RAPID RURAL WATER SUPPLY AND SANITATION ASSESSMENT: MANIPUR

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Indicus Analytics

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LIST OF ABBREVIATIONS

ARWSP	Accelerated Rural Water Supply Programme
ADC	Autonomous District Council
BPL	Below Poverty Line
BMS	Basic Minimum Services
CRSP	Central Rural Sanitation Programme
DWSC	District Water Supply and Water Conservation Committee
DWSM	District Water and Sanitation Mission
FC	Fully Covered
lpcd	Litres per capita per day
GoM	Government of Manipur
GoI	Government of India
IHHL	Individual Household Latrines
IEC	Information Education and Communication
Ltrs.	Litres
MNP	Minimum Needs Programme
MoU	Memorandum of Understanding
MoRD	Ministry of Rural Development
NC	Not Covered
NGO	Non-Governmental Organization
O&M	Operation and Maintenance
OHSR	Overhead Service Reservoir
PHED	Public Health Engineering Department
PRI	Panchayati Raj Institutions
PMGY	Pradhan Mantri Gramodaya Yojna
PC	Partially Covered
RWSS	Rural Water Supply and Sanitation
RSM	Rural Sanitary Mart
RGNDWM	Rajiv Gandhi National Drinking Water Mission
SWSM	State Water and Sanitation Mission
SRP	Sector Reform Project
TSC	Total Sanitation Campaign
VWSC	Village Water and Sanitation Committee
WATSAN	Water and Sanitation Committee
WSC	Water and Sanitation Committee
WSS	Water Supply and Sanitation
WSM	Water and Sanitation Mission
ZP	Zilla Parishads

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Details

A. EXECUTIVE SUMMARY

Context for the Sector Assessment: The RWSS sector in the country is currently undergoing a major shift, arising out of the realisation that the past approach to the provision of RWSS services had inherent drawbacks that need to be addressed. Overall, it may be said that there has been increasing recognition of the fact that the traditional supply-driven approach did not result in a sustainable RWSS system that could over a period of time ensure that the entire rural population had access to safe drinking water and sanitation facilities. This fact was being reflected in periodic surveys that showed that many villages covered under water supply schemes tended to slip back into the category of not covered (NC) or partially covered (PC).

To address the shortcomings of the supply-driven approach, reforms in the RWSS sector were introduced through sector reform projects taken up in 67 districts in 1999. These pilot projects focused on involving the user community in the planning and execution of water supply projects, building commitment to the projects through community contribution to the capital cost of projects and devolving full responsibility for the O&M of projects to the user community after completion of the projects. Based on the experience of the pilot projects, the Government of India launched the Swajaldhara in 2002 to extend sector reforms to the entire country.

A key aspect of Swajaldhara is that the RGNDWM seeks to redefine its relationship with State Governments through the Memorandum of Understanding (MoU) route. This MoU would formalise the commitment of State Governments to the reform process and the general principles underlying Swajaldhara, while also allowing state-specific issues and constraints to be addressed.

To facilitate the entire process leading up to the signing of the MoU, each state is required to carry out an assessment of the RWSS sector. This sector assessment will provide a quantitative and qualitative snapshot of the RWSS sector in the state and serve as a base-line document for the preparation of the state's RWSS vision statement and policy. The sector assessment is intended to evaluate the impact of Government RWSS programs in terms of coverage, comment on the sustainability of RWSS projects/schemes and specifically identify gaps in policy, institutional/financial arrangements, systems and processes evident from the experience with sector reform and Swajaldhara projects till date.

Manipur – Key Aspects:

Manipur located in northeastern India is a state with hills and valleys with scarce water resources during the non-monsoon period.

The law and order situation in the state is poor and has worsened considerably in recent months. There is an ever-present threat of extortion and abduction from certain sections for government officials and non-local persons.

The threat perception is more in the hill districts and very little information is available about those districts.

Rural water supply Coverage

According to Census of India, 2001 around 59 percent of the rural population receives water near their premises where as only 7.5 percent have a provision for water supply within premises.

As per information received from the PHED, as of February 2005 there are 2873 habitations in the state of which around 24 percent is FC, (58 percent in 1997), 45 percent is PC (29 percent in 1997) and 31 percent NC (13 percent in 1997).

The decline in the number of FC habitations and increase in PC and NC habitations can be attributed to decline in the service level.

As per the PHED, the decline in FC habitation and increase of PC and NC habitation is due to poor maintenance. The various factors responsible for this are:

- non-release of funds (as per the PHED)
- difficulties in traveling to interiors – especially hill districts (as per PHED)
- power problems led to closure of electricity based schemes
- poor servicing by unmotivated PHED personnel (as per villagers)
- falling quality and water levels are also responsible to some extent

The gravity-based schemes are successful and sustainable. The failure of the pumping schemes can be attributed to lack of maintenance and insufficient funds. Most of the pumps are old and needs replacement or major repair.

Water Quality

According to the Memorandum submitted to the 12th Finance Commission by the state government, 39 percent households are having Safe drinking water against the national average of 62 percent. There are instances of quality problem. Sample test reports from September 2003 to October 2004 reveals that samples collected from pond water is unfit for drinking. The treated water (Tap water) is within the permissible limit but total hardness is at the highest limit. Iron oxide and acidic problem is common. Treatment is necessary to reduce the excess parameters.

Water quantity

Seasonality factors play an important role, it was generally agreed by all (PHED and villagers) that water quantity is much lower than 40 lpcd in most of the villages.

Sustainability of Source

The sustainability of the water sources are yet to be assessed formally by the state government. Though there are a few reports on drying up of a few sources, however no major initiative has been undertaken for preserving the sustainability of perennial sources, or ground water recharge.

