SUSTAINABLE SOLUTIONS FOR THE DELIVERY OF SAFE DRINKING WATER PROJECT

Implemented by
DEVELOPMENT ASSOCIATION FOR SELF-RELIANCE, COMMUNICATION AND HEALTH
(DASCOH)

With support from
SWISS AGENCY FOR DEVELOPMENT AND COOPERATION
(SDC)

EXTERNAL END-OF-PHASE REVIEW

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for
SWISS AGENCY FOR DEVELOPMENT AND COOPERATION

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Contents

This report reflects the comments and contributions made by various stakeholders on the SDSD Project who participated in the External Review Dialogue and Workshops held between 10 June and 15 July 2012.

Special thanks to the citizens of the project area, community-based organisation (CBO) representatives and community resource persons (CRPs), representatives of the Union Parishads (UPs), Upazila Parishad representatives, representatives of the Local Government Division (LGD), National Institute of Local Government (NILG), Rural Development Academy (RDA), National Building Departments (NBDs), such as Department of Public Health Engineering (DPHE), Barind Multipurpose Development Authority (BMDA), Local Government Engineering Department (LGED), and autonomous/developing partners, such as HYSAWA; WSP-World Bank, SDC, Swiss Red Cross, JICA, DASCOH, NGO Forum and others.

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Photo credits: Engineer M. Inamul Haque (SDC) and Md. Zahirul Islam, Project Manager, SDSD, Chapai Nawabganj (DASCOH).

1.0 BACKGROUND

1.1 Background of the external End-of-Phase Review

Bangladesh has significantly reduced its population without access to improved water supply and basic sanitation facilities. The present government has stipulated targets to secure access to safe drinking water for all by 2013. However, the achievement of the Millennium Development Goal (MDG) 7c, by 2015, remains a big challenge; the provision of adequate water and sanitation services, especially for hard-to-reach populations in rural areas, is hampered due to the absence of means and capacities within the corresponding local entities. In water supply, access to a protected drinking water source is undermined by water quality issues: close to 50 million people are exposed to drinking water with arsenic contamination exceeding World Health Organization (WHO) guidelines that stipulate a value of 10 ug/L. Further, some 30% of the existing water points are active exclusively in the wet season, due to declining groundwater, mainly in the remote northern arid areas (commonly known as 'Barind' area in North-West Bangladesh).

The Swiss Agency for Development and Cooperation (SDC) has extensive experience in working in the Barind areas since 1998, notably with the 'Sustainable Solutions for the Delivery of Safe Drinking Water' (SDSD) Project that has been working in the Rajshahi and Chapai Nawabganj areas since 2004.

Since the SDSD Project is now in its final (phasing out) phase, an End-of-Phase Review was carried out by SDC to track the sustainability of the overall approach promoted and the quality of the hardware build.

1.2 The background of SDC's intervention in Barind area

The SDC has been providing strategic interventions in Chapai Nawabganj and Rajshahi Districts in Barind area since 1998.

During January 1998–March 2004: The SDC supported the Water and Sanitation Partnership Project (WPP) through the Development Association for Self-reliance, Communication and Health (DASCOH). It was an innovative project, meant to improve sustainable access and use of affordable water and sanitation facilities in Rajshahi and Chapai Nawabganj Districts of Bangladesh. This phase presented evidence of the effectiveness of community management in making lasting changes in 642 villages with a population of 486,842, within and beyond the water and sanitation sector.

April 2004–December 2008: The SDSD Project was launched with the objective of contributing to equitable and sustainable access to jointly managed water and sanitation through improved local governance. The main thrust of the project was to improve local governance along with ensuring delivery of safe drinking water supply and sanitation services as an entry point.

January 2009–December 2012: The SDSD Project tried to consolidated lessons learnt in 17 Unions of Chapai Nawabganj and Rajshahi in Barind area, later extended to 25* Unions in Sunamganj area.

Sl. no.	SDC-supported projects in Barind area	Number of UPs		
		Rajshahi	Chapai Nawabganj	Sunamganj
1.	Water and Sanitation Partnership Project (WPP), 1998–2004	35	10	-
2.	Sustainable Solutions for the Delivery of Safe Drinking Water (SDSD) Project, 2004–2008	6	11	-
3.	Extension of Sustainable Solutions for the Delivery of Safe Drinking Water (SDSD) Project, 2009–2012	6	11	25*

*Not under the scope of work of this review mission.

1.3 The background of SDSD Project

A. Basic information			
Country/region:	Bangladesh/South-East Asia	Project name:	Sustainable solutions for the delivery of safe drinking water
SAP no.:	7F-03287.04	Domain SDC:	Regional Cooperation (RC)
Sector/strategic domains:	Governance	Domain of intervention:	Local Governance
Project start date:	1 January 2009	Project end date:	31 December 2012
Project costs:	CHF 3,550,000	Recipient:	Development Association for Self-reliance, Communication and Health (DASCOH)

B. Project information
Implementing agency: Development Association for Self-reliance, Communication and Health (DASCOH)
International partner: Swiss Red Cross
Local partners: CBOs, LGIs (UPs), NILG and LGD (Horizontal Learning Program)

C. Project ratings by external review	
Reaching project goal	Satisfactory
Reaching project objectives	Satisfactory
Reaching project outcomes	Satisfactory
Reaching project outputs	Satisfactory

1.3.1 Programme implementation: Water and Sanitation Partnership Project (During January 1998–March 2004)

The Water and Sanitation Partnership Project (WPP), funded by the SDC, was implemented from January 1998 to March 2004. It was an innovative project, meant to improve sustainable access and use of affordable water and sanitation facilities in Rajshahi and Chapai Nawabganj Districts in Bangladesh. This project provided evidence of the effectiveness of community management in making lasting changes in 642 villages with a population of 486,842, within and beyond the water and sanitation sector.

The project was put into action in 25 Unions in Rajshahi and 10 Unions in Chapai Nawabganj, and implemented by three collaborative partners, that is, DASCOH, CARE and IDE.

The salient features of this phase were:

DASCOH was responsible for community management:

- Formation of 640 Village Development Committees (VDCs) and Village Arsenic Committees (VACs).
- Implementation of arsenic screening in Rajshahi and Chapai Nawabganj together with Bangladesh Arsenic Mitigation Water Supply Project.

CARE was responsible for hygiene behaviour change:

- Provision of training on hygiene behaviour to VDC members.

IDE was responsible for affordable technology promotion:

- Promotion of various alternative technologies for safe water supply in arsenic contaminated areas as research/piloting.

1.3.2 Programme Implementation: SDSD – Initial phase (During April 2004–December 2008)

SDSD was funded by the SDC with technical support from the Swiss Red Cross (SRC) with the objective of ***improving participatory local governance through the "politically neutral" drinking water sector***. The project duration was three years (from 1 April 2004 to 31 March 2007) with a budget of BDT 106.8 million[1], covering 425 villages in 17 Unions in Rajshahi and Chapai Nawabganj Districts. The project began in January 2005 after a review of the logical framework and was extended until December 2008.

The salient features of this phase were:

- Reform and activation of 446 community-based organisations (CBOs).
- Linking CBOs with 17 Union Parishads (UPs) for WatSan service delivery.
- Capacity building of community resource persons (CRPs) as community volunteers.
- Installation of safe drinking water sources through UPs involving private contractors.
- Awareness for installation of hygienic latrines by CBOs.
- Switching off for arsenic contaminated water sources.
- Awareness creation for hygiene promotion and disease prevention.
- Carry out arsenic tests, arsenic patients' identification, treatment and management.

1.3.3 Programme implementation: SDSD – Final phase (During January 2009–December 2012)

SDSD was funded by the SDC, with technical support from the SRC with the objective of ***improving participatory local governance through the "politically neutral" drinking water sector***.

The salient features of this phase were:

- Consolidation and installation of WatSan services.
- Registration of water points.
- Operation and maintenance by appointing local mechanics by UPs.
- Repair of inactive tubewells and construction of platform of tubewells.
- Capacity building of CBOs and formation of CBO Coordination Committees.
- Linking arsenic patients with government hospitals.
- Making arsenic test facilities available in all 17 UPs.
- Replication of good practices.

2.0 END-OF-PHASE REVIEW

The goal of the SDSD Project is to contribute to equitable and sustainable access to community managed water and sanitation services through improved governance in Rajshahi, Chapai Nawabganj and Sunamganj[*] Districts.

2.1 Summary of achievements

The SDSD Project has two objectives, six outcomes, 13 outputs and 83 activities.

So far, 95% of the planned activities for the SDSD Project have been achieved. It is anticipated that the remaining 5% of the project work will be fully accomplished within the remaining six months of the project span.

[*]Not under the scope of work of this review mission.

[1] US$1 = BDT 81 (approximately, as of July 2012).

2.2 Review of logical framework

Intervention logic (Goals, objectives, outcomes and outputs)	**Present status against indicators** (Intermediate outcomes)	**Outcomes and source of verifications** (Changes over the project period)
Goal: To contribute to equitable and sustainable access to community managed water and sanitation services through improved governance in Rajshahi, Chapai Nawabganj and Sunamganj* Districts.		
Objective 1: To support UPs and communities to improve water resources, as well as sanitary and hygiene management while institutionalising improved local governance processes and taking into account different realities of women and men and very poor households.	Participatory planning and implementation process at community, Ward and UP level for pro-poor and gender responsive WatSan demand creation and service delivery institutionalised in all 17 UPs in Rajshahi and Chapai Nawabganj.	Community (especially women groups) gained confidence in interacting with CBOs, Ward and UPs and discussing their needs and demands for improving services. This has been reflected in the Annual Development Plan and Budget Booklets and resolutions at Ward and UP level at each consultation meeting.
Outcome 1.1: Union-wide Integrated Water Resources Management (IWRM), Water Safety Plans including operation and maintenance (O&M) systems for safe water points adopted and institutionalised by UPs and communities.	• WatSan plans including O&M systems adopted and institutionalised in 17 UPs in Rajshahi and Chapai Nawabganj. • UP mechanics identified and trained, and resources generated to maintain them, which eventually helps efficient O&M of tubewells for drinking water supply in 17 Unions of the SDSD Project.	• 96% households of the Project have access to safe water and 74% households have access to hygienic latrines in 17 Unions of Rajshahi and Chapai Nawabganj, beyond the tubewells installed by the SDSD Project. • No substantial diarrhoea or vector-borne disease outbreaks were reported in these 17 SDSD Unions in the last two years. • The process and implementation strategy of the project linked people with improving services. Therefore, people are paying willingly for tubewell registration and arsenic screening.
Output 1.1.1: IWRM and Water Safety Plans developed and accepted by UPs and communities.	• Community-level WatSan needs identified at CBO level planning and prioritised for 153 Ward shavas in 17 Unions of the SDSD Project. • The WatSan planning process accepted and developed by 17 UPs with assistance from 446 CBOs in the SDSD Project.	• The participatory planning process has strengthened capacity of UPs and communities while UPs have become more accountable to citizens. Resolutions of 246 CBOS on planning and prioritising WatSan plans for 153 Ward Shavas with perspective of IWRM.

