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**A RAPID ASSESSMENT OF
RURAL WATER SUPPLY & SANITATION
FOR
MADHYA PRADESH & UTTAR PRADESH**

- DRAFT REPORT -

Submitted to

**MINISTRY OF RURAL AREAS AND EMPLOYMENT
DEPARTMENT OF RURAL DEVELOPMENT**

Submitted by



**OPERATIONS RESEARCH GROUP
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CHAPTER - I

1.0 BACKGROUND

The provision of safe drinking water supply in the rural areas is the responsibility of the States and the funds have been provided for this purpose in the State budgets right from the commencement of the First Five Year Plan. In order to ensure maximum inflow of the scientific and technical input into the rural water supply sector to find cost effective methods to supply safe drinking water as well as to deal with quality problems of drinking water, the National Drinking Water Mission (NDWM) was launched in 1986. Later on in the year 1991 Government of India had renamed NDWM as Rajiv Gandhi National Drinking Water Mission (RGNDWM) with the following norms for rural water supply.

- 40 litres of safe drinking water per capita per day (lpcd);
- 30 lpcd additional for cattle in the Desert Development Programmes (DDP) areas;
- One handpump or standpost for every 250 persons;
- the water source should exist within the habitation or within a distance of 1.6 kms in plains and within 100 metres elevation difference in the hills;
- drinking water is defined as safe if it is free from bacteria causing water borne disease and chemical contamination (fluoride, brackishness, excess iron, arsenic, nitrate beyond their permissible limits).

In line with the same certain priority areas had been identified for effective implementation of rural water supply based on the survey conducted in 1991-94 viz.

- to cover 'not covered' (NC) habitations
- to fully cover partially covered habitations getting less than 10 lpcd;
- to cover all the habitations having water quality problems;
- to supply water to all habitations with per capita supply of less than 40 lpcd; and
- to provide safe drinking water facility in every rural primary schools.

From the survey findings, conducted time to time, it has been felt that sustainable management of rural water supply and sanitation not only engineering systems but also community participation as well as empowerment of other functionaries involved with this scheme. And hence in the first quarter of 1994, National Human Resource Development Programme (NHRDP) was launched with the following specified objectives:

- to train atleast one beneficiary, especially women at the grass root level in village of the country;
- improve the productivity of sector professionals through specialist courses; and
- to introduce rural orientation in technical education sector coupled with publication of manuals on rural water supply and sanitation.

Besides, human resource development preparation of TEC strategy has also been adopted as another important thrust area by the RGDWM. The strategy included peoples' participation, sustainability issues, O&M and awarness about the quality problems and has been endrosed by all states. Printed literature related to role of the Panchayats towards rural water supply and sanitation was distributed to the representatives of the Panchayats.

The inputs over the passage of time, especially in the provision of water supply have been substantial. It is estimated that at present, more than 96 per cent of the rural population have been provided with access to safe drinking water sources. In terms of habitations, the status as on April 1, 1997 reveals that out of the total 14,30,663 habitations, only 4.3 percent (61,747) were in the category of 'not covered' (NC) habitations, 66.3 per cent were under 'fully covered' (FC) and 29.4 per cent habitations were in the 'partially covered' (PC) category.

The concept of sanitation was earlier limited to disposal of human excreta by cesspools, open ditches, pit latrines, bucket system etc. Today, it connotes a comprehensive concept which includes liquid and solid waste disposal, hygiene - personal, domestic as well as environmental hygiene.

Based on the experience gained in the past and the recomendation of National Seminar on Rural Sanitation held in September 1992, starategies of rural sanitation was reworked and revised guidelines of the Central Rural Sanitation Programme (CRSP) were approved by the Government in March, 1993. The basic programme components are as follows:

- construction of individual sanitary latrines for households below poverty line with subsidy (80%) where demand exists.
- conversation of dry latrines into low cost sanitary latrines
- construction of exclusive village sanitary complexes for women by providing complete facilities for handpump, bathing, sanitation and washing on a selective basis where adeuate land/space within the premises of the houses do not exist and where village panchayats are willing to maintain such complexes;
- setting up of sanitary marts;
- total sanitation of village through the construction of drains, soakage pits, solid and lequid waste disposal, etc.; and
- inteIntensive campaigns for awarness generation and health education for creating felt need for personal, household and environmental sanitation facilities.

At this critical juncture it is very important to design a study to assess whether the inputs were relevant, whether the coverage has been achieved and targeted as reported, whether the users were really involved in the delivery mechanism, whether the users were happy with the existing service delivery mechanism and how the users were trained and motivated to judiciously use and maintenance of the same and hence the study.

1.1 OBJECTIVE OF THE STUDY

The overall objective of the proposed study would be to assess the status of the Rural water supply and Sanitation Programme and evaluate the national level performance of the programme. The specific objectives of the study are as follows:

- Assessing the present coverage of rural water supply and sanitation facilities, with special focus on backward classes and backward areas;
- Examining the functional status and reliability of water services and sanitation facilities and the status of use, operation and maintenance of the same;
- Examine the functioning of an alternative delivery mechanism for sanitation;
- Identify the water quality problems and the coverage of water supply in these areas; //
- Examining the community involvement in the planning and implementation of water supply and sanitation schemes;
- Examining the contribution of users in the capital and recurring cost for water supply and sanitation;
- Assessing the people perceptions on coverage and levels of user satisfaction; and
- To examine the reasons for success or failure of the programme in diverse situations.

1.2 METHODOLOGY AND STUDY DESIGN

As mentioned earlier that the study attempts to evaluate the current status of rural water supply and sanitation in terms of their coverage and availability, accessibility, functional status and use and maintenance. Considering these factors the study has been carried out in two states viz. Madhya Pradesh and Uttar Pradesh. In order to achieve a representative sample size following methods have been adopted.

Selection of Districts

To ensure homogeneity the entire state has been stratified with respect to standard agro-climatic regions (agro-climatic condition, ground water potential and socio-economic features) specified by Agroclimatic Regional Planning Unit of Planning Commission. And finally at least one district has been selected from each stratum. Based on this criteria a total of 18 districts, 8 from Madhya Pradesh and 10 from Uttar Pradesh has been selected for the study.

Selection of Blocks

From each selected district two blocks has been selected staisfying the following criteria:

- ◆ One block having the highest number of handpumps; and
- ◆ One block having the highest number of pipe water supply

In case the above conditions are satisfied by the same block then another block having highest number of sanitary latrines has been selected.

C) Selection of Villages

From each selected block 7 to 8 villages has been chosen subject to the condition that a maximum of 15 villages per district. In order to select the villages a complete list of FC villages form that particular block has been prepared. Then all the villages were categorised as nearest to block head quarter, farthest to block head quarter and in mid-way of the block head quarter. Finally villages has been selected from each category based on pro-rata distribution with the SC and ST villages as the first priority.

D) Selection of Households

A total of 25 households has been selected from each selected village based on pro rata distributions of households in different tolas.

1.3 SAMPLING FRAME

Sampling Frame of study for the two states is given below:

State : Madhya Pradesh				State : Uttar Pradesh			
District	Blocks	No. of Vills.	No. of HHs.	District	Blocks	No. of Vills	No. of HHs.
Rajgarh	Rajgarh	8	200	Sultanpur	Kurebhar	8	200
	Narsinghgarh	7	175		Jemo	7	175
Gwalior	Bitharwar	7	175	Aligarh	Gondha	8	200
	Ghatigaon	8	200		Lodha	7	175
Datia	Datia	7	175	Etawah	Mahowa	8	200
	Seondha	8	200		Safai	7	175
Sagar	Sagar	8	200	Lalitpur	Birdha	8	200
	Rahatgarh	7	175		Jakhoura	7	175
Jabalpur	Bargi	7	175	Firozabad	Ekka	8	200
	Panagarh	8	200		Narakhn	7	175
Shahdol	Anuppur	7	175	Lakhimpur	Lakhimpur	8	200
	Karkeli	8	200		Bankeganj	7	175
Balaghat	Balaghat	8	200	Basti	Kaptanganj	7	175
	Kherlanji	7	175		Basti	8	200
Chhindwara	Chhindwara	8	200	Sonbhadra	Ghorawal	7	175
	Jami	7	175		Robertsganj	8	200
Total	16	120	3000	Uttarkashi	Dunda	7	175
					Bhatwari	8	200
					20	150	3750

CHAPTER - II

2.0 STATE LEVEL PROFILE OF WATER SUPPLY AND SANITATION

2.0.1 Profile of Water Supply and Sanitation

Since from the inception of first Five Year Plan provision of drinking water has been recognised as top priority. Over the passage of time financial inputs in every Five Year Plans has been increased in both Central as well as in State Plan.

In Madhya Pradesh, water supply and sanitation programme has been looking after by Department of Public Health and Engineering Department (PHED). Principal secretary, PHED has been responsible at state level and assisted by one Additional Secretary, Deputy Secretary and two Additional Deputy Secretaries. In order to run administration in a effective manner the entire state has been divided into five divisions as Bhopal, Indore, Gwalior, Jabalpur and Raipur headed by Engineer-in-chief. Each division again divided into 24 circles headed by Superintendent Engineer. One circle consists of 78 divisions and it has been further divided in 337 subdivisions. Executive Engineer (EE) has been responsible at divisional level and Assistant Engineer (AE) has been responsible at subdivisinal level.

According to 73rd Panchayati Raj Act, the entire procedure has been decentralised by involving Panchayati Raj Institution at the grass root level. Entire operations and maintenance of both handpumps and piped water supply has been handed over to Panchayati Raj Institutions. However, from April 10, 1998 the operations and maintenance of handpump has been again handed over to PHED.

Secondary data reveals that near about one-fourth of the total habitations are 'Partially Covered' and one-tenth of the total habitations are 'Not Covered' in Madhya Pradesh.

Table - 2.1
Coverage of Water Supply : Madhya Pradesh

(Figs. in %)

Status	Main Village	Majra/tola/para	Total
Base	71381	94780	166161
Fully covered village	56.8	72.8	65.9
Partially covered Village	42.2	11.1	24.5
Not covered village	1.0	16.1	9.6

Source: Department of PHED, Madhya Pradesh

In order to achieve the goal of providing 40 liters of drinking water per day per person by the end of 2000 AD, Government of MP has been accepted the norms provided by the Central Government i.e. one handpump per 250 populations and identified following priority areas:

- Priority - 1: to cover all the villages/mouja/tolas without any source of drinking water;
- Priority - 2: to provide safe drinking water to all the villages/moujas/tolas having contaminated source;
- Priority - 3: to cover all the villages/moujas/tolas getting less than 10 liters water per person per day; and

✓ Chief Engineer

7 to 8

Priority - 4: to cover all the villages/moujas/tolas getting 10 to 40 liters of drinking water per day per person.

As far as target and achievement is concerned it has been observed that target has been fixed at State level depending on the availability of funds of that particular year and also based on the action plan prepared by the EE at division level. Physical target and achievement of water supply and sanitation showed satisfactory result in last two years in case of MP, where achievements exceeded the target.

