

Step by Step

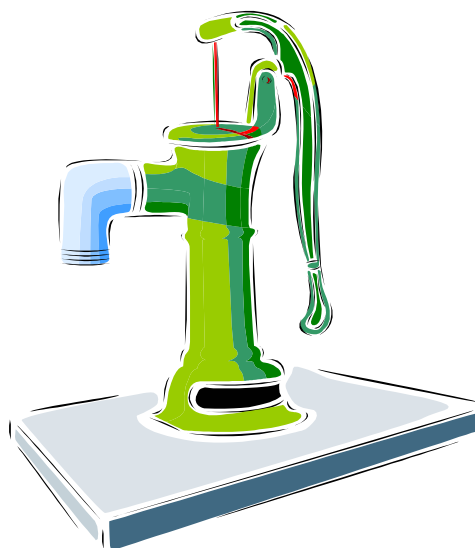
IMPLEMENTATION GUIDELINES *for* Tubewells

SUCTION Mode pumps

1. Shallow hand tubewell
2. Half-Cylinder hand tubewell
3. Deep hand tube well

FORCE Mode pumps

1. Tara II (Tara super) hand pump
2. Tara Dev hand pump



May 2006

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Abbreviations

ASEH	: Advancing Sustainable Environmental Health
CAP	: Community Action Plan
CBO	: Community Based Organization
CSA	: Community Situation Analysis
DHTW	: Deep Hand Tubewell
DPHE	: Department of Public Health Engineering
DSHTW	: Deep Set Hand Tubewell
F	: Functional
HH	: Household
HTW	: Hand Tubewell
LGI	: Local Government Institutions
NF	: Non-functional
NGOs	: Non-government Organizations
O&M	: Operation and Maintenance
PF	: Partially Functional
POs	: Partner Organizations
Rehab	: Rehabilitation
SHTW	: Shallow Hand Tubewell
WAB	: WaterAid Bangladesh
WatSan	: Water and Sanitation
WS	: Water Supply
WSS	: Water Supply & Sanitation
WSTFC	: Ward Sanitation Task Force Committee

Glossary

SUCTION Mode pump:

Suction Mode hand tubewells lift water by creating vacuum within the cylinder of the pump by raising the piston and allowing water to enter into the cylinder to fill-up the vacuum. The lifting capacity of such pump is usually upto 7.5m (24.3 feet) of static water level.

1. Shallow hand tube well (SHTW)

Shallow hand tubewell (SHTW) operates in suction mode and consists of # 6 pump head, 38.1mm (1.5 inch) dia well pipes and filters. The foot valve and piston assembly are located into the # 6 pump head which is mounted at top of the ground level. SHTW is the most common and low cost tube-well technology in Bangladesh.

2. Half-Cylinder hand tubewell

There are some areas where water level goes beyond the suction limit (static water level > 7.5 m) for certain period of time in each year. In such cases, the cylinder of the pump is lowered alongwith the foot valve and piston assembly upto 1-3 m (maximum 10 ft) below ground surface through the casing pipe so that the pump can be operational for the whole year. This type of option tubewell is known as Half-Cylinder (sometimes Semi Deep-set pump) tubewell. Different components of a Half-Cylinder tubewell are given below:

Components	Half-Cylinder hand tubewell
Pump head	# 6, made of cast iron
Casing/ housing pipe	76-100 mm (3-4 inch) dia
Well pipe	38.1mm (1.5 inch) dia
Suction depth	15 m (48.75 feet)
Lifting action	Lever
Cylinder type	Specially designed 63.5mm (2.5 inch) dia and 45.72cm (18 inch) length
Piston/ pump rod	Mild steel rod
Foot valve	Specially designed – made of casting brass

3. Deep hand tube well

Deep hand tubewell (DHTW) operates in suction mode from deep aquifer. From engineering point of view, when a tubewell penetrates at least one impermeable layer, it is known as Deep Tubewell. But in Bangladesh when a tubewell is deeper than 75 m it is called Deep tubewell (as per DPHE). However, DHTW operates exactly in the same principle as a shallow hand tubewell and have same components but, only difference is that the length of the tubewell is more than 75m.

FORCE Mode pump:

Deep set hand tubewell (DSHTW) operates in force mode and can abstract water from a depth beyond the suction limit i.e., 30-37m below ground level depending upon the type of DSHTW. For Deep-set handpump tubewell, 76 mm (3 inch) dia housing/ casing pipe length is extended upto a certain depth depending on the watertable and piston assembly of the pump is set at that level by connecting a pumprod to the handle. The piston remains in submerged condition below watertable.