Though many non-working handpumps were found during the field visits, neither the villagers nor the PHED officials were aware as to the cause behind the defunct scheme.

Duration of Supply

Information was not available on the duration of water supply in the villages. But as per information gathered from the field it can be said that on an average in most of the villages duration of water supply is 1-2 hours daily in the valley. In some cases water is supplied on alternate days also. No information was available about the condition of water supply in the hilly districts. There is no available information on the utilization of surface water.

Sanitation

According to the Census of India 2001, around 22 percent of the rural households do not have any sanitation facility within their premises. As per the PHED the sanitation condition in the state is improving. Depending upon the economic condition many households have constructed individual latrines within their premises. This had been observed during the field visits also. It seems that people are very much aware about the hygiene condition and hence open defecation has reduced.

Under the Total Sanitation Campaign (TSC) programme for providing sanitation facilities in villages, five number of Rural Sanitary Mart/Production center has been established. 300 individual house hold latrines, 7 women sanitary complex and 107 Sanitary latrine for lower primary schools were also constructed during 2004-05 in Imphal west district. At present sanitation facility under the different programmes in the government schools in the state seems to be very poor. Only in Imphal West district sanitation facility has been provided to 50 schools under TSC

Sector Reform/Swajaldhara

The demand based schemes under *Swajal Dhara* have been initiated in the five districts of the state and the Districts WSMs and VWSCs have been formed. The required community contribution amounting to 10% of the capital cost of projects (Rs 14,81,307.87) has also been collected and deposited. At present (February 2005) Swajaldhara has commenced only in Imphal East district and it is in the initial stage. In the other four districts, the beneficiaries are demanding to withdraw their contribution due to delay in actually initiating the work on these projects. According to the PHED non-releasing of fund by the central government is responsible for this. As of now no information is available regarding the progress of Swajaldhara in the state.

Panchayats

The state government is yet to assign many powers to the panchayats as per the 73rd CAA. Moreover, during the field visits it was observed that the panchayat members not aware of their roles and responsibilities. The PRI's are generally not functioning properly, and as a result are currently not in a state where they can take charge of the old schemes.

The PRIs are generally not functioning as desired in the state, it is highly unlikely that even with the best efforts of the PHED, that the PRIs would be able to take over the schemes given their current level of functioning in their near future.

However, this is not universal. There are instances where the villagers are willing to take charge of the schemes and ready to pay for the same depending upon their affordability.

Maintenance

The PHED is responsible for the maintenance of the schemes and they have failed to maintain the schemes as desired.

As per the PHED, currently even the PRIs are not being able to collect user charges from beneficiaries in most parts of the state. In only one of the three villages visited where Swajaldhara had commenced, was some collection of user charges being done by the relevant PRI.

Funding

The PHED claims the non-release of funds from the centre has been a significant problem. The study team however found that the maintenance of records was quite poor and it would be difficult for any central agency to disburse funds without improvement in record keeping.

Capacity

It is evident that the PHED is not functioning as desired. During the field visits it was found that many officials (including engineers) are not aware about the guidelines of the different schemes. Accountability within the department is low; records are rarely maintained leave alone updated properly especially for the hill districts.

The PRIs also lack capacity as well as ability to bring together the community in large parts of the state.

Key issues & and way forward

Given the current law and order conditions, it would be difficult to expect the widespread commencement of demand based schemes such bas Swajaldhara. Areas where law and order conditions are supportive should only be considered for Swajaldhara

The PHED needs to be strengthened on many fronts this includes:

- Record keeping
- Staff motivation
- Staff awareness
- Skill levels

Without significant improvements on the above fronts, the PHED would not be able to to facilitate improvements in coverage and service delivery.

For improving supply levels the following needs to be conducted

- The ground water potential of the state needs to be mapped comprehensively
- Another option to solve the existing water problem is to start wide spread rain water harvesting schemes and improve village spring sources as in Mizoram.
- Water quality monitoring should be done regularly across all sources and need to be publicized to all stakeholders

For the PRIs where law and order conditions are not too unfavorable the following needs to be conducted:

- Awareness campaign needs to be strengthened
- Transparency is required in the system
- Affordability of the villagers have to be taken care of prior to transferring the schemes, otherwise it may lead to closure of the scheme and the entire responsibility will be vested to the PHED.

Transferring O&M functions without appropriate strengthening of the PRIs is likely to lead to less than desirable outcomes. In other words, intensive capacity building measures that include improving skills, attitudes, and knowledge of PRI staff would have to precede successful implementation of the Swajaldhara guidelines.

Overall

The law and order and poor conditions of the PRIs are extremely critical constraints that continue to adversely affect WASTSAN conditions in the state. Policy needs to recognize this constraint. Overall few villages (generally in the valley areas) have conditions favorable for demand responsive schemes such as Swajaldhara, these places should be first focused in terms of capacity building of both PHED staff and PRI functionaries, IEC/BCC efforts and also provision of adequate funds.

Even in the parts of the state where law and order is not a constraint, poor capacities and functioning of PRIs and also relevant government functionaries need to be improved upon. Intensive capacity building efforts at both state and PRI level need to be instituted. A few success stories could then make it easier to expand coverage of demand responsive schemes to all areas of the state.

B.INTRODUCTION

B.1 INTRODUCTION

This chapter describes the context in which this rural water supply and sanitation (RWSS) sector assessment for Manipur has been carried out, the scope and objectives of the sector assessment and the necessary background on water usage in the state of Manipur. These are covered under the first section.