Table - 2.2
Physical Target and Achievements in Last Two years

	Madhya Pradesh						Uttar Pradesh					
	Hand pump		PWS		Latrine		Hand pump		PWS		Latrine	
	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.
'95-'96	9000	1311	-	240	4000	4122	5303	5696			3378	3378
		2			0	2	9	1			6	6
'96-'97	9000	1741	-	180	3040	3666	7625	6833			8271	8271
		5			0	9	3	3			7	7

Source: Department of PHED, MP

Source: Jal Nigam, UP

Centrally sponsored Accelerated Rural Water Supply Programme and State sponsored Minimum Need Programme are the two major sources of funding in MP. Besides, in MP fund for PWS also supplemented by MLA and MP fund. However, Centrally sponsored Rural Sanitation Programme is the only source of funding for sanitation programme in the State. In Uttar Pradesh most of the water supply programme are funded by ARWSP and MNP programme. Handpumps funded by Department of Panchayati Raj and Mandi Samiti has also been observed. Financial target and achievement in last two years shows considerably high utilisation rate in both water supply and sanitation programme in both the states.

Table - 2.3
Financial Target and Achievement : Madhya Pradesh & Uttar Pradesh

Year	Madhya Pradesh			Uttar Pradesh		
	Allotment	Expenditure	% utilisation	Allotment	Expenditure	% utilisation
Year 1995-96						
ARWSP	6658.81	6564.51	98.5	23380.48	22610.25	96.7
CRSP	6173.00	6079.77	98.5	NA	NA	
Year 1996-97						
ARWSP	7809.64	7567.45	97.0	35742.28	34732.15	97.2
CRSP	7313.00	7609.57	104.0	NA	NA	

CHAPTER - III

CURRENT PROFILE OF WATER AND SANITATION

3.1 PROFILE OF THE RESPONDENT

A profile of respondents is presented here before analysing the current status of water and sanitation in the two States of Madhya Pradesh and Uttar Pradesh. In the present study household beneficiary survey has been conducted for 3000 households in Madhya Pradesh and 3750 households in Uttar Pradesh. Information pertaining to socio-demographic parameters of the respondent households has been presented below.

Diagram - 1
Age Group Wise Distribution of the Respondent

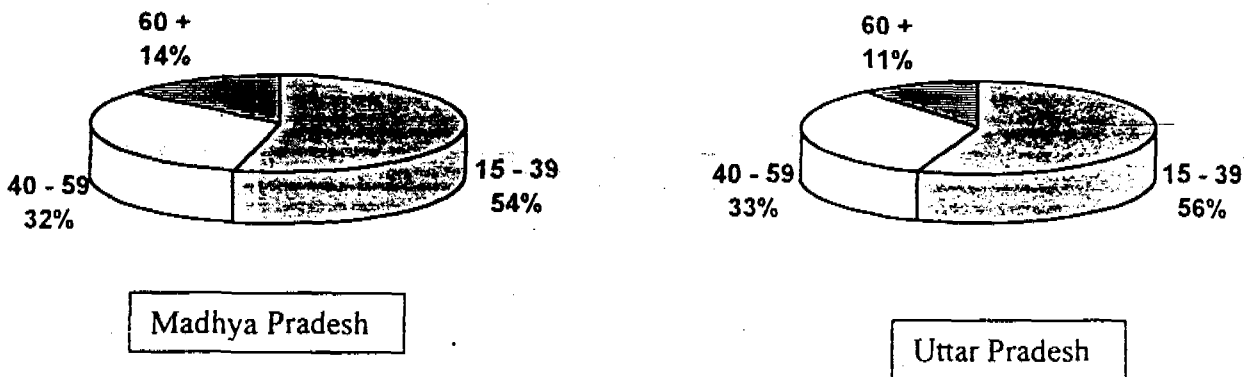


Diagram - 2
Sex Ratio of the Respondent

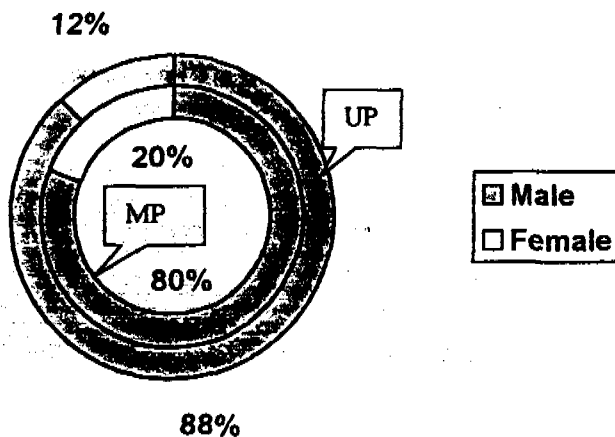


Diagram - 3
Caste Distribution of the Respondent

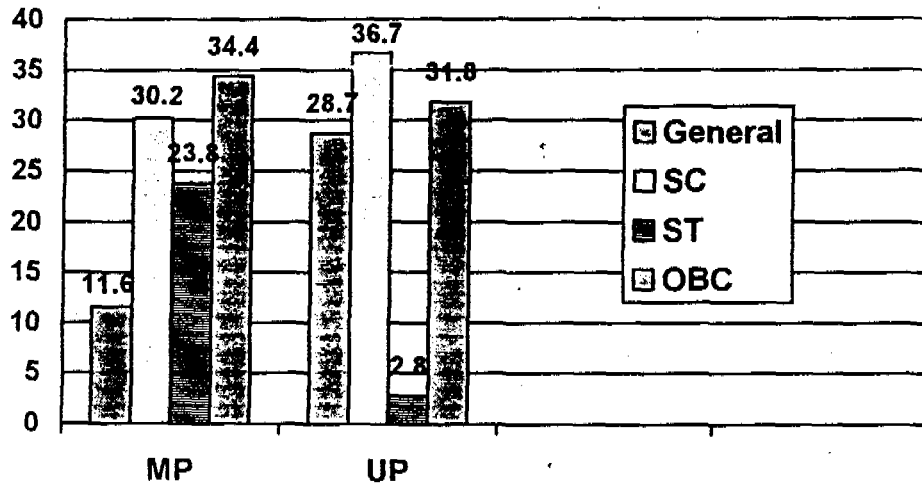


Diagram - 4
Annual Income Group-Wise Distribution of Respondent

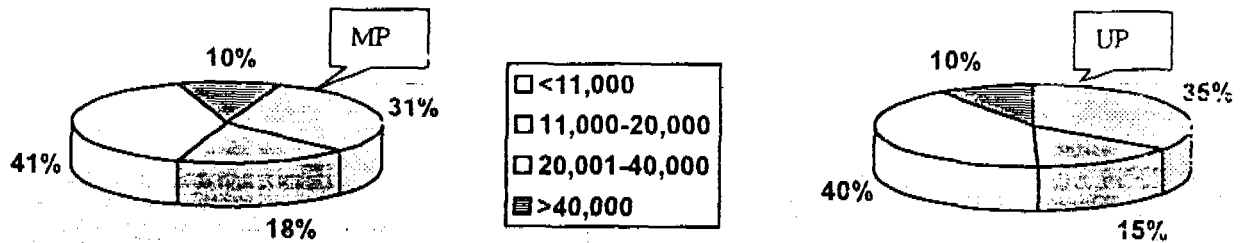


Diagram – 5
Landholding Status of the Respondent

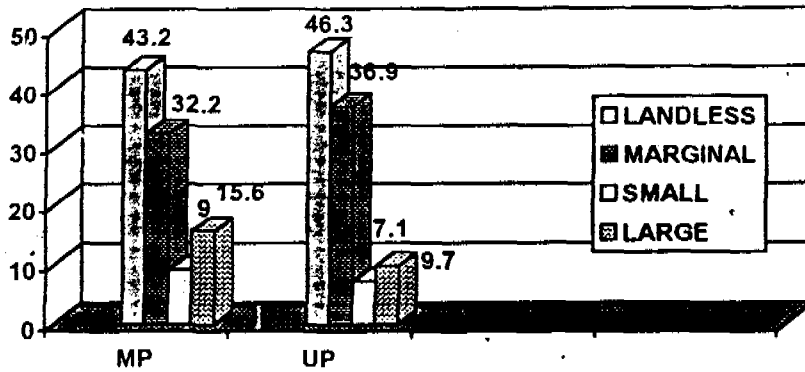
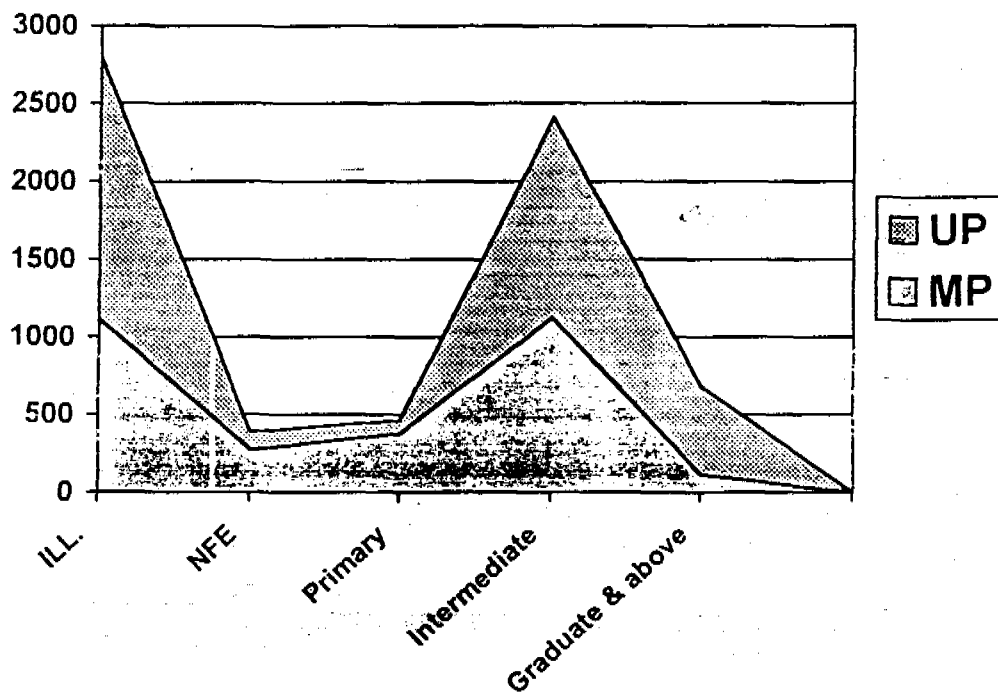


Diagram – 6
Literacy Level of the Respondent



3.2 COVERAGE (SPATIAL & POPULATION) BY WATER AND SANITATION

The issue of coverage has been analysed here with the help of 2 survey instruments namely, the Social Maps and the Spot Check schedules. It may be mentioned here that only Fully Covered (FC) villages has been surveyed for the purpose of the survey. Hence the basic objective here had been to investigate the percentage of that were actually having the FC status among the villages that were assigned the FC status at the State level in case of both Uttar Pradesh and Madhya Pradesh.