Usually two types of Deep Set Handpump Tubewells are promoted under ASEH which are Tara-II (also known as Tara Super) and Tara Dev. Different components of these Deep-set Hand tube wells having minor are given below for clear understanding.

Components	Tara-II (Tara Super)	Tara Dev
Pump head	# 6, made of cast iron	Specially designed pump head. Long handle and big pump head. Made of mild steel/ GI steel
Casing/ housing pipe	76 mm (3 inch) dia (PVC)	76 mm (3 inch) dia (PVC)
Well pipe	38.1mm (1.5 inch) dia (PVC)	38.1mm (1.5 inch) dia (PVC)
Lifting capacity	30 m (97.5 feet) below ground level	37 m (120 feet) below ground level
Lifting action	Lever	Lever
Cylinder type	50mm (2 inch) dia; 2m (6.5 feet) long thick pvc pipe	50mm (2.0 inch) dia; 2m (6.5 feet) long thick pvc pipe
Piston/ pump rod	32mm (1.25 inch) dia pvc pipe	32mm (1.25 inch) dia pvc pipe
Foot valve	Specially designed – body made of HDPE and flap & 'O' ring by nitrile rubber	Specially designed – body made of HDPE and flap & 'O' ring by nitrile rubber

1. **Access:**
Access to be defined as presences of arsenic free safe public TW within 50m (150 feet) distance and minimum accepted service level 20 lpcd (for drinking and cooking purposes) + 2-3 lpcd for sanitation and hygiene purposes.
2. **Functional**
TW which meets the following criteria -
 - a. Produce adequate quantity of water having acceptable quality round the year.
 - b. All necessary parts are in place.
 - c. Good, clean and effective platform is available.
 - d. Effective waste water disposal pit or drainage system is available.
 - e. Sanitary condition of TW surrounding is satisfactory.
3. **Partially Functional**
 - a. TW which meets partially of the criteria mentioned in **2a**.
4. **Non-Functional**
 - a. TW which is completely out of order.

1. Introduction

WaterAid is an international non government organization dedicated exclusively to the provision of safe domestic water, sanitation and hygiene education to the world's poorest people. WaterAid has been working in Bangladesh since 1986 to improve hygiene behaviour and access to water and sanitation services for poor communities giving emphasis on demonstration of innovative approaches, participatory methods, gender and vulnerable groups and sustainability.

'Advancing Sustainable Environmental Health' (ASEH) is a DFID supported project of WaterAid Bangladesh (WAB) for hygiene promotion, environmental sanitation and water supply among for urban and rural poor. The project started in July 2003 and will be end up in March 2009 and is being implemented in partnerships with 15 local rural and urban NGO partners. ASEH is promoting sustainable, community managed safe water supply and sanitation facilities among the target population in rural areas and urban slums. ASEH promotes financial and programme management transparency and accountability of partner organizations to communities through empowering and strengthening LGIs to plan, monitor and implement WSS services.

WAB has been offering a range of water supply technology options to address the needs of communities at different geo-physical context under ASEH project. WAB implements different types of tubewells in rural and urban communities along with other options.

This Guideline is particularly dealing with the following tubewell options in **Rural** areas:

SUCTION Mode pump:

1. Shallow hand tube well
2. Half-Cylinder hand pump tubewell
3. Deep hand tube well

FORCE Mode pump: (different types of Deep-set hand tube wells)

1. Tara II / Tara super hand pump
2. Tara Dev hand pump,

The definitions of these hand tube wells are given in the glossary.

1.1 Purpose and Use of this Guideline

This Guidelines has been prepared based on the **available Guidelines of WAB and Partners**, gathering experience over the last year of implementation under ASEH and reviewing the documents available from other organizations (like DPHE-Danida, Unicef etc.) to meet the following purposes:

- This Guidelines has been prepared as a tool to keep standard procedures for installation of different types of tube wells under the programme of WaterAid Bangladesh uniformly by all Partner Organizations.
- It was attempted to reflect the National Policies as well as WaterAid's policies through the Guidelines in an operational manner and mainstream the policies.
- This Guidelines will be used a Handbook for the frontline staff as well as professionals.
- Ensure involvement of community, LGIs and other concerned stakeholders as relevant through promotion of transparent, accountable, gender sensitive and pro-poor implementation of water supply facilities.
- This Guideline will guide the Partner Organizations to implement the installation with a certain level of flexibility allowing addressing local context in consultation and approval from WAB, if essential.

