



GOVERNMENT OF NAGALAND

**Report on Sample Survey
to
Study Community Participation
in
Rural Water Supply & Sanitation Programmes
(Sector Reforms)
in
Dimapur District, Nagaland**

**DIRECTORATE OF EVALUATION
GOVERNMENT OF NAGALAND
KOHIMA:: NAGALAND**

Preface

The sample survey to study community participation in rural water supply and sanitation programmes in Dimapur district was carried out at the instance of Deputy Commissioner Dimapur, the Ex-officio Chairman of the Dimapur District Water & Sanitation Mission, and with the approval of Development Commissioner, Department of Planning & Co-ordination, Government of Nagaland. The District Water & Sanitation Mission, Dimapur is a registered body formed with the objective of implementing the Sector reforms Programme of Rajiv Gandhi National Water Mission in Dimapur district.

The survey was conducted in five villages of Medziphema sub-division on a *pilot basis* to determine the status of availability of drinking water and sanitation facilities in the villages and the willingness of the people to actively participate in the establishment and operation of water supply and sanitation systems. The survey served a twin *objective* by providing the implementers with *preliminary information* about the existing systems in the villages and peoples mindset towards community participation, on the one hand. On the other hand, the discussions in the villages *acted as IEC efforts with the village community where* in the concept of Sector Reforms was explained to the people, they were introduced to the idea of water supply other than piped water and the community being responsible for the water supply, with only partial government support.

The schedules constructed for the sample survey have subsequently been used by the district PHED officials for other villages to gauge the receptiveness of the people towards sector reforms. As only those villages have to be selected which are willing to pay for the establishment and management of the water supply systems, this survey and the schedules constructed will be useful in the final selection of the villages under the Programme and implementation of the Sector Reforms.

Dimapur, 2001.

Aparna Bhatia, I.E.S.
Officer on Special Duty
Department of Planning & Co-ordination
Government of Nagaland

List of Abbreviations

ARWSP	:	Accelerated Rural Water Supply Programme
DWSM	:	District Water and Sanitation Mission
<i>GB</i>	:	<i>Gaon Burra</i>
Gov.t	:	Government
HH	:	Household
IEC	:	Information, Education, Communication
NGO	:	Non Government Organisation
PHED	:	Public Health & Engineering Department
RGNWM	:	Rajiv Gandhi National Water Mission
SWSM	:	State Water & Sanitation Mission
VCC	:	Village Council Chairman
VDB	:	Village Development Board
Vill.	:	Village
WCE	:	Work Charged Employees
W/s	:	Water Supply

CONTENTS

Preface

List of abbreviations

Chapter I	Introduction
Chapter II	Village level sample survey in Medziphema
Chapter III	Kukidulong Village
Chapter IV	Pherima Village
Chapter V	Piphema Village
Chapter VI	Jharna Pani Village
Chapter VII	Movlam Village
Chapter VIII	Conclusion

Annexure A Tables

Table 1	Consolidated Village- level information of Medziphema
Table 2	Consolidated household information of Kukidulong
Table 3	Consolidated household information of Pherima
Table 4	Consolidated household information of Piphema
Table 5	Consolidated household information of Jharnapani
Table 6	Consolidated household information of Molvam

Annexure B The Schedules

1	Village level Schedule
2	Household Schedule

Chapter I

INTRODUCTION

Heavy investments in different strategies of rural water supply programmes (implemented since 1947) have resulted in increase in total rural water supply coverage. However, the availability of potable drinking water in rural areas, especially during the summer months has not been satisfactory. Many rural habitations are still not covered or are partially covered with drinking water facilities. Many other water supply systems have become defunct due to poor maintenance. There is low satisfaction level with the water availability due to quality related problems.

The Department of Drinking Water Supply, Ministry of Rural Development, Government of India identified the following factors to be responsible for this unsatisfactory state of affairs.

1. Supply driven centralised Government managed programmes.
2. Absence of people's involvement in implementation of rural water supply schemes, leading to lack of sense of belongingness among them, rendering the schemes unsustainable.
3. Unsustainable safe water sources due to improper planning and ground water management.
4. Lack of awareness and skill among the rural population to plan, implement and manage their own rural water supply schemes and safe water sources.

It was realised that water should be *managed locally* in order to ensure its effective use. The people would be willing to maintain and operate the water supply schemes themselves if :-

1. they own the assets (capital cost sharing)
2. they have themselves installed the scheme, or were actively involved throughout
3. they have been trained to do simple repairs
4. they have sufficient funds for maintenance
5. they have to pay for O & M
6. they know that the Government will not maintain the assets.

The Government of India approved the proposal to *Institutionalise community based demand driven Rural Water Supply Programme*, implemented through the **Rajiv Gandhi National Water Mission (RGNWM)**. These community based water supply systems (called the Sector Reforms Project) are expected to *gradually replace the Government driven centrally sponsored non-people participating rural water supply programmes*.

The Sector Reforms Programme

The Sector Reforms Programme for drinking water and sanitation under the Rajiv Gandhi National Water Mission envisages a new approach involving large scale community participation in creation and management of rural water supply systems. It aims to empower the villagers to generate resources and to train them to plan, implement, use, maintain and replace water supply schemes themselves, in co-ordination with the Government agencies, private sector and NGOs. It is a '*process project*' with considerable emphasis on IEC activities (information education & communication) to create awareness and participation among the village communities. It *shifts the role of Government from direct service delivery to that of facilitators and partial financial support*. The programme is based on partial capital cost sharing and 100% responsibility of O&M (operation & management) by users.

Since 1999-2000, 20% of the annual outlay under the Accelerated Rural Water Supply Programme (ARWSP) has been earmarked and kept aside for implementation of the Sector Reforms Programme. Fifty-eight districts have been identified for implementation of the reforms on *pilot basis*. The successful experiences of implementation of the projects in the identified pilot districts will be replicated all over the state subsequently in the second phase of the programme.

The Institutional Set-up

The **State Water & Sanitation Mission (SWSM)** is constituted at the State level. It is headed by the Chief Secretary. Secretaries in charge of PHED, Rural Development, Finance, Health, Education and

Information & Public Relations are the members. Secretary PHED is the nodal Secretary responsible for all Mission activities.

The **District Water & Sanitation Mission (DWSM)**, constituted at the district level, is headed by the Deputy Commissioner of the pilot district. It is responsible for formulation and management of project implementation in the pilot district and ensuring that the project development objectives are achieved. The funds are directly released to the DWSM, which have their own separate Bank accounts to receive and disburse the funds for project implementation. The DWSM selects NGOs to communicate the new concept to the villages. Only those villages are selected for project implementation by the DWSM who are willing to contribute a part of the capital cost and the full operation and maintenance costs of the water supply systems created. The role of the DWSM is that of a facilitator, in getting the concept of sector reforms and the physical component of the project implemented through the village community.