A village covered by a specific water supply system, either handpump or piped water, is considered Fully Covered by the Rajiv Gandhi Drinking Water Mission when the entire village

population have access to the water source within 1.6 Km of the habitation of every individual household. The installation of the water source takes into account that the supply has to cover a population of 250 persons per water source.

The analysis of the data available, has apart from the conditions mentioned above, taken into consideration the functional status of the handpumps and the social accessibility of the water source surveyed. Thus 102 handpump villages and 48 piped water supply villages were surveyed in Uttar Pradesh and 79 handpump villages and 41 piped water villages were surveyed in Madhya Pradesh to conduct the analysis.

Madhya Pradesh

In case of Madhya Pradesh it has been observed that the 34 percent piped water supply villages (41 villages) were in effect functional in only about 5 percent of the total number of piped water supply villages (i.e. 5 out of 41). Thus, the 88 percent villages (i.e. 36 out of 41) reduced to the status of partially covered villages is principally attributed to the non-functional status of the water supply system. The field observations suggested that the pumps in the pump house were often out of order and although they were intermittently repaired by the PHED engineers, inappropriate maintenance resulted in frequent breakdowns. Thus at a given point of time a large proportion of villages served by piped water supply would supplement their requirement by alternate sources such as handpump, protected/unprotected wells and in some cases rivers/springs. Again there has been instances that hamlets of these category of villages were most often not spatially covered by the infrastructure (pipelines) of the piped water system and particularly by the water sources i.e. taps and tapstands (as revealed in the FGDs).

However, the main villages appeared to be sufficiently covered by the piped water supply systems as manifested by an average of 651 taps per village and 23 households served per tapstand in these villages. It may be nonetheless noted that the coefficient of variation of distribution of taps across districts is very high (CV=106 approx.), thus suggesting piped water supply systems vis-à-vis facility of tap water is very unevenly distributed over space. It can be subsequently suggested that incidence of FC villages lapsing into PC villages is a phenomenon with high spatial concentration and thus a state level average account of the coverage status of villages would reflect a diluted picture of the heterogeneous reality.

Out of the total number of 120 villages surveyed 79 villages (66 percent) were identified handpump villages. In the process of conducting the survey 839 handpumps had been spot checked. While 76 percent of the handpumps were functional 89 percent of the handpumps reportedly was accessible by all caste groups. An analysis of the social maps supplemented by the findings of the spot check schedules revealed that about 70 percent of the villages maintain the FC status where as about 30 percent villages reduced to the status of PC village.

Uttar Pradesh

It has been noted that in the 48 piped water supply villages (32 percent of the total sampled villages) the piped water supply system is essentially supplemented by handpumps and protected/unprotected wells. It has been noted that only 31 percent (15 villages) villages were maintaining FC status both in terms of population and spatial coverage i.e., both the main village and hamlets are covered by the water sources.

It was also noted that 69 percent piped water supply villages were reduced to PC (Partially Covered) status wherein the entire village was not spatially covered by the water sources i.e., tapstand. Moreover households in the localities which were not covered by the tapstands were

not using taps to meet their demand for water. This analysis did not take into account the map showing the piping isometric map depicting the network of underground pipelines. However, the Focused Group Discussion (FGD) with community members reflected the user's opinion that some localities in the villages were actually not covered by the pipelines. Even if it is hypothecated that the network of pipelines are evenly laid to cover the village, it has been physically verified that villages are not spatially covered by the water sources i.e., taps and tapstand. The survey depicted that an average of about 115 households were served by private taps per piped water supply villages. It was also noted that only about 7 households were being served per tapstand in these villages. It may be mentioned that despite longer distance of location of the tapstands the sources were socially accessible by all caste groups.

There were 102 handpump villages (88 percent) out of the 150 villages surveyed. Out of the 607 handpumps surveyed 564 (93 percent) were reported to be functional and 89 percent of the handpumps were socially accessible. Nonetheless, 65 percent villages out of the total villages surveyed had the FC status. This lapsing of about 35 percent villages from FC status to PC status has been primarily determined by the spatial coverage of the village area by handpumps, wherein habitations within villages not served by handpumps have been observed. Again there were few instances of habitations not being served by handpumps since the system is non-functional. The spot check data revealed that only about 20 households per hand pump is served in these villages. These areas are however served by other sources such as protected/unprotected wells. The households in the habitations not served by handpumps though located at a distance from functional handpumps have free access to these sources.

Table - 3.1.1
Coverage by Piped Water System : Madhya Pradesh

District	No. of Villages Covered	No. of Taps	No. of Tap Stands	HH Covered by Tap Stand	Water Chlorinated	Leakages Reported	Repairs Undertaken	Tap Attached to Tap Stand	Clean Surroundings
BALAGHAT	6	90	69	1084	5	10	10	57	55
JABALPUR	4	86	49	1445	3	48	43	27	20
SAGAR	6	1296	14	435	1	-	-	6	2
GWALIOR	6	896	4	N.A	2	-	2	-	4
DATIA	2	450	3	40	-	3	2	-	-
CHHINDWARA	8	58	59	1192	6	11	11	29	51
RAJGARH	5	312	6	405	-	5	3	-	2
SHAHDOL	4	70	5	105	1	-	-	4	5
TOTAL	41	3258	209 (100.0)	4706	18 (8.6)	77 (100.0)	69 (89.6)	123 (58.8)	139 (66.5)

Table - 3.1.2
Status of Tariff Collection for Piped Water Supply : Madhya Pradesh

District	No. of Villages	No. of Tap Stand	HH Served by Tap Stand	Tariff Collected From Tap Stands	Paying Tariff	Defaulter	Average Rate
BALAGHAT	6	69	1084	5	100	984	20.00
JABALPUR	4	49	1445	8	258	1187	10.00
SAGAR	6	14	435	-	-	435	5.00
GWALIOR	6	4	N.A	-	-	-	5.00
DATIA	2	3	40	-	-	40	N.A.
CHHINDWARA	8	59	1192	38	483	709	6.75
RAJGARH	5	6	405	-	-	405	N.A.
SHAHDOL	4	5	105	-	-	105	N.A.
TOTAL	41	209 (100.0)	4706	51 (24.4)	841 (17.0)	3865 (83.0)	9.35

Table - 3.1.3
Profile of Handpumps : Madhya Pradesh

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District	No. of Villages Covered	Total Handpump	Functional	Quality of water		Water Quality Testing Conducted	Water Available in 1st 5 strokes	HP has a Platform	HP has drain	HP has W.S.	HP has Clean Surrounding
				Without Colour	Good Taste						
BALAGHAT	9	119	99			-	63	47	56	-	58
JABALPUR	11	131	117	81	109	24	73	68	61	-	24
SAGAR	9	67	40	35	33	8	40	7	51	-	36
GWALIOR	9	98	62	63	53	2	53	25	65	-	26
DATIA	13	111	95	93	84	5	81	29	62	-	40
CHHINDWARA	7	90	64	83	35	15	46	17	68	5	39
RAJGARH	10	68	53	49	47	14	41	8	62	6	65
SHAHDOL	11	155	118	57	90	27	80	59	94	-	15
TOTAL	79	839 (100.0)	648 (76.0)	550 (65.5)	505 (60.1)	95 (11.3)	477 (56.8)	260 (30.9)	519 (61.8)	11 (1.3)	303 (36.1)

Table - 3.1.4
Coverage by Handpumps : Madhya Pradesh

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District	No Of Villages Covered	Total No. of Handpumps	Avg HH Served	Accessible To All Caste Groups	Site Selection Undertaken	Site Selection Proper	Site Selection Supervised By NGO/GP	No Dispute	VWSE Appointed
BALAGHAT	9	119	24.08	117	75	89	53	117	-
JABALPUR	11	131	29.96	118	126	113	82	130	-
SAGAR	9	67	26.57	51	49	64	20	49	4
GWALIOR	9	98	25.70	85	93	91	68	93	-
DATIA	13	111	35.41	85	107	98	68	101	-
CHHINDWARA	7	90	24.37	76	20	90	9	77	-
RAJGARH	10	68	33.45	61	44	72	30	77	-
SHAHDOL	11	155	22.05	150	88	152	52	116	17
TOTAL	79	839 (100.0)	27.70	743 (88.5)	602 (71.7)	769 (91.6)	382 (45.5)	762 (90.8)	21 (2.5)

Table - 3.1.5
Details of Community Contribution and Maintenance of Handpumps : Madhya Pradesh

District	No Of Villages	Total No. of Handpumps	Community Contribution In Cash	Comm Contr 1 In Labour	Comm Cont In Cash & Labour	O&M Fund Generated	Bank Account For O&M Fund	Care Taker Appointed	Regular Maintenance Undertaken	Caretaker Trained	H P Out Of Order In Last 6 Months	Repair of HP Undertaken
BALAGHAT	9	119	-	-	-	-	-	-	-	-	50	28
JABALPUR	11	131	-	-	2	8	-	27	27	27	44	29
SAGAR	9	67	-	-	-	3	-	22	1	17	16	16
GWALIOR	9	98	-	22	-	-	-	8	-	8	24	15
DATIA	13	111	1	2	-	2	-	30	-	30	41	35
CHHINDWARA	7	90	-	-	-	-	-	17	-	17	44	19
RAJGARH	10	68	-	7	-	-	-	-	-	-	34	14
SHAHNOL	11	155	-	-	-	-	-	58	27	58	71	37
TOTAL	79 (100.0)	839 (100.0)	1 (0.1)	31 (3.7)	2 (0.2)	13 (1.5)	-	162 (19.3)	55 (6.5)	157 (18.7)	324 (38.6)	193 (23.0)

Table - 3.2.1
Coverage by Piped Water System : Uttar Pradesh

District	No Of Villages Covered	No Of Taps	No Of Tap Stands	Water Chlorinated	Leakages Reported	Repair Undertaken	Tap Attached To Tap Stand	Clean Surroundings	Site Selection Proper
FIROZABAD	4	N.A	1	-	-	-	-	1	-
UTTARKASHI	15	360	57	2	-	-	42	26	32
ETAHAH	1	N.A	1	1	-	-	-	1	-
BASTI	7	15	16	6	-	-	12	10	5
LALITPUR	3	175	1	1	-	-	-	-	1
ALIGARH	4	N.A	3	-	-	-	-	3	-
SONEBHADRA	8	6	2	1	5	5	1	1	1
SULTANPUR	6	17	26	4	61	52	14	7	13
TOTAL	48	573	107 (100.0)	15 (31.3)	66 (100.0)	57 (86.3)	69 (64.5)	49 (45.8)	52 (48.6)

Table - 3.2.2
Status of Tariff Collection For Piped Water System : Uttar Pradesh

District	No. of Villages	No Of Tap Stands	HH Served by Tap Stand	Tariff Collected From Tap Stands	Paying Tariff	Defaulter	Average Rate
FIROZABAD	3	1	-	-	-	-	-
UTTARKASI	15	57	450	31	253	197	5.16
ETAHAH	1	1	-	-	-	-	-
BASTI	7	16	89	-	-	89	-
LALITPUR	3	1	-	-	-	-	-
ALIGARH	4	3	-	-	-	-	-
SONEBHADRA	8	2	10	-	-	-	-
SULTANPUR	6	26	175	6	26	149	5.00
TOTAL	48	107 (100.0)	724 (100.0)	37 (34.6)	279 (38.5)	430 (60.2)	5.08

