

Arsenic Mitigation & Community Participation Program

Plan of Action 2018-onwards

Arsenic Mitigation & Research Foundation

ABSTRACT

The Arsenic Mitigation & Social Mobilisation Program started in January 2006. Phase 1 (2006-2011) has led to the implementation of safe drinking water and health support systems in over 30 communities in rural Bangladesh. Phase 2 (2012-2018) aims to strengthen the sustainability of the activities under Phase 1, and initiate a range of new activities. Phase 3 (2018-onwards) builds on these activities by incorporating a broader public health and WASH approach.

Table of Contents

Table of Contents.....	2
Justification	3
Objectives.....	5
Methodology	6
Beneficiaries	8
Monitoring	9
Sustainability	9
Acknowledgement	11
More information	11
Reports and publications	11
Contact.....	11

Justification

Arsenic contamination was declared as a national environmental health crisis in the mid-90s. Naturally occurring arsenic was discovered in shallow groundwater, which is the source of water for virtually every household. Groundwater tube-wells were put in place in the 1970s and 1980s with the aim to cast aside polluted and irregular sources of surface water. Instead, between 35 and 77 million people are now chronically exposed to dangerous levels of arsenic, which has been linked to neurological disorders, heart disease, cancers of the liver, kidney, bladders and skin. It has been estimated that one in five die, or die earlier, from drinking arsenic-contaminated water in Bangladesh. According to a conservative estimate, around 20 million people (12.6% of households) are still drinking arsenic contaminated water. AMRF has a long experience in facilitating social mobilisation processes to ensure long-term access to safe water from community-based Deep Tube-Wells (DTWs). DTWs draw water from below the contaminated groundwater aquifers.

However, arsenic poisoning cannot effectively be addressed without also tackling other health problems: organs affected by arsenicosis will be less resistant to other diseases, and vice versa. Poor sanitation and hygiene are further compounding the arsenic problem. People commonly use pond water for bathing, washing clothes and kitchen utensils. These ponds also collect pollutants originating from agricultural, industrial, domestic and municipal sources, both locally and from upstream districts. The World Health Organization lists the following three major surface water quality hazards: toxins from cyanobacteria; pathogens from human and animal faeces; and chemical contaminants from agricultural/industrial pollution. Every year, this results in around half a million casualties from communicable diseases such as diarrhoea and cholera. Pond water pollution is also a reproductive health hazard. Based on a recent survey of 2500 women in the project, AMRF and AITAM found that 30% is suffering from Reproductive tract infection (RTI). Water use is an important factor in the transmission of this disease. We found that 73% of the women who are using ponds for bathing are suffering from RTI.

To combat these public health challenges, an integrated approach combining arsenic safe drinking water with sanitation and hygiene practices is needed. In this project, AMRF will facilitate community-based interventions in water, sanitation, hygiene and reproductive health care. AMRF in collaboration with its donors has gained much experience in the social mobilization processes required for the implementation of such community-based approaches:

Community based water supply facilities implemented by AMRF in the aforementioned PROWSHAR project provided a successful way to expand the reach of a single DTW to more households. Outputs of this project included well-organized direct beneficiary groups supported by maintenance committee and elected through community-based organisations.

The aforementioned AMCP project successfully installed a number of community washing facilities (CWFs) adjacent to the DTWs in Jessore district. This was prompted by the identification of (non-arsenic-related) skin and reproductive tract diseases caused by the day-to-day use of polluted surface water. According to the users expressed, the CWFs had significantly improved access to personal hygiene as well as reduced the incidence of water borne diseases. In this project, women will select appropriate (private) place for the CWFs. CWFs will be connected to existing shallow tube-wells—as arsenic does not pose a risk through bathing water. This will maximise the use of existing facilities in a village and reduce pressure on deep water aquifers.

In our working district of Munshiganj, over 85% of shallow tubewells in the are affected by arsenic concentrations above the Bangladeshi standard ($>50 \mu\text{g/l}$); more would be contaminated above the stricter WHO standard ($>10 \mu\text{g/l}$). Deep tube-wells, on the other hand, were found to be safe—even according to WHO guidelines (***GAP 2018***). In this proposed project, we will target the following project locations: Patabhog and Tantar unions in Sreenagar Upazilla, Munshiganj district. These areas are part of a wider area in which AMRF has worked for many years. The most recent data is dated (from 2004), but indicates that 79.21% of tube-wells are arsenic contaminated according to Bangladeshi standards (***National Resource Centre 2011***).

Based on initial survey visits, it is clear that hygiene and sanitation situation is poor. There is no data available from the local government on arsenic contamination in these two unions. However, based on our knowledge of arsenic contamination in the surrounding unions, we can assume that the contamination will also be unacceptably high in the selected unions.

