Asia Arsenic Network

Activity Report - December 2006

Date: 15th January 2007

Reported by: Md. Abu Shamim Khan, Operation Manager (Jessore)
Md.Al-Amin Mollah, Administration & Accounts Officer
Md.Monjur Kader, Project Coordinator
Sayed A. H. Sunny, Administration & Accounts Manager (Dhaka)

1. Panjia Project (Phase II)

1.1 Users Committee Formation and Users Share Collection in Panjia and Bidyanadakati Unions

According to the decision to install 8 (eight) more DTWs in Panjia (6) and Bidyanandakati (2), we started the formation of Users Committees in respective Unions. During December, 8 Users Committees were formed prior to the installation of a safe water option in every community where a DTW had been selected. After the formation of Users Committees, they collected users' contribution and submitted to AAN. All committees paid full contribution, i.e. 10% of the installation cost, as detailed below:

Date	Union	Ward	Village	Name of the Committee	Users Share
5-Dec-06	B.Kati	2	Hasanpur	Hasanpur East Para WSC	5,000
11-Dec-06	Panjia	6	MadarDanga	Madar Danga Middle Para WSC	5,000
16-Dec-06	Panjia	1	Mandar Danga	Mandar Danga East Para WSC	5,000
17-Dec-06	Panjia	7	Rajnagar Bakabarshi	Rajnagar Bakabarshi Middle Sardar Para WSC	5,000
19-Dec-06	Panjia	5	Monohornagar Patharghata	MonohorNagar Patharghata Karmakar Para WSC	5,000
19-Dec-06	B.Kati	4	Choto Mohadevpur	ChotoMohadevpur North Para WSC	5,000
21-Dec-06	Panjia	9	Panjia	Panjia Thakur Para WSC	5,000
23-Dec-06	Panjia	3	Belokati	Belokati North West Para WSC	5,000
				Total	40,000

WSC = Water Supply Committee

1.2 PRA program in Panjia & Bidyanandakati Unions

To select the position of a new water device, we ran 8 PRA programs in different paras where Ward Arsenic Mitigation Committees requested AAN to install DTWs. The PRA activity in December is summarized in the following table:

Date	Union	Ward	Para	Village	Para Information					Attendance	
					Total TW		Family	Male	Female	Male	Female
					Red	Green					
5/12	B.Kati	2	East para	Hasanpur	16	1	49	93	92	28	16
13/12	Panjia	6	Middle Para	Madardanga	15	0	24	43	57	12	5
14/12	Panjia	1	East Para	Mandardanga	6	0	28	55	38	15	7
15/12	Panjia	5	Karmakar Para	Monohornagar	14	0	33	77	58	15	3
17/12	Panjia	7	Middle Dofadar Para	R. Bakabarshi	9	0	40	80	70	35	7

Date	Union	Ward	Para	Village	Para Information					Attendance	
					Total TW		Family	Male	Female	Male	Female
					Red	Green					
18/12	B. Kati	4	North Para	Choto Mohadevpur	16	0	40	91	81	20	25
21/12	Panjia	9	Thakur Para	Panjia	11	0	36	59	60	15	7
23/12	Panjia	3	North West	Belokati	9	0	34	53	63	17	7
Total					96	1	284	551	519	157	77

1.3 DTW Installation in Bidyanandakati & Panjia Unions

In December, eight (8) deep tube wells (DTW) were installed in Panjia and Bidyanandakati Unions; 6 were in Panjia and 2 in B.Kati. Good aquifers were found for all those DTWs and they were installed with successful sealing.

DTW #	Union	W #	Para	Village	Drilling Period	Depth (ft)	Sealing (ft)
RDTW-20	B.Kati	2	East Para	Hasanpur	6~17/12	528	320
RDTW-41	Panjia	6	Middle Para	MadarDanga	11~15/12	606	320
RDTW-42	Panjia	1	East Para	Mandar Danga	16~20/12	660	320
RDTW-43	Panjia	7	Middle Dofadar Para	Raj. Bakabarshi	18~22/12	660	350
RDTW-44	Panjia	5	Karmakar Para	Monohornagar Patharghata	19~25/12	702	320
RDTW-45	Panjia	9	Thakur Para	Panjia	21~23/12	605	300
RDTW-21	B.Kati	4	North Para	Mohadevpur	22~26/12	739	300
RDTW-46	Panjia	3	North West	Belokati	23~27/12	818	300