B.2 CONTEXT

Context of the RWSS Sector Assessment: The RWSS sector in the country is currently undergoing a major shift, arising out of the realisation that the past approach to the provision of RWSS services had inherent drawbacks that need to be addressed. Traditionally, the focus of Government interventions in rural water supply had been on ensuring the coverage of all rural habitations with safe and adequate sources of drinking water. In rural sanitation, Government programs typically focused on subsidies to encourage the construction of sanitary latrines in rural households. Consequently, the main indicators of progress in RWSS were restricted to the supply side, i.e. achievements were measured against targets set in terms of the number of villages covered with drinking water supply and number of latrines constructed.

Government funding of RWSS infrastructure is co-ordinated by the Rajiv Gandhi National Drinking Water Mission (RGNDWM) in the Department of Drinking Water Supply, Ministry of Rural Development (MoRD), Government of India (GoI). RGNDWM is responsible for the management of programs like Accelerated Rural Water Supply Program (ARWSP) and Central Rural Sanitation Program, involving the provision of funds by GoI to states under the Five Year Plans. State Governments supplement the funds available from GoI through programs like the Minimum Needs Program (MNP) and other state-specific programs. Various State Government departments/entities, varying from state to state, are responsible for implementation of RWSS projects using these funds and for the subsequent operation and maintenance (O&M) of the completed projects. Though the significant investments made under these programs has resulted in an increase in the proportion of rural population covered by safe drinking water supply and sanitation facilities over time, several drawbacks have also become apparent:

- With projects being designed and implemented by Government departments/entities with no involvement of the beneficiaries, a sense of ownership was not created among the users. This in turn led to neglect of maintenance activities, especially since the priority of the Government departments/entities under the supply-driven approach was new projects rather than operation and maintenance (O&M) of projects already commissioned. Panchayati Raj Institutions, though better placed than State Government departments/entities in handling O&M of village level projects, were not involved. Moreover, with users not being charged for water supplied, there was neither any incentive for preventing wastage of water nor adequate funds being generated for O&M. Over a period of time, this led to a situation where projects became non-operational, thereby eroding the benefits of increased coverage.

- The supply-driven approach neglected the issues of usage and access to the facilities created. With users not being educated about the benefits, usage of facilities often remained low, especially with regard to sanitary latrines constructed through subsidy-driven programs of rural sanitation.

Overall, it may be said that there has been increasing recognition of the fact that the traditional supply-driven approach did not result in a sustainable RWSS system that could over a period of time ensure that the entire rural population had access to safe drinking water and sanitation facilities. This fact was being reflected in periodic surveys that showed that many villages covered under water supply schemes tended to slip back into the category of not covered (NC) or partially covered (PC).

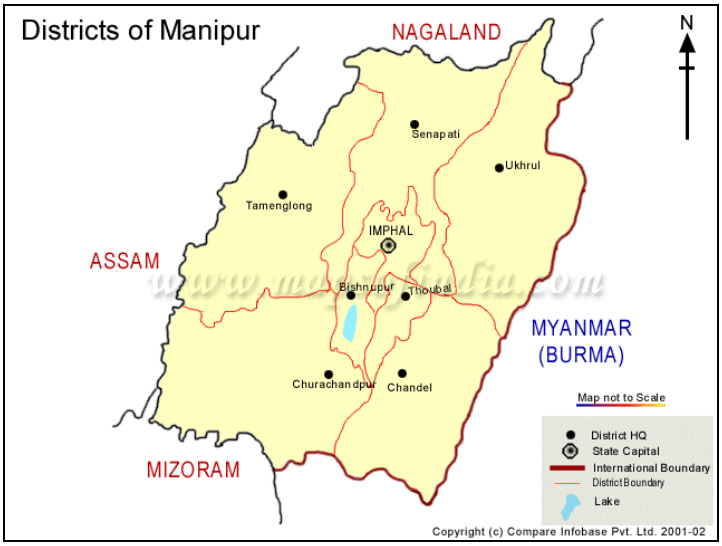
To address the shortcomings of the supply-driven approach, reforms in the RWSS sector were introduced through sector reform projects taken up in 67 districts in 1999. These pilot projects focused on involving the user community in the planning and execution of water supply projects, building commitment to the projects through community contribution to the capital cost of projects and devolving full responsibility for the O&M of projects to the user community after completion of the projects. Based on the experience of the pilot projects, the Government of India launched the Swajaldhara in 2002 to extend sector reforms to the entire country. Detailed guidelines for Swajaldhara were issued in 2003. Currently, 20% of the GoI funding for RWSS is being allocated for Swajaldhara and it is intended to progressively increase this proportion over time.

A key aspect of Swajaldhara is that the RGNDWM seeks to redefine its relationship with State Governments through the Memorandum of Understanding (MoU) route. This MoU would formalise the commitment of State Governments to the reform process and the general principles underlying Swajaldhara, while also allowing state-specific issues and constraints to be addressed. Accordingly, all State Governments are required to formulate a vision statement for RWSS, specifying the sector goals for the years 2007 and 2012. Based on the vision statement, each state is expected to formulate a comprehensive policy for RWSS and develop action plans for implementation of reform initiatives. The action plans incorporating specific time-frames for initiation/completion of various activities would be incorporated into the MoU to be signed by the State Governments on the one hand and the Department of Drinking Water Supply, MoRD on the other.

Scope & Objective of the Rapid RWSS Sector Assessment: To facilitate the entire process leading up to the signing of the MoU, each state is required to carry out an assessment of the RWSS sector. This sector assessment will provide a quantitative and qualitative snapshot of the RWSS sector in the state and serve as a base-line document for the preparation of the state's RWSS vision statement and policy. The sector assessment is intended to evaluate the impact of Government RWSS programs in terms of coverage, comment on the sustainability of RWSS projects/schemes and specifically identify gaps in policy, institutional/financial arrangements, systems and processes evident from the experience with sector reform and Swajaldhara projects till date. The sector assessment will identify key issues that need to be included in the state's vision statement for RWSS. This RWSS sector assessment for the state of Manipur has also been conducted based on these objectives.

