

A Brief Report on Arsenic Testing Campaign in Tihuria Village

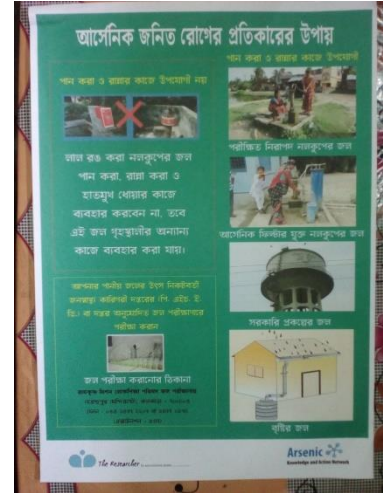
After receiving the Arsenic Test kit from the Merck, we first of all organized a brief training camp in a local club premises to explain the purpose of using the kit to get preliminary knowledge about presence of arsenic in village groundwater. The camp was attended by several community people including members from women's Self Help Group, youth clubs and ASHA health workers. They took keen interest in understanding the test process and agreed to take part in the exercise. Then we went to a household, members of which were keen to test their domestic tube well water. There we conducted the first test and demonstrated the process before the community members present. But as the testing process is quite delicate, our team has to bear the responsibility to conduct the tests in each case.

Then households from different corners of Tihuria village were randomly approached and initial enquiries were made regarding the nature of usage of their tube well water. On basis of pattern of use, a total no of 40 households were selected and their domestic tube wells' water was tested with Merck Testing Kit. Our team put emphasis on the families who use the tubewells water for mostly cooking, and in some cases drinking purpose also. Depths of these tubewells range between 20 to 100 feet. It is found that not only the selected families, but also the other families from the localities heavily depend upon these hand pumps for domestic activities like cleaning utensils, washing clothes, bathing, cleaning household, cooking, and in many instances as drinking water also. Pollution of the surface water bodies, caused by a practice of intensive fish cultivation plays the primary role behind the heavy dependency on ground water. Another reason is the lack of alternative water source for these families. Govt. funded deep tubewells are very less in number, and the PHED water supply has not yet reached the major portion of the village.

Our team collected water directly from the sources and instantly performed the testing process in front of the present family members and their neighbors. During the process, GPS locations of each of the tube well were noted. After that, family members and the neighbors were explained regarding the

danger of arsenic poisoning, prevention methods, necessity of testing from proper laboratory is done. They were handed out a colorful pamphlet elucidating the health effects of arsenic contamination on human body.

The whole testing exercise was conducted during full monsoon season and hence required more time than we anticipated. Further the testing process and subsequent explanation of the problem took substantial time to conclude each testing. But the benefit had been that the community people got firsthand knowledge about the presence of arsenic in water that were consumed by them, became keen to have their domestic water tested and agreed to take part in the future process of exploring remedial measures through negotiation.



Arsenic Testing Data:

SL	Head of Family	Contact No.	Locality	Depth of Well (ft)	Primary Status of As Test (mg/l As)										Location of the Tube Well		Date			
					0	0.005	0.010	0.025	0.05	<	0.1	<	0.25	<	0.5	<		N	E	
1	AmalenduMondol	9330982200	Tihuria	80						1								22°28'41.0"	88°27'38.5"	7/7/2017
2	GobindoMondol	9903330501	Bhola Para	80				1										22°28'51.1"	88°27'50.7"	15/07/2017
3	GopalMondol	8017461770	Bhola Para	90				1										22°28'49.7"	88°27'50.3"	15/07/2017
4	AjoyMondol	9674399152	Bhola Para	95			1											22°28'54.6"	88°27'51.6"	15/07/2017
5	GopalPorakait	8017282187	Bhola Para	92		1												22°28'46.7"	88°27'52.5"	15/07/2017
6	RamapadaKoyal	NA	Koyalpara	40					1									22°28'46.9"	88°27'40.9"	17/07/2017
7	BhombalKoyal	NA	Koyalpara	50						1								22°28'47.1"	88°27'41.4"	17/07/2017
8	SurjaKantaKoyal	8444866323	Koyalpara	30							1							22°28'44.0"	88°27'40.5"	17/07/2017
9	AshiniKoyal	7059610376	Mondol Para	25					1									22°28'40.3"	88°27'41.6"	17/07/2017
10	BhutnathSardar	9674701355	Sardar Para	60							1							22°28'35.6"	88°27'42.1"	17/07/2017
11	BonamaliSardar	9051300850	Sardar Para	60			1											22°28'37.4"	88°27'40.2"	17/07/2017
12	BhothnathMandal	9830522688	Mondol Para	20						1								22°28'36.3"	88°27'37.4"	17/07/2017
13	Sunil Ch. Mandal	9830816477	Mondol Para	20						1								22°28'36.7"	88°27'34.2"	17/07/2017
14	KashinathMondol	8013864246	Mondol Para	20					1									22°28'37.5"	88°27'35.2"	17/07/2017
15	Nil MadhabMondol	7003285366	Tihuria	25					1									22°28'32.0"	88°27'32.6"	27/07/2017
16	SashadharMondol	8620873479	Tihuria	25							1							22°28'29.3"	88°26'59.8"	27/07/2017
17	MahadebMondol	9088827299	Tihuria	50			1											22°28'32.9"	88°27'42.5"	27/07/2017
18	Sanjay Mondol	9836486811	Paschim Para	40				1										22°28'32.9"	88°27'24.5"	27/07/2017
19	ArdhenduBiswas	9674771005	Paschim Para	60			1											22°28'32.5"	88°27'29.5"	27/07/2017
20	NimaiMondol	9051140685	Majher Para	95				1										22°28'28.9"	88°27'47.9"	29/07/2017
21	Amar Bera	9674453819	Majher Para	90				1										22°28'26.2"	88°27'47.5"	29/07/2017
22	Mongol Mondol	8013441470	Majher Para	100				1										22°28'25.7"	88°27'50.6"	29/07/2017
23	Shankar Mandal	7278077074	Majher Para	90				1										22°28'20.3"	88°27'43.4"	29/07/2017
24	MonojMondol	7686860260	Dakshin Para	100			1											22°28'14.9"	88°27'45.7"	29/07/2017
25	Ranjit Manna	7278482137	Dakshin Para	92			1											22°28'14.5"	88°27'41.2"	29/07/2017
26	GopalDey	9163902927	Dakshin Para	90							1							22°28'16.3"	88°27'42.5"	29/07/2017
27	Biswanath Paik	NA	Dakshin Para	85				1										22°28'20.8"	88°27'44.3"	29/07/2017
28	Amar Makhal	9051978445	Dakshin Para	92														22°28'22.6"	88°27'44.3"	29/07/2017
29	Nita Ghosh	9836485389	Dakshin Para	85				1										22°28'30.2"	88°27'47.5"	29/07/2017
30	BanshariGayen	8620970838	Saheberabad	90			1											22°28'35.3"	88°27'52.3"	1/8/2017
31	SambhunathGayen	9748676262	Saheberabad	90			1											22°28'33.6"	88°27'49.5"	1/8/2017

32	Ram Naskar	NA	Saheberabad	80				1									22°28'30.3"	88°27'51.0"	1/8/2017
33	NimaiMondol	7278377865	Saheberabad	100				1									22°28'31.2"	88°27'54.4"	1/8/2017
34	SukumarNaskar	9163780978	Saheberabad	90				1									22°28'28.1"	88°27'58.0"	1/8/2017
35	GurupadaMondol		South Tihuria	50				1									22°28'28.0"	88°27'24.5"	4/8/2017
36	PalanSardar	7890899929	South Tihuria	45				1									22°28'24.8"	88°27'24.1"	4/8/2017
37	BasudebSardar	7890935324	South Tihuria	50				1									22°28'23.9"	88°27'28.1"	4/8/2017
38	ChoneHaldar	9163849360	South Tihuria	20				1									22°28'21.2"	88°27'26.3"	4/8/2017
39	UttamHaldar	9163849360	South Tihuria	25				1									22°28'19.0"	88°27'21.8"	4/8/2017
40	DulalMondol	8697618993	South Tihuria	26				1									22°28'17.6"	88°27'32.2"	4/8/2017

What we will do next?

17 out of 40 samples have been detected with arsenic presence of 0.05 mg/l; i.e. above the safety level as per the Govt. of India. Then we had a discussion with officials of the PHED accredited laboratory at Ramakrishna Mission's Loka Siksha Parishad, Narendrapur about testing of these samples in laboratory. Unfortunately, the spectrometer of the laboratory is not functioning presently due to some mechanical problem and they are waiting for PHE mechanic to repair the same. Hence, we have to wait for the machine to become functional before we collect samples from the village and hand over the same to the lab. We are having constant touch with the laboratory people, and we shall initiate the laboratory testing process as soon as the issue is solved. Then only we can decide about the next step of holding the said workshop.