Table - 3.2.3
Profile of Handpumps : Uttar Pradesh

District	No. of Villages Covered	Total Handpump	Functional	Quality of Water		Water Quality Testing Conducted	Water Available in 1st 5 strokes	HP has Platform	HP has drain	HP has B.S.	HP Has Clean Surrounding
				Without Colour	Good Taste						
FIROZBAD	11	69	64	38	62	-	59	6	61	9	54
ETAWAH	14	89	83	77	76	2	70	35	49	53	40
BASTI	8	43	43	43	43	-	41	1	42	16	39
LALITPUR	12	69	56	56	54	-	48	9	54	6	47
ALIGARH	11	71	67	47	66	-	63	5	65	4	41
SONEBHADRA	7	31	29	28	27	21	3	1	30	-	27
SULTANPUR	9	55	50	39	41	7	47	14	35	1	24
BHARAICH	15	100	98	97	96	-	94	15	81	96	90
LAKHIMPUR	15	80	74	60	66	4	65	40	39	41	29
TOTAL	102	607 (100.0)	564 (92.9)	485 (79.9)	531 (87.5)	34 (5.6)	490 (80.7)	126 (20.8)	456 (75.1)	226 (37.2)	391 (64.4)

Table - 3.2.4
Coverage By Handpumps : Uttar Pradesh

District	No Of Villages Covered	Total Handpump	Avg HH Served	Accessible To All Caste Groups	Site Selection Undertaken	Site Selection Proper	Site Selection Supervised By NGO/GP	No Dispute	WSE Appointed
FIROZBAD	11	69	22.54	66	62	61	42	2	2
ETAWAH	14	89	22.88	83	21	19	15	4	-
BASTI	8	43	17.42	42	30	16	24	32	-
LALITPUR	12	69	17.93	57	25	6	23	3	-
ALIGARH	11	71	28.07	71	58	55	23	1	3
SONEBHADRA	7	31	17.9	28	25	25	14	15	-
SULTANPUR	9	55	17.38	25	41	39	40	14	-
BHARAICH	15	100	12.04	99	91	91	43	81	-
LAKHIMPUR	15	80	21.13	68	79	57	43	23	12
TOTAL	102	607 (100.0)	19.70	539 (88.8)	432 (71.2)	369 (60.8)	267 (44.0)	173 (28.5)	17 (16.7)

Table - 3.2.5
Details of Community Contribution and Maintenance of Handpumps :
Uttar Pradesh

District	No Of Villages	Total Handpump	Community Contribution In Cash	Comm Contri In Labour	Comm Cont In Cash & Labour	O&M Fund Maintained	Bank Account For O&M Fund	Care Taker Appointed	Regular Maintenance Undertaken	Caretaker Trained	H P Out Of Order In Last 6 Months	Repair HP Undertaken
FIROZBAD	11	69	15	17	19	-	-	1	1	-	37	33
ETAWAH	14	89	7	65	11	30	-	3	1	3	46	38
BASTI	8	43	1	33	5	-	-	-	-	-	7	7
LALITPUR	12	69	3	39	-	18	-	-	-	-	47	35
ALIGARH	11	71	19	17	4	4	4	7	-	-	42	39
SONEBHADRA	7	31	1	11	1	-	-	-	-	-	14	8
SULTANPUR	9	55	1	28	14	2	-	-	-	-		27
BHARAICH	15	100	-	83	8	-	-	19		7		41
LAKHIMPUR	15	80	1	41	11	10	5	17		8		16
TOTAL	102	607 (100.0)	48 (7.9)	334 (55.0)	73 (12.0)	64 (10.5)	9 (1.48)	47 (7.7)		17 (2.8)		277 (45.5)

3.3 WATER USE AND SANITATION PRACTICES

The pattern of usage of water has been studied by

- The water source used
- The purpose for which a particular source is used and
- The frequency of use of the source, implying thereby whether the source is used regularly or alternatively.

Madhya Pradesh

In case of Madhya Pradesh it has been noted that IM-II / IM III handpumps and protected wells are most popularly used by the community. A quantitative account of percentage of user for a particular source has been calculated by the purpose of use.

It was noted that the user community has significant consistency towards use of Water Sources irrespective of the purpose of use, for example, households using taps regularly for drinking water would generally tend to use tap water for other purposes such as bathing, watering cattles etc.

Similar pattern of consistency towards water sources used seasonally or alternatively due to different reasons for different purpose has been noted. Thus it may be illustrated that households having availability/accessibility of/to a particular water source would use the source for all purpose. In other words, budgeting of available water for different purpose was rarely practiced.

It may, again be inferred that the community's affiliation towards any water source used either regularly or seasonally / alternatively is largely determined by the community's attitude on water usage practice and subsequent behavior. The Table 3.3 depicts the scenario of water use by source and purpose.

Table 3.3.1
Pattern of Water Use (Regular)

Sources	Drinking/ Cooking	Bathing	Watering Cattles	Sanitation	Growing Vegetables
Tap	8.1	8.0	7.2	8.1	0.1
Tap Stand	3.9	4.2	5.0	4.1	0.06
IM II / IM III	48.3	42.3	37.4	43.7	0.8
Tara	0.5	0.5	0.5	0.5	0.03
Shallow Bore	0.3	0.3	0.2	0.4	0.06
Protected Well	24.6	26.1	23.8	26.0	2.1
Open Well	6.2	8.0	7.3	7.1	0.3

(Figs. in percentage) N = 3000

Table 3.3.2
Pattern of Water Use (Irregular)

Source	Drinking/ Cooking	Bathing	Watering Cattles	Sanitation	Growing Vegetables
Tap	1.8	2.0	2.6	1.9	0.0
Tap Stand	3.7	3.3	2.0	3.5	0.2
IM II / IM III	16.4	20.0	20.6	18.5	0.3
Tara	0.1	0.1	0.1	0.1	0.0
Shallow Bore	0.1	0.1	0.1	0.1	0.0
Protected Well	21.2	22.8	16.8	21.6	0.9
Open Well	5.4	7.5	6.2	7.0	0.2

(in
percentage) N = 3000

An analysis of water usage pattern has been conducted by investigating the data pertaining to regular and seasonal use of water for drinking purpose. While administering the questionnaire it was noted that 92 percent households consuming water for drinking purpose from different sources, reported to be using at least 1 water source regularly. It may be mentioned here that approximately 12 percent household appeared to be using no regular source for drinking purpose.

While analysing the frequency of use of water for drinking purpose it was noted that out of nearly 92 percent households who uses at least 1 water source regularly, 88 percent households said that they use only 1 water source regularly (i.e. they collect water regularly from one source only and may supplement the source by another source used alternatively as depicted in the matrix below).

Table 3.4
Matrix Showing Supplementary Use of Regular Water Sources

R E G U L A R	A L T E R N A T E / S E A S O N A L							
		TAP	Tap stand	IM-II/ IM-III	Tara	Shallow Bore	Protecte d Well	Open Well
	Tap	-	4	62	1	0	76	12
	Tap stand	0	-	27	0	0	21	0
	IM-II/IM-III	6	8	-	0	1	337	77
	Tara	0	0	2	-	1	5	2
	Shallow Bore	0	0	1	0	-	2	0
	Protected Well	6	6	122	0	0	-	7
	Open Well	1	2	22	0	0	0	-

(Absolute figures)

It may be noted that nearly 23 percent (337 out of 1449) of those who use IMII/MIIII regularly supplement their requirement by using the protected well to a large extent (76 percent). Again about 16 percent (122 out of 740) of those households using protected well regularly use the deepbore handpump seasonally but in substantial proportion (52 percent). Thus there apparently exists a relationship of dependency between IM II / IM III handpumps and protected well. It was noted that the regular users of IM II / IM III handpumps also use unprotected wells (5 percent).

The analysis further reflected that nearly 11 percent households (341 out of 3000) did not identify any water source, from which they collected water *regularly*. Those households responded that they collected water seasonally from different sources as depicted in the table 3.4.

Table 3.5
Reasons for Using Water Sources Seasonally : Madhya Pradesh

Reasons	Tap	Tapstand	IM II / IM III	Tara	Shallow Bore	Prote cted Well	Open Well
Non Functional	22	33	88	-	02	21	05
Physically inaccessible	24	63	326	02	02	254	77
Socially inaccessible	01	15	30	-	-	30	06
Seasonal water supply		01	18	01	-	117	63
Unaware of safe source		01	11	-	-	09	03
Breakdown of system	03	08	50	02	-	187	46
Source is crowded		02	36	-	-	43	07
Insufficient water supply	12	10	48	-	-	37	16
Alternate unsafe source is nearer		01	09	-	-	06	03
Water does not flow from source	01	-	03	-	-	07	06
Hard water		02	16	-	-	07	-
Poor electricity supply	01	02	-	-	-	-	-
Total (N)	66	138	635	05	04	718	232

(Absolute numbers : Multiple response)

It has been noted that nearly 50 percent households using taps and about 30 percent households using either standposts or deepbore handpump use these sources seasonally since they are non functional at times. Another about 23 percent, 12 percent and 17 percent users of tap, tapstand and deepbore handpumps respectively use the source irregularly since water supply is irregular from these sources.

It may be pointed out that with the existing physical accessibility of the tapstands and deepbore handpumps an improved functional status of these water sources and regularised water supply would ensure regular use.

Uttar Pradesh

The water usage pattern by purpose in Uttar Pradesh depicts marked consistency in adherence towards a water source across purpose for which water is used. The use pattern for different purpose regularly and seasonally / alternatively is depicted in table 3.6.1 & 3.6.2.

Table 3.6.1
Pattern of Water Use (Regular)

Source	Drinking/ Cooking	Bathing	Watering Cattles	Sanitation	Growing Vegetables
Tap	4.3	4.4	3.2	4.2	0.6
Tap Stand	4.0	4.1	3.4	4.0	0.1
IM II / IM III	41.2	39.9	34.5	39.5	0.3
Tara	0.1	0.1	0.05	0.1	-
Shallow Bore	28.0	27.9	24.9	27.9	0.3
Unprotected Well	1.1	1.1	0.9	0.9	0.05
Open Well	20.3	21.4	21.1	22.0	-

(in Percentage) N = 3750

Table 3.6.2
Pattern of Water Use (Irregular)

	Drinking/ Cooking	Bathing	Watering Cattles	Sanitation	Growing Vegetables
Tap	0.5	0.5	0.5	0.5	0.05
Tap Stand	1.4	1.5	1.4	1.4	0.1
IM II / IM III	12.0	12.1	10.7	12.0	0.08
Tara	0.02	0.02	0.02	0.02	-
Shallow Bore	3.3	3.4	2.9	3.4	0.02
Unprotected Well	0.2	0.2	0.2	0.2	-
Open Well	15.7	15.8	14.0	15.7	-

(in percentage) N = 3750

It may be inferred that the frequency of use of a water source is determined predominantly by availability of water. Once the facility is available regularly, the source is used regularly and when water supply is irregular the source is used to supplement the primary source. It is however apparent that the community do not budget their water requirements across water sources for different purposes. Unlike Madhya Pradesh, the percentage of households who do not use any water source regularly is negligible.