Dimapur Pilot Project

Dimapur district in Nagaland is one of the 58 districts selected for the Sector Reforms Programme on a pilot basis. The cost of the project for Dimapur district -2-is valued at Rs 5.96 crores. DWSM, Dimapur was constituted under the Chairmanship of Deputy Commissioner Dimapur in May 2000 for implementation of the Sector Reforms Programme in the district. The first 30% of the project (Rs 1.66 crores) was released to the district for the start-up phase of the project. IEC activities are being carried out in Medziphema, Dhansiripar and Kuhoboto/ Niuland blocks through three NGOs. Awareness is created about the use of safe drinking water and proper use of sanitation, and identification of alternative means of sustainable safe drinking water through rainwater harvesting. Information is disseminated through discussions to enhance the skills and capacity of the village community to manage water as a commodity.

Chapter II VILLAGE LEVEL SAMPLE SURVEY IN MEDZIPHEMA

The Sector Reforms Programme of Water and Sanitation stresses upon the role of people's participation at all levels of decision making and implementation of the water supply and sanitation systems in the villages. To overcome the problems of maintenance and sustainability of the infrastructure created, the programme visualises that the village community will be able to operate and manage the systems created.

The Survey and its Objectives

A village level survey was undertaken in Medziphema sub-division of Dimapur district to examine the availability and quality of water in the villages. The survey aimed to determine the willingness of the people towards undertaking responsibility of, and contributing towards establishment, operation and maintenance of water supply and sanitation systems in their villages. The survey probed into the level of satisfaction of village elders and respondents with the existing water supply arrangement in the village and sought their views about water supply system *most suitable* for *their* village. An attempt was made to gauge whether the villagers were willing to accept water supply arrangements other than piped water supply. The awareness of the people about DWSM and its objectives was also observed.

Methodology

Two stratified schedules were constructed for systematic record of the views and opinion of the village community as a whole and at an individual level.

Village level schedule was used to collect information about the availability, quality and adequacy of water supply in the village. The presence of PHED water supply schemes and alternative arrangements of water supply undertaken by the village community, the problems in collection and utilization of water from the present arrangements were determined. The people were asked to specify the water supply scheme they would suggest if the responsibility of its establishment and maintenance rested with the villagers. Sanitation aspects relating to the number of households in the village with attached toilets, types of toilets in the village, availability of community toilets, and toilets in schools, health centers and anganwadi centers were also recorded.

The village level schedule was canvassed *with a group of village residents* including village elders, knowledgeable persons and others. One village level schedule was canvassed per village. In total, five village level schedules were canvassed in five villages.

Household Schedule was constructed to highlight the problems experienced as well as the different views held by a wide spectrum of persons of different socioeconomic status within a particular village with regard to water supply and sanitation. The schedule noted the individualistic views about options such as ways to improve the present arrangement of water supply in the village, the best water supply arrangement/ system for their village, their willingness to contribute towards establishment and maintenance of water supply scheme, willingness to pay for water till some common points in the village and/or water supply up till their houses, the need for a better system of sanitation for their household and willingness to give space and contribute money towards construction of toilets.

One household schedule was canvassed per household. A number of household schedules were canvassed per village.

Sample Size

A pilot survey was undertaken in the Medziphema sub-division of Dimapur district. Five villages were purposively selected for the survey. Discussions were held with a group of persons consisting of *Village Council Chairman and Members, Village Development Board Secretary and Members, Gaon burras and other villagers* to canvass the Village Level Schedule. The survey envisaged randomly selecting and interviewing twenty households per village to canvass the Household Schedule. However, at some villages, fewer respondents were available on the day of visit of the evaluation team. The number of respondents interviewed per village was as under.

Village	Village Level Schedule (One schedule per village canvassed with a group of persons)	Household Schedule (One schedule per Household)
1. Kukidulong	VDB Secretary and members, Village Council Members & other elders.	10 respondents
2. Pherima	Village Council Chairman, G.B., Asstt. GB, Guheto Council Secretary	21 respondents
3. Piphema	Chairman Piphema (Old), GB Piphema A, (Old, New & A) GB Piphema New & 21 council members	22 respondents
4. Jharna Pani	VDB Secretary and members, Village Council Chairman & Members and knowledgeable persons.	10 respondents
5. Molvam	Village Council Chairman and members	21 respondents

TOTAL

Five Schedules

84 Respondents

Thus, in total, five Village level schedules and eighty-four Household schedules were canvassed in the pilot survey.

Field Visits

The village survey was conducted during April 2001. The field visits were undertaken by two Evaluation Inspectors of the Evaluation Directorate, Government of Nagaland, Sh G. Haketo and

Sh Hegwangdui Zeliang. They were escorted and assisted during the field visits by the GBs and PHE officials of the Medziphema subdivision.

Chapter III KUKIDULONS VILLAGE

Kukidulong village, established in January 1936, has a mixed population of 416 persons constituting 62 households, consisting of 40% Lotha, 42% Sema and 18% other tribes. The general topography of the village is hilly. The closest town is Medziphema,; situated at a distance of 8 k.m.

Water Supply

The main sources of Water supply in the village are common water sources, both piped water supply as well as water from the **river Jharna Pani**, flowing at a distance of 200 mts from the village. *Though the villagers consider the quality of water safe, the water availability from the river is seasonal (May to October) and not adequate to meet the requirements of all the villagers.*

Only three households out of sixty-two have individual water supply from **ring wells**. At around 40 feet depth, the villagers consider the quality of water from the wells satisfactory. However, the availability of water is seasonal in nature (May to October) and has to be supplemented from the common water sources.

The PHE department has initiated a piped water supply scheme in the village since last year (2000), which aims to provide 24-hours, daily availability of water supply. *However, the pipelines are disrupted during rainy season resulting in irregular water supply and scarcity of water.*

The villagers had not heard about the Sector Reforms Project of rural water supply or the DWSM. No official of the PHE department had come to explain about the new project and no discussions had been held in the Village Council on the matter. The village community felt that the existing water supply arrangement in their village could be improved if the people and the PHE department jointly managed it. *The villagers felt that common water sources such as ring wells and hand pumps were most suitable for their village.* The womenfolk of the village wanted to have *individual water sources* rather than common sources. All villagers were willing to contribute towards establishment and maintenance of water supply in their village.

Despite informing in advance and visiting a second time, only ten persons could be called together for discussions and survey. Therefore, *ten respondents were*

Interviewed (16% of the village households) for the Household schedule. The main findings were as under.

1 The average family size of the respondents was five and the average annual income was Rs20,9000/-. Cultivation was the main occupation of five respondents, while the other five were running businesses. All the respondents were involved in subsidiary occupations such as Animal Husbandry (80% of respondents), Business (10%) and Fisheries (10%).

