-profit organization Chemists Without Borders, who have initiated a school-to-school knowledge exchange program with Asian University for Women in Chittagong, Bangladesh, through a few local undergrad interns with the help of students of the Foothill College over the internet through skypeing and email.

Similarly, the Seattle-based non-profit Amrita Seattle is also interested in implementing programs similar to Project Well in arsenic-afflicted villages of Murshidabad district in West Bengal, and Project Well has been advising that group. Apart from these non-profit organizations, there were also three students—two students from the University of Patna in Bihar and one from University of California at Davis—who visited the sites in Nadia and North 24 Parganas to learn about bi-tech wells and how to include these wells as one of the mitigation options in arsenic-afflicted areas of Bihar.

The director of Project Well visited the villages eight times during her two visits to India this year, and Dr.Timir Hore and Prof. Allan Smith, the President and the Treasurer of Project

Well respectively, have also visited the field in 2014.

A reporter from the Centre for Science and Environment visited a few sites in Swarupnagar on 14th May and the ensuing article was published online on September 15th 2014 in the journal Down to Earth, in a story called 'Good ol' dug well' (<http://www.downtoearth.org.in/content/good-ol-dug-well>)

On 22nd September, Project Well program hosted a donor appreciation get-together to acknowledge the donors and well-wishers like Blue Planet Network, Amrita Seattle, and Rotary Club of Richmond.



In 2015, we are beginning to introduce blood pressure screening and training women to produce low-cost sanitary napkins for better reproductive health and also to generate income. These are being introduced amongst the well-water user communities.

At the end of 2014, 249 wells in total are functional out of the 315 that were constructed since 2001. Of the total of 66 closed, most were of the older traditional dugwell design. 18 more wells will be completed in January 2015, bringing the total number of functional wells to 267. As maintenance is one of the three main activities of Project Well, regular monitoring is conducted every month. Five dugwells were dredged and three dugwells needed to be washed. Renovation of 12 wells was undertaken, including repair of the apron around the hand pumps, cementing the inner wall of leaking wells, extending drainage pipes, and replacing check valves on 32 hand pumps that needed this replacement. Washing, dredging, and part of these renovations are paid from Project Well/AWS funds. The communities make payments for the hand pump repairs. Some communities also purchase the disinfectant. From January 2015 onward, purchase of Theoline will be mandatory.

66 wells still require close monitoring to improve the quality of water and usage by the respective communities. According to field register records of November, 7356 consumers are using the wells for drinking and/or cooking and 345 are using the wells for other purposes. This underuse of well water in November is due to poor quality of water with either high content of iron or organic odor. This year, due to unusual distribution of rainfall in some areas, the water was more turbid than during other months, resulting in a reduction in the number of consumers.

In December, there was an increase of 250 consumers from 54 families after several field visits from the staff. The total number of consumers as per the registers is 7606. Basic demographic information of this population has been computerized.

As mentioned above, during the year, 274 water samples of shallow and deep tubewells were tested with the VISUPASS field kit as part of the site selection protocol. Initial arsenic tests were done in the 38 new bi-tech wells provided by Project Well-Aqua Welfare Society. This year, annual arsenic testing was not done. The annual test of all the wells is being planned for February and March of 2015.

This method of detailed management is now being facilitated by the Blue Planet Network web-based platform. These WASH plans are available here <http://blueplanetnetwork.org/>.

Administration:

Project Well directors met with the board members of Aqua Welfare Society several times during the year in May and November 2014. The Annual General Meeting, AGM, of Project Well was held on November 7th 2014 via internet by sharing the financial statements over email; the AGM of Aqua Welfare Society was held on May 20th 2014 in Kolkata at the house of one of the AWS members.

Re-appointment of the field workers was done by giving them contract letters. Mrs. Farida Bibi coordinates the activities in the field, Mr. Biswajit Karmakar and Mr. Laltu Mirza are in the Construction and Maintenance Team; Mrs. Shilpi Poddar and Mrs. Jyotsna are responsible for planning, organizing and recording the awareness meetings, Mrs. Shikha Majumdar and Mr. Ranajit Bala are field workers in the district of Nadia who manage all the activities of the wells in that district. Ms. Champa Mondol and Mr. Safikul Molla are responsible for the office work, including testing arsenic levels using the field kit and keeping account of office registers and records. Mr. Safikul has also started entering demographic data from this year and getting training to do district-wise assessments of the status of wells every month. Mr. Animesh Chandra Sarkar is the field worker who manages the wells of the Swarupnagar block of N 24 Parganas. Mr. Prasun Hira (data entry personnel) and Mr. Jayanta Dey (accountant) were also re-appointed. Ms. Sulagna Dey, a post-graduate student in Chemistry, is based in Kolkata and has been engaged in creating, uploading and updating reports on the Blue Planet Network and Project Well websites. The team below is the main force of the arsenic mitigation and health-related program in India.



We are deeply thankful to our donors Blue Planet Network for sponsoring 53 bi-tech wells, Amrita Seattle for sponsoring two wells, Stephanie Hellman for raising funds for four wells, and a well-wisher of AWS for one well. The continuous support of the honorary advisors / members of Project Well and Aqua Welfare Society is highly appreciated—these individuals are constantly engaged in discussions to improve and expand the program to provide arsenic-safe drinking water to the communities in rural Bengal.