1.4 Nutrition Program in Bidyanadakati Union

In December, 13 nutrition programs were performed at 13 sites where Rotary DTWs were installed to ensure that people will use safe water for drinking and cooking purposes. This time we reached about 1,039 persons (152 male, 402 Female and 485 children) with our message. The programs were completely participatory and villagers contributed voluntarily about 104Kg of rice and 16kg of vegetables in total. Details are given below:

Date	**W #**	**Para**	**Village**	**DTW #**	**Male**	**Female**	**Children**	**Total**	**Villagers contribution**
2-Dec	5	Middle Madrasha	Titabazitpur	BDTW-6	15	40	35	90	R-15Kg, V-2Kg
6-Dec	5	South East	Titabazitpur	BDTW-4	25	95	80	200	R-8Kg, V-2Kg
7-Dec	5	South West	Titabazitpur	BDTW-7	8	27	25	60	R-11Kg, V-3Kg
9-Dec	1	North	Burihati	BDTW-12	15	25	80	120	R-13Kg, V-2Kg
10-Dec	1	North Mollik	Burihati	BDTW-17	12	37	42	91	R-15Kg
11-Dec	1	South East Morol	Burihati	BDTW-11	17	43	40	100	R-10Kg, V-3Kg
12-Dec	1	South Sardar	Burihati	BDTW-13	5	19	25	49	No Contribution
13-Dec	4	Middle	Boro Mohadevpur	BDTW-19	25	35	50	110	R-13Kg, V-2Kg
18-Dec	2	Bazar	Hasanpur	BDTW-8	0	12	17	29	No Contribution
19-Dec	2	North Karigar	Hasanpur	BDTW-9	6	19	22	47	R-6Kg
20-Dec	3	East	Boga	BDTW-16	17	35	40	92	R-6Kg, V-2Kg
23-Dec	3	Middle	Boga	BDTW-18	7	15	29	51	R-7Kg
				Total	**152**	**402**	**485**	**1,039**	**Rice -104Kg, Veg. -16Kg**

1.5 Nutrition Program Evaluation Survey

After the installation of a safe water option, we organize nutrition programs to advise the option users about nutrition and arrange the cooking of *kichuri* with rice, dal, mola fishes and vitamin-rich vegetables. We also inform them that they are the owners of the deep tube well. In December we conducted a survey to assess the impact of our nutrition program by interviewing 132 villagers living adjacent to installed DTWs in Panjia Union.

Among the 132 women interviewed for the survey, only 99 people in fact participated in the nutrition program and 33 did not. All those 99 people who participated in the program responded that they learned how to cook *kichuri* with vegetables, and 42 people answered that they in fact cook *kichuri* with vegetables, with 3 people twice a week, 12 once a week, and 26 once a month.

With regard to the source of water for cooking, 130 people answered "safe water" which is divided to "DTW" by 87 people, "pond water" by 35, and "DTW and pond water" by 8. As for the source of drinking water, 120 people confirmed that they use safe water, and the rest replied that they still use red-painted tube well water because there is no safe water nearby except one person who was using both DTW and red-painted tube well. It is interesting to note that almost all the respondents answered that they do not drink red-painted tube well water in fear of arsenic, though 24 people added some other reasons such as rashes and/or iron. Nine (9) people were taking DTW water in fear of arsenic though they did not like the taste of DTW water.

To the question that asked what to do if one of family members gets arsenicosis symptoms, 131 respondents (99%) selected "to drink safe water". In detail, 97 people (74%) selected "to drink safe water and to take vegetables", followed by 28 people (21%) who selected "to drink safe water only", and 6 people (5%) who selected "to drink safe water and to take vegetables and fish/meat". One person, who did not attend the nutrition program, selected the answer "to take vegetables" only.

In conclusion, the nutrition program has contributed to enhance the knowledge on nutrition among female population as well as on arsenicosis. Ideally, more activities can be organized to encourage them to practice what they have learned from the nutrition program.

1.6 Cultural Programs held in Bidyanadakati Union

During December 2006 thirteen (13) cultural programs were held in Biddnadakati Union. We delivered our message to 7,212 people through these programs. Details of the programs are summarized below:

Date	Ward	Place	Village	Participants		
				Male	Female	Children
6/12	5	South East Para	Titabazitpur	200	260	140
9/12	1	North Para	Burihati	175	220	130
11/12	1	South East Morol Para	Burihati	210	240	220
13/12	4	Middle Para	Boro Mohadevpur	218	250	170
18/12	4	Bazar	Momin Pur	130	182	145
19/12	3	West Para	Nihalpur	155	190	140
20/12	3	Boga Primary School	Boga	237	290	200
21/12	6	Khopdoi P. School	Khopdoi	160	150	130
23/12	7	East Para	Hariaghop	75	105	125
24/12	7	Middle Para	Parchakra	260	320	230
25/12	8	Jamalganj Bazar	B. Kati	350	120	210
26/12	8	North East Para	Lalpur	95	130	120
28/12	9	East Para	Baushala	80	200	250
			Total	**2,345**	**2,657**	**2,210**

1.7 Handover Ceremony

After completing the Phase-II of Panjia Project, AAN arranged an option handover ceremony at Abu Sharaf Sadek Auditorium in Keshabpur on 27th December inviting representatives from Users Committees of Rotary DTWs of all (25) installed in B. Kati (19) and Panjia (6). The ceremony was presided by Union Chairman of B.Kati and moderated by Monjur Kader.