Intervention logic (Goals, objectives, outcomes and outputs)	**Present status against indicators** (Intermediate outcomes)	**Outcomes and source of verifications** (Changes over the project period)
Output 1.1.2: Water point O&M system developed and functioning.	• O&M system of drinking water sources developed by providing training to 4,158 caretakers (50% male and 50% female). • UPs eventually appointed 17 mechanics to operate and maintain existing handpumps (that are already registered by UPs) on the basis of request from handpump owners. • A mechanism for ensuring delivery of safe drinking water supply has emerged from the SDSD Project and reflected in the Implementation Plan of Arsenic Mitigation (IMAP).	• 95% drinking water sources of the SDSD Project area are functional round-the-year in Rajshahi and Chapai Nawabganj. • 65% households of the Project area have round-the-year access to safe drinking water sources. • List of water sources installed by the project support staff handed over to the Department of Public Health Engineering for repair and maintenance.
Output 1.1.3: Different water options for arsenic contaminated water tested and assessed.	• Arsenic test facilities available at 17 UPs in Rajshahi and Chapai Nawabganj. • In Chapai Nawabganj, 14,279 water points tested. Eventually through the Horizontal Learning Program (HLP) this good practice was picked up by other unions; the SDSD Project provided training to others beyond the SDSD Project area. As a result, Meherpur Upazila tested 33,541 and Derai Upazila tested 1,741 water points for ensuring safe drinking water supply.	Through the Horizontal Learning Program, arsenic testing at local level is being picked up as good practice and replicated in Meherpur, Derai, Kurigram and other Upazilas in the country (it is a continuous process of scaling up).
Outcome 1.2: Round the year expanded access and utilisation of safe water and sanitary latrines in 25 UPs in Sunamganj District by 2012. *	• All 25 UPs in Sunamganj of the project practice open tendering process in delivering WatSan services which ensures quality of work and builds trust among UPs, communities and private entrepreneurs.	All 25 UPs have started pro-poor and gender responsive WatSan service delivery through open tendering. Community shared 10% costs of water and sanitation services while UPs shared 5% costs of latrines.
Output 1.2.1: With the support of the 25 UPs of Sunamganj District, sustainable and equitably accessible safe drinking water points installed, operated and used.	• 225 trained community facilitators (community volunteers) accomplished user selection, site selection, community contribution collection, supervision and monitoring of water points and sanitary latrine construction based on the drawings, designs and specifications of the options and ensured quality of work.	• 325 water points installed, operated and used round-the-year and easy accessible to the users. • Communities are responsible for O&M of drinking water supplies.
Output 1.2.2: 25 UPs of Sunamganj District are managing installation of equitably accessible sanitary latrines and ensuring use by the communities.	• 225 trained community volunteers selected poor and hardcore poor households without latrines and 25 UPs managing installation of sanitary latrines.	1,300 sanitary latrines installed by UPs and used and maintained by the users in Sunamganj District.
*Not under the scope of work of this review mission.		

Intervention logic (Goals, objectives, outcomes and outputs)	**Present status against indicators** (Intermediate outcomes)	**Outcomes and source of verifications** (Changes over the project period)
Outcome 1.3: Hygiene and sanitation behaviour change adopted by communities and systems for referral and treatment of arsenicosis patients functioning in concerned Unions.	• The people's knowledge on health and hygiene increased by group discussions, courtyard sessions and practical demonstrations by 446 trained community resource persons (CRPs, or community volunteers). • Community volunteers and government health workers trained by the project identified and referred arsenicosis patients to the government health centres. • The Upazila administration allocated funds for arsenic patient management.	• 61% households in Rajshahi and Chapai Nawabganj are practicing health and hygiene behaviour. • 93% arsenicosis patients (883 out of 949) have access to treatment from government hospitals although 97% (921) patients ensured safe drinking water.
Output 1.3.1: Communities informed and aware of importance of hygiene and sanitation and behavioural change promoted by communities.	• 446 CRPs in Rajshahi and Chapai Nawabganj (and 225 community facilitators in Sunamganj*) are trained and promoting health hygiene in the communities.	Practical sessions on health hygiene were promoted in the communities independently by the trained volunteer. Arsenicosis patients are now registered by government hospitals.
Output 1.3.2: Local government and communities developed sustainable systems for referral and treatment of arsenicosis patients and they are functioning well.	• Arsenicosis patient identification, referral and treatment mechanism functional through trained 34 village doctors, 18 health assistants and 446 CRPs in 17 UPs in Rajshahi and Chapai Nawabganj area.	93% arsenicosis patients have regular access to government health centres and 97% arsenic patients have access to safe water for treatment.
Outcome 1.4: Capacities of UPs and communities consolidated and application of acquired skills and new processes institutionalised and broadened, with particular focus on inclusiveness and non-discriminatory practices.	• All the 17 UPs were trained on UP Act, SDSD project approaches and SDSD participatory planning and implementation processes. • All 17 UPs acknowledged the list of the poor and vulnerable prepared by communities.	• 66% poor households from the list access government safety net programmes in Rajshahi and Chapai Nawabganj. • List of below poverty level prepared by CBOs are being used by UPs and Upazilas.
Output 1.4.1: UPs are able to apply learning on inclusiveness in Hygiene, Sanitation and Water Supply (HYSAWA) and other projects.	• List of poor households identified by the SDSD Project without potable water in 17 UPs, which are now being supported through the HYSAWA Project in Rajshahi and Chapai Nawabganj.	• All 17 UPs are practicing pro-poor and gender responsive service delivery learnt from the SDSD Project.
Output 1.4.2: Communities applying learning to at least one other sector in a non-discriminatory way and are able to advocate, in a gender sensitive way, for broader development issues.	• 446 CBOs developed lists of poor and poor women headed households and ensured 96% for WatSan service and 66% safety net services from UPs.	• The CBO representatives of the project formed Union-wise CBO Coordination Committees (CBO Association), interacting with UPs and other service providers for wider village development.

Intervention logic (Goals, objectives, outcomes and outputs)	**Present status against indicators** (Intermediate outcomes)	**Outcomes and source of verifications** (Changes over the project period)
Objective 2: To promote knowledge transfer, replicate best practices and ensure step-wise handing over to local partners.	• Through the Horizontal Learning Program, good practices of the project, open tendering, participatory planning, community mobilisation, arsenic screening, direct fund transfer to UPs, O&M of water sources, water point registration and dialogue/UDCC are identified, validated and acknowledged through peer learning visits by other UPs.	• Asian Arsenic Network is replicating water point registration and O&M, UPs of HYSAWA project are replicating open tendering and community mobilisation by volunteers, and Bangladesh Red Crescent Society is implementing WatSan project following SDSD model and serving the poor and vulnerable sections of Bangladesh.
Outcome 2.1: Lessons, best practices, tools documented and disseminated with particular emphasis on lessons learnt with regard to pro-poor and gender equity.	• DASCOH assisted UPs to identify, document and disseminate good practices of the SDSD Project through horizontal learning platform of the Local Government Division.	• The dissemination of good practices emerging from the project encouraged pro-poor and gender equality mainstreaming.
Output 2.1.1: Lessons learnt and best practices identified, shared and replicated amongst like-minded organisations and GoB.	• The identified good practices of the project shared and disseminated through Upazila workshops, regional network workshops, national workshops and peer learning visits under the HLP platform.	• The good practices of the project influenced policy makers to reform organisational and national policy.
Output 2.1.2: Dissemination strategy of interactive tools developed and available for sharing.	• HLP published fact sheets newsletters and disseminating good practices – available on the website.	• Fact sheets, websites and other publications linked the practitioners widely and helped in replication.
Outcome 2.2: Best practices adopted and replicated by key local actors in WatSan.	• UPs in Rajshahi and Chapai Nawabganj are allocating around BDT 5.40 million per year for replication of best practices under the horizontal learning platform.	• UPs are replicating SDSD practices in their wider development activities.
Output 2.2.1: SDSD best practices identified and replicated by at least two key local actors.	• 17 UPs and 17 CBO Coordination Committees have taken over the responsibilities for continuing the project practices.	• MoU signed with UPs and CBO Coordination Committees.
Output 2.2.2: Local actors taking over the responsibilities for sustainable development approach.	• SDSD practices handed over to the 17 UPs and 17 CBO Coordination Committees by signing a MoU. • 17 UPs have allocated funds in their annual budgets to implement their responsibilities as specified in the MoU.	• The SDSD Project is successfully phasing out from Rajshahi and Chapai Nawabganj.

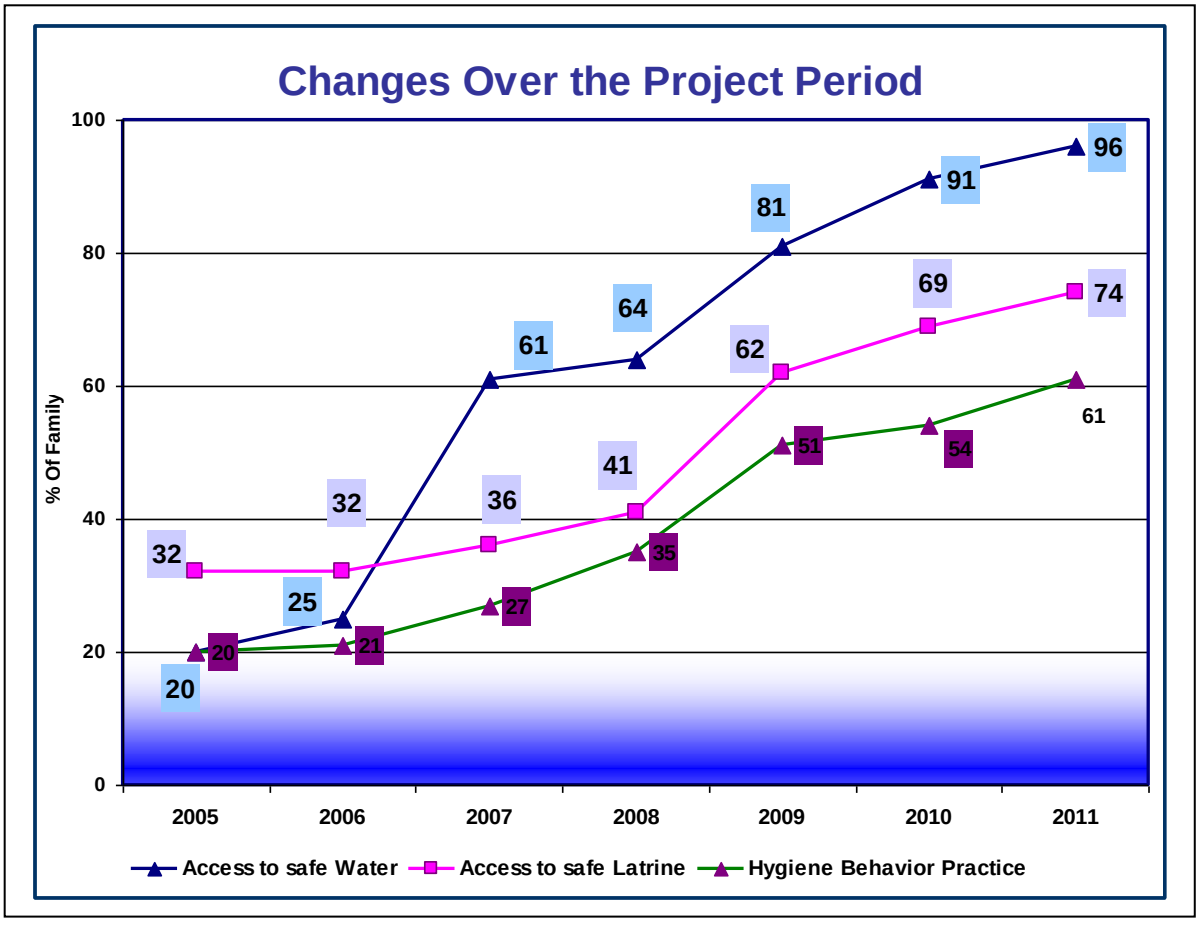
3.0 SDSD'S ACHIEVEMENTS

3.1 Improving access to water and sanitation services

There were considerable achievements in the construction of WatSan facilities in the SDSD Project. The improved access to water supply and sanitation services for households is highlighted in the table below.