Location: Situated between latitudes 23.80o N to 25.68o N and longitudes 93.03oE to 94.78o E, in the North East India Manipur “"A jeweled land" nestle deep within a lush green, covers an area of 22,347 sq. kms. Administratively this state is divided into 8 districts of which four are in the valley. Nagaland in the North, Mizoram in the South,

Cachar district of Assam in the West and bordering Myanmar in the East, geographically bound the present State of Manipur. It seems much like an exquisite work of art executed by superb hands of Nature and is indeed a state of exquisite natural beauty and splendour, the beauty of which once inspired Mrs. St. Clair Grimwood who described it as " A Pretty Place more beautiful than many show places of the world". Late Pandit Jawaharlal Nehru paid a fitting tribute by describing it as "Jewel of India". rich in art and tradition and surcharged with nature's pristine glory.



People: The people of Manipur include Meitei, Naga, Meitei Pangal and other colourful communities which have lived together in complete harmony for centuries. Theses are the people whose folklore, myths & legends, dances, indigenous games and martial arts, exotic handlooms & handicrafts are infested with the mystique of nature. The wonders has no end in Manipur.

Origin of the state: Having a varied and proud history from the earliest times, Manipur came under the British Rule as a Princely State after the defeat in the Anglo-Manipuri War of 1891. After independence of India in 1947, the Princely State of Manipur was merged in the Indian Union on October 15,1949 and became a full-fledged State of India on the 21th January, 1972 with a Legislative Assembly of 60 seats of which 20 are reserved for Scheduled Tribe and 1 reserved for Scheduled Caste. The State is represented in the Lok Sabha by two members and by one member in the Rajya Sabha.

Physiography: Manipur is surrounded by blue hills with an oval shaped valley at the centre, And about 90% of the land is mountainous.

Rivers and Lakes: The major river of the land is known as Imphal after which the capital city was named. The other rivers smaller than the Imphal are the Iril, Thoubal, Irnag, Nambul etc. Other small tributaries, viz. Jiri and Chiri constitute the river Bairad of Borak. Manipur is the land of many lakes. Among them the most famous is Loktak lake, the biggest fresh water lake in India. Presently, the lake hosts a hydroelectric power plant.

Climate: Manipur enjoys a sub-tropical monsoon climate. It belongs to the temperate rainy climate region with dry winter and hot summer. Average warm temperature ranges between 25^0C to 31^0Celsius. Rainfall is relatively abundant and widespread, varying from

a maximum of 258.9 cm at Jiribam to only 97 Cms at Wanghal. Period from December to February contains the cold season, March to May is the hot weather, the monsoon starts from May and lasts up to September and the season of retreat of monsoon is from September to November.

Table-1: Key statistics of Manipur

Area	22,327sq km
Area as % of India's total area	0.68
Area under plains/valley	22,38q km/223800 ha.(10% of total geographical area)
Population (as per 2001 census)	23,88,634
Population as % of India total Population	0.23
Decadal growth rate (%)	30.02
Male Population (% to total State Population)	1,207,338 (50.55%)
Female Population (% to total State Population)	1,181,296 (49.45%)
Rural Population (% to total State Population)	1,818,224(76.12%)
Urban Population (% to total State Population)	570410 (23.88%)
Density of Population (per Sq Km.)	107
Sex ratio	978
Number of Districts	9
No. of villages	2,391
No. of Gram Panchayats (four distrcts)	165
No. of CD Blocks	34
Literacy Rate (2001)	68.87%
No of BPL families	13,0000
Total Reporting area	190446 ha (85.10%
Land not available for cultivation	26900 ha
Fallow land	200 ha
Cropped area	1.57 lakh hectare
Other uncultivated land excluding the fallow land covers	8055 ha (4.23% of total reporting area)
Total area under cultivation excluding those under Jhum Cultivation	7% of the total area of the states

Source: Census of India 2001, Information provided by PHED, GoM, 2005

The consumption of chemical fertilizers has been steadily increasing over the year. Among the special category states Manipur is the highest fertilizer consuming states of northeast India. Out of total cropped area 65.52% was unirrigated and 34.48% was irrigated during 2002-03. Area under paddy cultivation was 53.90 thousand ha (99.78%).

B.2 METHODOLOGY

This sector assessment has been carried out with the co-operation of the Public Health Engineering Department (PHED), of the Government of Manipur (GoM), which is the nodal agency for RWSS in the state. Basic data requirements were initially communicated to the PHED and some preliminary data was made available to the consultants by the department during the State visit. The consultants held meetings with PHED officials at there headquarter at Imphal and the study districts of Imphal East and Imphal West, to

understand and insights about the implementation of the Rural water supply and sanitation programmes and SRP in the state.

In-depth Interviews with PHED officials was followed by the field visit to gain first hand information about the RWSS programme in the State. To comprehend the progress of the project, two schemes in each of the study districts and a school where the SSHE programme is currently being implemented was visited.

This report has been prepared based on the information provided by the PHED in the form of the questionnaire and other reports and available secondary sources like the census of India It is intended to serve as a basis for obtaining feedback from various stakeholders and to identify issues that need to be covered in more detail

C. SECTOR ASSESSMENT

C.1 WATER SUPPLY

Water is lifeline for all living beings. Although three-fourth of earth's surface is covered with water, yet it is scarce. The water available in lakes, ponds, rivers and fissures is not potable, hence unsafe for drinking. The problem aggravates due to improper utilisation and distribution of this natural resource. The State of Manipur has had history of drinking water problem. The uneven distribution of it only adds to the problem. It has been the endeavour of the central and state government to provide safe drinking water to the people.