2 All the respondents depended upon common water sources for drinking water, situated within the village

Water sources	Percentage respondents depending on it
---------------	--

Piped water supply	100%
--------------------	------

Natural Stream	60%
----------------	-----

Ring wells	40%
------------	-----

Piped water supply, supplemented by water from ring wells and river were the main sources of water.

3 Only one respondent had an individual water source, a ring well of 10 feet depth. The water was seasonally available between May to October, but was not safe for drinking purposes.

4 All the respondents were satisfied with the quality of piped water supply. But, the disruption of pipelines during the rainy season led to irregular water supply and scarcity of water.

5 The main problems expressed by respondents in collection and utilization of water were:

Problem	Percentage of respondents
---------	---------------------------

a. Irregularity of supply	60%
---------------------------	-----

b. Insufficiency/ scarcity of water	30%
-------------------------------------	-----

c. Seasonal nature of water supply 20%

6 None of the respondents had heard about the DWSM and therefore could not comment on it.

7 The respondents felt that the **existing water supply arrangement** could be improved by **proper maintenance** (70% of respondents) and **construction of individual sources such as ring wells** (80% of respondents).

8 **Piped water supply till all houses (90% of respondents), supplemented with individual sources such as wells (50% of respondents) was stated to be the best way to supply water to the village.**

9 All respondents suggested **construction of ring wells and hand pumps** as the arrangement they would suggest if it was to be **established and maintained by the village community**, while three of them also mentioned **pipled water supply**.

10 As per the respondents, the following agencies should take up water supply scheme in the village.

Percentage of respondents

- | | |
|------------------------------|-----|
| a. PHE department | 10% |
| b. PHE and Village Council | 10% |
| c. Village Council | 50% |
| d. Village Development Board | 30% |

11. **All the respondents were willing to contribute towards establishment of water supply in their village.** 90% were willing to contribute their labour, while one respondent was willing to contribute space for construction.

12. **All the respondents were willing to contribute towards maintenance of water supply scheme** in the following manner,

Manual labour 50% of respondents

As required of them 50% of respondents

13. **All the respondents were willing to pay for water supply till their houses and till some common points in the village.** The average amount of payment stated by the respondents was:

Water supply till houses - Rs 48/- per month.

Water supply till common points - Rs 15.50 per month.

Sanitation Aspects

Ninety percent of the households in the village had attached toilets. The most common type of toilets was pit latrines. The mode of sanitation of households without attached toilets was Pit latrines outside the compound. There were no community toilets or toilets in schools, health centres or Anganwadi centres in the village.

According to the **Household Schedules**, two of the respondents reported resorting to open defecation. The modes of sanitation of the respondents were as under.

Percentage of respondents

- | | |
|--|-----|
| a. Toilets with septic tanks | 10% |
| b. Open toilets connected to the house | 20% |
| c. Pit latrines | 50% |
| d. Open defecation | 20% |

Only one respondent expressed satisfaction with the system of sanitation in his house. **90% of the respondents wanted better system of sanitation and were willing to give space and money for construction of toilets in their houses.**

On an average, the respondents were willing to contribute Rs 2,667/-.

Consolidated Village and Household information

Detailed village level information from canvassing the Village level schedule can be referred to in Table I on page 27 of this report. Table II on page 30 provides the consolidated household opinion of the ten respondents interviewed for the Household schedules.

Chapter IV PHERIMA VILLAGE

Pherima village was established on 17th January 1924. It consists of 240 households, which predominantly belong to the Sumi tribe (80%). The topography of the village is hilly. Chumukedima is the closest town, situated at a distance of 7 k.m. from the village. Akhikuha Ghoki Zuma and Atu Kushko are the streams closest to the village, flowing at a distance of three to four kilometers from the village.

Water Supply

The village depends upon common water sources. There are no individual water sources in the village. *All the households collect drinking water from the piped water supply by the PHE department, which is supplemented by water from the natural stream by 125 households.* The villagers expressed satisfaction with the quality of water from both the common sources. However, the water was seasonally available (between June and December) and was not adequate to meet the requirements of all the villagers. The main problems experienced by the villagers were *scarcity of water, which made its collection time consuming and its utilisation extremely careful.*

The PHED laid a pipeline to the village in 1997, which supplied water for a duration of twelve hours a day. The pipeline was actually a *temporary arrangement* from the pipeline in Medziphema town. The village community *strongly emphasised the need for provision of a separate scheme/pipeline, from another source for their village.*

The village community had not heard about the sector reforms project or the DWSM. There had been no visits by the PHE department staff to explain the new concept to the villagers. The Village Council had not held any discussions on the matter. The villagers felt that the *existing arrangement* of water supply to their village could be improved if the Government provided a separate pipeline from another source, under any scheme to their village. The villagers *considered piped water supply to be the best arrangement for supply of water and were willing to contribute 10% of the cost of establishment of the pipeline, for one year, from the VDB fund.* The villagers suggested *meter reading as the basis of payment for supply of water till the houses.* All villagers were willing to contribute towards establishment and maintenance of water supply scheme in their village. They

Chapter IV PHERIMA VILLAGE

Pherima village was established on 17th January 1924. It consists of 240 households, which predominantly belong to the Sumi tribe (80%). The topography of the village is hilly. Chumukedima is the closest town, situated at a distance of 7 k.m. from the village. Akhikuha Ghoki Zuma and Atu Kushko are the streams closest to the village, flowing at a distance of three to four kilometers from the village.

Water Supply

The village depends upon common water sources. There are no individual water sources in the village. *All the households collect drinking water from the piped water supply by the PHE department, which is supplemented by water from the natural stream by 125 households.* The villagers expressed satisfaction with the quality of water from both the common sources. However, the water was seasonally available (between June and December) and was not adequate to meet the requirements of all the villagers. The main problems experienced by the villagers were *scarcity of water, which made its collection time consuming and its utilisation extremely careful.*

The PHED laid a pipeline to the village in 1997, which supplied water for a duration of twelve hours a day. The pipeline was actually a *temporary arrangement* to the pipeline in Medziphema town. The village community *strongly emphasised the need for provision of a separate scheme/pipeline, from another source for their village.*

The village community had not heard about the sector reforms project or the DWSM. There had been no visits by the PHE department staff to explain the new concept to the villagers. The Village Council had not held any discussions on the matter. The villagers felt that the *existing arrangement* of water supply to their village could be improved if the Government provided a separate pipeline from another source, under any scheme to their village. The villagers *considered piped water supply to be the best arrangement for supply of water and were willing to contribute 10% of the cost of establishment of the pipeline, for one year, from the VDB fund.* The villagers suggested *meter reading as the basis of payment for supply of water till the houses.* All villagers were willing to contribute towards establishment and maintenance of water supply scheme in their village. They emphasised that ***the government should supply water without seeking contributions from the villagers, as it is one of the main rural development aspects. Only minor repairs and maintenance should be left to the village community.***

Twenty-one respondents (8.75% of the village households) were interviewed for canvassing for the household opinion on water supply and sanitation aspects for the Household schedules. The main findings were as under.