Project name	Tenure	For individual households				
		Installation /repair of Hand Pumps	Water points screened for arsenic	Construction of platforms	Registration of HP	Construction of hygienic latrines
Water and Sanitation Partnership Project	January 1998–March 2004	5,077	19,844	5,077	0	Not applicable
Programme implementation: SDSD – Initial phase	April 2004–December 2008	2,094	6,573	2,094	0	7,527 self financed by community, 329 by project support
Programme implementation: SDSD – Final phase	January 2009–December 2012	528	11,348	5,154	20,875	Disaggregated data not available

Thus, during 1998–2012, nearly 12,315 water points have been installed/repaired; all water points have been screened during installation/repair; 12,325 platforms were constructed; and 20,875 handpumps were registered. Examples of sample arsenic testing results have been presented in Annexure III. These created further spin-off effects within the UPs to allocate their own funds to further improve/upgrade the remaining water points. As a result, access to safe drinking water supply in the SDSD area increased from 20% (in 2005) to 96% (in 2011).

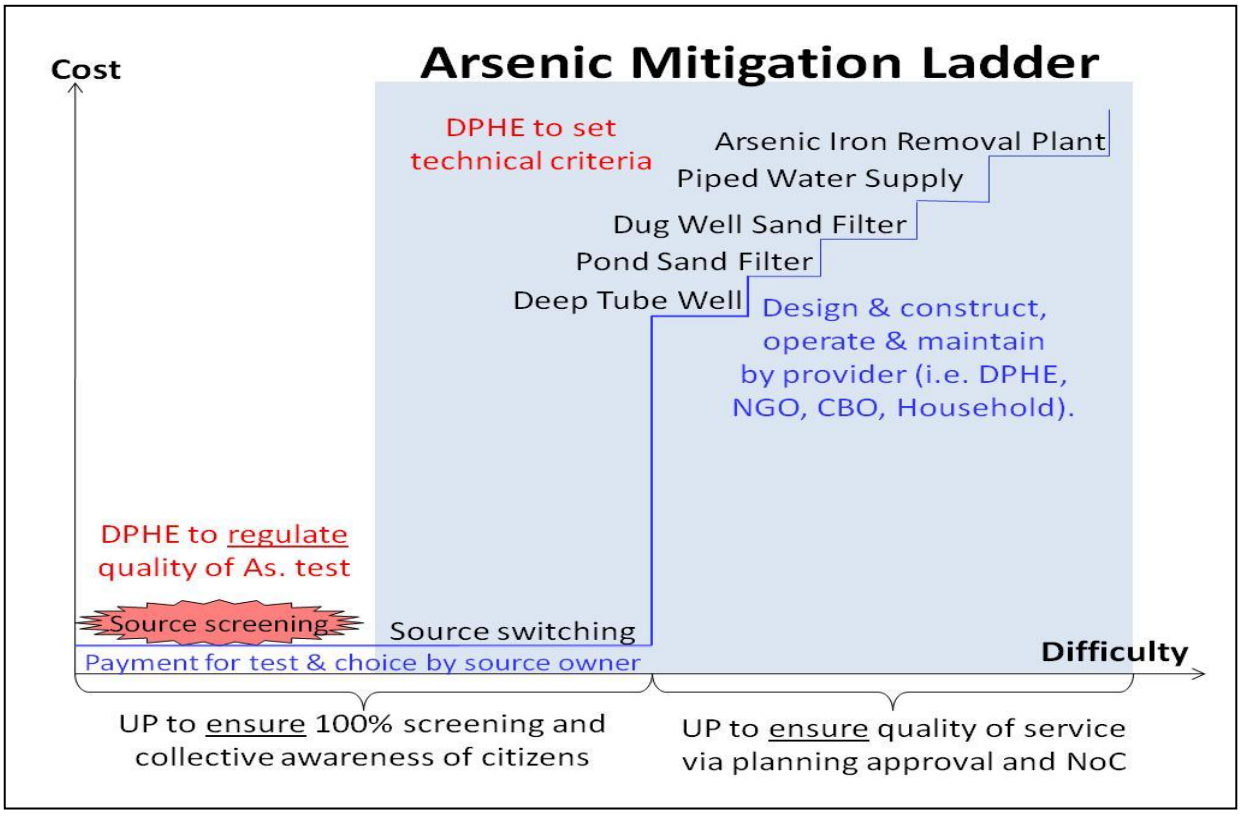


Chapai Nawabganj and Rajshahi are arsenic prone areas within Bangladesh. Arsenic contamination of groundwater supply has affected about 25% of the 10 million shallow tubewells in Bangladesh and has reduced coverage in rural areas from 97% to around 76%. Challenges in the sector include:

- Institutional inefficiency due to ambiguity in the roles and responsibilities of various stakeholders for arsenic mitigation and how to reach the poor.
- Inequitable service distribution and lack of social awareness on arsenic contamination and arsenicosis patient management.
- Lack of reliable and viable arsenic mitigation options for households and communities.
- Lack of financing and cost recovery mechanisms for arsenic screening and mitigation programmes.
- Lack of coordination between stakeholders at the local level.

People who live in poverty, the vulnerable and many households headed by women do not have unrestricted access to potable water because they:

✓ Are unable to meet the water supply capital costs;
✓ Have no suitable land for water supply installation;
✓ Have no linkages with GOs/NGOs;
✓ Are inadvertently excluded by local elites and governmental or non-governmental organisations (GOs/NGOs) during major supply programmes; and
✓ Cannot influence service providers.

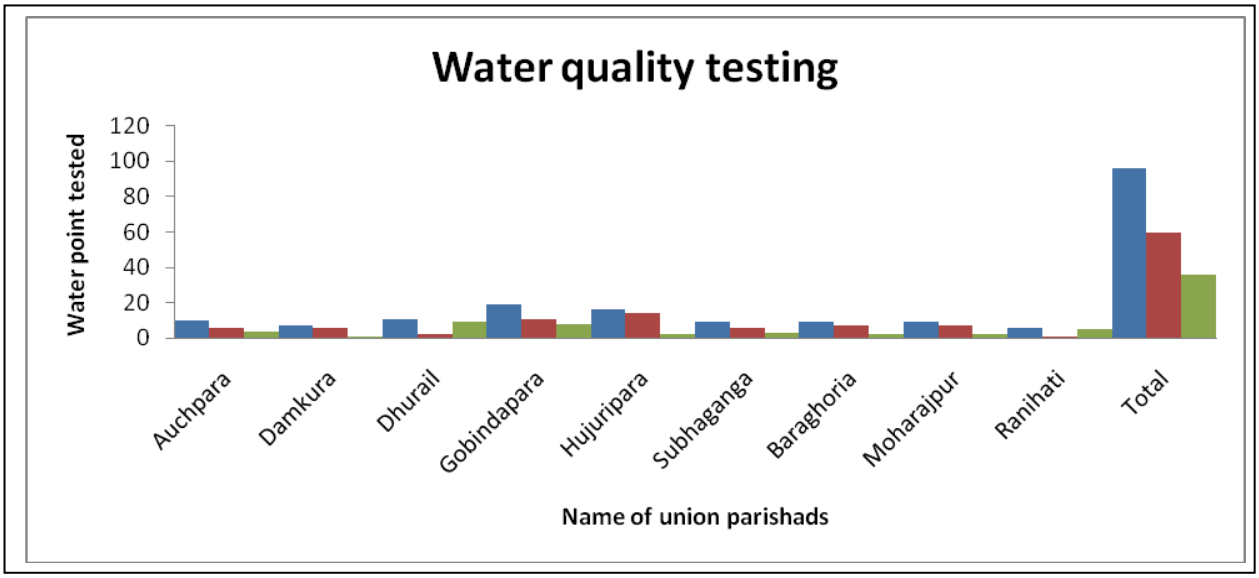


The SDSD Project has tried to address all the above challenges and delivered a "low cost" or "zero cost" community-based arsenic mitigation programme which is non-excludable – this means that it covers "all" and has "zero" exclusion. The SDSD Project led to the concept of 'handpump switching' in Ranihati UP, a solution which has "zero cost investment" for hardware. Following the experience of Ranihati UP, the first option for an arsenic mitigatin ladder was developed by the Water and Sanitation Program (WSP), World Bank, and shared sector-wide through the Horizontal Learning Program (HLP). This arsenic mitigation ladder is now included within the Sector Development Plan (SDP) prepared by the Policy Support Unit of the Local

Government Division (LGD) and Implementation Plan for Arsenic Mitigation Plan (IPAM) and is being replicated in other Unions.

In addition to arsenic testing, the SDSD Project also attempted to carry out testing for bacteriology (faecal coliform testing). Random testing has been carried out in water points – results show around 35% of water points are contaminated due to faecal coliforms.

The bacteriological testing graph reconfirmed the importance of building platforms and conducting sanitary surveys of existing water points. The SDSD Project eventually provided much-needed thrust in facilitating and igniting interest among handpump users to build their own platforms, and encouraging UPs to allocate their own annual development funds for platform construction. As a result, so far 114 villages have been declared as 100% covered by handpump platforms in the SDSD Project. UPs provided contributions for the poorest of poor families – 100% coverage has ensured non-exclusion of any poor within the village from access to safe drinking water supply. This learning was imported from Omarmazid Union of Rajarhat Upazila



of Kurigram District and well internalised, adopted and replicated in all 17 Unions under the SDSD Project. This achievement of 100% platform construction in so many villages is a milestone and is now being shared throughout the country and abroad. The cost comparison for water supply interventions between SDSD Project and other projects is:

Types of technologies	Remarks	Unit costs in SDSD Project (in BDT)	Unit costs other projects (in BDT)
Deep tubewell	3 x1.5 inch dia upto 162 ft depth (housing max. 85 ft) with No. 6 pump	20,700	40,000
Shallow tubewell	3 x1.5 inch dia upto 121 ft depth (housing max. 35 ft) with No. 6 pump	7,500	27,000
Dug well	1.5 inch dia upto 100 ft depth with No. 6 pump	30,300	11,000
Household rainwater harvesting	4.5 ft ring well upto 30 ft depth fitted with No. 6 pump	8,850	40,000
Hand pump platform construction	Capacity 2500 litre	3,638	15,000

So far, 428,228 people (out of whom 201,267 are below the poverty level) have been served through the SDSD Project.

The unit costs for construction of water supply and sanitation interventions in the SDSD Project are quite low than other projects. This might be due to the involvement of local entrepreneurs and creating open market competition between suppliers for building the improved services. In the SDSD Project, UPs are not involved in any implementation. On the contrary, they play an ensuring and monitoring role; the Department of Public Health Engineering (DPHE) provides technical assistance and plays a supervisory role, and local entrepreneurs play the role of service providers. This mechanism further reinforces local governance and quality of service.

3.2 The process

DASCOH plays an important catalytic role in planning and implementing the SDSD Project – its internal strength brings a great spirit for SDSD to roll out its activities. DASCOH's mandate includes:

Self-determination: DASCOH does not impose views on the community but enhances their capabilities with information, knowledge and skills.

Participation: All people have a right to dignity, respect and fair treatment, to be heard and to take part in the decisions that influence and shape their lives. DASCOH's community approaches encourage voluntary participation.