2. Implementation of Tube wells

- The type of tube well option will be selected based on the hydro-geological situation of the area concerned as well as communities' preference and ability to pay etc.
- Implementation of tube well options will take place at hh level in the community, schools, institutions, public places of rural areas.

Step 1: Need Identification

In order to identify the need of water supply facilities for a particular community and proceed for installation of suitable water options (different types of tubewells), the following activities have to be undertaken.

- **Community Situation Analysis (CSA):** CSA must be conducted at cluster/community with facilitation by the respective frontline staff of Partner Organization following the CSA guidelines (pls. see the Guidelines on Community Situation Analyses).
- The status of existing water supply facilities, besides other relevant information of the particular cluster/community should be documented during CSA using the format **WAB-2006/Prog-001**. The cluster/community identification should be marked by writing a number or note on top right corner of the same format).
- The summary information of the water supply situation in the community obtained from the overall situation analysis may be presented similar to the format **WAB-2006/Prog-003**.
- **CBO formation:** During the analyses of WatSan status for a particular community, frontline staff of Partner Organization ignites the people towards promoting access to safe water, safe sanitation and improve hygiene practices. Then the community people feel to take initiatives collectively for overcoming the adverse WatSan situation. Thus the CBO is formed.
- **Community Action Plan (CAP):** Once the situation is analyzed and orientation is conducted to CBO on how to develop action plan, the CBO will sit together with community people to prepare a **Community Action Plan (CAP)** with assistance from the frontline staff. During preparation of the CAP, the above summary matrix should be analyzed carefully to assess the need new/ rehabilitation of water supply facilities for the community. Accordingly, the CAP should be prepared including required number of new or rehabilitation water supply options mentioning their types, budget, number of users, timeframe for installation, responsibilities and budget etc. and later on documented by the frontline staff as the matrix titled **CAP: Installation of Water Supply Options** given below.
- During determining present situation, average number of hhs per water supply facilities having access* to safe water needed to be calculated.

CAP: Installation of Water Supply Options

Preferred Option	No. of WS options		No. of HHs to be covered*		Time frame	Responsibility	Budget	Remarks
	New	Rehab	New	Rehab				
Shallow HTW								
Half-Cylinder HTW								
Deep HTW								
Tara-II (Super)								
Tara Dev								

Preferred Option	No. of WS options		No. of HHs to be covered*		Time frame	Responsibility	Budget	Remarks
	New	Rehab	New	Rehab				
Others								
Total:								

* As per WAB's present practice the beneficiary hhs for different tube well technology are:
a) STW: 5-10 hhs, Deep Set Tubewell: 10-25 hhs , Deep HTW: 10-25 hhs.

- The frontline staff during assisting for preparation by the above CAP by the community should ensure that the policies of Govt. of Bangladesh as well as WAB are reflected (as per Govt. policy one water supply facilities per 50 persons or 10 hhs is targeted). Preference must be given to poor hhs and hhs of undeserved and underserved pockets.
- The CAP including proposed water supply options has to be carefully reviewed by respective frontline staff of Partner Organizations considering ASEH policy principles and endorsed by the CBO preferably in a CBO meeting.

Step 2: Application for Water Supply Facilities

- Based on the priority determined in CAP, respective frontline staff alongwith CBO members will have meeting(s) with the users to determine list of applicant households for each proposed water supply option alongwith number of users and preferred option.
- The respective frontline staff must explain the conditions of applying for a particular water supply option (e.g., estimated total cost, users' contribution, cost-recovery mechanism, caretakers' selection process, caretakers' roles & responsibilities, use and O&M of the facilities etc.) to the applicants in details.
- Upon discussion, each applicant group will separately fill-in an Application Form (**Annex-1**) for a particular type of water supply option.
- The respective frontline staff will assist the applicants to select the site for installation of proposed water supply option properly considering the **site selection criteria** in consultation with both male and female members from the applicant households.
- The frontline staff must ensure that signatures are obtained in the Application Form from both male and female members of the applicant households.
- The representative from the applicant households will submit the filled-in Application Form to Partner Organization on their behalf through respective front line staff.