1. The average family size of the respondents was seven, and the average annual income was Rs 47,000/-. Nine respondents (43%) were employed in Government service, while another nine (43%) were cultivators. Three respondents (14%) were running businesses. Six persons were also employed in subsidiary occupations (five were cultivators and one was running a business).

2. There were no individual water sources in the village. Piped water supply till some common source (situated at a distance from the village) was the only source of drinking water for all the respondents.

3. Water for other household purposes was collected in the following manner:

Source of water	Number of respondents
a. Piped water supply	21 (100%)
b. Collection of rain water	16 (76%)
c. Natural stream	20 (95%)

4. All the respondents expressed satisfaction with the quality of drinking water. However, ***both the common sources of water, the natural stream and piped water supply, were situated outside the village.*** The distance of common water sources from the respondents houses was as under.

Distance from home	Number of respondents
a. Half kilometer	14 (67%)
b. 100 feet to half k.m.	5 (23%)
c. 20 feet to 40 feet	2 (10%)

5. The main problems experienced in collection and utilisation of water were as under:

Problems in collection & utilisation of water	Number of respondents
a. Scarcity of water supply	20 (95%)
b. Time consuming collection of water	19 (90%)
c. Very careful use of water	18 (86%)
d. Distant from home	14 (67%)

-12-The problem of scarcity of water supply was severe during the dry season, when ***labour was hired to fetch water.*** Collection of water was time consuming due to rush at the common sources. As per the respondents, "collection of piped water took one hour and collection of water from the stream took an hour and a half". Due to inadequacy of water compelled them to use water in a very economical and stringent manner.

6 The respondents had not heard about the DWSM or the concept behind sector reforms.

7 The respondents stated that the ***existing water supply arrangement could be improved*** in the following manner.

Suggested improvements	Percentage of respondents
a. Government undertook major renovation works	38%
b. Government undertook regular check-up/ maintenance	29%
c. Provide bigger size pipeline from the same source to take into account the increased population	43%
d. Provide bigger pipeline from another source	19%

7. All the respondents stated that ***the best way to supply water to the village was piped water till some common points in the village.*** All the respondents stated piped water supply to be the arrangement that they would undertake if the responsibility to establish and maintain water supply was that of the villagers.

8. 90% of the respondents expressed the opinion that ***PHED should take up water supply scheme in the village,*** while 10% considered the Village Council to be the appropriate authority.

9. ***All the respondents were willing to contribute towards establishment of water supply in their village.*** 81% were willing to contribute material like bamboo and wood, while 24% were willing to contribute labour.

10. ***All the respondents were willing to contribute towards maintenance of water supply scheme -*** 57% of the respondents materially and 43% ***by contributing labour.***

11. ***All the respondents were willing to pay for water supply till their houses and till some common points in the village.*** The amount (of payment) they were willing to pay was as under:

Water supply till houses I Rs 20/- per month or as per rate fixed by Govt. (100% respondents)

Water supply till common points:

a. As per decision of Govt./Village Council (62%)
b. Rs 10/- per month (38% respondents)

12. The respondents made the following observations/comments at the end of the discussion.

Observations	Percentage of respondents
a. Govt. should bear the cost of connection. Minor works and maintenance should be the responsibility of the village.	19%
b. Govt. should provide water from another source through larger diameter pipeline.	43%
c. PHED officials should come and explain the new project in detail	10%
d. Government should construct big reservoir to store more water	14%

Other observations were that the ***village should bear 10% of the cost and that their village should be included in the selection by OWSM.***

Sanitation Aspects

Only ***25 households out of 240 total households (10%)*** in the village had attached toilets to their houses (septic tanks connected). Many resorted to open defecation. There were ***three community toilets*** in the village. There were no toilet facilities in school, health centre or anganwadi centre.

As per the ***Household schedules,*** 17 respondents (81%) reported resorting to open defecation. Three respondents owned toilets connected to septic tanks while one had an open toilet. ***All the respondents wanted better system of sanitation.*** All the seventeen respondents without personal toilets wanted personal toilets and were ***willing to give space and money for construction of toilets.*** On an average, they were willing to contribute Rs 3738/- for construction of personal toilets.

Consolidated Village and Household information

Details of Village level schedule for Pherima village are available in Table I on page 27 of this report. Table III on page 32 provides the consolidated household opinion of the respondents interviewed for the Household schedules.

Chapter V PIPHEMA VILLAGE

Piphema village is sub-divided into three parts- Piphema Old (105 households), Piphema New (32 households) and Piphema A (160 households), having common Village Council. The village consists of 2570 persons who predominantly belong to the Angami tribe (90% of the village population). The closest town is Chumukedima, situated 15 kilometers away from the village. The village has a hilly terrain. River Dzumha flows at a distance of 2 k.m. **from** the village.

Water Supply

The main sources of water supply in the village are common water sources- piped water supply and water from river Dzumha. Residents of Piphema A also depend upon water from river Tsadzukhuru, a seasonal stream flowing through the village. There are no individual sources or ring wells in the village.

The PHED initiated the piped water supply scheme in the village in 1978, which aims to provide 24 hour daily availability of water, available throughout the year. The villagers considered the water to be safe, but faced problems when the water supply was irregular due to breakage of pipeline as it is the main source of collection of drinking water.

The villagers had not heard about the Sector Reforms Programme or the DWSM. No official of the PHED had explained the programme. No discussions had been held about it in the Village Council. The village community stated that the *existing arrangement of water supply could be improved in the village if replacement of broken pipeline and major renovation of the reservoir is undertaken*. They considered *pipled water supply to be the best way* to provide water to their village. They were *unwilling to pay for water, supplied till common points, but willing to pay Rs 20/- per month for water supplied till the houses*.

Twenty-two respondents were interviewed for the Household schedule, covering Piphema A, Piphema Old and Piphema New village. The main findings were as under.

1. The average family size of the respondents was six and the average annual income was rs 50,455/- Cultivation was the main occupation of 55% of the respondents, while 32% were running business and 13% were Government employees. 23% were also engaged in subsidiary occupations such as cultivation (18%) and running business (5%).
2. All the respondents depended upon common water sources for collection of drinking water, i.e. piped water supply. One respondent supplemented the drinking water requirements by collecting water from the natural stream.
3. Water for other household purposes was collected from the following sources by the respondents.

Water source

Number of respondents

a. Piped water supply	22	(100%)
b. Natural stream	20	(91%)
c. Collection of rain water	2	(9%)

4. No respondent possessed a personal water point. All the respondents collected water from the PHED pipeline common water source. The source was at varying distance from the respondents' houses, as described below.