Equity**:** DASCOH seeks equity in access to development outcomes through policies and practices that target those people most likely to be excluded.

Pro-poor: Poverty excludes people from full participation in society. DASCOH ensures social inclusion by working with people living in absolute poverty in ways that place them at the centre of development interventions. The poverty reduction agenda is extended through environmental sanitation to health, in areas of most relevance to the community. This includes strengthening referral mechanisms of people in need of curative care to appropriate providers but does not involve DASCOH as a health service provider.

Implementing partners: These include UPs, CBOs, private sector, DPHE, Health and Family Welfare officials and civil society. The private sector constructs water facilities and latrines under contract to the UPs and CBOs.

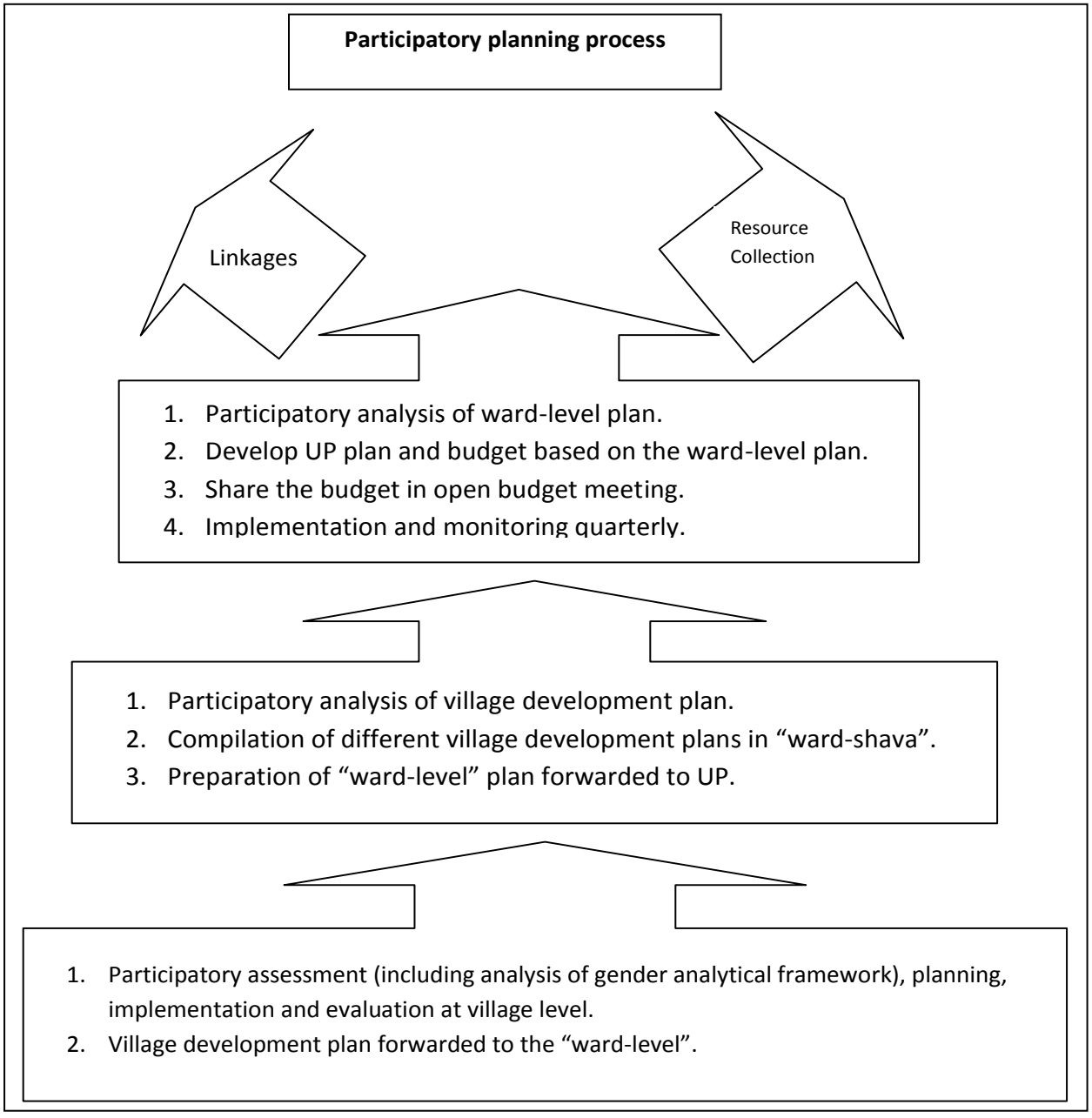
Capacity building: DASCOH builds the capacity of CBOs, UPs, the private sector and community-based health workers to deliver negotiated services in water quality, environmental sanitation, hygiene promotion, preventive and curative health services with minimal external facilitation and project cycle management.

Water safety, environmental sanitation and health: Health benefits from improved drinking water supplies are enhanced by environmental sanitation and hygiene promotion activities.

Service delivery and accountability: The service delivery agenda is pursued by strengthening the UP in water quality regulation, environmental sanitation and from thence to public health roles and responsibilities. This includes integrated planning, linkage building with public and private health care institutions, fiscal prudence, revenue collection and tax assessment, financial

management and public accountability. Accountability within the community is strengthened through increased service by the CBO in the community, horizontal linkage building between CBOs through an association or a consumer society, dialogue with the media and extended information, knowledge and skill for CBOs in negotiating service delivery.

This mandate placed DASCOH in a good position to support UPs in improving local governance through strengthening their citizens' and local communities. Generally, DASCOH used support to safe drinking water supply as an entry point for dialogue with citizens and communities. The process followed by DASCOH for the SDSD Project is presented in the figures below.



These processes helped to develop/organise 436 CBOs, and one CRP in each organisation. Such an institutional mechanism helped Unions to ensure their bottom-up needs and demands to be included within their UP development plans. DASCOH's strategic approach to provide direct funds to Unions for improving their services further reinforced UPs to build their own confidence and drive for successful implementation of the SDSD Project. This has strengthened UPs' planning and budgeting systems. It has helped UPs to not only successfully plan and implement SDSD, but to also effectively implement the Local Governance Support Project (LGSP) in 17 Unions of Chapai Nawabganj and Rajshahi.

3.3 Institutional reform and impact

The strengthening of these 436 CBOs helped Unions to activate their Ward committees and WatSan Standing Committees not only for the SDSD Project, but also for the LGSP, HYSAWA and other projects in these 17 unions. This process also helped Unions to be shift their role from 'implementers' to 'ensurers and coordinators'.

This new paradigm shift was discussed at a thematic workshop on arsenic mitigation in Dhaka, organised by the HLP of the LGD, on 16 August 2009. It was agreed that UPs' emerging role as 'ensurers' will make them more effective and efficient. The lessons learnt from the SDSD and JICA projects on 'link models' were also discussed in a workshop organised by the National Institute of Local Government (NILG). The UP's 'coordinating role' was acknowledged in a circular from the LGD in 2011, which mentioned that all UPs should organise bi-monthly Union Development Coordination Committee Meetings (UDCCM) at which all National Building Department (NBD) representatives were also requested to participate. This signals a major shift of the UP's role from an 'implementer' to 'coordinator' and 'ensurer'. This reform of the UP's new role has also been achieved due to the SDSD Project's contribution to the sector.

3.4 Gender mainstreaming

Gender equality is a core development objective in its own right. Greater gender equality can enhance productivity, improve development outcomes for the next generation and make institutions more representative. Therefore, gender awareness and carrying out gender analytical frameworks at the village/community level by CBOs with support from DASCOH was an integral part of the SDSD Project.

Gender analysis helps to raise questions, analyse information, and develop strategies to increase women's and men's participation in a win-win environment. The SDSD Project uses a gender analytical framework to analyse (a) social tasks done by men and women and their influence over opportunities to get service from GOs/NGOs; participation in social work; decision making; and control of resources; and (b) household level tasks done by men and women (in-house activities, income generating activities and decision making).

The gender analytical framework process diminishes gender differences at the household level and raises collective societal voice. Its impact, as that of the continuous mentoring and orientation on gender mainstreaming by DASCOH (through the SDSD Project), shows in the following facts:

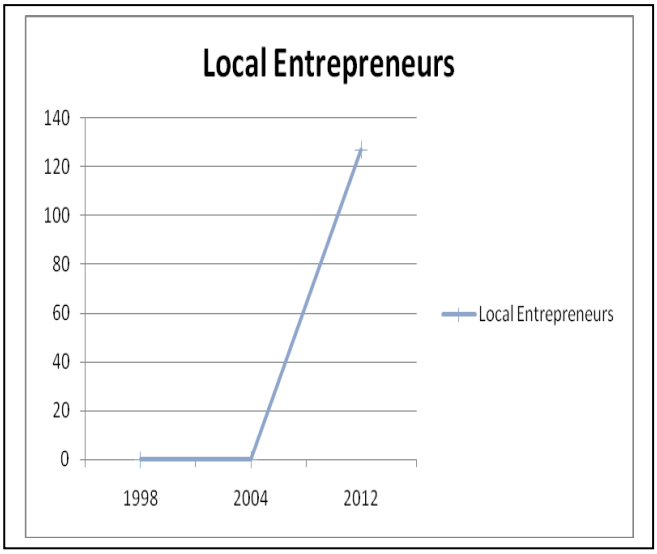
- 33% of tender committee members are women.
- All UP WatSan committees are headed by women.
- In 446 CBOs, 65% of CBO members are women:
  - ✓ In 45% of CBOs, women are selected/nominated as executive committee members;
  - ✓ 75% of CBOs have women as bank signatories;
  - ✓ 65% of women participate in planning meetings, of whom 88% participate in discussions and decision making;

- ✓ 90% of women CBO members regularly attend monthly meetings, of whom 95% participate in discussions; and
- ✓ 100% of women UP members are involved in WatSan activities in their Wards.

- 48 women UP members out of 51 actively participate in UP level planning and budgeting.

3.5 Creating supply chain (local entrepreneurs)

Local entrepreneurs are being involved more in the construction of water schemes, household latrines and school latrines in the SDSD Project. There are now about 127 local entrepreneurs (private contractors) working with 17 Unions in Rajshahi and Chapai Nawabganj in the SDSD Project area. Local entrepreneurs can build facilities in shorter timeframes than UPs and/or DPHE and ensure better quality. CBO members and Ward members supervise the installation/construction; only after invoices are cleared by them do UPs pay their bills. A local entrepreneur is selected through open tendering, a process which ensures transparency and accountability. The decentralisation of procurement from Upazila to UP level makes it necessary to train UP staff in procurement and the SDSD Project provided the training required. Some local entrepreneurs are now also working for Bangladesh Multipurpose Development Authority (BMDA) and LGED projects, thus creating further interest for other local entrepreneurs to be involved in UP activities.



Hurdle of self reliance

I, **Md. Yasin Ali Sarder**, am living in Buzrekour village of Subhodanga Union under Bagmara Upazila. I have been involved with a community-based organisation (CBO) since 2005. It gave me an opportunity to observe the quality of construction work of platform construction and tubewell installation closely. I was hurt to see the quality of construction done by the contractor, and I dreamt of being a contractor and doing good quality work. As a community resource person (CRP), I learnt much more about construction, quality of materials and workmanship from the training provided by the Development Association for Self-Reliance, Communication and Health (DASCOH). The contractor worked with inferior materials and workmanship and people were deprived of good work. I felt these were the activities of my Union and we wanted to have quality work. Some willpower or force drove me to do this work myself and keep to the quality. I discussed the issue with Union Parishad (UP) and DASCOH personnel, how to get the work or what are the conditions to be a contractor. According to their advice I enlisted myself as a contractor with the UP – that was the first step for me to be a contractor. I was awarded a little job on an experimental basis; the authorities were very satisfied with my work as I was committed to do the work following work norms and maintaining quality. The next part of the story is well known by everyone in Chapai. Now I am an established contractor and am working with different Government of Bangladesh departments especially with the Local Government Engineering Department. My commitment, honesty and opportunity to work as a CBO member and CRP have brought me to this stage. Now I lead my life with dignity and society gives importance to me.

