

# UNIT FOR POLICY IMPLEMENTATION (UPI)

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## PROJECT DOCUMENT

### PILOT PROJECT FOR PROMOTION OF SUSTAINABLE ENVIRONMENTAL SANITATION (In Valukgachi and Joshar Unions)

#### 1. BACKGROUND:

Bangladesh has attained good achievement in the field of Sanitation. The base line survey in October 2003, the rural sanitation coverage was only 33%. In March 2005, the figure is higher by 15% and present coverage is 48%. In many upazilas of Bangladesh, use of 100% sanitary latrine use has been achieved. Now present challenge is to sustain the sanitation condition in those areas and to practice environmental sanitization and hygiene behaviour.

The present project document is for a piloting an effort for attaining and maintaining a “**Sustainable Environmental Sanitation (SENSAN)**” in two Unions in two different areas, which have achieved 100% latrine coverage. For preparation of this project document, UPI has already visited many Unions and conducted detailed discussions with LGI representatives (Chairmen, Ward Members of Unions Parishads and other relevant persons) and govt. officials like Deputy Commissioners and Upazila Nirbahi Officers.

**The objective** of this piloting of Union based approach for promotion of Sustainable Environmental Sanitation, to create a model for subsequent replication and adaptation.

In the monthly meeting of UPI on 31 May 2005, the Joint Secretary WS, LGD, MoLGRDC and the Project Director of UPI suggested to take two Unions as ‘**Model Sanitized Union**’ with facilities of environmental sanitation provided through a project. This will encourage other Unions to follow the model activities. He also suggested making a model to utilize the available govt. money and UP generated fund to achieve Sustainable Environmental Sanitation condition.

After some field visits and detailed discussion with different officials, the following two Unions are selected for this pilot project.

- Valukgachi union of Puthia upazila in Rajshahi district
- Joshar union of Shibpur upazila in Narasingdi district

Some basic sanitation statistics of the two above-mentioned unions are provided in the following table:

Sl. no.	Name of Union	Total no. of Households (H/H)	H/H with own Latrine		Joint latrines (H/H)	Latrine %age	
			Baseline (Oct. 2003)	Situation Mar. 2005		Owning	Using
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Valukgachi	7,283	1,484	6,633	650	91.07%	100%
2	Joshar	5,894	3,561	5,711	183	96.89%	100%

## 2. ACTIVITIES UNDER SUSTAINABLE ENVIRONMENTAL SANITATION:

The successful **Sustainable Environmental Sanitation** (SENSAN) Unions shall have the following achievements:

- i) 100% households have latrine installations
- ii) No open defecation
- iii) No unhygienic latrine
- iv) Improved personal hygiene behavior by at least 90% families
- v) Community latrines in major public places as per demand
- vi) Safe disposal of at least 75% waste water, especially in public places
- vii) Safe disposal of at least 75% solid waste, especially in public places
- viii) Hygienic management of water points
- ix) Hygienic management of latrines

Activities under this program are basically:

- 1) Software activities and
- 2) Hardware activities.

Through the software intervention, **awareness building** will occur in the area on sanitation and hygiene behavior issues. As such a **demand creation** will take place for appropriate hardware support. The household will acquire their own hygiene assets at their own affordable cost.

Some minimum numbers of hardware support will be provided to the community on cost sharing basis. The primary objective of these hardware interventions is to create a **demonstration effect**, providing a ‘**proof of concept**’ and acting as motivation tool for replication and expansion of such proven hardware installations within the entire Union –in length and breadth, at their own cost.

## 3. COMPONENTS OF THE “SUSTAINABLE ENVIRONMENTAL SANITATION” PROGRAMME:

The components under the Sustainable Environmental Sanitation activities in selected Unions shall be basically in the following three major heads:

- 3) Software intervention,
- 4) Hardware intervention, and
- 5) Administration of SENSAN campaign.

### 3.1 Software Interventions

1. Motivational and Promotional
  - Motivational meetings,
  - Rallies,
  - Miking,
  - Writing of message on walls of public buildings
  - Hoardings, Posters, Leaflets, etc.
  - Volunteer Training

2. Cultural and IEC Activities
  - Educational and documentary film shows, etc.
  - Cultural activities: open-air drama, targeted folk music
3. Upazila level workshop
  - Workshops for project dissemination
  - Documentation, reporting, etc.
4. Monitoring of Hygiene Habits Practice
  - To be performed by the UP, through engaging a local persons