In short, communities will be assisted in addressing the interconnected problem of unsafe drinking water, lack of access to sanitation and hygiene practices. We will do so through an integrated and participatory process of implementation of deep tube-wells, community washing facilities and sanitation facilities. Alongside these installations, the project will include a range of supporting activities, such as training and awareness on sanitation and hygiene practices, health care for patients suffering from arsenicosis and RTI, and the development of local institutions that will ensure the sustainability of the installations.

Objectives

Project Objectives	
Project Objective:	Activities:
To set up gender-based participation in social mobilization programs for the realization of sustainable long-term solutions for safe water and sanitation.	<ul style="list-style-type: none"> - Conducting Community Situation Analyses (CSA) (9 per union). - Identify arsenic hotspots, arsenic tests will be conducted per ward on randomly sampled shallow tube-wells. - Each ward will be divided in Clusters - These clusters will be selected based on lowest economic status, and on exposure to arsenic, Based on CSA and arsenic tests. - CBOs will be established after conducting awareness raising activities, organising community meetings at ward-level and facilitating 90 Peer Group member elections (one per Cluster). - Monthly meetings will be organised with CBO members for social mobilisation process, and including for training purposes (see below).
To optimize and develop a field level affordable and accessible drinking water and sanitation technologies thereby facilitating the role of women as domestic water manager.	<ul style="list-style-type: none"> - All Peer Group members will receive training on: arsenic contamination, tube-well and platform operation and maintenance, WASH, roles and responsibilities, community mobilisation. - AMRF will collaborate with the PG members to facilitate the installation of all the hardware. - Staff will facilitate village meetings for site selection approach contractors and monitor the installation process. - AMRF will facilitate and support the renovation of latrine facilities at the local schools.
To improve personal hygiene and reproductive health care	<ul style="list-style-type: none"> - Household visits, courtyard sessions and various awareness program will be conducted. - Activities will be organised in schools (one per union) during Sanitation and Hygiene observation month. - vulnerable families will be identified for the distribution of free hand washing devices. - Through village meetings, AMRF will facilitate the participatory selection of easily accessible sites for community-based washing facilities. - In each site, AMRF will facilitate and monitor the installation in collaboration with local people. - AMRF will undertake sessions on RTI, which will lead to the

	<p>diagnosis and treatment of RTI patients.</p> <p>- Medicine will be distributed for free to the most vulnerable patients.</p>
--	---

Methodology

Implementation Methodology:	
<p>How will your organisation implement the project (this should cover details like who, what, where, when, why and how);</p>	<p>This project will build on the community-based DTW implementation process that was also adopted in the project 'Promoting access to safe drinking water and sanitation for the rural poor in arsenic-affected areas of Munshigonj, phase-2' as well as in the 'Integrated WASH pilot project (IWAPP)' which were both recently funded by Penny Appeal. Those projects follow the following steps (for details, please see the proposals of those projects):</p> <ul style="list-style-type: none"> • Community Situation Analysis • Shallow tube-well testing for arsenic • Community mapping and survey • Establishment of Community-Based Organisations (CBOs) • Union-level information centre establishment (see below) • Peer Group (PG) formation • Training, awareness and campaigning (adult and adolescent) beneficiaries, local government and other development organizations. • Screening and colour-coding tube-wells • Installation of arsenic safe water options (DTWs), see below • Improving sanitation conditions (through awareness and establishment of model sanitation). • Renovation of school latrine with a menstrual chamber • Arsenicosis and RTI (Reproductive tract infection) patient screening, treatment and referrals <p>A union typically consists of 9 wards. Building on aforementioned project, the proposed project will start with the selection of a ward where the health, sanitation and hygiene situation is poorest (identified in collaboration with the Union Councils).</p> <p>Each ward can be divided again in about 5 clusters depending on the size of the ward. A cluster consists of a few (10/ 25) households. Per cluster, two Peer Groups (PGs) will be formed by the direct beneficiaries on a voluntary basis, one for the men (2 men), and one for the women (2 women). PGs will include students, youths, teachers, village practitioners and other active members of the community. These PG members will be well trained to motivate and provide technical support to other families of that particular cluster to establish sanitary latrines and improve hygiene condition with the help of project staffs. One community-based organization (CBO) will be established in each ward. Each cluster-level PG will select one of its member to represent the PG in the CBO. The role of the CBOs is mainly for advocacy and lobbying (as the PGs will be responsible for</p>