C. 1.1 Coverage

Table-2: Present Status of Water Supply in Manipur

Status of Water Supply	Amount of water (mld)	Year
Water currently being supplied	112.60	2003-04
Water required for total coverage	900.75	2003-04

Source: PHED, GoM, 2005

The information provided by the PHED shows that there is a huge gap between the amount of water required for total coverage and the amount of water supplied as of 2003-04. This is a serious issue needs immediate attention.

According to Census of India , 2001 around 59 percent of the rural population receives water near their premises where as only 7.5 percent have a provision for water supply within premises. Around 34 percent of the rural population reported to be receiving water away from their premises.

Table 3: Distribution of Households By Source Of Drinking Water

	Total	%	Rural	%
Total number of households	397,656	100	296,354	100
Location: Within premises	47,415	11.9	22,151	7.5
Location: Near premises	227,838	57.3	174,679	58.9
Location: Away	122,403	30.8	99,524	33.6
Source of drinking water:				
Total	397,656	100	296,354	100
Tap	116,413	29.3	60,963	20.6
Handpump	25,270	6.4	20,920	7.1
Tubewell	5,251	1.3	4,890	1.7
Well	25,631	6.4	21,904	7.4
Tank, Pond, Lake	106,565	26.8	84,165	28.4
River, Canal	70,883	17.8	59,549	20.1
Spring	40,860	10.3	39,776	13.4
Any other	6,783	1.7	4,187	1.4

Source: Census of India 2001.

Present Coverage Status:

In order to provide safe drinking water to the rural people of the state, various rural schemes have been taken up under PMGY, ARWSP, and Swajaldhara.

As per information received from the PHED, it can be observed that from April 1997 till date 58 new habitations have come up. During 1997 around 58 percent of the habitations were fully covered where as now there is no FC habitation in the state. Till 2003 around 24 percent of the habitations were fully covered and the decline in the number is due to decline in the service level and at present in these habitations the supply level had gone below 40 lpcd.

According to the Memorandum submitted to the 12th Finance Commission by the state government, 39% house holds are having Safe drinking water whereas in India 62%households are having safe drinking water.

Table-4: Coverage Status of Habitations (1997-2005)

	Habitation (1-4-97)	Rural Habitatio as on Feb-05
Habitations fully covered having supply more than 40lpcd (FC)	1643 (58.37%)	693 (24.12%)- At present there is no FC
Safe source with supply between 10-40 lpcd (PC – SS)	755 (26.82%)	1359 (47.30%)
NSS-villages with no safe source with supply less than 10 lpcd		288 (10.02%)
NC-villages not at all covered with safe source	393 (13.96%)	895 (31.15%)
Number of habitations/ population with treated water		619 (21.55%)
Deserted Village	24 (0.85%)	
Total	**2815**	**2873**

Source: Public Health Engineering Branch, 2005, GoM

The physical progress of ongoing ARWSP and PMGY for the year 2003-04 is given in the table below. It can be observed that on the whole 100 habitations with a population of 93,386 (44 percent ST, and around 2 percent S.C) persons have been covered by these schemes but no information is available on the sustainability of these schemes and the present supply level.

Table-5:Physical Progress of ARWSP & PMGY (2003-04)

Annual Target Habitations		Number of habitations covered from April 2003-March 2004		
ARWSP	PMGY	ARWSP	PMGY	Total
11-20 lpcd	PC-FC	13	18	31
21-30 lpcd	PC-FC	5	31	36
31-39 lpcd	PC-FC	10	23	33
Grand Total		28	72	100

Source: Monthly Progress Report of Rural Water Supply, 2003-04, PHED, GoM

As reported by the PHED there is no private connections in the rural areas of the state. Majority of them are bore wells. During the field visits some of the hand pumps were found to be defunct due to technical reason. And the villagers complained that no initiatives had been taken by the concerned department to repair these handpumps despite several complaints. On the other hand when the officials were asked about these they said they are trying to improve the condition but fund constraints restricted their activities.

Table-6: Water Supply Infrastructure available in Manipur

Infrastructure	Private connection	Public connection	Year
Number of piped connections	-	-	-
Number of Handpumps	-	1964	March 2004
Number of Tubewells	-	24	March 2004
Number of Standpipes	-	-	-
Number of Dug Wells	-	-	March 2004
Number of Bore Wells	-	2199	March 2004

Source: PHED, GoM 2005

The following table shows the district wise break up of hand Pumps and tube wells installed and to be installed in the State

Table-7: Performance in the Installation of Hand Pumps (1982 to March 2004)

District	No of Successful TW as on March-04	Hand Pumps Installed	Hand Pumps to be Installed	No of TW with Power pumps/deserted /blocked
Imphal east	473	417	8	48
Imphal west	341	300	1	40
Thoubal	293	270	16	7
Bishnupur	129	115	11	3
Chura Chandpur	268	242	8	18
Senapati	264	249	5	10
Ukhrul	206	167	19	20
Chandel	169	149	14	6
Tamenglong	56	55	-	1
Total	**2199**	**1964**	**82**	**153**

Source: PHED, GoM, 2005

It can be observed from the following table that as of February 2005, 2070 handpump and 24 tube well schemes has been started in the state. However, this 106 handpump and 5 tube well schemes are not in a working condition.

Table-8: Present Condition of Hand pumps and Tube wells

Type of Scheme	No. of Schemes Started	No of Habitations Covered	No of Schemes running	No of Schemes Not working	% of Schemes not working
Borewell with Hand pump	2070	602	1964	106	5.12
Tube wells	24	6	19	5	20.83
Total	2094	608	1983	111	5.30

Source: PHED, GoM, 2005

As per the habitation survey of 2003, about 15 percent of the government schools 46 percent of the government hospitals, 11 percent of the Panchayat Ghars and 8 percent of the market places have been covered with water supply in the state.