### **3.2 Hardware Interventions**

1. Community Latrines
  - a. For Public places
2. Tube-well platforms for hand TWs
  - a. For Public TWs
  - b. For domestic TWs
3. Drainage (for waste water disposal)
  - a. Pucca drains for public places
  - b. Earthen drains for domestic houses
4. Compost pit (for solid waste disposal)
  - a. Compost pit in public/market places
  - b. Compost pit in Villages
  - c. Garbage pit in domestic places

### **3.3 Administration of SENSAN campaign**

1. Monthly Meetings
2. Miscellaneous

## **4. SOFTWARE INTERVENTION:**

The software intervention is very important for sustainability of the achieved sanitary conditions. For project Unions, an initial grant of Tk. 90,000 will be made for this purpose. These items of work will include motivational and promotional activities and training of the volunteers/monitors selected for the purpose.

Other activities in this intervention will be Cultural and IEC Activities, such as dissemination of educational and documentary films and cultural activities such as open-air drama and folk music. Also Upazila level workshops will be organized for dissemination of information and exchange of experiences.

Additionally, in this initial stage, some support service shall be required to develop and monitor the Hygiene practices. A positive change in behavior/ practice shall require continuous motivation through various software interventions. This task of monitoring will be performed by the UP themselves, by engaging some local interested and energetic personnel, both males and females, from the locality during the project period. It is suggested that 2 local persons will be selected from each of the 9 Wards (total 18 monitors) for this purpose of activities monitoring and achievements reporting. It is suggested that these local monitors will be selected by the UP Chairman under the guidance of the UNO. These monitors will be responsible to UP Chairman, but will maintain a close liaison with the UNO.

## 5. HARDWARE INTERVENTION:

The hardware intervention is equally important for attaining and maintaining sanitary conditions in any locality. For the project Unions, the hardware interventions will be spread over all the 9 Wards of the Unions. The hardware interventions at this pilot stage are:

- ❑ Community Latrines for Public places.
- ❑ Tube-well platforms for hand TWs, at public and domestic places.
- ❑ Drainage for wastewater disposal, at public and domestic places, with provision of soak pit.
- ❑ Compost and Garbage pits, in public/market places and in village /domestic places.

The details of these interventions and proposed targets are given in relevant sections. It is felt that the targets for different items will vary according to local demand. If there are local needs of other type of hardware activities, such as bio-gas plant, improved chulla for hotels and domestic use, etc., those may also be undertaken separately.

## 6. COST SHARING MECHANISM

### 6.1 Cost Sharing For Software Intervention

The general practice of cost sharing for software intervention is kept at 10% only, for this pilot project. This money may also be arranged from ADP grant or the special grant to Unions for Sanitation activities or any other Union fund. However, in the Project Unions, the UPI will provide an initial grant of Tk. 10,000 per Ward, totaling to Tk. 90,000 per Union, for software activities to start the SENSAN initiative.

### 6.2 Cost Sharing For Hardware Intervention

The general practice of cost sharing for hardware intervention is kept at 20% by the community and 80% by the project. This contribution money is to be arranged from the user groups or user committees. However, for domestic hardware, 100% contribution is to come from the users. The hardcore poor will be covered by the 20% ADP grant for Upazilas, earmarked for sanitation.

### 6.3 Cost Sharing Table

The cost sharing mechanism for different items of interventions for this demonstration project, between the Project and the Community, is shown in the following Table:

Sl no	Component	UPI/ Project	UP (LGI)/ Community
1.	Software intervention		
a)	<i>Initial motivational expenditure</i>	<i>100%</i>	<i>-</i>
b)	<i>Subsequent expenditure</i>	<i>90%</i>	<i>10%</i>
2.	Hardware intervention		
a)	<i>Community hardware</i>	<i>80%</i>	<i>20%</i>
b)	<i>Household hardware (non HC poor)</i>	<i>-</i>	<i>100%</i>
3.	Administrative expenditure		
a)	<i>Meetings and Volunteers</i>	<i>-</i>	<i>100%</i>

As per Annexure – 1 (Rev), which is a model estimate, total UPI contribution for the hardware cost would be 30% (Tk. 288,000 only out of total Tk. 957,000). It may be emphasized that these project interventions are with primary objective of creating demonstrative effect, providing a proof of concept and acting as motivation tool for replication and expansion within selected unions.

## **7 BRIEF SPECIFICATION, UNIT COSTS AND TAGETS (OF HARDWARE COMPONENTS)**

### **7.1 Community Latrines**

#### Interventions and brief specification:

In domestic houses 100% coverage is achieved in the particular union. In large markets/ hats and other public places like bus stations, etc. community latrine will be provided, where there is demand and the users' committees agree for the proposed cost sharing.