Table 3.7
Reasons for using Water Source seasonally

Reasons	Tap	Tapst and	IM II / IM III	Tara	Shallow Bore	UnProtected Well	Open Well
Insufficient Supply	08	05	-	-	02	-	05
Bad Water Quality	04	07	20	-	19	02	08
Non Functional	02	32	308	-	88	04	490
Source is too far	01	06	86	-	11	01	32
Long Que		08	06	-	03	-	06
Other	02	04	18	-	11	01	-
DK / CS	02		30	01	02	-	11
(N)	19	56	452	01	126	08	45

(Absolute numbers : Multiple response)

The most prominent reason behind alternate / seasonal use of water source in Uttar Pradesh emerged as the non functional status of the water source. There were fewer respondents who would use a water source alternatively due to lack of physical or social access to any source.

Coverage by Sanitation

In terms of coverage and use of latrines it was observed that about 21 percent of the households in MP and 16 percent in UP had latrines.

Table: 3.8
Profile of Ownership of Household Sanitary Latrine

Category	Madhya Pradesh	Uttar Pradesh
Having Latrine	20.6	15.9
Not having latrine	79.4	84.1
Total (N)	5000 (100)	3750 (100)

It was observed that in Madhya Pradesh that about 62 percent of the latrines were of the two pit model with about 26 percent that were constructed had septic tanks. In UP, on the other hand twin pit latrines and septic tanks were the predominant latrine models.

Table : 3.9
Type of latrine by income group

Type of latrine	Madhya Pradesh					Uttar Pradesh				
	Total	Income Category				Total	Income Category			
		<11	11-20	21-40	>40		<11	11-20	21-40	>40
Two pits	62.0	62.8	52.7	64.2	69.0	44.1	49.7	50.5	38.2	40.5
Septic tank	26.1	25.0	33.3	22.4	26.2	40.8	44.7	25.3	50.0	29.7
One pit	10.8	11.0	13.2	12.1	3.6	12.1	3.9	19.8	9.0	25.2
Service	0.8	1.2	-	0.9	1.2	2.2	1.1	4.4	1.9	2.7
Others	0.3	-	0.8	0.4	-	0.8	0.6	-	0.9	1.8
Total (N)	618 (100)	173 (100)	129 (100)	232 (100)	84 (100)	596 (100)	179 (100)	91 (100)	212 (100)	111 (100)

(Figures in percentages)

It may be noted that in UP about 48 percent of the BPL households had septic tanks compared to 25 percent in MP. In terms of ownership of latrine distributed across the different income groups, it was observed in both the states that the two pit latrines were adopted primarily by the BPL households and the households having an annual income between Rs 11000 - 20000.

Sanitation Use

Madhya Pradesh

In Madhya Pradesh, about 63 percent households possessing latrines use the facility regularly while nearly 17 percent use the latrine irregularly. About 20 percent households do not use the latrine despite possessing the facility.

The data reflected that 13.2 percent of the latrines surveyed belonged to the General Caste households. However out of all households using the latrine regularly (63 percent of those who possess HSLs) nearly 15 percent households belonged to the General Caste. Thus it emerged that the latrine utility rate is comparatively higher among General Caste households though their share of latrines is comparatively low.

Nearly 39 percent respondents using latrines regularly cited better hygiene as the reason behind their preference. While 38 percent respondents said safety associated with closed defecation motivated them and about 23 percent households said they prefer the HSL since it provides privacy.

Nearly, 46 percent of all households who never use the facility despite possessing the asset stated that their latrine unit is not fully constructed and hence not ready for use. An overwhelming 93.5 percent respondent (out of all households who do not use the latrine but have one) said lack of adequate supply of water prevented use of the facility.

It appeared that there is a considerable degree of adoption of latrine at the household level and the beneficiary household provided with a household latrine depicts a positive attitude to use the facility. In Madhya Pradesh there are fewer instances of non use of the facility. However there are genuine impediments such as constrained water availability or incomplete structure of the

Elaborate

unit that prevents use of the facility. If the facilities required to promote latrine usage are provided the community would exhibit higher degree of utility of latrines.

Uttar Pradesh

In Uttar Pradesh, 596 households (about 16 percent) out of a total sample size of 3750 households reported having latrines. The survey depicted that nearly 39 percent of the latrines are regularly used by the respondent households and about 13 percent households use the facility irregularly or seasonally. However, 45 percent households possessing latrines reportedly *never* use the facility.

It has been noted that about 34 percent latrines owners belonged to the General Caste while 50 percent households belonged to the Scheduled Caste households and another 14 percent user households belonged to the OBC.

It emerged that while 51 percent of all households using the facility regularly belonged to the General Caste, only 34 percent and 10 percent of all households using the latrine regularly belonged to the SC and OBC respectively. Conversely amongst households never using latrines, nearly 68 percent belonged to the Scheduled Caste while only 14 percent belonged to the General Caste.

Out of the 39 percent households using latrines regularly, about 47 percent households could not specify reasons influencing their preference towards latrine use. Between 10 to 19 percent households referred to privacy, hygiene and safety as reasons behind latrine use.

Most households using the latrine facility irregularly said that the facility becomes convenient during illness (52 percent) or is used seasonally to manifest elevated status (37 percent).

Nearly 55 percent household never using latrines said that their latrine units are not yet fully constructed. About 50 percent households said they do not use latrines due to non availability of water.

The survey findings supplemented by the field observation suggests that the community has not been adequately motivated to adhere to latrine use. However community response reflecting on the factors motivating the beneficiary suggests that there exists a latent demand for latrine at the grassroots that needs to be activated through strategic awareness generation activities and appropriate delivery mechanism.

3.4 ACCESSIBILITY AND AVAILABILITY OF WATER

The analysis on availability and accessibility of water has been conducted taking into account the trends in use of water sources over time. In the process the change in water sources used by user households has been also recorded. In the present section the user of the sources discussed above have been taken into consideration.

Table: 3.10
Availability of the present source: Trends over Time

Time line	Madhya Pradesh			Uattar Pradesh		
	Total	Main village	Tola	Total	Main Village	Tola
From the beginning	50.7	52.3	41.7	13.3	12.7	15.8
since last 5 years	23.3	22.1	30.1	44.7	44.4	45.9
since last 3 years	9.9	10.1	8.80	7.2	7.3	6.6
since last 1 years	8.2	7.5	12.2	9.4	8.7	12.1
since last 2 years	7.5	7.7	6.1	5.6	5.9	4.2
no response	.4	.3	1.1	19.9	20.9	15.5
Total(N)	2359 (100)	1997 (100)	362 (100)	3707 (100)	2990 (100)	717 (100)

In MP it has been observed that in the main village the present source has been available to about 51 percent of the households *from the beginning* compared to 13 percent in UP. In MP water was available from the beginning to nearly 42 percent of the households residing in tolas in comparison to only 16 percent in case of UP.

Table – 3.11
Availability of Present Source by income group

Period/ Income Category	Madhya Pradesh				Uttar Pradesh			
	<11	11 – 20	21 – 40	>40	<11	11 – 20	21 – 40	>40
From the beginning	50.1	50.8	49.6	56.0	12.1	12.8	13.5	16.6
Since last 5 years	23.6	22.5	24.0	21.2	42.0	47.1	45.6	47.0
Since last 3 years	8.5	9.9	11.0	10.0	6.5	6.9	7.5	8.4
Since last 1 years	10.6	9.2	7.3	3.5	8.2	14.1	9.1	7.9
Since last 2 years	6.9	6.9	7.9	8.5	5.1	5.8	5.9	5.7
No response	.3	.7	.2	.8	26.1	13.3	18.5	14.4
Total(N)	726 (100)	435 (100)	937 (100)	259 (100)	1275 (100)	548 (100)	1501 (100)	368 (100)

In MP, it was observed that water was available to about 50 percent of the BPL households from the beginning whereas in UP only about 12 percent households below poverty line are still using the water source which they have been using eternally.

Assessment was also made on the previous water sources used and levels of accessibility and adequacy of the present water source and reasons for resorting to a new source.

Table – 3.12
Previous Source of Water

(Multiple Response)

Source	Madhya Pradesh			Uttar Pradesh		
	Total	Main Village	Tola	Total	Main Village	Tola
Piped Water	2.3	2.5	1.1	.4	.4	.3
Deep bore	.8	.8	.8	1.5	1.3	2.2
Shallow bore	.8	.8	.8	5.6	5.6	5.7
Protected / Unprotected well	83.4	85.3	73.2	55.1	53.6	61.2
Not Changed	6.6	5.5	12.7	11.6	11.2	13.4
River	3.2	2.7	5.8	2.3	2.7	.6
Pond / Stream / Canal	2.6	2.3	4.4	4.4	4.9	2.1
No Response	-	-	-	24.2	24.5	23.2
Total (N)	2359 (100)	1997 (100)	362 (100)	3707 (100)	2990 (100)	717 (100)

In both the states it has been observed that high percentage of households were using (about 55 percent households in UP and nearly 85 percent in MP) water from protected / unprotected wells previously.

Table – 3.13
Access to the previous water source

Distance	Madhya Pradesh			Uttar Pradesh		
	Total	Main village	Tola	Total	Main Village	Tola
<150m	23.7	23.6	24.6	49.6	47.5	58.3
150-500m	38.4	39.1	34.5	15.2	16.1	11.7
>500m	31.6	32.4	27.1	3.7	4.3	1.4
No response	6.2	4.9	13.8	31.5	32.1	28.6
Total (N)	2359 (100)	1997 (100)	362 (100)	3707 (100)	2990 (100)	717 (100)

It was observed that nearly 24 percent of the households in MP had access to the previous water sources within a distance of 150 metres compared to about 50 percent households in UP who could access a water source within similar distance. It was also noted in MP that nearly 39 percent of the households had access to the water sources within a distance of 150 - 500 metres.

3.5 ADEQUACY OF WATER

indicator.

Table – 3.14
Adequacy of the present water supply

	Madhya Pradesh			Uttar Pradesh		
	Total	Main Vill	Tola	Total	Main Vill	Tola
Drinking Water						
Sufficient	82.2	81.8	84.0	97.4	97.6	96.2
Not sufficient	17.6	18.1	15.2	1.5	1.2	2.5
No response	.2	.1	.8	1.2	1.2	1.3
Other than Drinking water						
Sufficient	55.3	54.4	60.5	91.5	91.3	92.2
Not sufficient	44.5	45.5	38.7	7.4	7.7	6.3
No response	.2	.1	.8	1.1	1.0	1.5
Total (N)	2359	1997	362	3707	2990	717
	(100)	(100)	(100)	(100)	(100)	(100)

In MP about 82 percent of the households were of the opinion that the water available to them was sufficient while nearly 56 percent stated that adequate water was not available for purposes other than drinking. In UP majority (98 percent) of the households stated that water for drinking and other uses was sufficiently available to them. Field visit / social maps reveal that the pressure per water source was much higher in MP.