Table-9: Public Institutions Covered by Water Supply

Government Schools		Government Hospitals		Anganwadis		Panchayat Ghars		Market Place	
Total	Covered	Total	Covered	Total	Covered	Total	Covered	Total	Covered
1369	203	58	27	3	0	18	2	59	5

Source: Habitation Survey 2003

The information provided by the PHED department on providing water supply to the schools (as on 1-4-2004) it can be observed that only 19 percent of the rural schools have been covered under the water supply programme.

Table-10: Coverage of Rural Schools under Water supply Programme (as on 1-4-2004)

District	No of schools			
	Total	With drinking water	Without drinking water	Total No of schools taken up for water supply programme
Senapati	562	114	448	122
Tamenglong	271	85	186	89
Churachandpur	102	41	61	45
Chandel	196	23	173	28
Thoubal	260	27	233	34
Bishanpur	290	52	238	58
Imphal east	424	47	377	51
Imphal west	342	52	290	58
Ukhurul	316	45	271	51
Total	**2763**	**486**	**2277**	**536**

Source: PHED, GoM, 2005

Information was not available on the duration of water supply in the villages. But as per information gathered from the field it can be said that on an average in most of the villages duration of water supply is 1-2 hours daily in the plain areas. In some cases water is supplied on alternate days only. No information was available about the condition of

water supply in the hilly districts. There is no available information on the utilization of surface water. Only information available was on the utilization of ground water given in the table below.

Table-11: Type of Source with number of habitations & populations covered

	Habitations	Population	Year
Surface Water	NA	NA	NA
Ground Water	6	50,000	1997
Others (Specify)	NA	NA	NA

Source: PHED, GoM, 2005

Institutional and legal and financial framework for use of Water Resources:

The Public Health department is the nodal agency for rural water supply and sanitation. The state government is committed to improve the level of living standard of rural population and to bring it at par with the standard prevalent in urban areas. Consumption of safe drinking water is one of the parameters to judge the living standards of a society. The Government of Manipur and Government of India are jointly working to implement Rural water Supply and Sanitation Programme in the state through the following programmes:

- Minimum needs Programme (MNP) funded by Government of Manipur
- Accelerated Rural Water Supply Programme (ARWSP) funded by Government of India (GoI).
- Prime Minister Gramodya Yojana (PMGY) provided as additional central assistance as a form of loan.
- Submission programme funded jointly by Government of Manipur out of ARP.
- Central Rural Sanitation Programme (TSC- Programme)
- Rajiv Gandhi Rural Public Health Welfare Yojna
- Sector Reform Project (Swajaldhara)

Table-12: Chronological history water supply programmes in Manipur (1999-2004)

Scheme Name	Pop. Covered (Nos)	Capital Outlay (Rs)	Funding sources Central Government (%)	O& M expenses including Staff costs (Rs)	Revenues/recovery (User charges, fees,) (Rs)
MNP-PMGY					
1999-2000	81864	1274.98	100% state govt	20.36	43.65
2000-01	23094	2310.54	70% loan 30% grant	415.91	5.16
2001-02	18200	2261.61	70% loan 30% grant	197.92	26.48
2002-03	76548	1701.73	70% loan 30% grant	383.49	18.65

Scheme Name	Pop. Covered (Nos)	Capital Outlay (Rs)	Funding sources Central Government (%)	O& M expenses including Staff costs (Rs)	Revenues/recovery (User charges, fees,) (Rs)
2003-04	69111	5651.00	70% loan 30% grant	636.24	4.151
ARWSP					
1999-2000	46962	4744.40	100% Central govt	280.53	
2000-01	23094	6200.00	100% Central govt	76.36	
2001-02	32270	6125.00	100% Central govt	498.18	
2002-03	12194	1826.00	100% Central govt	1131.10	
2003-04	24045	1833.00	100% Central govt	950.71	

Source: PHED, GoM 2005

C 1.2 Progress of Reform Initiatives

C 1.2.1 Swajaldhara

In order to introduce the element of community participation at all stages of work relating to Rural Water Supply for ensuring sustainability of the systems, the Government of India has introduced "Swajaldhara" programme, which is a slightly modified version of the Sector Reform Project, with effect from 25th December 2002. Swajaldhara have two streams:

(i) Swajaldhara – I which will have Gram Panchayats as the lowest unit for implementing reform initiatives, and
(ii) Swajaldhara – II, which will have the district as the unit for implementation.

Under this programme 90 percent of the cost of the project is borne by the Government of India and the beneficiaries are required to provide the remaining 10 percent as beneficiary contribution. The community contribution towards the capital cost of schemes could be in the form of cash/ kind/ labour/ land or combination of these. However, at least 50 percent of the community contribution will have to be in cash. In case community contribution is more than 10 percent of the schemes cost, the excess amount shall be taken into O&M fund. After Completion O&M of scheme will be the responsibility of the community.

The PHED has taken up the task of implementation of Swajaldhara in hand and basic formalities for start up activities have been completed. Thus, the preliminary steps for creating the necessary institutional arrangements for Swajaldhara have been completed. The GoM has also taken the necessary steps for the setting up of the State Water and Sanitation Mission (WSM), the State Water and Sanitation Committee (WSC) and the District WSMs and WSCs and also provided for the setting up of Village Water and Sanitation Committees (VWSC) through the issue of notifications.

