ACCELERATED DEVELOPMENT OF WATSAN FACILITIES IN CHITTAGONG HILL TRACTS DISTRICTS

Participatory Assessment Analysis Action (PAAA) approach: Pathway to improve the WATSAN facilities in Banderban District

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Content

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Chapter One

INTRODUCTION

Community-based interventions aimed at improving access to safe water, sanitation and hygienic practices are known to have profound socio-economic effects on the lives of the target communities. In addition to its direct health benefits through reducing the incidences, duration and severity of diarrhoea, it enables women to participate more extensively in activities that would increase their household access to food, and also increase their presence in the home to care for the children and themselves.

Participatory Assessment Analysis and Action (PAAA) is one of the key strategies identified for community based planning approach. PAAA facilitates a bottom-up planning process. It is designed to create an environment for two-way communication between extension worker and service providers wishing to help communities improve their water supply, sanitation and hygiene practices and the community member themselves, both men and women.

A training manual on Participatory Assessment Analysis Action (PAAA) approach focusing on Water and Environmental Sanitation was developed to impart training of thana and grass-root level workers. Among others things, the manual was designed to enhance rapid assessment of what communities already known and do in relation to improved water supply, sanitation and hygiene practice. At the same time providing communities the opportunity to express their priority to change, and how they perceive this change can be brought about, contributing own resource in the process. The PAAA approach has been initiated at first in Rangamati hill tracts district for improving WATSAN facilities. Later the PAAA has been implemented at Banderban hill tracts district.

Chapter Two

OBJECTIVES AND OUTPUTS

Objectives

The objectives of PAAA implementation in the field were as follows:

- To develop capacity of service providers for more effective services delivery through the PAAA approach.
- To conduct a baseline survey with active participation of communities, to determine priority behaviour and need assessment for improvement in sanitation, hygiene habits and water facilities using the PAAA approach.
- To strengthen the capacity at grassroots level through dialogue to enhance a better understanding of the causal-effect relationship of poor hygienic practice to enable communities plan and take responsible action.

Outputs

- A training manual on PAAA, focussing Water and Environmental Sanitation was developed in both Bangla and English.
- Two Sub-Divisional Engineers & six Sub-Assistant Engineers of DPHE and one Deputy Project Director & eleven Project Organisers of CHTDB were given TOT on PAAA approach.
- Forty-nine para workers and eleven tube-well mechanics received training on data gathering techniques using the PAAA approach.
- PAAA was implemented in three unions under three thanas of Banderban district.
- In-depth work was done at sader union of Banderban sader thana.

3.2 Water supply status

Table 2. Water supply source in functioning condition by para

Para code	Pop	RWP			DSP			Tara			Total coverage		
		T	F	%F	T	F	%F	T	F	%F	T	F	%F
1	44	-	-	-	-	-	-	-	-	-	-	-	-
2	122	-	-	-	-	-	-	2	2	100	2	2	100
3	69	-	-	-	-	-	-	-	-	-	-	-	-
4	133	-	-	-	-	-	-	-	-	-	-	-	-
5	187	1	1	100	-	-	-	-	-	-	1	1	100
6	125	-	-	-	-	-	-	-	-	-	-	-	-
7	313	1	1	100	-	-	-	-	-	-	1	1	100
8	89	-	-	-	-	-	-	-	-	-	-	-	-
9	146	2	1	50		-	-	-	-	-	2	1	50
10	96	-	-	-	-	-	-	-	-	-	-	-	-
11	134	2	1	50	-	-	-	-	-	-	2	1	50
12	84	2	-	00	1	1	100	-	-	-	3	1	33
13	85	1	-	-	-	-	-	-	-	-	1	-	00
14	226	-	-	-	-	-	-	-	-	-	-	-	-
15	390	12	10	83	9	4	44	9	4	44	30	18	60
16	126	2	2	100	-	-	-	-	-	-	2	2	100
17	72	-	-	-	-	-	-	-	-	-	-	-	-
18	335	-	-	-	-	-	-	-	-	-	-	-	-
19	128	-	-	-	-	-	-	-	-	-	-	-	-
20	111	1	1	100	2	-	00	-	-	-	3	1	33
21	73	-	-	-	-	-	-	-	-	-	-	-	-
22	251	4	3	75	-	-	-	-	-	-	4	3	75
23	134	1	1	100	-	-	-	-	-	-	1	1	100
24	242	3	1	33	1	-	00	-	-	-	4	1	25
25	138	2	1	50	-	-	-	-	-	-	2	1	50
26	71	2	1	50	2	1	50	-	-	-	4	2	50
27	255	1	-	00	-	-	-	-	-	-	1	-	00
28	150	-	-	-	-	-	-	-	-	-	-	-	-
29	74	-	-	-	-	-	-	-	-	-	-	-	-
30	207	-	-	-	-	-	-	-	-	-	-	-	-
31	109	1	-	00	-	-	-	-	-	-	1	-	00
32	51	-	-	-	-	-	-	-	-	-	-	-	-
33	168	4	3	75	1	-	00	-	-	-	5	3	60
Total	4938	41	27	66	16	6	38	12	6	50	69	39	57