First, Rotarian Md. Mojaffor Hossain Dipu explained the function of Rotary in the Keshabpur Safe Water Supply Project with AAN in his opening speech and he assured that he would try for extending the project. AAN made the following presentations:

- Aresenic in Bangladesh (Abu Shamim Khan)
- Project Activities (Al-Amin Mollah)
- Awareness activities (Monjuara Parvin)
- Arsenicosis and its Symptoms (Aklima Choudhury)
- Deep tube well installation (Ruhul Quddus)

On behalf of B. Kati Union Chairman, Mr. Obaidur Rahman Wahab, Ward member of W #1, explained AAN activities in B.Kati. He demanded for more safe water options in contaminated villages while thanking Rotary and AAN for supplying safe water. Panjia Union Chairman, Mr. Nizam Uddin, unofficially declared that 100% people in the Union now have access to arsenic-safe water for drinking and cooking and thanked Rotary and AAN for saving villagers from the fatality of arsenic.

Mr. Nironjon Biswas, Sub-assistant Engineer of Keshabpur Upazilla, said DTWs are good alternative safe water source but in some areas of B. Kati DTWs are not feasible from a geological point of view. Dr. Subodh, Upazila Health & Family Planning Officer, made a comment about arsenicosis patient management. Mr. Khan Md. Nurul Amin, Upazilla Nirbahi Officer, said that arsenic is an issue of great concern in our country and the villagers should use the DTWs from now on since safe drinking water has now been made available.

Ms. Sachie Tsushima, Country Manager of AAN, emphasized in her vote of thanks and closing speech that the handover of safe water options means the handover of responsibilities, too, to users. “You are responsible”, she said, “to use the DTW water for drinking and cooking purposes, to maintain the DTW properly, and also to tell neighbors to use it”.

At the end of the ceremony, the certificate of the ownership and a tools bag were handed over to each Users Committee Chairman. There were 78 participants at the ceremony.

↑ Rotarian Dipu (center) hands over a tool bag.

← Kichuri lunch after a nutrition program. Some pose with a hanging poster on nutrition.

2. Panjia Project (Phase III)

2.1 Awareness-raising Activities in Sagordari Union

The flipchart performance was conducted all through December at a total of 139 places in Ward Nos. 2 to 5 of Sagordari Union. Over 7,000 people participated in the program as summarized in the table below:

Period	W #	Village	Place	Male	Female	Child	Student Male	Student Female	Teacher	Total
2~3/12	2	Meherpur & Gopsona	Para / 15	115	257	180	0	0	0	552
			School / 1	0	0	0	15	18	1	34
4~11/12	3	Mirzapur & Bisnupur	Para / 43	442	890	433	0	0	0	1,765
			School / 3	0	0	0	197	511	34	742
12~18/12	4	Dharmapur & Gobindapur	Para / 32	316	774	530	0	0	0	1,620
			School / 4	0	0	0	247	253	16	516
19~26/12	5	Kasta & Baruihati	Para / 36	265	830	481	0	0	0	1,576
			School / 5	0	0	0	106	91	5	202
2~26/12	Total		Para /126 School / 13	1,138	2,751	1,624	565	873	56	7,007

2.2 Ward AMC Meetings

Four Ward AMC/PRA meetings were held in December in Sagordari Union as shown in the table below. At each meeting AAN first explained the results of tube well screening including the number of suspected arsenicosis patients. Then demand for safe water option was collected and a PRA map was prepared after discussions on what to be done for mitigation with AMC members.

Date	Time	Ward	Participants	Place
2/12	10.00 am	7	12	Chingra UP Office
3/12	10.00 am	8	20	Sagardari Technical Collage
4/12	10.00 am	9	19	Sagardari High School
5/12	10.00 am	6	19	Jhikra Primary School

2.3 Existing DTW Water Quality Survey in Sagordari

During the TW re-screening conducted in Sagordari Union during previous months we came to know that some DTW water was saline often with arsenic exceeding the Bangladesh permissible level of 0.05mg/L. AAN therefore carried out a water quality survey on 43 active DTWs among the existing 49 mostly installed by DPHE. The test result showed that the deep aquifer under Ward Nos. 1, 2, 3, 4 and 9 contain saline water, and Ward No. 9 is not suitable to install DTWs due to arsenic contamination and salinity.