But the main problem in the state is that the State Government has not given any power to the Panchayati Raj Institutions and thus successful running of the schemes by the grass root level committees is still a big question. The members of the VWSC

- Swajaldhara has just started during 2003-04 in the state. Now it is in the primary stage.
- Five districts were selected for Swajaldhara (Bishnupur, Chaura Chandpur, Imphal East, Senapati and Chandel). Out of 5 districts a total of 41 habitations were selected and 6856 persons have contributed their 10% share of the schemes.

For the five districts where Swajaldhara projects have been taken up, the Districts WSMs and VWSCs have been formed. The required community contribution amounting to 10 percent of the capital cost of projects (Rs 14,81,307.87) has also been collected and deposited. At present Swajaldhara is restricted to Imphal East district where it is in the initial stage. In the other four districts the beneficiaries are demanding to withdraw the money deposited due to delay in actually initiating the work due to the non-releasing of fund by the central government. As of now no information is available regarding the progress of Swajaldhara. The available details on the amount deposited by the beneficiaries are shown in the table below:

Table-13: Swajaldhara Projects Initiated in Manipur (as on I/04/2004)

District	Habitation	No of persons contributed	Year	Amount deposited by Beneficiary(Rs.)
Bishnupur	23	5296	2003-04	8,57,790
Chura Chandpur	2	187	2003-04	83,087.87
Imphal East	4	545	2003-04	1,38,050
Senapati	5	364	2003-04	81,580
Chandel	7	464	2003-04	3,20,800
Total	**41**	**6856**		**14,81,307.87**

Source: PHED, 2005, GoM

Human Capacity Development and IEC Activities

In order to educate and motivate the beneficiaries of RWSS programmes, the GoM set up HRD and IEC cells in 1996. This was fully funded by the central government up to April 2003, but since then it is the State Government's responsibility to run these cells. While training/IEC programmes have been formulated, implementation has been limited as these cells are facing funding problems due to lower priority given to IEC/HRD activities in relation to hardware creation. To ensure sustainability of RWSS projects it is necessary to motivate, educate and involve the beneficiaries for which training of persons at grass root level has become essential. Need also exists of providing in-service training and continuing education to update the knowledge and skill base of participating professionals and to create a taskforce of district level functionaries who will assist in training the grass root level functionaries.

Up to January 2003 a total of 95 district level workshops were organised and 625 persons were trained. During 2002-03 about 193 persons were trained. Since 31st May 2003 the HRD cell has been abolished and since then the activity of the cell had completely stalled and the persons involved were retrenched. HRD and IEC activities were limited to the valley districts because of the existing disturbances in the hilly areas of the state, the activity of the department is restricted and the officials cant even go to the remote villages due to security concern. The proposal for establishment of a "Communication

and Capacity Development Unit (CCDU)" for Manipur has been sent to the GOI for approval vide this office 4 on 5.11.04.

Government of India had supported the state level HRD and IEC cells in the 8th and 9th plan period. State level HRD cell, PHED, Manipur was established with the sole aim of imparting training in different aspects of Rural water supply & Sanitation including operation and maintenance of the working schemes in order to see that the existing water supply and sanitary systems are self sustained to three different categories; Sector professionals, district level trainers and grass root level trainers. Year wise performance of this cell can be seen as follows;

Table-14: Year wise performance of HRD cell in Manipur (Rs. In Lakh)

Year	Amount sanctioned by centre	Amount released by centre	Expenditure incurred	
			Centre	State
1996-97	21.17	13.59	13.19	0.39
1997-98	-	12.25	7.62	2.24
1998-99	-	0.65	4.21	2.39
1999-00	-	10.60	6.55	-
2000-01	14.93	14.93	11.66	2.81
2001-02	25.24	12.62	11.24	-
2002-03	-	-	3.38	-
Total	**67.34**	**64.64**	**57.85**	**7.83**

Source: PHED, GoM, 2003

The cells now have been discontinued and their assets and unspent balance should be transferred to the proposed CDDU. The CCDU could be located in an autonomous institution, training institute, SWSM, project management unit or within the line department. However, it is desirable that it is located in an autonomous institution. In case there are two different departments handling water supply and sanitation, both departments should agree for the location of CDDU.

During 2002-03 the target was to train 60 sector professionals, 16 DLT and 440 GLts but only 193 GLTs were provided training. The achievement during 2002-03 was very poor due to inadequate fund. This training expenditure was met out of the state budget.

Monitoring and evaluation

The PHED is the nodal agency to monitor and evaluate each and every scheme. As per the proposals of the PHED effective monitoring of the project during implementation, various indicators will be integrated into a computerized Management Information System (MIS). Moreover, strategic monitoring of the effectiveness of the project progress process, to learn from experience and feed back recommendations for improvement for subsequent batches of villages will be regularly undertaken by an independent monitoring agency. Formation of committees, training and capacity building, payment of contribution from beneficiaries, tendering and contracting, quality of construction, disbursements, establishment of O&M structures, and financial system design and performance will also have indicators and will be included in monitoring and evaluation of project implementation

Till date there is no proper monitoring system in the state. There is a lack of co-ordination within the department. Reports are not maintained properly and many key informations are not easily available from the state headquarter because the different divisions do not report on time.

C.2 WATER RESOURCES

Manipur receives heavy rainfall from the SW and NE monsoons, the average annual rainfall readings were 1116 mm in 1972, 2646 mm in 1983, and 2887.6 mm in 1995. This amounts to richness of surface water resource in the state even though much has to be done in tapping the resource and saving it from being drained out due to the peculiar drainage pattern over the rugged terrains of the state. The surface and groundwater potentials of the state have been assessed by various departments like the Irrigation and Flood Control Department (I.F.C.D.), Minor Irrigation Department (M.I.D.) and PHED in consultation with other agencies like CWC, CEA and CGWB etc.