Site selection criteria:

- A common, agreed and suitable place.
- Easy access can be ensured by users, especially women.
- Reasonable distance from each of the applicant households.
- Safe distance from nearby latrine.
- Not in front of comparatively well-off household among the applicants.
- Usual annual flood level to be considered.
- ASEH policy principles to be generally followed for site selection.

Step 3: Site Verification for Water Supply Facilities

- The front line staff will forward the Application Form to respective Partner Organization's office to be visited by the supervisory staff and/or Engineer preferably with LGI representative/ member of Ward Sanitation Task Force Committee (WSTFC).

- During site verification by the Supervisory staff/ Engineer, the following aspects to be critically observed.
 - Reliability of information as mentioned in the Application Form
 - Social, technical and legal feasibility of the proposed site for the particular water supply option.
- Recommendation should be made by the Supervisory staff/ Engineer if all the conditions are full-filled.

Step 4: Approval for Water Supply Facilities

- Once the Application Form is recommended, it will be forwarded to Union Sanitation Taskforce/ Union WatSan Committee / respective PO office for review and approval.
- In order to ensure formal involvement of local bodies, the respective Partner Organization will give emphasis and promote a mechanism to get the approval by Union Sanitation Taskforce or Union WatSan Committee. Until the mechanism is established, Partner Organization may approve the site in consultation with UP representatives.
- The competent approving authority (as decided by respective Partner Organization) will review and approve/ not approve the Application preferably in a formal meeting.
- In case of approved application, a simple approval letter (**Annex-2**) should be issued by the approving authority to the applicant households to acknowledge their demand and proceed for next step.
- If the Application is rejected, the applicant households will be informed with reasons for not being accepted by the authority (say, due to not meeting the criteria).

Step 5: Calculation of Cost Recovery

- The concerned front line staff as per the **Cost Sharing and Recovery Strategy** (Please see Cost Sharing and Recovery Strategy) will perform 'ability to pay analyses' of the applicants hhs and determine the amount of upfront contribution and/or number of installments applicable for each hh for the rest.
- The applicant households will be informed about the upfront contribution and/or amount and number of installments by the respective Partner Organization's staff.

Step 6: Installation of Tube-well

6.1 Procurement of materials

6.1.1 Local Procurement

Procurement will be made by a Purchase Committee to be formed with two representatives from the applicant hhs nominated by the applicant group and one from Partner Organization, preferably Engineer.

The Purchase Committee will purchase the required materials as per the approved design, specification and estimate.

The respective Engineer of Partner Organization will be responsible for ensuring the quality of materials procured.

6.1.2 Central Procurement

In case of Central procurement, the Central Procurement/ Purchase Committee of the Partner Organization will procure the materials as per **Financial Guidelines for Partner Organizations**.

6.2 Selection of Boring Group/ Contractor

6.2.1 Selection of Boring Group Locally

The Purchase Committee will identify locally available boring groups and select one boring group on the basis of experience for installation of tube well. Each Partner Organization will develop and adopt a systematic procedure for selection of boring group in a transparent manner. A **Contract Agreement** (similar to **Annex-3** which can be further improved) between boring group and Purchase Committee/ Partner Organization will be signed.

6.2.2 Selection of Boring Group Centrally

The Contractor will be selected by the respective Partner Organization (please see **Financial Guidelines for Partner Organizations** if applicable). Each Partner Organization will develop and adopt a systematic procedure for selection of Contractor in a transparent manner. A **Contract Agreement** (sample given in **Annex-3** can further be improved) between Contractor and Purchase Committee/ Partner Organization will be signed.

6.3 Installation of Tubewell

The tubewell will be installed by the assigned boring group/ contractor as per the **Contract Agreement**, '**Tube well Manual**' and '**Arsenic Testing Protocol**' of WAB.

During installation, quality assurance will be made by the Partner Organization's staff, preferably by Engineer and the following issues to be taken into considerations:

- Installation is done at the site approved earlier.
- The materials purchased are properly used during installation.
- Installation follows the approved design and specification.
- Well development is done properly.

6.4 Water Quality Test

6.4.1 Pre-installation testing

Pre-installation testing aims at assessing whether arsenic is present in existing water installations in the particular area prior to making decision to go for installation of new tubewells. Therefore, pre-installation testing involves 2 stages.

- a. confirming whether existing water sources are safe in terms of arsenic level, and
- b. making a decision whether to install new tubewell.