2.4 Discussion with Rotary: On 9 December AAN reported to Chairman of Rotary's Bangladesh Arsenic Mitigation Committee that there are areas where DTWs are not appropriate and proposed to install some other safe water devices including GSF. "GSF" was new for him and he was not convinced with our explanation.

On 25 December, Prof. Hiroshi Yokota of Miyazaki University, the innovator of GSF, kindly called on Rotary Chairman and made a presentation on the function and effectiveness of GSF.

3. Follow-up of Installed Safe Water Devices

3.1 Chunakhali GSF

On 1st December Khan and Al-Amin visited Chunakhali village and collected water samples from each of the tanks of the GSF including those from the tube well and the tap. They observed that Mr. Shafiq, the caretaker, was maintaing the GSF nicely.

4. Patient Support

4.1 Arsenicosis Patient Identification in Panjia & Bidyanandakati: Seven patients from Panjia Union (Monohornagar & Sagardattakati villages) were identified and confirmed by Dr. Subodh at the Keshabpur Upazila Health Complex. Another 2 patients from Bidyanandakati Union were primarily identified by Aklima, Patient Support Coordinator (PSC) and yet to be confirmed by Dr. Subodh.

4.2 Samta Village: On 6th December PSC visited Samta village and checked health condition of three patients. She found them in stable condition. Daud Ali died on 9th.

4.3 Marua Village: Mr. Akram received surgery at Yamagata Dhaka Friendship Hospital to have SCC and Bowen's removed. His wife, Mahinur, was also hospitalized from 9 to 19 December with him and received treatment her hyper- keratosis and edema.

4.4 Sagardari Union: PSC examined 22 suspected patients in Ward Nos. 6, 7 and 9 of Sagordari Union (Fatehpur, Jhikra, Chingra, Komorpur and Sagardari villages); among them 7 were found as non-patient. The other fifteen seem to be arsenicosis patients and need to be confirmed by Dr. Subodh.

5. Visitors

Mr. Tomny Ngai, who invented a household arsenic removal filter called Kanchan Filter and distributed many of them in arsenic affected areas in Nepal, visited Jessore and stayed for about two weeks. During his stay, he gave us a lecture on biological purification methods of surface water and kindly demonstrated how to make a Kanchan Filter.

6. Others

6.1 Progress Reports: Two Progress Reports were submitted to Rotary on 9 December regarding the Keshabpur Safe Water Supply Project Phase-I (in Panjia and Bidyanandakati Unions) and Phase-II (Sagardari Union).

6.2 RGAG-sponsored Training on Hydrogeology: The Research Group for Applied Geology (RGAG) sponsored a training course on hydrogeology held on December 25, 26 and 28. In addition to AAN field workers, representatives from 3 NGOs attended in the course; there were 22 participants in total. There were 11 subjects in the program, and AAN staff/field workers played a role as trainers along with Mr. Kazuyuki Suenaga and Ms. Natsuko Ganzawa of RGAG. Prof. N. Nakamoto also made a special lecture on ecological purification system. All the events were completed successfully with field trip and practical sessions.

Following is the list of subjects and trainers:

Sl.	Subject:	Trainers:
1.	General hydrogeology and its importance.	Ganzawa & Tarun Hore
2.	Making grain-size soil chart and its use.	Abu Shamin Khan & Ganzawa
3.	How to make a simple water level measuring tool and its use.	Samta Young Committee Members & Suenaga
4.	RGAG findings is Samta and Marua	Md. Mezbaul Islam Mizu

5.	How to use a map and how to collect useful information from villagers.	Md. Monjur Kader.
6.	Collection of water samples for laboratory analysis.	Md. Ruhul Quddus (Practical)
7.	Analyzing soil samples and recording in bore log.	Md. Ruhul Quddus & Abu Hanjala Rana (Practical)
8.	How to find different locations with the help of a map.	Md. Monjur Kader (Practical)
9.	Ecological purification system for safe drinking water.	Prof. Nakamoto
10.	Plotting DTW locations on a map.	Md. Ruhul Quddus
11.	How to make a geological profile of one area using bore logs.	Md. Ruhul Quddus

The training was successful and it gave us confidence that we can arrange this kind of training programs by ourselves.