3.2.1 Water supply status: summary

Table 3. Protected water source by functioning condition and type

Types of PWS	Total No.	No. of functioning	% of functioning	Service coverage[3]
RWP	41	27	66	41
DSP	16	6	38	18
Tara	12	6	50	9
Total	69	39	57	68

- Protected water service coverage : 68%
- 57% of the protected water source was found in functioning condition

3.2.2. Water use

Table 4. Households water use by source

Use of water	Protected water source*		Surface water source		Total	
	Household	%	Household	%	Household	%
Drinking	532	51	502	49	1034	100
Cooking	174	17	860	83	1034	100
Washing	159	15	875	85	1034	100

*Ring- well, Deep-set pump & Tara

- 51% of the population use protected water source for drinking.
- 17% of the population use protected water source for cooking.
- 15% of the population use protected water source for washing.

[3] RWP, Tara, = 75 population / hand-pump
DSP = 150 population / hand-pump

$$\text{Water service coverage} = \frac{\text{No of functioning water service x population per service}}{\text{Total population}} \times 100$$

3.3 Sanitation Status

3.3.1 Sanitation Status by para

Table 5. Latrine coverage

Para code	Household	Water seal	Dry pit	Traditional pit	Hanging	Open defecation
1	12	-	-	-	-	12
2.	27	-	1	-	-	26
3	15	-	-	-	-	15
4	29	-	-	-	-	29
5.	44	2	-	-	-	42
6.	23	-	-	-	-	23
7.	60	5	11	9	-	35
8	20	-	-	-	-	20
9.	28	5	2	3	-	18
10	22	1	-	1	-	20
11.	29	3	-	2	-	24
12	25	1	2	1	-	21
13	17	-	-	3	4	10
14	39	2	1	1	-	35
15	100	10	10	9	18	53
16.	30	2	1	1	1	25
17.	18	-	-	4	-	14
18	69	5	3	4	-	57
19.	19	-	-	-	-	19
20	24	2	-	-	2	20
21	14	-	-	-	-	14
22	50	-	13	-	-	37
23	25	-	10	-	15	-
24	49	4	3	12	-	30
25.	27	-	-	-	-	27
26	12	3	2	3	2	2
27.	45	-	-	-	-	45
28	32	-	-	-	-	32
29.	15	-	-	-	-	15
30	43	-	-	-	-	43
31	26	-	1	3	-	22
32.	12	-	-	-	-	12
33.	34	4	-	-	5	25
Total	1034	49	59	56	47	823
Percent	100	5	6	5	5	79

3.3.2 Sanitation Status: summary

Table 6. Latrine coverage: summary

Types of latrine*	Latrine coverage	
	Household	%
Water seal	49	5
Dry pit	59	6
Traditional pit	56	5
Hanging	47	5
Open defecation	823	79
Total	1034	100

Notes: * Water seal latrine = Latrine is which made by sanitary ring and slab with water seal portion.

Dry pit latrine = Hole latrine covered by bamboo/ tree and muddy.
Traditional pit latrine = Hole latrine without cover.
Hanging latrine = Open defecation in a fixed place.
Open defecation = Jungle/open place i.e. no fixed place for defecation.

3.4.Socio-economic and demographic data

Table7. Population distribution by age and sex

Age (year)	Male		Female		Total	
	No.	%	No.	%	No.	%
0 – 1	97	4	96	4	193	4
2 – 5	255	10	228	10	438	10
6 – 10	565	22	495	21	1060	21
10 +	1623	64	1574	65	3197	65
Total	2545	100	2393	100	4938	100

- Male-female ratio = 106: 100
- Average family size = 5
- Children under 5 years = 14%

Occupation

- Households involved in agriculture =66%

Socio-economic condition

- According to the perception of the respondents 66% were considered poor, 34% belong in middle group and only 2% were wealthy (Annex III).