The procedures should be followed as stated in the **Arsenic Testing Protocol**.

6.4.2 Installation testing

Once the tube well is installed, before platform construction, Arsenic and other water quality parameters to be tested as per ‘Arsenic Testing Protocol’ and ‘Water Quality Standard & Testing Policy’.

Parameter	WAB acceptable limit	Remarks
Arsenic	0.05 mg/l (50 ppb)	Arsenic level of water is tested by test-kit and if the result confirms that ‘no arsenic’ is present in the newly installed option, platform is constructed.

If Arsenic in water exceeds the allowable limit, the installation will be treated as unsuccessful and re-installation should be done.

If the water quality appears to have bacteriological contamination, disinfection to be done.

6.4.3 Re-testing/ Monitoring testing

The retesting applies to all WAB program funded and Non-WAB program funded tubewells. Sample re-testing of all tubewells should be undertaken to cover at least 10% of the partner’s tubewells in each 6 months’ period. Sample testing should include representative samples from each union covered and should be carried out on a rotational basis to eventually cover all tubewells. (For detail please see **Arsenic Testing Protocol**).

6.4.4 Record keeping

Partner Organizations must keep records of all arsenic tests. A standard sheet should be completed in the field and kept for each installed tubewell. Information of arsenic test during installation and pre-installation tests for that tubewell for each installed tubewell should include its unique identification number and geo-reference in a systematic manner.

6.5 Platform Construction (including drainage)

If the water quality parameters are within allowable ranges, the tube-well will be treated as a successful one. Then the platform including drainage will be constructed as per standard design & specification.

The following aspects should be looked into during construction of platform

- ASEH Identification mark with date of installation to be made on the platform boundary (**Annex-4**).
- Outlet of drain is maintained with proper slope and length.
- Soak-pit may be used for management of waste water.
- Utilization of waste water can be made for homestead gardening.

Step 7: Completion Report

A ‘**Completion Report**’ containing detail information including tubewell identification, Contract information, date of start and completion of installation, depth of tube-well, test results of water quality parameters at the time of commissioning, platform’s size & date of construction and other technical information of the tubewell as attached (**Annex-5**) should be filled-in by Partner Organization’s staff and to be acknowledged by the Representative of applicant households.

The ‘**Completion Report**’ must be kept at Partner Organization’s Office as a proof of completion of task and acceptance by respective users.

Step 8: Caretakers' Training and Tools Distribution

A total of two (one male and one female) caretakers from each of the installed tube well as proposed in the application form will be trained.

The Engineer will be responsible to train the caretakers at site preferably within one week of construction of platform. During training, the caretakers will be given a set of tools for repair and maintenance.

The set of tools shall contain the following instruments in a box:

- Slide wrench 12" - (1 piece)
- Pipe wrench 14" – (1 piece)
- Screw driver - (1 piece)
- Pliers - (1 piece)

It should be noted that the toolbox should be given at the disposal of the female caretaker.

After the caretakers' training will be followed by a simple formal handing over ceremony in the presence of applicant households including the representative of applicant group.

Step 9: Handing Over

A '**Handing Over Note**' along with users' acknowledgement should also be prepared and signed by all parties mentioned with **Annex-6**.

At the end of caretakers' training, a simple formal **Handing Over Ceremony** will be organized in the presence of applicant households, when the water supply facility will be formally handed over to the users.

During handing over, the photocopy of 'Handing Over Note' must be handed over to the **Representative of applicant group** while the original copy will be kept at Partner Organization's Office as a record for handing over the facility to the respective users.

Step 10: Cost Recovery

As soon as the water supply facility is handed over and subsequently formally taken over by the users, cost recovery will be started in cases where the total contribution money has not been deposited by users as upfront.

The concerned front line staff already fixed up (**Step-5**) the amount and number of installments applicable for each applicant household as per the **Cost Sharing and Recovery Strategy** (Please see 'Cost Sharing and Recovery Strategy').

A register should be introduced mentioning names and amount of cost recovery for each of the applicant households. This should be updated at every month.

The following aspects should be taken into consideration during cost recovery exercise.

- The frequency of installment may be monthly and preferably within maximum of 12 months except for the last year installations.