The evaluation revealed that the involvement of the private sector in construction of sanitation and water supply facilities has strengthened private sector capacity and speeded up implementation. The communities are playing a crucial supervisory role to ensure the quality of construction.

3.6 Developing capacities and confidence

The SDSD Project has a clear plan: to build capacity and promote "LGI-led ownership". This fosters better governance and accountability of 17 targeted UPs. The SDSD capacity building plan further strengthens the process due to DASCOH's involvement within the Horizontal

Learning Platform developed by the LGD, WSP and others. The entire capacity building support has three aspects:

i. Direct allocation of SDSD funds for improving services to UPs – thus increasing not only their capacities but also their confidence in handing additional funds. Therefore, when the LGSP Project launched, it was nothing new for them. They faced internal and external audit firms and their reports were satisfactory.

ii. DASCOH provided direct training to CRPs, CBOs and UP representatives on all related aspects to operate and run their own institutions effectively.

iii. HLP: Due to involvement of DASCOH with HLP, Unions themselves identify, share and learn various good practices; they reshape their own image, respond to positive competition and deliver quite impressing results on the ground.

Some chairmen from these 17 Unions were selected by the NILG to impart training to UP secretaries and share lessons learnt. The United Nations Children's Fund (UNICEF) also regularly hired some UP representatives to impart training on water point registration courses, which were, in fact, initiated by UPs within the SDSD Project.

The transfer of technology and know-how to CBOs, CRPs and UP representatives was quite effective. That is the reason why, while many UP representatives elected were newcomers, the situation was handled well by them with assistance from UP secretaries, CRPs and CBOs.

3.7 Scaling up and sustainability

Sustainability implies continuous, satisfactory functioning and effective use of water supply and sanitation (WSS) services by the majority. Sustainability is multi-dimensional. It has social, technical, financial, institutional and environmental components. They are all interrelated, making sustainability a complex issue.

The sustainability of improved WSS Services through the SDSD Project can be measured. During the mission, a series of consultations were made and the following answers were obtained from citizens and CBOs within the SDSD Project area.

Sustainability factors

Factors	**Answers obtained in the SDSD Project area**
<u>Social sustainability</u>	
How well do different user groups appreciate or value the services/systems?	All CBOs played more or less quite a proactive role in planning, implementation and operation and maintenance of improved services.
Is the system supported by informed social consensus?	Plans emerged from the village level, were integrated within Ward level, then were synergised at the Union level and were further discussed at open budget planning forums.
Extent of community ownership from the beginning?	Community pays 20% of capital costs of the tubewell in advance to the Union and is fully involved in supervision, providing clearance to local contractors after completion of work and O&M of water point.
Were all neighbourhoods served?	Yes – all neighbourhoods served.

Were services affordable to poor/marginalised groups?	Services are affordable. However, if poor families exist then either well off families or the UP provide cross subsidies for poor families.
How are poor paying the registration fees?	All users. However, if poor families exist then either well off families or UPs provide cross subsidies for poor families.

Technical sustainability

How appropriate and acceptable is the technology for the users?	The SDSD Project started with no hardware (handpump switching) intervention and then offered shallow, semi deep and deep handpumps, which are well accepted by the people due to easy operational mechanisms.
Is it supportable by skills available in the community for O&M?	Now each Union has appointed one professional mechanic, free of cost, to operate and maintain the handpumps (for those who registered their hand pumps) – 5,036 people have been trained as mechanics.

Institutional sustainability

Is there an institutional structure/organisation indicator in place to operate, manage and repair?	Earlier, the DPHE and/or UP used to plan, implement and operate the water points. Now a clearer institutional mechanism has emerged, where the UP plays the role of a 'ensurer' or 'coordinator', the DPHE plays the role of a technical supporter with NGOs (such as, DASCOH, NGO Forum, etc), local entrepreneurs play the role of service providers, and CBO members supervise O&M with assistance from WatSan Standing Committee members and Upazila DPHE officers.
Does it have the necessary skills?	Through the SDSD Project, DASCOH provided them adequate training (for four options, that is, dug well, shallow Hand pump (HP), semi deep HP and deep HP, and also for arsenic testing and arsenicosis patient management).
Does it represent voices of all groups of service users?	Yes – since voice of all groups is reflected in CBOs.

Financial sustainability

Are O&M costs covered indicators by user payments?	Registration of handpumps is a unique idea of Ranihati Union, which has now been replicated by all 17 Unions. This yearly registration concept not only

	ensures better O&M, providing a solution for financial stability, but also creates a continuous ownership for the improved services within the users. Even now UPs are also allocating funds from their own budgets for topping up O&M costs for water services.
Are repair and replacement costs covered? Are users happy to pay for services? Are they satisfied with services?	During the mission, it was observed that users are quite happy (due to cross subsidy system) for paying for water point registration. The replacement costs for handpump spare parts are also paid by users, but mechanics' fees are free (for those who registered their handpumps). It is remarkable that even though water point registration per year increased from BDT 20 to BDT 100 in many places, people are still happy to pay.

Environmental sustainability

Does the operation of the services incorporate indicators for water resources and environmental management practices?	Marginal attempt has been made to utilize the waste water from platform either through creating a small ditch for fish culturing or a soak pit for water recharge. However, this has not been done in extensive manner, though the initiative has been started. A hand washing device was also developed and being used in some houses. More efforts are needed to main streaming the same.

Sustainability of the process

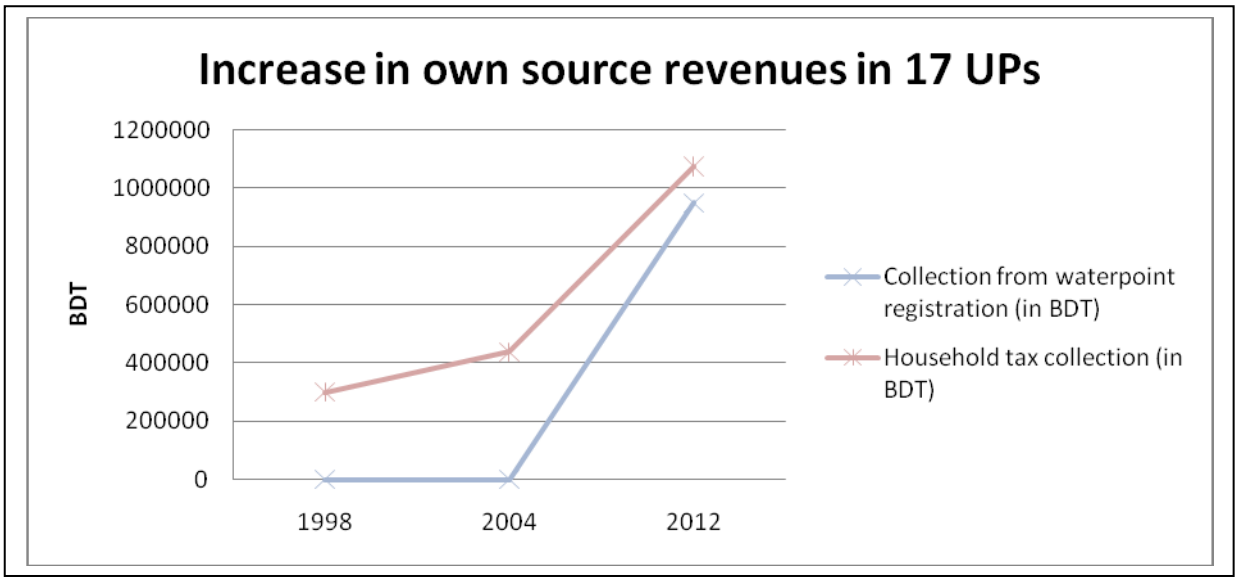
Community capacity building to manage and maintain services

Community choice in key decisions.	CBOs have developed well; they are also coordinating at the Union level. The UP chairmen also provided a room in the UP complex for this 'coordination committee of CBOs'. Some coordination committees have already registered under the NGO Bureau and have started functioning in full mode. This will help to support CBOs after phasing off of DASCOH in December 2012.
Community ownership from the beginning.	The CBOs start from the community with their initiatives and, therefore, community voice is built within the CBOs.
Leadership that allows voices of all to be heard.	The concept of CRPs and mentoring them as leaders supporting the movement of CBOs. It is noteworthy that in the last election in 2011, 34 CRPs contested as UP representatives and 27 CRPs were elected. This shows the growing leadership pattern in CBOs.

The above answers clearly show the road map of sustainability of improved services. However, it requires periodic monitoring to ensure that improved services are on track.

3.8 Impact and users' satisfaction

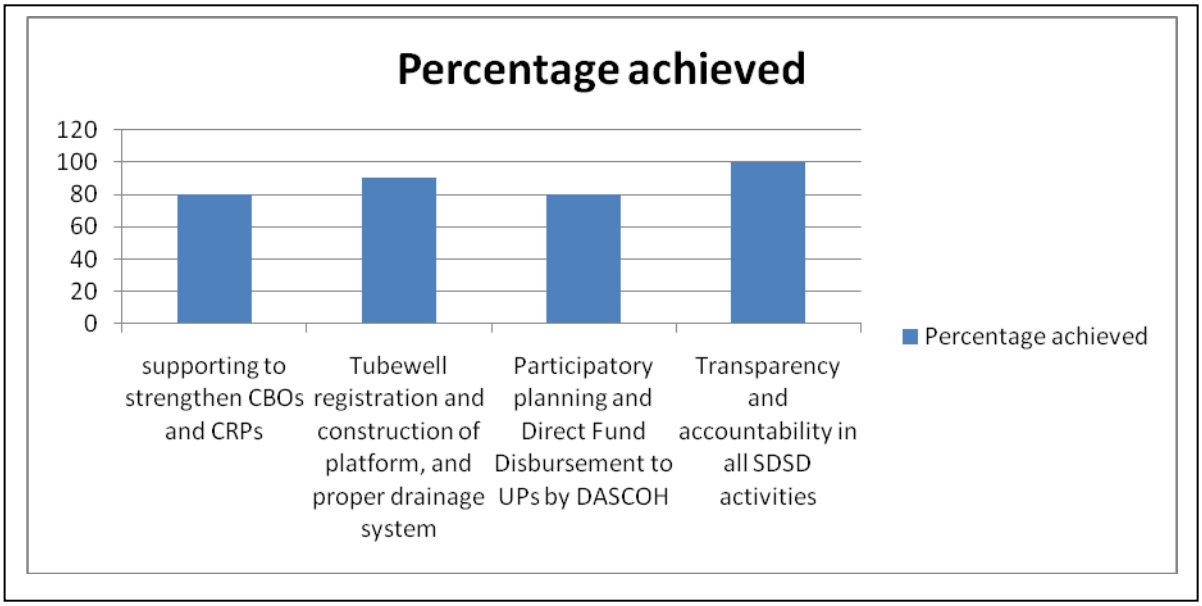
Number of objectives	:	2
Number of outcomes	:	5
Number of outputs	:	13
Number of activities	:	83
Activities implemented	:	95%
Total population	**:**	**446,071**
Target for water supply	:	419,307 (94%)
WS achievements	**:**	**428,228 (96%) Direct + 695,112 Indirect (267%)**
Target for hygienic latrines	**:**	**321,171 (72%)**
Direct achievements	**:**	**330,093 (74%)**
Target for hygiene promotion:		289,946 (65%)
Achievements	:	272,103 (61%)



The impact of the SDSD is highlighted in the above box. From April 2004–December 2012 (results till May 2012). The SDSD Project not only facilitates to provide improved safe water supply and sanitation, but also ensures good governance with 17 unions. As a result in 17 unions collective holding tax collection per year has increased sharply, as well as, collection fees from water point registration has also initiated. Prior to SDSD Project none of these 17 unions used to organize union open budget meeting, but now all 17 unions are carrying out these bottom up participatory planning effectively, which resulted increase in own source revenues of these unions.