In MP about 72 percent of the households stated that they had changed their previous source of water as the present source is nearby to their habitation. Nearly 36 percent of them regarded the present source to be more safe. In MP, nearly 16 percent of the households also stated that the present source was more dependable.

In UP about 48 percent of the households had changed to the present source as they felt that the water from the present source was safe. It was recorded that 47 percent of the households had resorted to the present source as it was nearer to their habitation.

CHAPTER – IV

COMMUNITY BASED OPERATIONS AND MAINTENANCE OF RURAL WATER SUPPLY AND SANITATION

4.1 VILLAGE LEVEL INSTITUTIONS TO MANAGE WATER SUPPLY PROGRAMES AND FUND GENERATION TO SUPPORT THE PROGRAMME

This chapter attempts to make an assessment of the extent of community participation that existed in the planning, implementation and O& M phases of the programme, community's knowledge about the existence of the village water committees and its willingness to participate in the programme.

Table – 4.1
Profile of Community Participation during installation of handpump / piped water supply

Category	Madhya Pradesh	Uttar Pradesh
Participated	7.5	28.6
Not participated	92.5	71.4
Total (N)	3000	3750
	(100)	(100)

(Figures in Percentages)

It was observed in MP that only 7.5 percent of the households had participated during installation of the handpumps /piped water supply compared to about 29 percent in UP. However, it may be noted that in both the states the level of community participation during installation of the facilities was on the lower side.

Table 4.2
Community Participation during different phases of the program
(Multiple Response)

Phases of the Program	Madhya Pradesh	Uttar Pradesh
Implementation	96.0	93.9
Planning	28.6	9.1
Operation & Maintenance	17.9	6.5
Total (N)	224	1072
	(100)	(100)

In both the states of MP and UP, out of the households who had confirmed their participation during physical installation / spatial distribution of the facilities, majority had participated during the time of implementation as shown in the table above. In MP, financial participation of the households during the different phases of planning, operation and maintenance was recorded to be higher than that of Uttar Pradesh.

Table – 4.3
Financial Contribution of the User Households during
different phases of the program

Phases of the program		(Multiple Response)	
		Madhya Pradesh	Uttar Pradesh
Implementation	Financial	35.8	9.1
	Labour	61.4	74.5
	Both	-	13.9
	Total (N)	215 (100)	1007 (100)
Planning	Financial	93.8	20.0
	Labour	6.2	70.1
	Both	-	9.9
	Total (N)	64 (100)	70 (100)
O & M	Financial	85.0	60.2
	Labour	15.0	39.8
	Total (N)	(100)	(100)

In UP, the proportion of households participating during the implementation and planning phase was observed to be particularly low. However, in UP instances of financial contribution and labour for O&M was witnessed.

In MP and UP the supervision work during the planning stage was observed to be the prime task of the Gram Panchayat. The Gram Panchayat in Madhya Pradesh is effectively responsible for O&M of water supply. In Uttar Pradesh a Government Order has been passed to hand over the responsibility of O&M to the Gram Panchayat but the process has not yet been implemented.

The study revealed that in both the states of MP and UP the number of village water committees were very few. Nonetheless, an attempt was made to develop an understanding of the village water committee that existed in the sample villages.

Table – 4.4
Profile of Grassroots Institutions

	Madhya Pradesh	Uttar Pradesh
Existence of VWSC		
Yes	3.9	14.2
No	96.1	83.8
No response	-	2.0
Total (N)	76 (100)	148 (100)
Training of VWSC under RWSS		
Yes	28.9	58.1
No	71.1	41.9
Total (N)	76 (100)	148 (100)

It was observed in UP that nearly 15 percent of the households had stated that there was a VWSC in their village compared to only 4 percent households in MP.

In UP about 60 percent of the households and 30 percent in MP were of the opinion that training of VWSC under the RWSS was given. In both the states, none of the household members who were interviewed had received training under the programme.

Table – 4.5
Participation in maintenance and upkeep of water points

Maintenance / upkeep	Madhya Pradesh	Uttar Pradesh
Yes	3.9	11.5
No	96.1	88.5
Total (N)	76 (100)	148 (100)

Participation by the households in the maintenance and upkeep of the water points was observed to be negligible in both the states.

Fund Management

This section attempts to ascertain the fund management process existing at the community level for the upkeep and maintenance of the facilities.

Table – 4.6
Profile of Fund Management

Agents/Agencies	(Multiple Response)	
	Madhya Pradesh	Uttar Pradesh
DK / CS	37.1	42.7
By the users	15.4	34.6
No breakdown	-	12.4
Paid by Jal Nigam	-	5.6
Panchayat Fund	37.1	2.9
Still not repaired	-	1.0
Paid from VWSC	1.1	0.3
Paid from WCL	13.1	-
Paid from PHED	.8	-
Total (N)	3000 (100)	3750 (100)

(Figures in Percentages)

In MP it was observed that funds for maintenance and repair came primarily from the panchayat fund in addition to funds pooled together by the users, PHED and Western Coalfield Limited. While in UP funds came from the users themselves further supplemented by the funds from the Jal Nigam and the Panchayat.

Table – 4.7
Profile of Capacity Building of the Community

Category	Madhya Pradesh	Uttar Pradesh
Trained	7.4	4.3
Not Trained	92.6	95.7
Total (N)	3000	3750
	(100)	(100)
Whether mechanic resides in the village		
Yes	96.4	83.1
No	3.6	16.9
Total (N)	221	160
	(100)	(100)
Whether the mechanic is easily accessible		
Yes	50	66.7
No	50	33.3
Total (N)	8	27
	(100)	(100)

In MP about 8 percent of the households and nearly 5 percent in UP confirmed that community level mechanic were trained under the RWSS programme.

Out of the households who had stated that community level mechanic were trained under the RWSS, majority were of the opinion that the mechanic stayed in their villages.

In both MP and UP accessing the community level mechanic who do not reside in the villages was not considered a major problem.

Table – 4.8
Provider of Training

Agents	(Multiple Response)	
	Madhya Pradesh	Uttar Pradesh
PHED	38.9	26.9
Panchayat	23.5	8.1
NGO	.5	20.0
Others	11.8	1.3
No response	28.5	43.8
Total (N)	221	160
	(100)	(100)

It was observed in MP the training programme for the mechanics was conducted by the PHED and the panchayat while in UP it was conducted by Jal Nigam and NGOs.

Table – 4.9
Status of Water Tariff payment

	Madhya Pradesh	Uttar Pradesh
Aware	13.1	8.5
Not Aware	86.9	91.5
Total (N)	3000	3750
	(100)	(100)
Paying	93.4	81.6
Not paying	6.6	18.4
Total (N)	393	320
	(100)	(100)

Out of the total sample households about 13 percent in MP and nearly 9 percent in UP reported that water tariff was collected. It should be noted that water tariff is only collected for piped water supply. It was observed in both the states that the households who were aware of water tariff, majority of them paid water tax.

Table – 4.10
Collections of Water Tariff

Collecting authority of water tariff	Madhya Pradesh	Uttar Pradesh
Sarpanch	13.5	-
Panchayat member	76.8	-
Members of VWSC	.8	-
Caretaker of HP	1.0	.3
Pump operator	6.1	76.9
Village informer	.8	-
WCL	.3	-
No response	.8	22.8
Total (N)	393 (100)	320 (100)

It was observed in MP that the authority for collecting water tariff rested on the panchayat members and the sarpanch. There were instances where the pump operator or the caretaker of the pumphouse was assigned the task of collecting water tariff. However in UP, the task of collecting water tariff was the job of the pump operator.

Table – 4.11
Status of Fund management

	Madhya Pradesh	Uttar Pradesh
Fund management procedure		
Kept with the panchayat	59.0	-
DK /CS	37.7	95.0
Deposited in Bank	2.8	.6
Kept with the pump operator	.5	4.4
Total (N)	393	320
	(100)	(100)
Fund Utilisation		
DK/CS	75.6	97.8
O & M of water system	22.4	1.6
Reasons unknown to community	1.8	.6
Total (N)	393	320
	(100)	(100)
Decision regarding expenditure		
DK/CS	67.7	100
Any functionary	29.3	-
Collective decision	3.1	-
Total (N)	393	320
	(100)	(100)

In MP it was observed that after the collection of the funds for O & M, the money was predominantly kept with the panchayat with fewer instances of being deposited in the bank. Although majority of the households who were aware of water tariff payable for consuming water, only a few household was aware of its utilisation procedure. Nonetheless, some of the households were of the opinion that funds were utilised for O& M of the water system. Most of the households were unaware about the decision making process involved on the issue of expenditure of the generated funds with only 30 percent suggesting that decision was taken by *any functionary*.

In UP, on the other hand majority of the households were unaware of the fund management procedure with a limited number of households stating that the funds were kept with the pump operator of a piped water supply system. A similar scenario is observed in UP with regard to the fund utilisation process. None of the households in UP could comment on the decision making process on the issue of expenditure.

4.2 COMMUNITY PARTICIPATION IN O&M OF WATER PROGRAMME

The operation and maintenance scenario of the rural water supply has been analysed with specific reference to community involvement and participation. Community participation in O & M requires prior mobilisation and sensitisation of the community and also capacity building of the community to adopt a participatory role. This warrants a process of facilitation wherein the community can be encouraged to adopt a facilitatory role.

The present study brings into disquisition the profile of community participation in O & M wherein no facilitator or NGO involvement has been witnessed. The survey depicted that nearly 59 percent respondents said that the handpump they use had a breakdown in the last 6 months. Nearly 55 percent of the handpumps reported breakdown more than once.

In 97 percent cases of breakdown of handpumps the community identified the nature of breakdown. The responses depicted that 28 percent breakdowns of handpumps had complains below ground level whereas about 69 percent breakdowns had faults above the ground level.

It has observed that in majority of cases (84.5 percent) the repair of the breakdown hand pumps is undertaken by the mechanic from PHED. It has also been noted that in about 65 percent cases the Gram Pradhan informed the mechanic and 37 percent respondents said that the user community informed the concerned authority regarding the breakdown.

It has been recorded that in about 38 percent cases the downtime required by the PHED mechanic had been less than a week and 43 percent repair work has been undertaken in between a week and 15 days. The downtime in cases where private mechanics are involved is comparatively less.

Similar to handpump villages, the Gram Sarpanch on the user community primarily inform the community regarding breakdowns in the piped water supply system. The downtime for repair of piped water supply system in 46 percent cases has been less than a week and in case of nearly 39 percent cases has been between 1 week and 15 days.

Piped water supply being a sophisticated version of water supply can entertain community participation with confined scope. As depicted in the table most of the repair job has been undertaken either by the PHED mechanic or staff of the pumphouse.

In UP only about 27 percent respondents out of 89 percent of the total valid responses (3339 out of 3750) recalled breakdown in handpump in the last 6 months.

About 50 percent of those who could recall a case of breakdown said such cases occurred only once in the last 6 months. Another about 34 percent respondents said breakdown of handpumps occurred twice in the last 6 months.