- The Caretakers will be responsible to collect the cost recovery money from applicant households and deposit the same to the designated frontline staff of the Partner Organization regularly.
- The respective frontline staff will deposit the cost recovery money to Partner Organization's office within maximum of one week time from collection by Caretakers. Proper documentation should be kept at register to ensure transparency of this process.
- The Partner Organization's office will deposit the money to Bank within maximum of one week (Please see the **Financial Guidelines for Partner Organizations**).

Step 11: Monitoring & Follow-up

After installation of tube well, respective Partner Organization's staff will monitor the water quality as per '**Arsenic Testing Protocol**' and '**Water Quality Standard & Testing Policy**'.

Other than water quality monitoring, respective Partner Organization will also monitor functionality, use and cleanliness of the water supply facilities for at least six months after the handing over of the facility.

The following aspects should be considered during monitoring by Partner Organization's staff.

- functionality of the tube well;
- functionality of the platform and drains;
- cleanliness of the platform and drains;
- water use pattern by the user groups;
- status of repair and maintenance;
- caretakers role and responsibilities;
- availability and condition of tools and tool box; and
- other matters related to use and maintenance

Partner Organization's staff will intensively monitor the functionality of the tube well during **Defect Liability Period** (3-6 months after commissioning). If the tube well performs satisfactorily, the contractor/ private tube well boring group will be refunded with the security deposit after certification from Partner Organization's Engineer. In case of unsatisfactory performance, the Contractor/ private tube well boring group will be obliged to do the rectification as required in consultation with Partner Organization's Engineer.

Step 12: Documentation

The information related to water supply option should be recorded in the Union Register. It is expected that the union registers will be supplied to each Partner Organization.

¹ * If the supportive clause is introduced in the agreement with private tube well boring group.

Annex-1

Partner Organization: _____

Advancing Sustainable Environmental Health Project

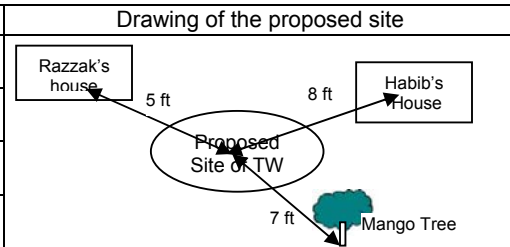
**Application Form for
SHTW/ Half-Cylinder HTW/ DHTW/ Tara-II (Super) / Tara Dev**

1. Application Sl. No: 2. Tube Well Code No: (After Installation)

3. Date of Application:

4. Union: 5. Upazila: 6. District:

7. Proposed site for Tube well:

Village:			
Ward No:	Cluster/Community ID (if any):		
Distance from nearest public HTW with safe water: (meter)			
Distance from nearest latrine: (meter)			
No. of Applicant Households:			

8. Information of Applicant Households:

Sl. No	Name of Household Head		Occupation		Wellbeing Ranking	No. Of HH member*				Signature	
	Female	Male	Female	Male		F	M	C	T	Female	Male
1											
2											
3											
4											
5											
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*M= Male; F=Female; C=Children; T=Total

Note: Age below 10 years will be considered as children

Proposed Care Takers*:

1. Care Taker's Name:	Father / Spouse :
2. Care Taker's Name:	Father / Spouse:.....

 Name of the Representative,
 Applicant Households

 Name of Frontline Staff

 Signature

 Signature

Date: -----

Date: -----

9. Main Condition for Applying:

- Applicant households must not have any Arsenic free public HTW within 50 m distance;
- For installation of any hand tube well, number of applicants household must be at least 5 households. But the number may vary according to different type of tubewell technologies; However, the present ranges are: SHTW: 5-10 hhs, Deep Set Tubewell: 10-25 hhs , Deep HTW: 10-25 hhs.
- Upon approval of the application, the households must share the contribution money as per ability to pay analysis;
- The applicant households must select one male and one female from the applicant households as caretakers for the HTW
- A common/ agreed land inside/ suitable/ convenient place within the proximity of applicant households will be chosen for the installation of the HTW.

For Official Use Only

Union level Supervisory Staff and/or Engineer of Partner Organization will fill-up the following box after visiting the site and verifying the information in the Application Form:

Comments by Supervisory Staff and/or Engineer:	
Name & Designation:	Name & Designation:
Site Recommended: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Signature & Date:	Signature & Date:

Site Approval:

Approved: <input type="checkbox"/>	Not Approved: <input type="checkbox"/>	Name:
		Competent Approving Authority*
		----- Signature & Date

**Union Sanitation Taskforce/ Union WatSan Committee / respective PO official will review and give approval.*

Annex-2

Partner Organization: _____

Advancing Sustainable Environmental Health Project

**Approval Letter for
SHTW/ Half-Cylinder HTW/ DHTW/ Tara-II (Super) / Tara Dev**

Date: _____

To: _____

Spouse/Father's Name: _____

Village _____

Ward no. _____

Union: _____

Upazila: _____

District: _____

The Union Sanitation Taskforce/ Union WatSan Committee / Partner Organization is hereby pleased to inform you that the application for a submitted by you and the other applicants has been approved.