If we add the number of beneficiaries (that is, 1,774,604) who received support directly and indirectly from water supply, sanitation and hygiene through the SDSD Project, with all inclusive costs (CHF 3,550,000, which includes the costs for Sunamganj), then per capita total investment made by the SDC is CHF 2. If we take the total project span, that is, nine years, then the SDC's contribution (on the ground, including the costs of technical assistance and administrative costs) is CHF 0.22 (BDT 18) per person per year, which is negligible vis-à-vis the achievements of the SDSD Project, whereas lack of total per capita economic impacts due to inadequate sanitation and hygiene are BDT 2,072 (ESI Report, WSP). **Therefore, the gross benefit received per person from this SDSD Project is BDT 2,094 per year.**

The users' satisfaction graph is highlighted below, which clearly shows that the most remarkable contribution from the SDSD Project is its own transparency and accountability, which in great measure helped to achieve other objectives of the project.



The key result chain of the SDSD Project is highlighted below.

Union Parishad	**Result** • UP evolved as 'ensurer' for arsenic screening and accepted in GoB policy. • Local governance, transparency and people's voice have been raised. • Proper participatory planning helped to increase own source revenue of Unions. • Arsenic screening and tubewell registration widely replicated through the HLP. • Local entrepreneurs evolved as proper contractors, thus creating enabling supply chains.
	Outcomes • 7,614 water points installed/ repaired for 94,080 households; many villages covered 100% by tubewell platforms and tubewell registration. • 7,700 latrines constructed by households.
	Intermediate outcomes • 17 UDCCM organised in all 17 UPs for better harmonisation of resources. • 20,875 tubewells have been registered by UPs; increase of BDT 604,595 in own source revenues. • 21,893 water points have been tested for arsenic to eliminate unsafe drinking water sources.
DASCOH	**DASCOH's results** • CBOs assisted 17 Unions to develop Annual Development Plans (ADPs) in a participatory and transparent manner. • DASCOH's fund integrated in Unions' ADPs and budgets.
	DASCOH's outputs • Assistance to establish 446 CBOs, 446 CRPs and 233 local entrepreneurs in 17 Unions.

4.0 SDSD: SUMMARY OF ACHIEVEMENTS (MERITS) AND REMAINING CHALLENGES (LIMITATIONS)

The summary of achievements (success/merits) and remaining challenges (limitations of SDSD Project) are highlighted below.

Summary of achievements (merits)	Remaining challenges (limitations)
WatSan services in 17 targeted Unions have been improved.	Many tubewells dry up during the dry season (especially if rainfall is less).
Arsenic screening and tubewell registration widely replicated through the HLP.	Many people are still facing problems in accessing safe drinking water due to high contamination of arsenic in groundwater.
Local governance, transparency and people's voice have been raised.	SDSD helps to focus on drinking water supply; however, the bigger picture on water governance was not addressed by SDSD.
Proper participatory planning helped to increase own source revenue of Unions.	
Local entrepreneurs evolved as proper contractors, thus creating enabling supply chains.	On many occasions, water quality (arsenic and bacteriological contamination) are still problems – yet to be addressed.
UPs evolved as 'ensurer' for arsenic screening and accepted in GoB policy.	Water regulation partially addressed and much broader scopes are yet to be addressed.
Lessons learnt from SDSD have been incorporated in the National Basic Capacity Building course curricula of UPs prepared by the NILG.	Proactive disclosure of information and uploading it in local Union Information and Service Centres (UISCs) has not been initiated, which can further reinforce transparency and accountability.

5.0 KEY LESSONS LEARNT

Building a critical mass: The main challenge faced by the SDSD Project was to create a critical mass that could help UPs to fulfil their commitments with transparency and accountability. It initially took more time to establish/re-establish CBOs with a gender analytical framework. This was the initial challenge. Once people started understanding their roles and responsibilities and members of CBOs start contributing to union parishads for planning and monitoring the improving services, then these members of CBOs (volunteers) are appreciated by unions. An environment for appreciation helps to create a win-win situation for supporting sustainable development. On the basis of this foundation, the SDSD Project assisted UPs to make many changes. The two graphs in the figure below (increase in household tax collection and increase own source revenues through water point registration) are clear evidence of UPs' confidence building in good governance. It is also important to remember that before 2007, there was no UP Open Budget system in Rajshahi and Chapai Nawabganj. This has been learnt from Tarash through the horizontal learning platform and, with the UPs' own initiative, replicated progressively in all 17 Unions of the SDSD Project.

Since the CBOs and CRPs are well equipped, the SDSD Project area can now take up the challenge of rolling out good governance, as well as the bigger spectrum of water management with perspective of integrated water resource management.

Transparency and a team-based approach can make a big difference: Before SDSD in Chapai Nawabganj and Rajshahi, UP used to mean the UP chairman and secretary. Now, UP starts with CBOs, CRPs, Ward Committees and WatSan Committees and UP. In addition, regularly organizing UDCCM helps to also demonstrate transparencies and accountability of CBOs, Ward

Committees and UPs vis-à-vis transparencies and accountability of NBDs. This positive competition helps to move the governance agenda further forward. However, UPs also required to proactively share all relevant information. They may, in future, utilise UISCs to upload all their achievements and plans, which will foster good governance.

Some lessons to take away:

- Transparency and accountability play a vital role in SDSD.
- UPs' acceptance in facilitating a bottom-up planning and implementation approach was widely appreciated.
- Drinking water played an effective entry point with respect to the political economy.
- Drinking water might be the only sector which can play a more neutral role in the political economy if bottom-up planning is done in an effective manner.

6.0 SDSD'S CONTRIBUTION TOWARDS SECTOR

The successful implementation of the SDSD Project has made an impact in the rural water supply and sanitation programme. Some major impacts are:

- *HYSAWA project designing*: The consultant of the HYSAWA project visited the SDSD Project area, collected documents and eventually developed the HYSAWA Project Proposal in 2005 following SDSD project approaches, methodologies and strategies.
- *Contribution to forming HLP platform:* DASCOH/SDSD Project personnel attended the First HLP Consultation Workshop on 24–26 June 2007 and assisted WSP in preparation for the HLP Framework, which was launched and operational from November 2007.
- *Contribution to Sharique project:* The Sharique (a project on local governance supported by the SDC) team visited the SDSD Project area in 2006 and used the governance strategies and methodology of the SDSD Project, especially participatory planning process and direct fund disbursement to UPs.
- *Water point registration:* The water point registration by UPs in the SDSD Project area has been identified as a good practice and disseminated through the HLP. The Asian Arsenic Network organised several exposure visits in the SDSD Project, developed project proposals and implemented a project related to water point registration in Jessore area. The GoB-UNICEF project has jointly organised training for Sub-Assistant Engineers of the DPHE; the SDSD UP chairmen and DASCOH staff facilitated the training session on water point registration to establish regulatory mechanisms for rural drinking water supply. The Government of India has also expressed its interest to learn water point registration.
- *Direct fund disbursal to UPs:* The SDSD Project has started fiscal decentralisation by direct funds' disbursal to UPs since 2005. This learning and experience of the SDSD Project influenced and encouraged the LGSP, HYSAWA, Sharique and Plan Bangladesh to disburse funds directly to UPs.
- *Open tendering by UPs:* The SDSD Project has started WatSan service delivery through open tendering by UPs since 2005 and ensured transparent procurement at the UP level. The learning related to procurement at UP level by open tendering was used by HYSAWA project and was incorporated in the LGSP guidelines and in the national basic course curricula of the NILG as well.
- *Arsenic test facilities available in UPs:* All 17 UPs of the SDSD Project have arsenic test kits and trained volunteers. Now the arsenic test facilities are available at the communities' doorsteps. The users of drinking water sources can use this facility by paying a fixed fee.
- *Looking beyond boundaries:* Under the SDSD Project, CBOs prepared lists of poor and disadvantaged people, which were eventually used by Upazilas in KABIKA (*Kajer Bikolpe Khadya*, means, Food for work) - . It is important to mention that CBOs developed through

the SDSD Project are also being utilised by other projects and programmes, thus helping to tapping untapped resources and avoiding duplications.

7.0 CONCLUSION AND RECOMMENDATIONS

- The SDC's intervention in Rajshahi and Chapai Nawabganj – initiated through DASCOH mainly for arsenic screening, and then in the SDSD Project – provided adequate provisions for water points, solutions for arsenic screening and a process for water point registration. In the process, CBOs and CRPs were developed and a bottom-up participatory process was initiated. Good governance has been initiated in Rajshahi and Chapai Nawabganj areas. In the last (current) phase of SDSD, lessons learnt were consolidated, coordination platforms for CBOs were established and solutions were demonstrated to sustain the existing water points**. The scope of work for the SDSD Project has been fully accomplished.**

- The Local Governance Foundation that has been established in 17 Unions and a group of CBOs that were developed can now be utilised for addressing the bigger picture in the water sector. There is a need now to move from promoting tubewells and to provide various cost effective options for improving safe drinking water with respect to IWRM. **Therefore, UPs can play a bigger role in coordinating water-related factors, such as, reduction of over abstraction of ground water, groundwater depletion, over-drainage and water pollution.**

- Each sectoral project focuses only on its specific areas related to water. **UPs, because they are closest to the citizens, can play a wider role in coordinating these efforts through the UDCC and can ensure 'good water governance'.**

- The UP is the only public institution at the grassroots level which has the authority and mandate for local service provision. If compared to many central departments and ministries, the UPs are believed to be less corrupt, as oversight from the citizens is tight and budgets managed are comparatively small. UPs are closer to the rural citizens and can respond to their demands of better public services. **Transparency and downward accountability can be ensured through citizen mobilisations and citizens' oversights, keeping the UP central to any development activities in rural areas.**

- The local government Acts and policies define the role of UPs in WatSan services and also define the structures (for example, Standing committee on WatSan). The projects could use the UPs' own funds (revenue) and block grants for the maintenance of water schemes and infrastructure. **The issues of sustainability that NGOs and project-based interventions in WatSan have can be addressed through the involvement of UPs.**

- Possible overlaps and misuse of resources could be reduced through coordination of different actors at the UP level (for instance, UDCCM meeting). UPs can ensure the participation of local citizens through its institutional framework (for example, Ward assembly). **WatSan services could be institutionalised and locally coordinated through the involvement of UPs through UDCCM.**