3.5. Disease prevalence and treatment options

Table 8. Matrix ranking of perceived health service use

Sl. no.	Disease	Health service (%)				Month for high incidences of disease
		Modern medicine	Homeo-pathic	Traditional hiller	Home	
1	Malaria *palom*	50	5	20	25	Mid March – mid Sept.
2	Diarrhoea *khinai*	25	5	30	40	Mid Fed. – mid Junc.
3	Hook warm *kainja*	55	5	10	30	Round the year
4	Dysentery *sangpira*	55	-	15	25	Mid Feb.– mid. June
5	Pneumonia	55	15	20	15	Mid Dec.- mid Feb.
6	Hepatitis *polu*	40	10	50		Mid Feb. – mid May.
7	Itching *charma*	40	20	25	15	Mid Jan. – mid May.
8	Eye infection	65	20	15	-	Mid Feb. – mid April

Annex I

METHODS AND MATERIALS

A.1.1 Area of work

- PAAA approach was implemented at three unions under three thanas (Banderban sadar, Lama and Nykhongchari) of Banderban district.

- This report illustrates the process of data analysis and planning, identifying interventions in relation to improvements in Water and Environmental Sanitation situation using the PAAA approach.

- Sadar union under sader thana were selected for this in-depth work.

A.1.2 Instruments

A training manual on PAAA was developed based on Participatory Rural Appraisal (PRA). Selected methods were incorporated in the training (PAAA) manual after series of pre- planning meetings with respective government officials.

Following techniques were carried out for implementing PAAA at the field.

- Physical and social mapping
- Household listing
- Household information card
- Wealth ranking
- Matrix ranking
- Seasonal calendar
- Priority ranking
- Data compilation
- Participatory action plan

A.1.3Time frame

The activities were initiated from 13th October 1997 to 31st May 1998.

Chapter Four

CONSTRAINTS, RECOMENDATIONS & CONCLUSIONS

4.1Constraints

- No brief was conducted for thana and UP officials prior to implementation.
- Limited time for accomplishing task.

4.2 Recommendations and Conclusions

- Training service providers on PAAA approach is critical. If the training on PAAA is not imparted properly and trained by non-PRA expert there might not be any tangible output from the PAAA process and has to be done professionally.
- Moral and supervisory support from district authorities could greatly enhance PW/ TWM commitments and improve efficiency.
- Respective district level officials of UNICEF should be more involved with this work.
- Communities should be sensitised on safe water use, environmental sanitation and hygiene practices. Para workers and grassroots level workers of local NGO may be selected and trained for such a task.
- Committees should form at the thana/union level for implementation, monitoring and supervision. Persons/department/organisation who are involved with WES related activities and also experienced and devoted to accelerate the work should be included in this committee.
- Solicit relevant policy makers level support for this programme e.g., The Local Government Council (*Sthaneeya Sarker Parishad*).
- Any success story of a para or an area needs to be acknowledged and shared with others. Also, concerned persons may be awarded with some incentive for encouragement.
- It is essential to review the total community process after six months. This will facilitate the development the implementation strategy further if required. Since, community process is a new approach, close supervision/monitoring is required for the progress.

Annex II

IMPLEMENTATION STRATEGIES

PAAA implementations constitute the following elements:

- Training of the trainer (TOT)
- Training of the para worker/ tube-well mechanic
- Field level operations

A.2.1 Training of the trainers (TOT)

A total of 20 participants, two Sub-divisional Engineers & six Sub-Assistant Engineers from DPHE and one Deputy Project Director & eleven Project Organisers from CHTDB of Banderban district were selected as district trainers. All these participants are drawn from the thana level administration. They are given a six-day training of trainers (TOT) on "Community-based Planning using Participatory Assessment, Analysis and Action approach (PAAA)" to using on Accelerated Development of WASTAN Facilities in Chittagong Hill Tracts Districts. Training was conducted at CHTDB rest house auditorium at Banderban from 23rd December to 28th December 1997.

A.2.1.1 Objectives

- To introduce the PAAA concept as a plan tool.
- To familiarise them in different participatory rural appraisal (PRA) techniques.
- To provide knowledge about data compilation and the development of a participatory plan of action.
- To develop the skills of a number of trainers who would in turn teach the PAAA approach through PRA techniques to the para workers/ tube-well mechanics or grassroots workers.