The task of construction and maintenance of Community Latrines will be taken up in 1 *Hat* or market in each Ward of the union, only in those areas whose committees are willing for proposed cost sharing. In all 9 units of community latrines are proposed in this document. However, it will depend on the willingness of cost sharing by the Union Parishad. If more than 9 units are required, that may also be accommodated from the contingency money kept under the project budget or by re-appropriation of heads.

- Suggested module for each unit of Community Latrine:
  - 2 urinals      3' X 2', for males
  - 4 latrines      3' X 3', for males
  - 1 latrine      3' X 3', for females
  - 1 shallow TW for water supply to the unit.

#### Estimated Cost:

*Approximate cost of each community latrine modules, with 4 Male and 1 Female unit, 2 urinal units and a shallow Tube Well shall be Tk. 20,000. For such latrines in rural areas, twin pits are recommended in place of septic tanks for economy. Cost of two pits with 5 concrete rings each, 2 concrete covers and related pipes are from Tk. 800 to Tk. 1200.*

#### Targets:

In each Ward, there will be at least one unit. In all, at least 9 Community Latrines will be provided in each Union, in the pilot phase of the programme.

### **7.2 Tube-well platforms for Hand TWs**

#### Intervention and brief specification:

Construction and maintenance of concrete hygienic platform for every hand tube well and drain up to a soak well or to a water body. Total reasonable numbers of soak wells and reasonable length of surface drains of suitable design will be decided by the UP.

- Suggested size concrete platform:      30" X 30" base with a 3" raised border and moderate slope and an outlet drain, terminating to a water body or into a soak pit.

#### Approximate Cost Estimate:

*Approximate cost of each TW platform from Tk.800 to 1,000. Cost of soak well is Tk.50 to 200 only. Cost of drain will vary as per requirement of depth and length.*

Targets:

In each ward, at least 10 units of TW platforms for public places, i.e. total 90 public units will be constructed, in the first phase till December 2005. In domestic houses at least 250 units of TW platforms will have to be constructed by the villagers mobilizing their own fund. Accordingly total 90 public and 250 domestic TW platforms have been kept in the model estimate.

### **7.3 Drainage facilities (for safe waste water disposal)**

Intervention and brief specification:

In domestic TWs and around households the users themselves will construct earthen drains, for safe disposal of wastewater. In public places, specially in bazaar and public water points, the constructed drains will be made of brick and mortar.

- Suggested size of brick drains: 30” wide and 18” deep.
- Suggested size of earthen drains: 6” wide and 6” deep.

Approximate Cost Estimate:

*Approximate cost of pucca brick drain is estimated at Tk.100 per rft. and that for kutchra earthen drain at Tk.30 per rft. However, the cost of drain may vary as per requirement of depth and length.*

Targets:

In each Ward, there will be at least 100 rft. of pucca brick drains for public places and 2,500 rft. of kutchra earthen drains in domestic houses will be constructed during the project period. The cost of domestic hardware will be borne by the villagers.

### **7.4 Compost /Garbage pit (for Safe solid waste disposal)**

Intervention and brief specification:

The Compost and Garbage pits will be provided in public places, e.g. markets, etc. as well as in domestic houses. Construction and maintenance of reasonable numbers of Garbage pits and Compost pits of appropriate design will be done.

In each Ward, there will be Compost pits for public places e.g. for market places. There will be provision for common Compost pits in certain villages. The waste from domestic houses will be dumped in household domestic garbage pits (to be dug by community contribution).

- Suggested size of Compost pits: 10’x10’x4’ deep.
- Suggested size of domestic garbage pits: 4’x3’x3’ deep.

Approximate Cost Estimate:

*Cost will vary according to requirements and size of the construction. Standard cost estimates for these constructions may be obtained from local DPHE or from LGED Upazila Engineer’s office. For estimation purpose, the cost of each compost pit is taken at Tk. 1,000 and that of a domestic Garbage pit at Tk. 200 only.*

Targets:

In each Ward, there will be on an average 2 Compost pits for public places and common Compost pits in 10 villages. The waste from domestic houses will be dumped in household domestic garbage pits. For this, a provision of minimum 4 domestic garbage pits in village is provided, which will feed the village Compost pits. For a model Union, the first phase

Targets are kept as follows, (the actual numbers will vary as per requirement and willingness of the villagers):

Public/ market place Compost pit	2 per Ward = 18 nos. /Union
Common Compost pit in Village	+/- 30 per Ward= 250 nos. /Union
4 Garbage Pits in domestic house	40 per Ward = 360 nos. /Union

## 7.5 Choice of technology with Community

In preparing the cost estimates of different hardware, a suggested design and cost has been provided. For every hardware element, there are wide variations of choices with variation in costs. For example, the community latrines provided by DPHE-Danida project costs as high as Tk. 43,000. There are manuals prepared by DPHE, UNICEF, VERC and other stakeholders that provide different options with cost variations. The choice of the hardware will remain with the Community. The community will be provided the options and they will make informed decisions on the basis of requirement and ability of the community.