ANNEXURES

ANNEXURE I: ACRONYMS AND ABBREVIATIONS

ADP	:	Annual Development Plan
BAMWSP	:	Bangladesh Arsenic Mitigation Water Supply Project
BARD	:	Bangladesh Academy for Rural Development
BMDA	:	Barind multipurpose Development Authority
CARE	:	Co-operative for Assistance and Relief Everywhere
CAP	:	Community Action Plan
CBO	:	Community-based Organization
CHF	:	Swiss Francs
CRP	:	Community Resource Persons
DANIDA	:	Danish International Development Agency
DASCOH	:	Development Association for Self-reliance, Communication and Health
DPHE	:	Department of Public Health Engineering
GoB	:	Government of Bangladesh
HH	:	Household
HLP	:	Horizontal Learning Program
HtRA	:	Hard-to-Reach Area
HYSAWA	:	Hygiene, Sanitation and Water Supply
IDE	:	International Non-profit organisation
IPAM	:	Implementation Plan for Arsenic Mitigation
IWRM	:	Integrated Water Resources Management
JICA	:	Japan International Cooperation Agency
LGD	:	Local Government Division
LGED	:	Local Government Engineering Department
LGSP	:	Local Government Support Project
MDG	:	Millennium Development Goal
MoU	:	Memorandum of Understanding
NBD	:	National Building Departments (line agencies)
NGO Forum	:	NGO Forum for Drinking Water Supply and Sanitation
NILG	:	National Institute of Local Government
NPAM	:	National Policy for Arsenic Mitigation
O&M	:	Operation and Maintenance
PSU	:	Policy Support Unit
SDC	:	Swiss Agency for Development and Cooperation
SDP	:	Sector Development Plan
SDSD	:	Sustainable Solutions for the Delivery of Safe Drinking Water
SRC	:	Swiss Red Cross
ToR	:	Terms of Reference
UDCCM	:	Union Development Coordination Committee Meeting
UISC	:	Union Information and Service Centre
UP	:	Union Parishad
UNICEF	:	United Nations Children Fund
VAC	:	Village Arsenic Committee
VDC	:	Village Development Committee
WatSan	:	Water Supply and Sanitation
WHO	:	World Health Organization
WPP	:	Water and Sanitation Partnership Project
WSP	:	Water and Sanitation Program (World Bank)

Meaning

Barind	:	Dry and arid area

ANNEXURE II: STUDY MISSION SCHEDULE

	Day 1 (Sunday, 10 June 2012)	**Time**	**Location**	**Remarks**
1	Short Term Consultants (STCs) on board, initial brainstorming to prepare tentative work plan for the assignment	10:30–12.00 noon	SDC Office	Santanu Lahiri (SL), Md. Inamul Haque (MIH), Mahamud Hossain Khan (MHK), Swapan Kumar Dasgupta (SKD)
2	On the basis of discussion held, preparation and submission of work plan to SDC, and contact MHK	Afternoon	Through e-mail	SL
3	Sharing all documents related to SDSD Project of DASCOH	Afternoon	Through e-mail	SL, MIH, MHK, SKD
	Day 2 (Monday, 11 June 2012)			
4	Literature study	-	-	SL, MIH, MHK, SKD
	Day 3 (Tuesday, 12 June 2012)			
5	Review of work plan and preparation for field mission	10:30 am–01:00 pm	Meghna (Ground Floor), WB Office	SL, MIH, MHK, SKD
	Day 4 (Wednesday, 13 June 2012)			
6	Field mission to Rajshahi: - Starting from Dhaka - Briefing on SDSD by DASCOH	07.30 am 3.30 pm–05.30 pm	Dhaka Rajshahi	SL, MIH, MHK, SKD Staying at Parjaton Hotel
	Day 5 (Thursday, 14 June 2012)			
7	Field mission to: - Kalimpara village, Alatuli UP (at Char area), Chapai Nawabganj Sadar Upazila, Chapai Nawabganj District - Bahram village, Ranihati UP (highly arsenic effected area), Chapai Nawabganj Sadar Upazila, Chapai Nawabganj District	07.30 am–01.30 pm	UPs	SL, MIH, MHK, SKD Staying at Parjaton Hotel

8	Lunch and meeting with Executive Engineer, LGED and BMDA.	01.30 pm–03.30 pm	Restaurant	
9	Field mission to Sharjan village, Gobratala UP (Declination of water table), Chapai Nawabganj Sadar Upazila, Chapai Nawabganj District	02.00–06.00 pm	Chapai Nawabganj Sadar	XEN, DPHE/LGED/Barind/Water Board, team members
10	Dinner with Md Abdul Mannan, Executive Director, BMDA	08.00 pm–10.30 pm	Rajshahi Parjatan	With Mission team
	Day 6 (Friday 15th June, 2012)			
11	Field mission to: - Modhupur village, Damkura UP (Declination of water table), Poba Upazila, Rajshahi District - Sharmongla village, Hujuripara UP (Declination of water table), Poba Upazila, Rajshahi District - Dhurail UP, Mohanpur Upazila (Declination of water table), Rajshahi District	08.00 am–01.00 pm	UPs	SL, MIH, MHK, SKD
12	Working lunch	02.00 pm–03.45 pm	Rajshahi	Ranihati UP, Water Board EXN, DASCOH and Mission members
13	Returning to Dhaka	03.45 pm–11.00 pm	-	SL, MIH, MHK, SKD
	Day 7 (Sunday, 17 June 2012)			
14	Analysis of field findings	09.00 am–05.00 pm	Different agencies	SL, MIH, MHK, SKD
	Day 8 (Monday, 18 June 2012)			
15	Visit various agencies in Dhaka/analysis of field findings	09.00 am–01.00 pm	Different agencies	SL, MIH, MHK, SKD
16	Analyze the findings to prepare for the Field-level Validation Workshop	02.30–06.00 pm	World Bank Office	SL, MIH, MHK, SKD
	Day 9 (Friday, 22 June 2012)			
17	Dhaka to Rajshahi	09.00 am–03.30 pm	Rajshahi	SL, MIH, MHK, SKD

	Day 10 (Saturday, 23 June 2012)			
18	Field-level Workshop	09.00–01.00 pm	Rajshahi	SL, MIH, MHK, SKD
19	Returning to Dhaka	02.30 pm–10.00 pm	-	SL, MIH, MHK, SKD
	Day 11 (Between 24–26 June 2012)			
20	Summarise the findings and prepare for the Central Stakeholder's Workshop	-	-	SL, MIH, MHK, SKD
	Day 12 (Wednesday, 27 June 2012)			
21	Half-day Stakeholder's Consultation	09.00 am–01.00 pm	Lake Castle	Sohel, Tommaso, SL, MIH, MHK, SKD
22	Review of the workshop outcomes and feedback			Sohel, Tommaso, SL, MIH, MHK, SKD
	Day 13 (Between 1–7 July 2012)			
23	Provide inputs for individual sections of the report	-	-	SL, MIH, MHK, SKD
	8–12 July 2012	*(3 days for Santanu Lahiri)*		
24	Compilation and consolidation of report and share that with other three members			SL
	Day 14 (15 July 2012)			
25	Debriefing to SDC			SL, MIH, MHK, SKD
	16–31 July 2012	*(3 days for Santanu Lahiri)*		
26	Fine-tuning and submission of the final report to SDC			SL

ANNEXURE III: ARSENIC SCREENING IN CHAPAI NAWABGANJ SADAR UPAZILA (NOVEMBER 2009)

Sl. no.	Name of Union	Number of drinking water sources screened				No. of arsenic patients identified	Remarks
		0–50 ppb	50+ ppb	Total	% of contami-nation		
1	Baliadanga	492	58	550	10.55	0	SDSD working UP
2	Gobratala	402	19	421	4.51	1	SDSD working UP
3	Jhilim	60	0	60	0.00	4	-
4	Baroghoria	2,126	174	2,300	7.57	2	SDSD working UP
5	Moharajpur	2,120	456	2,576	17.70	56	SDSD working UP
6	Ranihati	2,536	843	3,379	24.95	307	SDSD working UP
7	Char Anupnagar	579	177	756	23.41	17	-
8	Debinagar	524	26	550	4.73	13	
9	Alatuli	426	14	440	3.18	0	SDSD working UP
10	Shajanpur	97	3	100	3.00	1	-
11	Islampur	220	15	235	6.38	0	-
12	Char Bagdangga	98	2	100	2.00	0	-
13	Narayanpur	94	0	94	0.00	0	-
14	Sundorpur	2,494	224	2,718	8.24	21	-
Total		**12,268**	**2,011**	14,279	14.08	**422**	6 UPs

ANNEXURE IV: STUDY METHODOLOGY

The following methodologies have been followed to carry out the evaluation for the SDSD Project.

Desk research and consultation (10–12 June 2012)

- The study team (mission team) carried out desk research to obtain data related to water for the Barind area.
- Carried out consultations with various stakeholders in Barind area and central level.

Exclusive dialogue on SDSD Project (13 June)

- Discussed SDSD Project with DASCOH and planned for field mission to Rajshahi.

Field mission to SDSD and Barind Area (14–15 June)

- Visited eight Unions and discussed with citizens, CBOs, Ward committee members and UP representatives.

Analysis of initial findings (17–18 and 22 June)

- Summarise the findings of SDSD review.
- Prepare PowerPoint presentation for Consultation Workshop in Rajshahi.

Consultation Workshop for Validation of Initial Mission Findings (23 June)

Refined findings on SDSD and Potential New Investment (26 June)

National Consultation on Study Findings (27 June)

Refined the Study Findings as per National Consultation (12 July)

Debriefing to SDC on Study Findings (15 July)

Report Writing (16 to SDC 21 July)

Submission of Report (before 31 July)

ANNEXURE V: PERSONS MET

Sl. No.	Name	Designation	Organisation
1	Md Baher Uddin Mridha	Executive Engineer	DPHE, Rajshahi
2	Abdul Wadud	Executive Engineer	DPHE, Chapai Nawabganj
3	M.A Matiur Rahman	Executive Engineer	LGED, Chapai Nawabganj
4	Md Shamser Ali	Executive Engineer	BMDA, Rajshahi
5	Md Akbar Ali	Executive Engineer	BMDA, Chapai Nawabganj
6	Md Mukhlesur Rahman	Executive Engineer	BWDB, Chapai Nawabganj
7	Md Haroon Ur Rashid	Executive Engineer	BWDB, Rajshahi
8	Dr Md. Shahidul Islam	Civil Surgeon	Rajshahi
9	Alhaz Md. Ruhul Amin	Upazila Chairman	Chapai Nawabganj Sadar
10	Dr Chitralekha Naznin	UNO	Chapai Nawabganj Sadar (NS)
11	Md Razzaqul Islam	UNO	Paba, Rajshahi
12	Md Golam Mostofa	UP Chair	Huzuripara UP, Paba, Rajshahi
13	Md Khoaz Ali	UP Chair	Alatuli UP, Chapai NS
14	Arful Islam Azizi	UP Chair	Gobratala UP, Chapai NS
15	Md Durul Huda	UP Chair	Ranihati UP, Chapai NS
16	Md Abdul Latif	Ex Chairman	Ranihati UP, Chapai NS(HLP)
17	Md Rezaur Rahman	UP Secretary	Ranihati UP, Chapai N. S.
18	Md Arif Uddin	Chairperson	Sharjan CBO, Gobratala, Chapai Nawabganj
19	Ms Rokeya Begum	Woman Member	Baliadabga, Chapai Nawabganj
20	Ms Babita Khatun	Woman Member	Rajshahi
21	Mosharraf Hossain Palash	UP Member	Damkura UP, Rajshahi
22	Md Mizanur Rahman	Chairperson	Sharmongla CBO, Hujuripara UP, Rajshahi
23	Habibur Rahman	CRP	CRP, Ghorapakia, Ranihati
24	Md Belal Uddin	CRP	Damkura UP, Rajshahi
25	Haroon Ur Rashid Bachhu	Private Entrepreneur	Sarker Enterprise, Hujuripara UP, Rajshahi
26	Md Mizanur Rahman	Regional Manager	NGO Forum
27	David Danish Hambrom	Regional Coordinator	CARITAS, Rajshahi
28	Shoul Boiragi	Manager	World Vision, Rajshahi
29	Ms Israt Jahan	eam Leader, Training	DASCOH
30	S.M. Fakhrul Basher	Head of Field Operation	DASCOH
31	Md Akramul Haque	CEO	DASCOH
32	Md Abid Hossain Mridha	Assistant Director	RDA, Bogra
33	Sheikh Mehdi Mohammad	Deputy Director	RDA, Bogra
34	Hazi Md Ishaq	Private Entrepreneur	Sherpur, Bogra
35	Sohel Ibn Ali	Programme Manager LG	SDC
36	A.K.M. Ibrahim	Superintendent Engineer	DPHE
37	A.K.M. Mizanur Rahman	Monitoring & Research Officer	HLP/JICA
38	Dipak Kumar Biswas	Sr. Advocacy Officer	HYSAWA
39	Md Bellal Hossain	Programme Officer	HLP/JICA
40	Mark Ellery	Regional WSS Specialist	WSP-World Bank
41	Md Akramul Haque	CEO	DASCOH
42	S.M.A. Rashid	Executive Director	NGO Forum
43	Shamim Faruque	Deputy Director	NILG
44	Enamul Kabir	Managing Director	HYSAWA
45	Muhammad Shamsul Haque Bhuiya	Superintendent Engineer	DPHE
46	Aengus Ryan	WSS Specialist	Swiss Red Cross
47	Md Shariful Alam	Deputy Secretary	GoB
48	S.M. Abdul Mannan	Former Executive Director	BMDA, Rajshahi
49	Md. Ekram Ullah	Principal Scientific Officer	WARPO
50	Tommaso Tabet	First Secretary	Embassy of Switzerland