	<p>the operation and maintenance of the DTWs).</p> <p>DTWs will not be installed in all wards, but only in the most vulnerable ones (as identified in collaboration with the Union Councils as well as local communities during site visits). The DTWs will be installed at ward-level in one or more of the clusters. A cluster of direct beneficiaries of about 20 households will be listed to gain access to a DTW in the ward. Steps for the implementation of DTWs :</p> <ul style="list-style-type: none"> • Area assessment • Selection of direct beneficiaries (in one or more clusters) based on meetings by PGs and CBOs. • Primary site selection for DTWs based on meetings by PGs and CBOs. • Official signed agreement with the landowner of the site • Construction of platforms. • Handover of ownership certificate. • PG formation (see above) • Training for PGs on operation and maintenance of the DTW (see below). • Water sample laboratory test for each DTW. <p>Operation and maintenance of the system of each DTW will be undertaken by the PGs. One member will be given responsibility for operation and maintenance of the DTW. He/She will receive training for this, which will include tube-well and platform repair and maintenance, multiple use of STW and DTW water, DTW waste water management and drainage system. For repairs, the PG members of that particular cluster will rely on financial contributions from the direct beneficiaries.</p> <p>AMRF will collaborate with the CBO members to establish a Community Information Centre (one per union). These centres are small roofed spaces at accessible places in the communities. AMRF will provide all the awareness materials (posters, leaflets) regarding safe water, sanitation, personal hygiene and reproductive health.</p> <p>Aside from DTWs, AMRF will also implement community washing facilities (CWFs) for women (if the model works, we can suggest expansions with a facility for men). CWFs are small shared bathroom spaces connected to existing shallow tube-wells (as arsenic does not pose a risk through bathing). In the aforementioned projects, CBOs are taking part in the decisions to allocate DTWs to priority clusters. CBOs will therefore also be involved in selecting a cluster for the installation of a CWF. One PG consist exclusively of women members. This particular PG will facilitate meetings with the community for the selection of an appropriate site and design. Steps for the implementation of CWF include:</p> <ul style="list-style-type: none"> • Participatory site selection, close to a shallow tube-well • Signed agreement with the shallow tube-well owner • Participatory design of the facility <p>After the community situation analysis, project staffs will select the most vulnerable families to establish sanitary latrines and hand washing devices at household level. Project staffs and PG members</p>
--	---

	<p>will motivate and provide technical support to other families (no hardware).</p> <p>In the selected ward, a high school will be selected for renovations of sanitary facilities. As part of this, a Menstrual Hygiene Management (MHM) chamber will be built. School management committee members, teachers and adolescent girls will be trained and motivated about operation and maintenance of the facilities. Steps for this (menstrual) hygiene programme at the school include:</p> <ul style="list-style-type: none"> • Participatory site selection • Participatory design of the facility • Training for school management committee on school hygiene, menstrual hygiene and wash rights • School hygiene sessions • Construction of sanitation and hygiene facility <p>Finally, project staffs will conduct a survey on reproductive health situation among 100 families at risk. RTI patients will be screened, identified and treated by the paramedic staffs. Among the most vulnerable, 25 patients will be selected to provide free medicine.</p>
--	---

Beneficiaries

Proposed Project Beneficiaries	
Selection.	In our projects, DTWs are not installed in all wards and clusters within those wards. We focus only on the most vulnerable ones by community situation analysis in collaboration the community and respective Union Councils.
Minorities, disabled and other disadvantaged groups	<p>The project will exclusively serve disadvantaged rural poor living in the arsenic affected areas of selected working unions. Beneficiaries (households) will be selected on the basis of a Community Situation Analysis and tube-well screening data (see above). Selected households will be those that do not have the ability to mitigate the problem by their own resources in terms of awareness, technical knowledge and financial ability.</p> <p>Households who are below poverty line and are at risk of arsenic contamination and poor sanitation condition will be given priority, both as direct and intermediate beneficiaries. They will be invited to become members of the PGs and CBOs. They will also include those living in social isolation due to disability, age or floating livelihood status, as well as disadvantaged female- and single-headed households.</p>
Planning	From the beginning of the project, people will participate in need assessments, site selections, and hardware management and maintenance through CBO and PG formation, These committees will be directly elected by the community.