Distance from house	Number of respondents
a. Half kilometer	9 (40%)
b. 200 mts to 150 mts	2 (10%)
c. 300ft to 50 ft	11 (50%)

5. All the respondents were satisfied with the quality of water. However, *many problems were faced in the collection and utilisation of water*, as stated below:

Main problems	Number of respondents
a. Acute scarcity because of irregular supply, especially due to breakage of <i>rotten pipes</i> (resulting in uncertainty of water supply)	19 (86%)
b. Need for economical utilization of water (same pipeline water distributed among Piphema Old, New and A)	12 (55%)
c. Distant from home	9(41%)
d. Time consuming collection of water due to rush(single point for 3 villages) & uncertainty of supply.	6 (27%)
e. No problems	1 (Piphema Old village)

6. None of the respondents had heard about the DWSM or Sector Reforms programme.

7. 91% of the respondents believed that the existing arrangement of water supply could be improved by *immediate replacement of the old, rusted pipeline*. 27% of the respondents stressed the need for *repair and extension of the main reservoir*. Other suggestions for improvement of existing arrangement were *provision of a separate pipeline for Piphema* (14% of respondents) and *proper maintenance of the reservoir and storage tanks* (5%).

8. All the respondents were of the view *that piped water supply till some common points was the best way to supply water to the village*. They held the unanimous view that *PHED alone should take-up water supply activities* in the village.

9. The villagers were receptive to the concept of giving the village responsibility in respect of water supply systems. The works which the respondents considered the village could take up were :

Works to be taken up under responsibility of villagers	Number of respondents
a. Maintenance, minor replacements & repairs (under VDB fund)	16 (73%)
b. Laying of new pipeline	7 (32%)
c. Major renovation of reservoir	2 (9%)
d. Provision of men & material for maintenance work	2 (9%)

Thus, the villagers were *willing to take the responsibility of repairs and maintenance, but expected the PHED to be the sole agency responsible for establishment of water supply system*.

10. All the respondents were willing to contribute towards establishment of water supply in the village, by providing labour (86% of respondents) and materials such as bamboo & wood (81%). *None of them were willing to contribute money/ cash for establishment of water supply scheme*.

11. All the respondents were willing to contribute material (81% of respondents) and labour (32%) for maintenance of the water supply scheme.

12. All the respondents were *willing to* pay for water supply till their houses-as per the government rate, or, a flat rate of Rs 20/- per month. They were all willing to pay (as per the rate decided by village council or the govt.) for water supplied till some common points in the village.

13. The final comments/ observations of the respondents on the basis of the discussion on sector reforms, DWSM and people's participation were as under:

Observations/comments	Number of respondents
a. New pipeline should be provided by the Govt. to reduce leakage of water during transition	5 (23%)
b. Construction of big reservoir for storage	

& availability of water	6 (27%)
c. PHED staff should come & explain about DWSM	5 (23%)
d. VDB fund cannot maintain the scheme at all times Therefore, major works should not be given to the village	5 (23%)
e. Separate pipeline should be there for Piphema Old, New & A	3 (14%)

Sanitation Aspects

Only ten households in Piphema Old, New and A had personal toilets. In *Piphema Old, sewage system existed and community toilets had been constructed.*

Other village residents had to resort to open defecation. There were no toilet facilities in schools, health centers and anganwadi centers.

Out of twenty- two respondents interviewed for the Household Schedule, two respondents had personal toilets. Other twenty respondents had to resort to open defecation. Twenty one respondents wanted better system of sanitation and were willing to give space and money towards construction of personal toilets. The contribution the respondents were willing to make in terms of money varied, as detailed below.

Amount of contribution	Number of respondents
a. Half the cost of construction	1
b. One third cost of construction	2
c. Lump sum amount	
The average amount they were willing to pay-	Rs. 1944/-

Consolidated Village and Household information

Details of Village level schedule for Piphema village are available in Table 1 on page 26 of this report. Table 4 on page 42 provides the consolidated household opinion of the twenty-two respondents interviewed for the Household schedules.

Chapter VI JHARNA PANI VILLAGE

Jharna Pani village was established in 1947. It has an Angami population of 398 persons, constituting 64 households. The general topography of the village is plane. Medziphema is the closest town, six k.m. away from the village.

Water Supply

Natural stream is the only source of water for the village. There is no piped water supply to the village. The village tried digging wells but it was not found feasible. Though *the villagers consider the quality of river water to be satisfactory, the experienced scarcity of water during the dry season.* The water was adequate to meet the requirements of the village only during the months from May to October.

The village community had not heard about the sector reforms project of rural water supply and sanitation or the DWSM. No official of PHED had come to explain the concept to the village. The villagers felt that *pipd water would be the best way to supply water to the village. The villagers stated that their efforts towards digging ring wells had not borne results and the water level of the nearby stream was too low. They suggested that piped waters should be brought to their village from a source situated 7 k.m. away. They were willing to pay for water supply up to their village as well as till their houses* on the basis of meter reading. The villagers expressed willingness to contribute labour for establishment of water supply scheme in the village and *were willing to contribute money and undertake maintenance activities.*

Despite informing them in advance and visiting the village a second time, only ten persons were available for interview and discussions. Therefore, ten respondents (16% of the village households) were interviewed for the Household schedule. The findings were as under.

1. The average family size of the respondents' household was six and the average income was Rs. 7,700/-. Nine of the respondents were cultivators and one was the village Pastor. None of the respondents had any subsidiary occupation.
2. All the respondents depended upon natural stream, flowing through the village for their requirements of water.
3. All the respondents stated that they experienced difficulties in collection and utilisation of water due to *scarcity of water and insufficiency of the source during the lean period*.
4. Nine of the respondents had not heard about the DWSM. One respondent was aware about the new concept and encouraged by it.
5. All the respondents considered piped water to be the best way to supply water to the village. They were *willing to establish piped water supply system through the Village Council* if the responsibility was given to the village.
6. All the respondents were willing to contribute towards establishment of **water** supply in their village by contributing labour.
7. All the respondents were willing to contribute towards maintenance of water supply system. While seven expressed willing to contribute '*whatever was required of them*', three were willing to contribute labour.
8. All the respondents were willing to pay for water supply up to their houses and up to some common points in the village. *On an average, they were willing to pay Rs. 20/- per month for water supply till houses and Rs. 10/- per month for supply till some common points in the village.*

Situation Aspects

Six households in the village (*out of the sixty-four*) had personal toilets. Rest of the families had to resort to open defecation. There were no community toilets or toilet facilities in school, anganwadi centre or health centre.

Eight of the ten respondents interviewed were defecating in open. *All the respondents wanted a better system of sanitation*. They were willing to contribute space and money for construction of a personal toilet. On an average, the respondents were willing to contribute Rs. 2,2540/- for construction of a personal toilet.

Consolidated Village and Household information

Details of Village level schedule for are available in Table 1 on page 27 of this report. Table 5 on page 36 provides the consolidated household opinion of the respondents interviewed for the Household schedules.