## 8. IMPLEMENTATION METHODOLOGY

The Union Parishad will implement the pilot demonstration project. The Chairman of the Union Parishad will be the Implementing Officer for this **Sustainable Environmental Sanitation** (SENSAN) project. The project will be implemented following all the existing financial rules and regulations. A Project Implementation Committee (PIC) will be formed as per existing procedure. The Upazila Nirbahi Officer (UNO) of the concerned Upazila will oversee and monitor the activities of this project. The Sub-Asst. Engineer, DPHE of the Upazila, under guidance of the UNO, will provide all technical support to the preparation and implementation of the project.

The activities of the SENSAN project will be discussed and approved in the Union Parishad meeting. The works will be supervised by the Union Standing Committee of WATSAN, in association with Ward level Task Force for WATSAN activities. During the project time frame, the activities of this pilot project will be monitored, from time to time, by the UNO, UPI/LGD and DPHE officials.

The project money will be transferred by UPI, directly to the Chairman, Union Parishad in a separate bank account, opened only for this project titled **“Valukgachi /Joshar Union Parishad, SENSAN Project”**. The bank account will be operated jointly by **Chairman, UP** and **Secretary UP**. The UP Chairman will submit the expenditure statement to UPI, with countersignature of the UNO, for release of next installment.

## 9. TIME FRAME, COST ESTIMATE AND FUND RELEASE MECHANISM

The project period for this pilot intervention is start immediately and must be completed by end of December 2005, as the present phase of UPI will come to an end by that time.

A **Model Cost Estimate** with the interventions mentioned above has been prepared for the Pilot Project and is attached as Annexure – I (Rev). The estimate has been prepared on the basis of cost sharing as described earlier in this document. It may be mentioned here that the estimate will vary from one Union to the other, on the basis of their requirement for the infrastructure and hardware support and the willingness and ability of the Union Parishad and the people for cost sharing.

The following mechanism for release of fund for project activities will be practiced:

Sl.	Installment	Amount (Taka)	Period	Pre-Conditions
1	1 <sup>st</sup>	90,000	Immediately	Signing of the tri-partite Agreement
2	2nd	Upto 4,50,000	By 30 September 2005	i) Completion of at least 50% motivational activities, physical and financial ii) Submission of expenditure statement countersigned by UNO. iii) Submission of activity plan for next 2 months up to Nov. 2005, with proof of cost sharing amount (at least 10% of the installment) in Bank
3	3rd	Upto 4,37,000	By 30 October 2005	i) Completion of at least 50% of the earlier proposed activities, physical and financial ii) Submission of earlier expenditure countersigned by UNO. iii) Submission of complete activity plans upto 31 December 2005, with proof of cost sharing amount (at least 10% of the installment) in Bank. iv) UNO agree to continue follow-up monitoring activities, even after December 2005 and ensure refund of unspent money on 31.12.2005.
<b>TOTAL</b>		<b>Tk. 9,77,000 (Maximum)</b>		

Each installment of fund will be released, after verification of achievements, checking expenditure of earlier released money, proposal for expenditure for the current installment and assurance of the cost-sharing fund for this installment.

## 10. CONCLUSION

Promotion of Sustainable Environmental Sanitation is continuous process and will be continued by the SENSAN Union Parishads as an ongoing process, even after the end of project support. As an initial input UPI, within WSSPS-I, will provide and support till December 2005. It is envisaged that after December 2005, the Union Parishad will continue to carry out the project effort with their internal resources. The activities of these Unions may be monitored in the WSSPS-II by the PSU, in a later stage.

The experience gathered in this project will be documented disseminated and used in similar other activities in other Unions.