While about 50 percent repairs were undertaken by the Jal Nigam mechanics a significant 25 percent repair of handpumps were attended by private mechanics. Another important role player in UP appeared to be the mechanic or caretakers trained under different WATSAN programs in the state. Caretakers under this category were involved incase of repair of nearly 12 percent handpumps.

The downtime for repair undertaken by the mechanics trained under different WATSAN programs as witnessed particularly in the terai region is less than 1 week in 92 percent cases. The Jal Nigam mechanic in about 57 percent cases repaired a breakdown handpump in less than a day.

In the handpump villages the awareness and the involvement of the community regarding informing the authority regarding cases of breakdown appeared to be comparatively low. However, in the villages served by piped water supply system the awareness level was reportedly high.

Nearly 73 percent respondents said cases of breakdown of handpump were reported by the user community and about 43 percent of the complaints were lodged in the block office.

Community participation in repair of the piped water system was noticed in nearly 15 percent cases, however most repair jobs were undertaken by the Jal Nigam mechanics or JE.

4.3 FACILITATION IN LATRINE CONSTRUCTION

Table 4.12
Motivation for constructing latrine (Multiple response)

Agents	Madhya Pradesh	Uttar Pradesh
Panchayat / panchayat member	61.0	23.3
Gram Sevak	5.2	7.4
Member of NGO	31.4	23.3
Teacher	8.7	18.5
Self	59.5	8.7
AWW/ ANM	8.6	6.7
Family Member	18.0	5.4
Neighbour	45.0	40.6
Trained mason	12.9	5.0
Engineer	22.8	-
No response	1.8	-
Total (N)	618 (100)	596 (100)

The study revealed that in MP the panchayat and the peer pressure/ neighbors played a major role in motivation for latrine construction. Instances of self motivation and neighbours influence was seen quite predominant in MP. Whereas in UP, most of the users stated that they were motivated by their neighbours. The role of the NGOs, the Panchayat and teachers in motivation for latrine construction is also significant. The latrines surveyed in both States were disbursed under the CRSP program

Table - 4.13
Facilitator for site selection

(Multiple response)

Agents	Madhya Pradesh	Uttar Pradesh
Panchayat	66.7	41.4
Motivator from NGO	2.7	1.7
Motivator from Govt	12.0	29.3
Village motivator	9.3	12.1
Motivator from RSM	1.3	-
Contractor	12.0	-
Family members	2.7	1.7
No response	4.0	3.4
Total (N)	75 (100)	58 (100)

Only 75 households in MP and 58 households in UP had taken *external* help for the selection of sites for latrines. In both the states it was observed that the Panchayat took lead in facilitating the process of site selection for latrine construction followed by the motivators from the Government departments.

Table – 4.14
Criteria for site selection

(Multiple response)

Criteria	Madhya Pradesh	Uttar Pradesh
Proximity from house	77.3	8.2
Light / Ventilation	7.9	.2
Privacy for women	48.9	6.4
Proximity from water source	8.3	1.8
Availability of vacant land	-	90.3
Prevention from odour	1.1	-
Easy access during monsoons	0.2	-
No response	1.0	-
Total (N)	618 (100)	596 (100)

It was recorded in MP that proximity to the house was considered as the major criteria for the site selection of latrines. Privacy for women was regarded an equally important criteria. While in UP, availability of vacant land was considered the most important factor for site selection.

Table – 4.15
Cost of latrine by income category

Cost of latrine	Madhya Pradesh				
	Total	<11000	11 – 20	21 – 40	>40
			(‘000)	(‘000)	(‘000)
less than Rs 2500	3.7	4.1	4.7	3.0	3.6
2500 – 2700	48.5	38.4	48.1	50.4	65.5
2701 – 3500	18.1	23.8	12.4	19.8	10.7
More than 3,500	18.8	24.4	21.7	16.8	8.3
DK / CS	10.9	9.3	13.2	9.9	11.9
Total(N)	618 (100)	172 (100)	129 (100)	232 (100)	84 (100)
	Uttar Pradesh				
	Total	<11000	11 – 20	21 - 40	>40
Less than Rs 500	10.7	15.1	11.0	9.0	7.2
500 – 1500	10.6	8.4	12.1	11.8	10.8
1501 – 2500	8.6	7.3	7.7	9.4	9.0
2501 – 3500	13.3	7.8	15.4	14.6	18.0
3501 – 5000	7.7	2.8	11.0	8.5	11.7
>5000	48.3	50.7	40.7	46.2	41.4
No response	0.8	7.9	2.1	0.5	1.9
Total (N)	596(100)	179(100)	91(100)	212(100)	111 (100)

It has been observed in MP that majority of the households had opted for latrines costing between Rs 2500 - 2700 while in UP the majority owned very high cost latrines (more than Rs 5000).

In MP, it was observed that out of the total latrines constructed nearly 54 percent had taken loan from the government and about 99 percent of such households stated that the Panchayat / Panchayat members had facilitated in getting loans. *claims*

Table - 4.16
Reasons Motivating Latrine Construction (Multiple Response)

Reasons	Madhya Pradesh	Uttar Pradesh
By seeing neighbours latrine	80.1	3.5
Privacy for women	52.6	48.2
Problem of open defecation during rainy season	40.3	30.4
High Subsidy	32.2	23.2
No response	-	4.9
For safe personal hygiene	28.5	20.8
For keeping fuel wood	20.6	-
Safe for old and sick	16.8	26.8
Can afford cost	12.1	1.3
Status Symbol	10.7	6.9
Provided free of cost	9.9	19.5
Installment facility	5.7	.7
Safe for handicapped	.3	-
Total (N)	618 (100)	596 (100)

In MP it was observed that demonstration effect of the community has in effect increased spread of latrines in the rural areas. Privacy for women and high subsidy was also considered important motivating factors in both the states of MP and UP.

Table - 4.17
IEC tools used to promote latrine Multiple Response

IEC Tools	Madhya Pradesh	Uttar Pradesh
No such activities	79.4	64.9
Group Meeting	9.4	16.9
No response	6.1	6.0
House visit	4.0	2.0
Audio Visual Show	1.1	1.5
Leaflets / Pamphlets	.6	3.4
Wall writing	.3	4.4
Street Plays	.2	.8
By the masons	-	2.2
Total (N)	618 (100)	596 (100)

In both the states of MP and UP, it was observed that the majority of the latrine owners were of the opinion that IEC activities for the promotion of latrine-use was not undertaken in their villages. However, a very small proportion of the households in both the states reported of house visit, group meetings, wall writing being undertaken in their villages.

Table – 4.18
Agents Constructing The Latrine

Agents	Madhya Pradesh	Uttar Pradesh
Private contractor	29.0	4.4
Trained masons under RWSS	27.0	13.6
Masons from outside	20.2	60.1
Government Agency	14.6	17.3
No response	6.3	2.0
Masons from the village	1.6	-
Family member	1.1	1.8
Not yet completed	.2	-
Total (N)	618 (100)	596 (100)

In MP, it was observed that latrines were constructed by the private contractors, trained masons under the RWSS and by private masons. In UP, private masons dominated the latrine construction scenario.

Non-users of Latrines

Households who didnot have latrines preferred openair defecation as observed in 97 percent of the households in UP. In MP nearly 86 percent of the households practised open defecation. Use of neighbours latrine or community latrine was seen to be a rare case in both the states.

It must be noted that in MP about 83 percent of the nonusers of latrines and nearly 80 percent in UP were willing to opt for latrines in the future.

Table – 4.19
Willingness to Construct Latrine

	Madhya Pradesh	Uttar Pradesh
Willing	82.3	79.4
Not willing	17.7	20.6
Total (N)	2382	3154
	(100)	(100)

In MP most of the households (40 percent) wanted to opt for latrines due to problems faced during the rainy season and problems of travelling long distances for open defecation. However in UP the willingness of the people to opt for latrine was commendable but the households failed to state specific reasons behind their choice of latrines in lieu of open defecation.

In both the states of MP and UP more than 98 percent of the households who didnot have latrines needed external assistance for construction of HSLs.

Table – 4.20
Need for External Assistance

Agents	Multiple response	
	Madhya Pradesh	Uttar Pradesh
Govt	98.5	97.2
Panchayat	1.2	.2
No response	1.1	3.4
NGO	.9	1.7
Relatives / friends	.3	.4
Neighbour	.1	.6
Total (N)	1967 (100)	2503 (100)

In both the states of MP and UP majority of the households who needed assistance in constructing latrines expected assistance from the government.

Table – 4.21
Reasons for Non-adaptation of Latrines

Reasons	Madhya Pradesh	Uttar Pradesh
Shortage of Fund	28.3	43.9
Space Problem	35.4	24.1
Habituated with open defecation	35.9	21.4
Not a necessity	-	18.4
DK/CS	3.3	4.0
Bad smell in the house	5.9	1.8
Scarcity of water	2.9	.5
Loan facility from Govt	-	.3
Stay in rented house	1.7	-
Kutcha house	1.2	-
Total (N)	421 (100)	651 (100)

In both the states it was observed that majority of the households regarded shortage of funds, lack of space and habit of open air defecation to be the major impediment for not having plans for HSLs in the future.

4.4 MAINTENANCE OF LATRINES

Table – 4.22
Year of Constructions of Latrine

(in percentage)	Madhya Pradesh	Uttar Pradesh
Year		
Before 1990	16.3	8.1
1990 –93	10.0	8.6
1993 – 94	7.9	7.9
1994 – 95	15.5	10.4
1995 –96	18.3	17.6
1996 – 97	31.6	46.1
DK / CS	.3	1.3
Total (N)	618 (100)	596 (100)

In both the states of MP and UP the majority of the latrines were constructed during the year 1995 - 97.

Table 4.23
Location of Latrine

(in percentage)	Madhya Pradesh	Uttar Pradesh
Location		
Outside <10mts	47.1	43.8
Adjacent to house	24.1	26.2
Inside house	16.7	21.3
Outside >10mts	11.7	8.7
No Response	.5	-
Total (N)	618 (100.0)	576 (100.0)

It was observed that in both MP and UP majority of the latrines were located outside the house but within a distance less than 10 metres. There were also instances of latrines located inside the house in both the states.

Table - 4.24
Frequency of Latrine Cleaning

(in percentage)	Madhya Pradesh	Uttar Pradesh
Frequency		
Once in a week	23.6	11.1
Never	19.7	41.1
Regular	16.8	25.0
When dirty	12.6	7.6
2-3 in a week	11.8	13.1
Infrequently	15.5	2.1
Total (N)	618 (100.0)	576 (100.0)

In terms of maintenance of the latrines it was observed that in MP most of the households cleaned the latrines once a week while in UP most of the households were of the opinion that they never cleaned the latrines. However, in UP there were some households who cleaned the latrines regularly.

It was observed in MP that about 47 percent of the households cleaned the pan/pantrap of their latrines only with water. Water and phenyl /soap/ acid was also used by some of the households for cleaning purposes.

Table – 4.25
Materials Used for Cleaning Latrine

Cleaning Materials	Madhya Pradesh	Uttar Pradesh
Only water	46.6	-
Water & phenyl	28.8	-
Water & soap	21.6	-
Water & acid	13.9	-
Water & sand	.4	-
No response	.2	100
Total (N)	496 (100)	351 (100)

Upgradation of Latrines

With respect to the question of upgradation made on the existing latrine structure it was observed in MP that only 17 percent of the households had invested an additional amount compared to only 9 percent households in UP who had latrines. It is evident that very little incremental investments has been made on the latrines provided to the user community.