Monitoring

Monitoring Strategy	
<p>Monitoring and evaluation is carried out during and post implementation including objective learning to improve processes and approaches.</p>	<p>For monitoring the projects from the central level, coordinators from the AMRF head office will visit the working areas on a monthly basis (and they will be in phone contact of a daily-weekly basis). These visits and meetings focus on discussing both the successes and the mistakes. This learning experience is central to the long-term objectives of AMRF. The findings are reported to donors and to AMRF Netherlands. The coordinators from Bangladesh and the Netherlands are in regular contact over email and phone. A dedicated monitoring officer will keep track and report on all steps, processes, failures and successes.</p>
<p>How will beneficiaries participate in project monitoring during and post implementation?</p>	<p>Most importantly, the question whether the interventions are appropriate must also be assessed from the perspective of the local community. Some of our budget therefore goes towards facilitating meetings with the community and engaging in discussions about monitoring and evaluating the activities and the programme as a whole. All this will be recorded by our staff in monthly and three-monthly reports. At the end of the project an evaluation will be done to know the effectiveness of the project. So, the project will adopt a participatory monitoring approach.</p>
<p>Operational transparency (programmatic & financial).</p>	<p>Operational transparency will be maintained through joint communication with the AMRF staffs and the community through the different committees developed during the process. In addition to the communication field staffs, the beneficiaries representative will participate with the AMRF staffs and senior management in the monthly meeting organised in AMRF office.</p>
<p>Information management for reporting purposes and evaluation of proposed intervention / activities.</p>	<p>Monitoring tools: Minutes of monthly and three-monthly meetings, Training Schedule, Attendance sheet, Awareness meeting forms, Pictures</p> <p>At the field level, a Monitoring Officer for the project will be responsible to monitor the project. S/he will develop and use different monitoring tools. S/he will prepare a monthly monitoring plan and prepare a report by using case study, interviews and collecting data from field and will submit to project manager.</p> <p>Besides, beneficiaries will be responsible for monitoring their own project activities. PGs will regularly monitor water, sanitation and hygienic issue of their concerned communities and will update it in monthly meeting organized by AMRF.</p>

Sustainability

Post-Project Management / Sustainability / Exit Strategy

<p>Define concrete measures that your organisation will take in the post-project period to monitor project interventions and provide assistance to project beneficiaries.</p>	<p>A concrete measure that can contribute to long-term success is to involve local government institutions (without transferring power to them). It is standard procedure for every Union Council of the government to include ward-level representatives (that are locally elected). These representatives will become honorary members of our CBOs. This is done to help encourage enduring relationships between the CBOs and the local government, and so as to create an avenue for our CBOs to undertake advocacy and lobbying activities in the future (e.g. to lobby for DTWs and improved latrines in the wards that we could not cover in this project).</p> <p>Another necessary long-term activity is the provision of medical treatment and support for arsenicosis patients that will be identified in this project. For this, we will rely on the 'Arsenic Mitigation and Community Participation' (AMCP) project of AMRF. Under AMCP project Urine and Blood samples will be collected and with the collaboration of AITAM Welfare organization (Local NGO in Sreenagor) and Bongo Bondhu Shekh Mujibur Rahman Medical University (PG Hospital) diagnosis will be confirmed. After that, AMRF will register the arsenicosis patients and will provide free treatment. Funding for this will be provided through our existing donations (also currently done in Munshiganj district).</p>
<p>Indicate recurring cost, if any, needed to manage post-project operations and indicate how this cost will be managed by your organisation</p>	<p>Monitoring of the long-term impacts, sustainability of the new technologies, PGs and CBOs, will take more than 1 year, but as our headquarters are nearby, we will be able to monitor the projects beyond the project duration (we are doing this for other previous projects too).</p>
<p>Who will take ownership of tangible outputs, such as constructed facilities or the forming of management committees?</p>	<p>PGs and CBOs with financial contributions from users of the facilities.</p>
<p>Does your organisation have an Exit Strategy? If yes, please define.</p>	<p>Other priorities beyond safe drinking water, sanitation and hygienic washing facilities could include health care systems (e.g. through local health insurance schemes), or improving nutrition, etc. It should be longer term because the process is largely a social one: how to establish democratic organizations that will not only manage the maintenance of the hardware (DTW and CWF), but also facilitate the identification of follow up activities. Who manages the maintenance of the software? This takes time, and this is where the sustainability of many WASH projects is compromised. We need to learn what works and what doesn't.</p> <p>A long-term commitment must also have an exit strategy, but this largely depends on the participatory process, on what the local institutions need (e.g. mental support during lobbying activities or an external agent to help resolve local conflicts over operation or maintenance of the facilities.)</p>

Acknowledgement

We would like to acknowledge those involved in funding the AMRF program in Bangladesh and thank them for their generous support over the years.

More information

Reports and publications

Several program reports can be found on the website:

<http://www.peopleandwater.org>

For a list of our research publications, see:

<http://www.mendeley.com/profiles/crelis-rammelt/>

Contact

For further queries, please contact us at:

Office Netherlands:

Fuchsiastraat 2

1214GJ Hilversum, The Netherlands

Phone: +31-624621771, Fax: +31-848311449

Country Office:

Village - Shologhar, P.S. Srinagar (Bikrampur)

District - Munshiganj, Bangladesh

Phone: +880-1711391521

E-mail:

info@peopleandwater.org