A.2.1.2 Trainers training course module

Through out the course of the training, an attempt has been made to develop skills of the trainers, to successfully conduct similar training for field workers. The training was basically divided into three parts:

- Introduction to the PAAA approach
- Different steps of participatory techniques/PRA
- Practical field level operations

The following constitute the training approach:

- Lecture
- Clarification of different steps of the techniques
- Demonstration in the class room
- Group work
- Discussion
- Field work presentation
- For ice breaking and pace setting, some games were also arranged in the classroom

- Plan for the future implementation strategies

A.2.1.3 Comments

- Trainees participated actively during classroom demonstration, group work, fieldwork and presentation.
- In some cases, to have more clarity during training sessions, trainees also facilitated as trainers. This was essentially a confidence building measure for the trainees.
- The Household information card and monitoring sheet were reviewed in one of the sessions. Additionally, a checklist for priority was ranking developed. This checklist will be later used for identifying the problems and their solutions at the community level. However, the discussions gave special emphasis on water and environmental sanitation.
- The training helped the participants to develop their future activity plan. At the end of the session participants from DPHE and CHTDB sat together and prepared future implementation plans and submitted these to the district authorities.
- In the fieldwork, language was found to be a significant barrier to discussion with the community.

A.2.2 Training of para workers (PWs) and tube-well mechanics (TWMs)

According to the work plan submitted by the DPHE & CHTDB authorities of Banderban district, para workers and tube-well mechanics were selected from three different unions of three thanas under Banderban district. A total of 60 persons, of which 49 were para workers and 11 were tube-well mechanics participated in the three days training on PAAA at the union level office. One session was conducted with 20 participants. One SAE and one PO were responsible to conduct the training for one union under each thana.

A.2.2.1 Objectives

- To increase knowledge about the importance of water and environmental sanitation.
- To more actively involve communities in identifying their own problems in a participatory manner.
- To empower communities to make informed decisions in response to their problems.

A.2.2.2 Training course module for PWs and TWMs

The training was basically divided into three parts:

- Introduction to the PAAA approach
- Different steps of participatory techniques/PRA
- Practical field level operations

The following constitute the training approach

- Lecture
- Clarification of different steps of the techniques
- Demonstration in the class room
- Group work
- Discussion
- Field work presentation
- For ice breaking and pace setting, some games were also arranged in the classroom
- Plan for the future implementation strategies

A.2.3 Field level operations

DPHE and CHTDB authorities were solely responsible for field level operations. On completion of the classroom exercise, on "Community-based Planning using Participatory Assessment, Analysis and Action approach", para workers and tube-well mechanics initiated work in three unions under three thanas.

The field exercise comprises the following:

- Rapport building with all social class in the community.
- Identification/ selection of focus group of six to eight interested persons.
- Preparation of physical and social mapping involving the community. Issues related to household, protected water source specifying functioning conditions, surface water source, latrine specifying whether water seal or pit or hole or hanging, road, culvert, educational and religious institutes, shops, cultivatable land, hills or other important landmarks etc. was discussed in detail and reflected in the physical and social mapping of the para. This mapping would be use to asses the need of the community specially in the context of water and environmental sanitation. This was also used to cross check data.
- Household listing, with specific identification for each in all paras.
- Completion of household information card. This provides details of the social, demographic, educational and behavioural aspects of the respective households.
- Collection of data on the socio-economic condition of the households, using the wealth ranking technique. This information could enhance resource mobilisation efforts.
- Listing of prevalent diseases and treatment behaviour using matrix-ranking technique. Based on this information, it would be possible to identify prevalent waterborne diseases and appropriate/area specific health education message designed.
- Through a consultative process communities identified their problems and then prioritised them. Potential solutions to those problems were also identified. A committee was at this stage formed at para level to take responsibility for implementation of activities aimed at improving facilities.
- Developed a seasonal calendar identifying community's free time for both men and women, during which work on various issues related to water and environmental sanitation. Seasonal calendar also reflects period of sever out breaks of water related diseases could be addressed. Which enhance as effective planning for appropriate interventions.

Annex. III

A.3 WEALTH RANKING INDICATORS

1. Wealthy (*dhoni*)

- Economically well-off
- Own hill with bamboo and tree garden
- Small business
- Have cultivatable land
- Have cow/ox for ploughing
- Own pond
- Have good house with tin roof
- Service holder
- Have food security throughout the year
- Have sufficient good dress

2. Middle *(moddom)*

- Own small hill with bamboo or tree garden
- Have some cultivatable land
- Have good house
- Own small number of livestock
- Have food security half of the year

3. Poor ***(gorib / daridra/ nimno)***

- Have only homestead
- Have no cultivatable land
- Day labour
- Collected bamboo/wood for sale
- Have food insecurity, and food supply depends on day labour
- Require small amount of credit
- Have only small house