Chapter VII MOLVAM VILLAGE

Molvam village was established in January 1940. It has a Kuki population of 1625 persons constituting 160 households. The topography of the village is mountainous. Medziphema is the closest town, situated 16 kilometers away from the village.

Water supply

The village residents depended upon natural, common water sources for collection of water, i.e. a streamlet flowing 1 k.m. away from the village, and a small **pond** and ring well dug near the streamlet. *The water was muddy and insufficient to meet the requirements of the village throughout the year*. There is no other ring well in the village. The villagers had tried to dig wells up to 50 feet, but were unable to find water. No PHED scheme is operational in the village. An earlier scheme lies "*damaged*

beyond repair since eleven years". As per the villagers, making the scheme operational would require a complete replacement of the pipeline.

The village community was aware of the DWSM and Sector Reforms Programme.

Staff of the PHED and DWSM had explained the concept in the village. The Village Council had also held discussions on the subject.

The villager wanted to have a 'proper water supply system' in the village. They considered ***pipled water to be the best system for their village.*** They were willing to pay ***10% of the total cost for establishment of piped water supply in the village.*** They were willing to pay for water supply up to the houses and till common **points** in the village. They were willing to ***contribute towards maintenance of the scheme and undertake maintenance-related activities.***

Twenty-one respondents were interviewed for canvassing the Household Schedule. The main findings were as under.

1. The average family size of the respondents was nine. Five respondents were Government employees, seven were cultivators and nine of them were teachers, none of them was engaged in any subsidiary occupation. The average annual income was Rs. 44,000/-.

2. All the respondents depended only on common water sources. Twenty respondents depended upon the natural stream, and seventeen respondents from the small pond near the stream. Four respondents also used water from a ring well near the stream.

The three sources were situated outside the village. The distance traveled by the sampled households to collect water was as under.

Distance from home	Number of respondents
a. 750 meters	9 (43%)
b. 667 meters	6 (28%)
c. 500 meters	2 (10%)
d. 333 meters	3 (14%)
e. 250 meters	1 (5%)

The water was muddy and safe for drinking only after boiling. Some respondents said that the water was clean only if collected before other persons because 160 households drew water from the shallow sources. The main problems in collection and utilisation of water were.

Main problems	Number of respondents
----------------------	------------------------------

a. Scarcity of water	20 (95%)
b. Muddy water due to excessive use	3 (14%)

Eleven respondents were aware of the DWSM and sector reforms and considered it a good programme.

The respondents were of the opinion that the water supply arrangements could be improved in the village if ***Government sponsored scheme was introduced in the village*** (12 respondents) and if ***proper maintenance of the source*** was undertaken (nine respondents).

All the respondents considered ***pipled water supply*** to be the best way to supply water to the village.

Best arrangement for the village	Number of respondents
---	------------------------------

a. Piped water to all houses	9 (43%)
b. Piped water till some common points	1 (5%)
c. Both a and b	11 (52%)

All the villagers suggested ***pipled water*** to be the arrangement the village should undertake if it was their responsibility to establish and maintain it.

All the respondents considered it a good idea to give the responsibility of water supply to the village. They wanted the ***Village Council*** (three respondents)

or the ***VDB*** (two respondents) or ***both of them together*** (16 respondents) to undertake the water supply scheme in the village.

10. All the respondents were willing to contribute towards establishment and maintenance of water supply, in the following manner.

People's contribution

Number of respondents

A. Establishment of the scheme

- a. Men/labour 21 (100%)
b. Money (as required or decided by the V.C.) 4 (19%)

B. Maintenance of the Scheme

- a. Labour 17 (81%)
b. Whatever was required of them 4 (19%)

11. All the respondents were willing to pay for water supply to the houses and till some common points in the village. The average payments they were willing to make are:

Water supply to the houses - Rs. 30/- per month

Water supply up to some common points - Rs. 16/- per month

12. The villagers sought *early government initiative* establishment of piped water supply to the village and reiterated their willingness to offer their services for any scheme introduced in the village.

Sanitation Aspects

All households in the village had access to toilet facilities, though not all had an attached toilet. There were no community toilets in the village or toilet facilities in schools, anganwadi and health centres.

Out of the *twenty-one respondents* interviewed, only one respondent stated having a resort open defecation. However, *twenty respondents wanted a better system of sanitation*, they were *willing to give space and money for construction of personal toilets*. The amount of money they were willing to contribute varied from Rs 500/- to Rs. 50,000/-. On an average, the respondents indicated a willingness to contribute Rs. 12,070/- for construction of personal toilets.

Consolidated Village and Household information

Details of Village level schedule for all available in Table 1 on page 27 of this report. Table 6 on page 38 provides the consolidated household opinion of the respondents interviewed for the Household schedules.

Chapter VIII CONCLUSION

As per the records of the office of Executive Engineer, PHE (Stores) Division, Dimapur district, the district has 76 villages which are covered and 114 villages which are not covered with water supply facilities. The PHED has initiated some proposals to provide water supply to the remaining 114 villages. The DWSSM can play a vital role in bringing more villages under coverage of water supply facilities. Infact, it is expected that the water supply systems created by facilitation of DWSSM will be *more sustainable* as they will be established, operated and **maintained** with people's participation.

The water supply coverage of the five sampled villages is classified as under.

- | | | |
|----------------|------------------|---|
| 1. Kukidolong | Full coverage | |
| 2. Pherima | Partial coverage | Temporary arrangement from Medziphema pipeline |
| 3. Piphema | Partial coverage | Single supply point for Piphema old, New and A. |
| 4. Jharna Pani | No coverage | Village collects water from a nearby stream |
| 5. Molvam | No coverage | Village dependent upon muddy water of stream/pond |

Temporary arrangement from Medziphema pipeline Single supply point for Piphema old, New and A.
Village collects water from a nearby stream Village dependent upon muddy water of stream/pond

All the villages stated that the water available was *inadequate to meet the requirements* of all the villagers. The three villages under PHE schemes complained of uncertain and interrupted supply of water due to disrupted/broken/rusted pipelines (*maintenance-related problems*).

Except for three personal ring wells in Kukidulong, none of the villages had an individual water source. All the residents of the five villages depended upon common water sources, and sometimes walked a considerable distance to collect water. Collection of water was a time consuming chore due to heavy rush at single water sources.

All the five village communities had clear ideas as to how the water supply system of their village could be improved. Kukidulong villagers wanted common sources such as ring wells and hand pumps. The other four village communities considered piped water supply to be the best way to supply water to their villages. ***Greater role of IEC activities is required to provide the villagers with other options and not just limit their decision making/selection of water supply arrangements to piped water supply.***

All the villagers were willing to contribute towards establishment of water supply in their village. They were generally willing to contribute labour and materials such as bamboo and wood. Some villagers of Kukidulong, Jharna Pani and Molvam were *willing to contribute money*ior establishment and maintenance of the water supply scheme. Residents of Pherima were willing to contribute 10% of the cost for one year from the VDB funds. Residents of Pherima and Piphema were emphatic that establishment of water supply was the task of the government and the village community should only be given the responsibility of minor repairs and maintenance. *All the village respondents stated that they were willing to contribute as decided by the village authority.. Therefore, involvement of the Village Council in persuading the villages to take on the financial responsibility of establishment and operation of the scheme would be helpful in achieving the objectives of the programme.*

All the villagers were willing to pay for water supply till the houses and till some common points in the village. The average amount they expressed willingness to pay, per month, is as under.