You are requested to deposit an amount of Taka _____ from the applicant households as upfront contribution money to the Partner Organization's office within days from issuing this approval letter.

And/ or,

A total amount of Tk at monthly/..... installment inmonth(s)/year(s) as the rest amount of contribution money according to the ability to pay analysis.

Please note the applicants households need not to provide any extra money on top of the contribution amount for installation of the selected HTW alongwith platform and drainage.

The site mentioned in the application form can not be changed without prior approval from the concerned approving authority.

Prepared by

Signature

(Staff of Partner Organization)

Competent Approving Authority*

Date: _____

Date: _____

**Union Sanitation Taskforce/ Union WatSan Committee / respective PO official as decided to give approval.*

Annex-3

Partner Organization: _____

Advancing Sustainable Environmental Health

**Contract Agreement
with Contractor/ Local boring group leader**

To: Ms/Mr. _____ Date: _____

Detail address: _____

The Partner Organization is hereby pleased to inform you that you have been awarded for the installation of no(s) of HTW on the basis of your quotation / experience.

You are, therefore, requested to come and visit office in order to receive the work order for the same after signing this formal contract.

This is to mention here that you are obliged to follow the terms & condition stated below –

1. Selected HTW(s) materials/ components must be procure/supplied (as applicable) according to the given design and specification.
2. Installation of HTW and construction of platform along with drainage facility must be constructed according to the given design & drawing.
3. The installation must be completed within days from issuing work order.
4. Payment will be made through “A/C payee check”, as applicable.
5. The work order will be valid for one month period of time from the date of issuing the work order,
6. The price quotation will not be changed for this period (if applicable).
7. No advance will be paid along with work order. Partial payment could be made considering work progress on work in case of bulk number of installations.
8. VAT and Tax will be deducted at source (PO’s office) according to the GoB rules, if applicable.
9. ***Defect Liability Period** will be for 3-6 months after commissioning. If the tubewell performs satisfactorily, the Contractor will be refunded with the security deposit (5-10% earnest money of unit cost) after certification from community representative/ PO’s Engineer. In case of **unsatisfactory*** performance, the Contractor will be obliged to do the rectifications as required in consultation with Partner Organization’s Engineer.

Agreed by _____

Signature _____

(Name:)

(Manager/Coordinator of PO
or Representative of Purchase Committee)

Date: _____

Date: _____

Definition of Unsatisfactory performance:

- HTW is not functioning properly
- HTW is producing turbid water/ water mixed with sand
- HTW is not producing odorless and colorless water
- HTW is not producing adequate quantity of water (approximate less than 20 liters/minute)

** If possible **clause 9** may be introduced for private tubewell boring group under similar agreement.*

Annex-4

Partner Organization: _____

Advancing Sustainable Environmental Health

**I qvUvi GBW evsj vt` k-G`vfm cKtí i Avl Zvaxb wbi vc` cwbi e`e`vcbv
Ges m`wbtUkb AeKvVvtgv mbv³KiY**

I qvUvi GBW evsj vt` k` vbxq t`^Ovfmex ms`vi m½ Askx`vixZji gva`tg cãvb cãvb kni`uj i ew`-Gj vKv Ges MõgvÃtj i gvbñli Rb` wbi vc` cwbi, cqtb`vkb e`e`vnmn my`i cwi tek I`v`m\$Z Rxebgvb Dbqñbi j`ñ` Advancing Sustainable Environmental Health (ASEH) cKtí i ev`eqb KiñQ| BtZigñ` tek KtqKuU mnñhMx ms`v Zvt` i Kg® Gj vKvi wvfbre`vñb wbi vc` cwbi e`e`vcbv I m`wbtUkb AeKvVvtgv %Zix KiñQ| ASEH cKtí i Avl Zvq wbgñKZ AeKvVvtgv`_tj vi mWk vnmvtei Rb` mbv³KiY cñqvRb| GB j`ñ` wbtgñKQzD` vni Y t` qv ntj vt

bgbv wñbi ev G`vj ygvbqvñgi kñUi` Zix ntj` fij nq| eñK hv`vKte:

**WAB-Name of PNGOs-ASEH
#Water Point Code-Completion month-Year**

D`vniY:

**WAB-VERC/DSK-ASEH
#00-124-Apr -2006**

eñKi bgbv:

WAB- VERC - ASEH

[] - [] - 200[]

msuké-mññhMx ms`vi big wbañi Z`_vKte eñK |

msuké-eñK G RvqMv duKv`_vKte thLvtb I qvUvi cñqñUi` tKw, gñmi big Ges mij` cñdñg`Zni i mgq nvtZ` wj LtZ nte| Kgctñ` Pvi wñRU tj Lvi gZ RvqMv duKv i vLñZ nte tKw bñt Gi Rb` Ges wZb wñRU i vLñZ nte gñmi Rb` |

hw` I qvUvi cñqñU cñt wbgñ nq Zvñtj` eñ nte wbgñfc

WAB- VERC - ASEH

REH- [] - [] - 200[]

msuké-eñK G RvqMv duKv`_vKte thLvtb I qvUvi cñqñUi` tKw, gñmi big Ges mij` cñdñg`Zni i mgq nvtZ` wj LtZ nte| Kgctñ` Pvi wñRU tj Lvi gZ RvqMv duKv i vLñZ nte tKw bñt Gi Rb` Ges wZb wñRU i vLñZ nte gñmi Rb` |

Annex-5

Partner Organization: _____

Advancing Sustainable Environmental Health

Tubewell Completion Report

(Original copy to be kept at PO's office)

A. Hand Tubewell Identification :

- 1. Tubewell Identification Code:
- 2. Tubewell Type:
- 3. Representative's Name:
- 4. Spouse/ Father's Name:
- 5. Village:
- 6. Ward No.
- 6. Union/Ward:
- 7. Upazila:
- 8. District:

B. Contract Identification:

- 1. Name & address of Boring group leader/ Contractor's:
- 2.a) Work Order No:
- 2.b) Work Order Date:
- 3. Total Tubewell:
- 4. Sl. of Tubewell:
- (Of this contract)

C. Hand Tubewell Completion Detail:

- 1. Installation start date:
- 2. Installation completion date:
- 2. Platform Const. Date:
- 3. Platform size:
- 4. Total Depth
- 5. Water table depth:
- 6. Development done: Yes No
- 7. Disinfection Done: Yes No
- 8. Discharge (l/min):
- 9. Water Quality: a) Arsenic: b) -----: c) -----:

Name: Engineer
Signature & date

Name: Representative, Applicant Group
Signature & date

Annex-6

Partner Organization: _____

Advancing Sustainable Environmental Health

Handing Over Note (page-1)

(Original copy to be kept at PO's Office while photocopy to be handed over to users)

Handing Over Date:

A. Tubewell Identification:

1. Tubewell Identification Code:
2. Representative's Name:
3. Spouse/ Father's Name:
4. Village:
5. Ward No.
6. Union/ Ward:
7. Upazila:
8. District:

2. Tubewell Installation Detail:

1. Tubewell Type:
2. Installation start date:
3. Installation completion date:
4. Platform Const. Date:
5. Platform size:
6. Total Depth
7. Water table depth:
8. Discharge (l/min):
9. Water Quality: a) Arsenic: b) -----: c) -----:

3. Other Information:

1. Name & address of Contractor/ boring group:
2. Engineer of Partner Organization:
3. Frontline staff:
4. Caretaker's Name:
5. Caretaker's Name:
6. Total Cost of Tubewell (actual):

Partner Organization: _____

Advancing Sustainable Environmental Health

Handing Over Note (page-2)

For Partner's Official Use Only

Users Acknowledgement

(In case of Acceptable Hand Tubewell)

We, the users of the HTW, hereby acknowledge that the installation of HTW as well as water quality in our opinion are satisfactory.

We shall use and be responsible for operation and maintenance of the HTW regularly.

Witness (One of the users)

On behalf of the users

.....
Signature

.....
Signature

Name:.....

Name:.....

Representative, Applicant Group

Date:.....

Date:.....

Handed over by:

.....
Manager/ Coordinator of Partner Organization

Date:.....