**Sustainable Environmental Sanitation (SENSAN) Piloting Programme  
Model Estimate for one UNION**

Sl. no.	Item of Work	Brief Specification	Local contribution	Units	Nos.	Unit Rate	Total Cost	UPI	UP	Community
						(Taka)	(Taka)	(Taka)	(Taka)	(Taka)
<b>(A)</b>	<b><u>SOFTWARE INTERVENTION</u></b>									
<b>1</b>	<b>Motivational and Promotional</b>									
	Motivational meetings, Rallies, Miking, Posters, leaflets, volunteers' training	Motivational activities in all 9 Wards of the Union	0%	Wards	9	10,000	90,000	90,000	0	0
<b>2</b>	<b>Cultural and IEC Activities</b>									
a	Educational and docum.film shows, etc.	3 events per month/ Ward 3 x 9 x 4 = 108 events	10%	Events	108	5,000	540,000	486,000	54,000	0
b	Cultural activities: drama, folk music									
<b>3</b>	<b>Upazila level workshop</b>									
a	Workshop for project dissemination	Approx. 200 participants Also documentation	10%	Events	2	17,000	34,000	30,600	3,400	0
b	Documentation, reporting, etc.									
<b>4</b>	<b>Monitoring of Hygiene Practices</b>									
	To be performed by the UP, in association with UNO by engaging 2 local persons/ Ward = Total 18 persons	Honourium for – 2 person per Ward for 4 months, = 18 person x 4 months	10%	Person Months	72	500	36,000	32,400	3,600	0
	SUB-TOTAL:						<b>700,000</b>	<b>639,000</b>	<b>61,000</b>	0
<b>(B)</b>	<b><u>HARDWARE INTERVENTION</u></b>									
<b>5</b>	<b>Community Latrines</b>									
a	In public places like large market, hat, etc. (average 1 unit per Ward)	Unit of 5 latrines, 2 urinals plus one shallow HTW (already achieved)	20%	Units	9	20,000	180,000	144,000	36,000	0
b	In domestic houses		100%	Units	Nil	0	0	0	0	0
<b>6</b>	<b>Tube well Platforms</b>									
a	In public places (av. 10 unit per Ward)	Concrete Platform: 30"x30"	20%	Units	90	800	72,000	57,600	14,400	0
b	In domestic houses (ap. 30 unit/ Ward)	Concrete Platform: 30"x30"	100%	Units	250	800	200,000	0	0	200,000

7	<b>Drainage</b> (for waste water disposal)		<i>Community Contribution</i>	<i>Unit</i>	<i>Nos.</i>	<i>Rate</i>	<i>Total Cost</i>	<i>UPI</i>	<i>UP</i>	<i>Community</i>
a	In public places, specially in bazaar and public water points (in all 9 wards)	Brick drains - 30" wide and 18" deep	20%	Rft.	900	100	90,000	72,000	18,000	0
b	In domestic TWs and around household	Earthen drains 6"x 6" size	100%	Rft.	2500	30	75,000	0	0	75,000
8	<b>Compost pit</b> (for solid waste disposal)									
a	Compost pits in market places (Av.2 per Ward)	10' x 10' x 4' size large pits	20%	Units	18	1,000	18,000	14,400	3,600	0
b	Compost pits in villages (Approx. 30 units per Ward)	10' x 10' x 4' size large pits	100%	Units	250	1,000	250,000	0	0	250,000
c	Garbage pits in domestic houses (Av. 40 domestic units per Ward)	4' x 3' x 3' size small pits	100%	Units	360	200	72,000	0	0	72,000
		<b>SUB-TOTAL:</b>					<b>957,000</b>	<b>288,000</b>	<b>72,000</b>	<b>597,000</b>
(C)	<b>ADMINISTRATIVE EXPENDITURE</b>									
9	<b>Administrative Activities</b>									
a	Monthly review meetings at UNO office, stationeries, refreshment, etc.	One meeting per month, cost shared by 9 Wards	100%	Meeting	4	900	3,600	0	3,600	0
b	Miscellaneous local expenditure	Lump Sum	100%	Continue	LS	L S	20,700	0	20,700	0
10	<b>Contingency</b>									
	(To be spent with approval of UPI)						50,000	50,000	0	0
		<b>SUB-TOTAL</b>					<b>74,300</b>	<b>50,000</b>	<b>24,300</b>	<b>0</b>
		<b>GRAND TOTAL</b>					<b>1,731,300</b>	<b>977,000</b>	<b>157,300</b>	<b>597,000</b>

Initial UPI contribution for Motivational activities	90,000
Subsequent UPI contribution, on progress of work and cost sharing	887,000
<b>TOTAL UPI contribution</b>	<b>977,000</b>

Contribution by Union Parishad	157,300
Contribution by Community	597,000
<b>Total Community contribution</b>	<b>754,300</b>

**TOTAL Community + UPI contribution 1,731,300**

1. Project Period/ Duration:	4 months
2. Total Project Cost:	Taka 1,731,300