Village	W/s upto houses	W/s upto common points
1. Kukidulong	Rs. 48 /-	Rs. 15.50
2. Pherima	Rs. 20/-	Rs. 10/- or as decided by the Govt./Village Council
3. Piphema	Rs. 20/-	Rate as decided by the Govt./Village Council
4. Jhar Pani	Rs. 20/-	Rs. 10/-
5. Molvam	Rs. 30/-	Rs. 10/-

The extent of willingness of the people to pay for water supply can be kept in mind by the policy formulators while determining the freight rate of water supply (till meter system is established).

An analysis of the five villages brings out that both *Jharna Pani and Molvam should be considered for selection* on a priority basis as they are not covered under any water supply scheme and are willing to pay for establishment and maintenance of the scheme. The example of Molvam shows the *importance of IEC* activities in molding public opinion in favour of the village making financial contributions for a water supply scheme.

There is an *urgent need to focus on the basic sanitation requirements* of the villages. Majority of the villagers did not have access to proper toilet facilities. Most of the respondents in the five villages wanted a better system of sanitation and were willing to give space and money for construction of toilets (if provided partial financial support by the Government). The average amount of money they expressed willingness to contribute is:

Village	Average money contribution	Percentage respondents
1. Kukidulong	Rs. 2,667/-	90%
2. Pherima	Rs. 3,738/-	81%
3. Piphema	Rs. 1,944/-	95%
4. Jhar Pani	Rs. 2,250/-	100%
5. Molvam	Rs. 12,070%	95%

The above discussion shows that there is need for Government intervention to provide the rural population with sustained access to drinking water and sanitation facilities. Further, the village communities were willing to contribute in order to have access to these basic facilities. It is hoped that Dimaapur, the only selected pilot district from Nagaland State, will be able to initiate people's participation in provision of water supply and sanitation and provide a precedence to other districts in the State, and also to other basic services such as health and primary education.

Annexure - A

TABLES

Annexure – B

SCHEDULES

DWSM

Village Level Questionnaire

1. **Identification of the Village**

- 1.1 Name of the village
1.2 Name of the Block/Sub division

2. **Identification of the respondent**

- 2.1 Name of the respondent
2.2 Occupation

3. **General information about the village**

- 3.1 When was the Village established / / (Date/Month/Year)
3.2 Tribal Composition of the Village (*give details in the table below*)

Main tribes	%age composition (Approximately)	No. of households of the tribe in village	No. of persons of the tribe in village
-------------	-------------------------------------	--	---

- i.
ii.
iii.
iv.

3.3 When was the Village Development Board established? Month & Year _____

3.4 No. of members in the VDB _____

3.5 VDB Chairman Name _____
Address _____
Phone No. _____

3.6 VDB Secretary Name Address Phone No.

3.7 Number of GBs in/form the village _____

3.8 Name the GBs
i.
ii.
iii.

3.9 Total Population of the village Male _____
Female _____
Total _____

3.10 Number of Households in the village _____

3.11 Area of the Village (Approximate) _____

3.12 General Topography (Hilly/Plane)

3.13 Name of the closest subdivision headquarter/town_

3.14 Distance from the subdivision headquarters/town _____ K.M.

3.15 Public mode of conveyance to other towns NST bus/pvt. Bus/Taxi/None Frequency
Daily weekly/sometimes/none/others

4. Water supply in the village

4.1 What are the sources of water in the village (tick the sources used)?

Source	Drinking purpose (Tick sources available in village)	Household purpose (Tick sources available in village)
a. Piped water supply from PHE department		
b. Ring wells		
c. Natural stream/river/pond		
d. Tube wells		
e. Harvest of rain water		
f. Others (specify)		

- 4.2 Does the village rely on (tick relevant source)
- Only common water source
 - Only independent water sources
 - Both (a) and (b) above
- 4.3 Households having their own water source.
- Number of house holds having their own water source
 - Type of water source (ring well, hand pump, etc)
 - Quality of the individual water sources (safe/unsafe/satisfactory)
- 4.4 Common water sources in the village
- Number of common water sources in the village _____
 - Type/name of water source _____
 - Location of the common water source Within the village/Outside the village
 - If located outside the village, give the distance from the village _____ kms.
 - If outside the village, what is the connectivity with the village (tick) Pucca road/unmettaled road/pathway/no discernible path/others (specify)
 - How many households rely on the common water source? _____
 - Quality of water from the water source
 - Is water available from the water source through out the year or seasonally
 - If water available seasonally, give the months when available?
 - Is the water adequate to meet the requirements of all the villagers? Yes/No
- 4.5 What *according to the women folk of the village*, will be the best water source for their village?
- 4.6 If any ring well is there in the village, what is the *depth* of the ring well? _____
- 4.7 Has any hand pump been installed in the village? Yes/No
- 4.8 What other ways of collecting water/drinking water the villagers have tried in the past
- 4.9 State the main problems faced in collection/utilisation of water.

5. PHE water supply schemes

- 5.1 Has the PHE undertaken any water scheme in the village? Yes/No
- 5.2 If yes, name of the scheme _____
- 5.3 Location of the scheme _____
- 5.4 Year of commissioning/commencement of water supply _____
- 5.5 What is the quality of water supplied through the scheme _____
- 5.6 Duration of availability (tick/specify)
- Daily 24 hours availability
 - Daily: few hours (_____ hours)
 - Few days in a month (_____ days)
 - For few months only (_____ to _____ months)
 - Not available at all
 - Others (specify)
- 5.7 Is PHE scheme still functioning? Yes/No
- 5.8 If no, what are the reasons for non-functioning?
- 5.9 If yes, what is the condition of its water source?