ANNEXURE VI: ToR OF THE STUDY

Background

Bangladesh has significantly reduced its population without access to improved water supply and basic sanitation facilities. The present government has stipulated targets to secure access to safe drinking water for all by 2011, in respective campaign plans. However, the achievement of the Millennium Development Goal (MDG) 7c, by 2015, remains a big challenge – the provision of adequate water and sanitation services, especially for the hard-to-reach populations in rural areas, is hampered due to the absence of means and capacities within the corresponding local entities.

In water supply, access to a protected drinking water source is undermined by water quality issues: close to 50 million people are exposed to drinking water with arsenic contamination exceeding WHO guidelines that stipulate a value of 10 ug/L. Further, some 30% of the existing water points are active exclusively in the wet season, due to declining groundwater, mainly in the remote northern areas ('Barind' or dry areas in North-West Bangladesh).

The same Barind areas have been the focus of the last more than 15 years of agricultural development, strongly supported and driven by the Ministry of Agriculture. Notably important irrigation schemes have been developed, allowing for year-round cropping now. As suspected, a side effect has been that a large number of traditional water pumps become dry for several months a year.

The Swiss Agency for Development and Cooperation (SDC) has extensive experience in working in the Barind areas, notably with the 'Sustainable Solutions for the Delivery of Safe Drinking Water (SDSD)' Project that has been working in Rajshahi and Chapai Nawabganj areas since 2004. Since the SDSD Project is now in its final (phasing out) phase, an End-of-Phase evaluation is foreseen to track the sustainability of the overall approach promoted and the quality of the hardware build. The aim of SDSD is "to contribute to equitable and sustainable access to community managed water and sanitation services through improved governance in Rajshahi and Chapai Nawabganj Districts". Over the years, the Development Association for Self-reliance, Communication and Health (DASCOH) accumulated experience and practices in bridging local communities with local government institutions, as well as jointly planning, financing, executing and maintaining practices and infrastructures in the area of water sanitation and hygiene.

Building on its past experiences of using water and sanitation to foster local governance processes and acknowledging the changing environmental situation in Rajshahi and Chapai Nawabganj areas, the SDC is now exploring options for developing a new programme that would address the issue of water management, integrating drinking water supply needs with agricultural and irrigation priorities in the selected areas.

Such a programme would address water management in an integrated way, piloting a new model in the selected geographical area, and address horizontal and vertical governance issues:

'Horizontal' would mean coordination and collaboration across Union Parishads and Upazilas Parishads, matching the natural boundaries of the water bodies with the administrative territorial decoupage. Horizontally also implies coordination and collaboration (if not a redesign of assignments/mandates) of national ministries having something to do with water use and management (Ministry of Land, Ministry of Agriculture, Ministry of Local Government, Rural Development and Cooperatives, Department of Public Health Engineering, etc).

'Vertical' would mean addressing the roles, responsibilities and specific assignments of each government and administrative tier, starting from the Ward shavas (and village committees) up to the highest level of the bureaucratic system.

Purpose of the mandate

The purpose of the review mandate is two-fold: (a) to inform SDC about the sustainability of the processes and the hardware promoted by SDSD in the selected areas; and (b) to advise the SDC in designing a future programme in the same area, building on the learning of the reviewed project and addressing water management in an integrated way.

Objectives

3.1 Water management and governance: Approach of SDSD of working with the public sector (UPs mainly), leveraging with local resources (human and financial) to promote new infrastructure, maintenance processes and hygiene practices. Plus approach and work with the communities, final executions result of planning, Level of satisfaction.

Assess feasibility, risks, etc, for replication of similar inclusive approach for planning and managing water bodies, including main stakeholders at local and central levels.

3.2 Sustainability of the infrastructures: Rapid assessment of the quality of the infrastructures supported by the SDSD, assess the potential sustainability of the works and finally judge the capacity of managing locally the planning, construction and maintenance of such infrastructures.

3.3 Rationale, conceptual frame for a new intervention: Objectives 3.1 and 3.2 would partially inform the most suitable government level for managing planning, tendering, execution and maintenance of water related infrastructures. Review approaches, comparative advantages, mandates (legal frame), etc, of the key actor dealing with water management and water infrastructures in the selected areas and propose an integrated management model that would lead to improved efficiency in the local resources management.

3.4 Project design, project set-up and feasibility: Building on existing experiences, on the political economy surrounding the water resources management, propose a project set-up to pilot 'integrated water management' covering the aspects of irrigation, surface water management, groundwater management, arsenic, etc, with investments on infrastructures, locally.

Proposed tasks

The general tasks expected can be summarised as:

- Review SDSD working approach with the UP authorities, the communities, the technical departments represented at Upazila level and the relevant departments and ministries at national level.
- Assess the technical quality of the infrastructures sponsored by SDSD investments, and assess the level of satisfaction of the concerned communities with regard to such infrastructures (placement, quality, maintenance).
- Review the actors, approaches, comparative advantages and limitation of the main interventions (programmes, projects, initiatives) relating to water use and management in the selected areas.
- Outline a political economy analysis of the main public (local, national) actors and private interests (elites, farmers, etc) that have direct interest and influence over water management in the selected areas.
- Propose a viable new intervention rationale, logic, objectives and outcomes that are feasible (agreed) in the eyes of the main factors involved!
- Develop the main documents necessary to prepare for a project tender process.

- Prepare briefing and debriefing notes and presentation as necessary, including a short briefing note to 'buy in' government counterparts at all level.

Expertise required

The mission shall be carried out by a four-member team: the international consultant will be appointed as team leader of the mission while other three national consultants will be assigned specific tasks and responsibilities.

(1) The International Team Leader will contribute to the mandate with a maximum of **20 days.**

Tasks: He/she will be responsible for the overall quality of the review and for the review team management. In addition, he/she will bring knowledge and expertise on safe water distribution and management including vast knowledge on water related infrastructures.

Profile: (i) Masters degree in water management/water technology in relevant field; (ii) at least 15 years' extensive theoretical and practical experience with WatSan/water management and its related initiatives, including experience in working on local governance, particularly with LGIs and ministries, private sectors in developing countries, preferably South Asian countries; (iii) strong facilitation and moderation skills, particularly as well as in work with rural stakeholders and in inter-cultural contexts; (iv) strong knowledge of PCM, particularly project evaluation, project designing, monitoring and results measurements; (v) strong track record in gender equality mainstreaming; and (vi) excellent written and oral English.

(2) The Local Expert on irrigation and surface water management will contribute to the mandate with a maximum **14 days**.

Tasks: He/she will bring into the team context knowledge and expertise on irrigation and overall surface and groundwater management in Bangladesh and contribute in review and designing process.

Profile: (i) Masters degree in WatSan/water management in relevant field; (ii) at least 10 years' extensive theoretical and practical experience with irrigation, ground and surface water management and its related initiatives and issues, including experience in working with LGIs, DPHE, BWDB and relevant ministries; (iii) strong facilitation and moderation skills; (iv) strong knowledge of PCM, particularly project evaluation, project designing, monitoring and results measurements; (v) strong track record in gender equality mainstreaming; and (vi) excellent written and oral English.

(3) The Local Expert on Integrated Water Management will contribute to the mandate with a maximum **14 days**.

Tasks: He/she will bring into the team context knowledge and specific expertise and experience on integrated water management, participatory water management, and small scale water management and hydrological aspects and contribute in review and designing process.

Profile: (i) Masters degree in WatSan/water management in relevant field; (ii) at least 10 years' extensive theoretical and practical experience with integrated water management, participatory water management, small scale water management and hydrological aspects and its related initiatives and issues, including experience in working with LGIs, DPHE, BWDB, WARPO, ministry of water resources, land and relevant ministries; (iii) strong facilitation and moderation skills; (iv) strong knowledge of PCM, particularly project evaluation, project designing, monitoring and results measurements; (v) strong track record in gender equality mainstreaming; and (vi) excellent written and oral English.

(4) The Agro-economist will contribute to the mandate with a maximum **14 days**.

Tasks: He/she will bring into the team context knowledge on political economy of irrigation and water management in Bangladesh.

Profile: (i) Masters degree in economy, preferably agro-economy/relevant field; (ii) at least 10 years' extensive theoretical and practical experience on political economy analysis, local power politics and dynamics in Bangladesh; (iii) knowledge of LGIs, departments and ministries (for example, roles, responsibilities, attitudes and behaviours); (iv) strong facilitation and moderation skills; (iv) strong knowledge of different participatory research tools; (v) strong track record in gender equality mainstreaming; and (vi) excellent written and oral English.

Programme

The mandate period will start from 10 June 2012 until 30 July 2012, for a total of 20 workdays for the international consultant and 14 days each for the local consultants. Extensive field work (in and outside Dhaka) shall be planned.

Deliverables

- A draft work plan for the assignment before the actual start of the field work outlining the methodology and criteria for analysis in order for SDC to be in a position to make preparatory arrangements.
- A debriefing session and Validation Workshop at the end of the mission to present and discuss the findings and recommendations.
- A draft mission report, with summary recommendations (20 pages excluding annexures).
- A final report (maximum 20 pages excluding annexures), structured as per SDC requirements (discussed at the briefing/debriefing sessions) with a specific chapter on SDSD DASCOH.
- Relevant annexures of the final report, including: (i) Draft ToRs (as per SDC templates) for programme implementation sub-contracting; (ii) overall programme management and steering set-up; (iii) other minor annexures, as decided by the evaluator's team. A logical framework, risk assessment, stakeholder's assessment and institutional analysis.

ANNEXURE VII: REFERENCES

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