Table 4.26
Upgradation of Latrines

(in percentage)	Madhya Pradesh					Uttar Pradesh				
	Total	Income category				Income category				Total
		<11	11 - 20	21 - 40	>40	<11	11 - 20	21 - 40	>40	
Painting of walls	54.2	39.4	56.5	67.5	45.5	11.1	25.0	11.8	61.1	30.4
Interior improvement	31.8	33.3	34.8	27.5	36.5	33.3	8.3	5.9	16.7	14.3
Bricked superstructure (no roof)	24.3	21.2	26.1	22.5	36.4	11.1	16.7	11.8	11.1	12.5
No upgradation	15.0	15.2	21.7	7.5	27.3	-	-	-	-	-
Roof	14.0	27.3	4.3	7.5	18.2	11.1	8.3	5.9	22.2	12.5
Painting of door	13.1	9.1	8.7	12.5	36.4	11.1	16.7	-	16.7	10.7
Outside improvement	11.2	15.2	13.0	7.5	9.1	11.1	8.3	5.9	-	5.4
Temporarily structure with door	8.4	12.1	4.3	10.0	-	11.1	8.3	5.9	22.2	12.5
With door -no roof	7.5	3.0	8.7	10.0	9.1	33.3	-	11.8	11.1	12.5
Tap connection	3.7	3.0	-	5.0	9.1	-	-	11.8	5.6	5.4
Construct septic tank	.9	-	4.3	-	-	-	-	-	-	-
No response	-	-	-	-	-	11.1	16.7	11.8	5.6	10.7
Change sheet	-	-	-	-	-	11.1	-	11.8	11.1	10.7
Separate HP for latrine	-	-	-	-	-	11.1	-	-	16.7	8.9
Total (N)	107	33	23	40	11	9	12	17	18	56

CHAPTER - V

KNOWLEDGE, ATTITUDE AND PRACTICE OF SAFE DRINKING WATER AND HEALTH SCENARIO

Access to safe and adequate drinking water has long been recognised as a leading step towards achievement of Health for All by the year 2000 AD. It should also be noted that not only access to safe drinking water but also the awareness and knowledge of the community play a pivotal role in the rural community health. This chapter deals with Knowledge, Attitude and Practice (KAP) of the community towards safe drinking water as well as prevalence of water borne diseases in the study area

5.1 KAP OF SAFE DRINKING WATER

In order to draw inference about KAP of safe drinking water, a total of 6,750 households across the two states were interviewed. Results were summarised in the subsequent tables.

Table - 5.1
Collections of Drinking Water (% response)

	Madhya Pradesh	Uttar Pradesh
Store drinking water in separate vessel	99.5	86.7
Clean vessel prior to storing water	99.4	97.9
Cover vessel after fetching water	5.3	3.0
Base (No. of HHs)	3,000	3,750

From the above table it was clearly understood that in both the states almost all the sample households used to collect drinking water in a separate vessel as well as they cleaned the vessel prior to storing water. However, in both the states it has been observed that only a negligible proportion of the sample households covered vessel after fetching water, showing considerably lower level of awareness of safe drinking water.

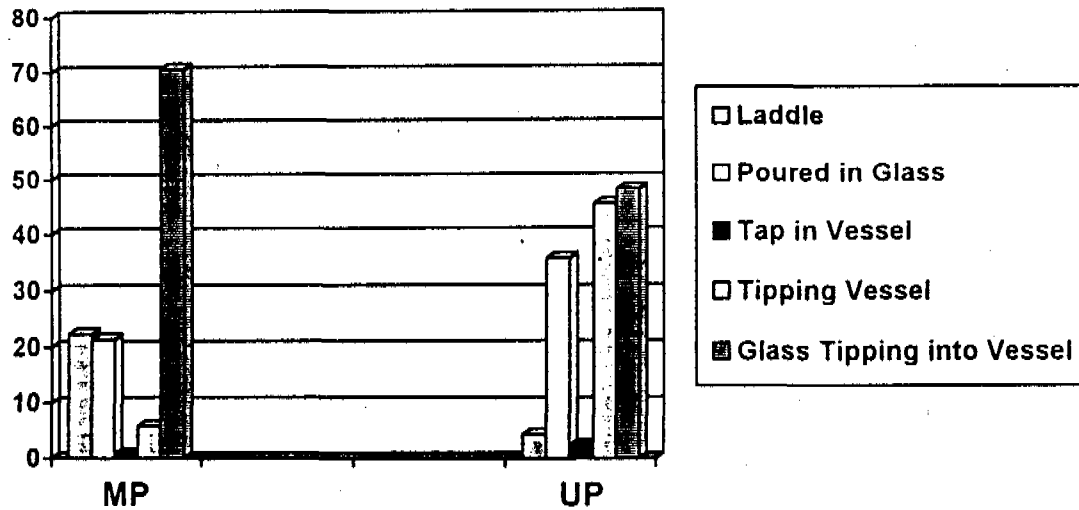
Table - 5.2
Storing of Drinking Water at Household Level (% response)

	Madhya Pradesh	Uttar Pradesh
Drinking water kept		
On floor	52.1	77.0
On raised platform	47.9	23.0
Type of vessel for storing water at house		
Broad mouth	90.7	74.7
Narrow mouth	4.3	24.8
Both	5.0	0.5
Base (No. of HHs stored water in house)	2951	3481

Almost all the sampled households stored drinking in house. It has been observed that more than half of the households in MP kept water on a raised platform, while only one-fourth of the households from UP were practicing the same. Almost all the sample households from MP

reported that they stored water in a board mouth vessel in comparison with three-fourth of the sample households from UP.

Diagram – 5.1
Water Taken out Practice



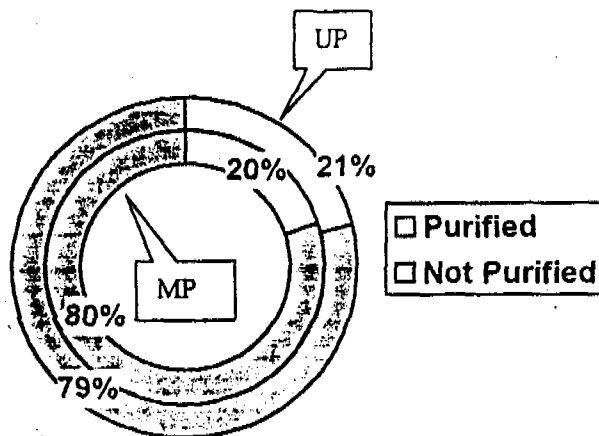
From the above diagram it has been understood that in MP, majority (70.6%) of the households were used to taking out water from the vessel by tipping glass into it, indicating the high degree of prevalence of unhygienic practice. The situation is comparatively better in UP.

Table – 5.3
Water Purification at Household Level

	Madhya Pradesh	Uttar Pradesh
Cloth filter	51.9	6.5
Boiling water	1.9	0.5
Purification tablets	1.9	0.9
Candle filter	0.4	0.2
Sieve	0.1	0.0
Never purify	46.6	91.1
Base (total no. of HHs)	3,000	3,750

As far as the purification of water at household level is concerned the scenario of UP was quite worse than that of MP. More than half of the sample household from MP reported that they used to purify water at house and majority of them used only cloth filter, while in UP only one-tenth of the sampled household reported to be used purification at house and which was again by using cloth filter.

Diagram – 5.2
Village Level Water Purification



In both the states of Madhya Pradesh and Uttar Pradesh only one-fifth of the respondents opined that village level water purification was done in their villages. Out of which majority (77.4%) from MP and (80.7%) from UP were purified by using bleaching powder followed by regular cleaning of water sources like well. Further analysis revealed that in MP near about 40 per cent of the purification work had been done by the representatives from the PHC/CHC followed by 26.3 per cent by the users of source. However, in UP the major responsibility of water purification had been shared by the users followed by ANM and representatives from CHC/PHC.

5.2 HEALTH SCENARIO

The survey data revealed that the prevalence of water borne diseases was more or less same in both the states (6.25 percent for MP and 6.5 percent for UP). Amongst other water borne diseases diarrhoea was most prevalent in both the states in the younger age group, however, in comparison to UP the intensity of diarrhoea affected persons was quite high (55.7 percent) in MP. Details are illustrated in the table given below.

Table – 5.4
Age Group wise Affected Persons (in percentage) by Different Water Borne Diseases

	<i>Madhya Pradesh</i>					<i>Uttar Pradesh</i>				
	<5	5-15	16-39	40-59	60+	<5	5-15	16-39	40-59	60+
Diarrhoea	28.9	21.8	26.8	14.0	8.5	31.3	16.8	32.7	11.8	7.4
Dysentery	9.3	19.6	39.2	20.6	11.3	17.3	12.0	33.8	24.9	12.0
Cholera	16.7	18.6	46.2	14.8	3.7	10.1	16.3	43.3	18.7	11.6
Jaundice	3.2	25.8	51.7	16.1	3.2	9.2	10.8	50.8	26.1	3.1
Worm Infec.	4.8	22.6	50.0	16.1	6.5	16.7	25.0	45.8	12.5	0.0
Tuberculosis	7.8	19.6	41.3	23.5	7.8	10.2	23.4	35.8	17.7	12.9
Skin disease	25.0	0.0	75.0	0.0	0.0	28.0	17.0	35.6	13.5	5.9

As far as treatment seeking behaviour of the community is concerned it has been found that near about 5.9 per cent from MP and about 6.3 per cent from UP did not tried out for any kinds of treatment. However, about 2.1 per cent from MP and 1.2 per cent from UP had been taken home remedies out of those who never tried for any treatment. More interestingly, in both states majority of the sample respondents had been reported that they had consulted private practitioner, indicating lack of faith on the government health services. The scenario was slightly better in case of UP. (see table 5.5)

Table – 5.5
Treatment Seeking Behaviour (in %) of the Respondent

Type of Doctors Consulted	Madhya Pradesh	Uttar Pradesh
Allopathic (govt.)	18.0	23.0
Allopathic (pvt.)	71.8	25.5
Non-allopathic (govt.)	1.8	20.7
Non-allopathic (pvt.)	3.1	4.8
Pharmacist/Chemist	1.5	1.8
CHC/PHC/Sub-centre	1.4	13.6
MPHW/AWW	0.0	9.4
Home remedies	2.1	1.2
Base	650 (96.2)	1471 (94.9)

Table - 5.6
Type of Medicines Taken (in %)

Type of Medicines	Madhya Pradesh	Uttar Pradesh
ORS	26.1	7.8
SSS	10.9	1.4
Others	13.9	7.2
DK/CS	49.0	83.6
Base	675	1550

Majority of the sample respondents express their non-familiarity about the type of medicines they had taken. This was more in case of UP than MP. About one-fourth of the respondent had taken ORS in MP out of those who affected by diarrhoea in MP in comparison to only 7.8 per cent of UP.