- 5.10 What is responsible for the maintenance of the scheme/water source?
- 5.11 What are the repairs/maintenance/improvement required (if any)?
- 5.12 How many work charge employees/public staff have been appointed against the village? 5.13
- 5.13 What according to the villagers will be the best way to supply drinking water to the village
 - a. Piped water
 - b. Individual source
 - c. Common source
 - d. Others (specify)

6. DWSM

- 6.1 Have the villagers heard about the DWSM or its objectives ? Yes/No
- 6.2 Are the villagers aware of the new community participation rural water supply scheme ?
Yes/No
- 6.3 What is the source of knowledge/awareness?
- 6.4 What are the views/opinion of the villagers about the programme?
- 6.5 Has any PHE official come and explained the programme?
- 6.6 What methods have been used to explain the programme in the village?
- 6.7 Has the Village Council held any discussion on the matter?
- 6.8 Are the villagers aware of the objectives of the programme

7. Sanitation Aspects

- 7.1 How many households have independent/individual toilets attached to the house?
- 7.2 What is the mode of sanitation for households not having own/attached toilets?
- 7.3 Types of toilets in the village
 - a. Open
 - b. Septic tanks connected
 - c. Sewage system connected
 - d. None (open defecation)
- 7.4 Do any Community toilets exist?
- 7.5 Are any toilet facilities available in :
 - a. Schools
 - b. Hospital/dispensary/PHC/Sub-centre
 - c. Anganwadi centres
- 7.6 From where (and how) is water got for cleaning of toilets/self after defecation?

8. People's participation

- 8.1 How much are the villagers ready to pay for water supply at a common source?
 - a. None
 - b. Rs. _____
- 8.2 How much are the villagers ready to pay for water supply at their houses?
 - a. None
 - b. Rs. _____ (flat rate)
 - c. As per meter reading
- 8.3 Are the villagers willing to contribute in building/establishing the water supply scheme in their village? Yes/No
- 8.4 If yes, how are they willing to contribute?
 - a. Men/labour
 - b. Material
 - c. Money Rs. _____
- 8.5 Are the villagers willing to contribute towards the maintenance of the scheme?
 - a. Yes, by contributing money
 - b. Yes, by maintenance of the scheme

- c. By both (a) and (b)
- d. Other contributions (specify)
- e. Not willing to contribute

8.6 What scheme would the villagers suggest for their village if the responsibility of establishing the scheme and its maintenance were given to the village itself?

8.7 Comments/suggestions/problems, if any.

(DWSM)
Household questionnaire

Village _____
Questionnaire Canvassed by _____

1. Identification of the respondent

- 1.1 Name of the respondent _____
- 1.2 Number of Family members _____
- 1.3 Main Occupation _____ Annual income from occupation Rs. _____
- Subsidiary Occupations _____ Annual income from the occupation Rs. _____
- Annual income from all sources (of the household) Rs. _____

2. Water supply/availability for the household

2.1 From where is the water collected for drinking purposes by the family (tick)

- a. Piped water supply from PHE deptt.
- b. Natural stream/river (Give name)
- c. Pond
- d. Ring wells
- e. Harvest of rain water
- f. Others (specify)

2.2 From where is the water collected for the household needs such as cleaning, washing, use by livestock, etc? (Give details) 2.3 Does the house hold depend on (tick relevant source)

- a. Only on individual water sources (i.e. in the house/land of the family)
- b. Only on common water sources (natural/man made) in the village
- c. Both a and b.

2.4 For Households having own water source

- a. Type/Name of water source (piped water supply/ring well, rain water, etc) _____
- b. Quality of water (safe for drinking/unsafe/unsatisfactory) _____
- c. Is the water adequate for family needs or is it supplemented from other sources _____
in which available, if seasonally available) _____
- e. In case household has a ring well,
 - i. What is the depth of the ring well? _____
 - ii. What is the quality of water? (safe for drinking or not) _____

2.5 Common water sources

- i. Does the household use common water sources ? Yes/No/Sometimes
- ii. Name the common water source used.
- iii. Is the source located within/outside village?
- iv. Distance of the water source from the village (K situated outside the village) _____ km
- v. Distance of source from home _____
- vi. Is the water safe for drinking purposes?

26 *What are the main problems faced in the collection and utilisation of the water?*

DWSM and People's participation

3.1 Have you heard about the DWSM or its objectives? Yes/No

- 3.2 What are your views about the programme?
- Men/Labour
 - Material, such as _____
 - Money, Rs. _____
- iv. Not willing to contribute
- 3.9 Would you be willing to contribute towards the maintenance of the water supply scheme ?
- If yes, how?
 - Not willing to contribute
- 3.10 How much would you be willing to pay every month for the supply availability and use, established till your house
- Rs. _____ Per month/Not willing to pay
- 3.11 How much would you be willing to pay every month for the water supply availability and use, established till a common point in the village.
- Rs. _____ Per month/Not willing to pay
- 3.12 Any suggestions, comments or observations.
- 3.5 What water supply scheme/arrangement would you suggest if it was the responsibility of the village to *establish* the scheme *and maintain* it?
- 3.6 Which agency should take up the construction of such a water supply scheme in the village?
- VDB
 - PHE department
 - It should be left to the villagers to decide and choose a contractor
 - Church
 - Village Council
- 3.7 Do you think it is a good idea to give the responsibility to establish and maintain water supply in the village ? (Yes/No)
- 3.3 How can the present system/arrangement of water supply in the village be improved ?
- 3.4 What would be the best way to supply water to the people in the village? (Tick)
- Piped water to all households
 - Piped water till some common points in the village
 - Individual sources such as wells
 - Development of ponds for collection of rain water
 - Other sources (please specify)
- 3.5 What water supply scheme/arrangement would you suggest if it was the responsibility: of the village establish the scheme and maintain it?
- 3.6 Which agency should take the construction of such a water supply scheme in the village?
- VDB
 - PHE department
 - It should be left to the villagers to decide and choose a contractor
 - Church
 - Village Council.
- 3.7 Do you think it is a good idea to give the responsibility to establish and maintain water supply in the village? (Yes/No)
- 3.7.1 If no, why? Explain briefly. _____
- 3.8 Are you willing to contribute for establishing a water supply scheme in your village ? (Tick)
- Men/Labour
 - Material, such as _____
 - Money, Rs _____
 - Not willing to contribute
- 3.9 Would you be willing to contribute towards the maintenance of the water supply scheme?
- i) If yes, how? _____

ii) Not willing to contribute.

3.10 How much would you be willing to *pay every month* for the water supply availability and use, *established till your house*

Rs. _____ per month/Not willing to pay

3.11 How much would you be willing to pay every month for the water supply availability and use, established till a common point in the village.

Rs. _____ per month/Not willing to pay

3.12 Any suggestions, comments or observations. Sanitation aspects

6.1 What is the mode of sanitation in your household? (please tick)

- a. Open defecation
- b. Open toilets connected to the house,
- c. Toilets with septic tanks.
- d. Community toilets.
- e. Other arrangements (please specify)

6.2 From where (and how) is water got for cleaning of toilets/self after defecation?

6.3 Do you want to have a better system of sanitation for your house or is the present system adequate for you?

6.4 If you do not have a toilet, do you want to have a toilet in your house?

6.4.1 If yes, are you willing to give space for construction of the toilet?

6.4.2 If the Government gives you some help, how much are you willing to contribute for making the toilet?

- a) Rs.
- b) Nothing

*Signature for the
Evaluation Inspector*

*Signature of the householder
interviewed*