Surface Water: The total water discharge from the two river basins viz. the Barak River basin draining the western part and the Manipur River Basin draining the eastern half of the state including the Manipur Valley has been estimated to be 1.8545 M hectare meters (15.04 M acre ft.). Manipur River Basin accounts for 0.5192-hectare meter of annual run off against a total catchment area of 6332 sq.km. The Barak Basin has a greater discharge capacity with 1.3295 M hectare metre against a catchment of 9042 sq.km. The sub-basin wise break up of the water discharge is shown below:

Table-15: River Basin

Sl. No.	Name of the basin/sub-basin	Catchment Area (sq. km.)	Average Annual yield Million hectare meter
A. (Upto Ithai Barrage)			
1.	Imphal River	560	0.0863
2.	Iril River	1260	0.0794
3.	Thoubal River	920	0.0652
4.	Sekmai River	426	0.0198
5.	Heirok River	305	0.0136
6.	Khuga River	458	0.0294
7.	Manipur River upto Ithai	200	0.0112
8.	Loktak lake through Khordak	980	0.1172
B. Beyond Ithai			
9.	Maramba Maril	122	0.0050
10.	Chakpi River	660	0.0790
11.	Tuining River	140	0.1049
12.	Other including that of Manipur River from Ithai to Burma Border	301	0.0136
Total for Manipur River Basin		6332	0.5192

Source: I.F.C.D. 1984, Govt. of Manipur

Table-16 : Barak River Basin

Sl. No.	Name of the basin/ sub-basin	Catchment Area (sq.km.)	Average Annual yield Million hectare metre
1.	Barak including Irang River, Makru River and other Tributaries	6865	0.8412
2.	Tuivai River	1860	0.3453
3.	Jiri River	316	0.1430
Total for Barak Basin in Manipur		9042	1.3295
Grand Total		15374	1.8487

Source: I.F.C.D. 1984, Govt. of Manipur

Groundwater: The area covered by valleys that can be investigated for groundwater potentials in Manipur is about 1800 sq.km. forming roughly 8% of the total geographical area. The important valleys are the Manipur Central Valley and Western Jiribam of Imphal District, Khuga valley in Churachandpur District and Khoupum valley in Tamenglong District. The Central Ground Water Board (CGWB) so far has covered an area of 6,600 sq.km. out of the total land area of 22,346 sq.km. in hydro geological survey. The valleys have superficial alluvium, which is underlined by tertiary rocks of Barail series in Imphal valley and the Tipam formations in Jiribam valley. Ground-water in top sandy and clayey formations occurs under water table conditions with the depth of water varying from 3 to 4 metres bgl. Groundwater is mostly exploited through open wells. Ground water in the deeper aquifers occurs under sub-artesian and artesian conditions. Granular zones are encountered at a depth of about 150 m in Imphal valley and at about 220 m in Jiribam valley. Tubewells have been installed at various places of the valley areas with the yields ranging from 0.6 to 4 cu.m./hr. On the basis of the monitoring of water level in key/dug wells network stations in the area, an annual recharge of 44 M.cu.m. has been estimated. Considering the clayey nature of formation in the top aquifer, development of this resource is not considered promising on a large scale either in irrigation of water supply. However, it can be exploited for local water supply through open wells dug-cum-bore wells and tube wells. The potable water quality has been shown by partial chemical tests of these water samples.

Knowledge of hydro geological conditions prevailing in the valleys of Manipur is too limited. Fuller detailed investigations have yet to be done. The present constraints are the drilling hazards like gas encounters and sand rushing etc.

Water requirements and Potentials: The total water requirement per annum for Major and Medium Irrigation from surface water resources has been estimated to be 97,231hectare metre or 0.097 M hectare metre.

1. Total water requirement per annum for Minor Irrigation schemes upto 2000 AD from surface water resources works out to be 0.426 acre ft. i.e. 0.0526 M hectare metre.
2. Water requirement per annum for domestic consumption and industrial uses in the state is estimated as under:
   a) Dometic consumption - 0.0757 M acre ft.
   b) Industrial uses - 0.1206 M acre ft.
   Total: - 0.1963 M acre ft.
3. Anticipated potential from Surface Water Resources for water supply is as indicated below:
   a) From Major and Medium Irrigation Project = 46.5 mgd = 0.062 M acre ft. per annum
   b) Balance requirement to be met from the Schemes of Public Health Engineering Department = 0.1343 M acre ft. Putting together = 0.1963 M acre ft.
4. Potential from Ground Water Resource is estimated around 44 M cum per annum i.e. 0.0044 M hectare metre.

Additional requirement of surface water per annum for power generation upto 2000 AD is estimated to be around 0.939 M hectare meter. (Source: I.F.C.D. 1984, Govt. of Manipur)

Water Balance: The above calculations have revealed that against a total availability of 1.8487 M hectare metre of water there will be an annual requirement of 1.1121 M hectare metre up to 2000 AD. The water balance thus works out to 0.7366 M hectare metre in the annual budget. With prospects of water recycling, the IFCD is optimistic of a sufficient water reserve beyond 2000 AD.

Regulatory Framework and Pricing

- There was no provision of charging any money from the community but after handing over these water supply schemes to the village water and sanitation committee's people are paying Rs.10-20 per HH per month.
- Due to irregularities in water supply and poor operation and maintenance practices people are not contributing even 10 rupees.

C.3 WATER QUALITY

PHED is the nodal agency for monitoring the water quality and informing the people about the problems related to it. As a whole according to the PHED there is no such water quality problem in the state. As per the information provided by the PHED, frequency of water samples collected for tests in laboratories are found to be unsystematic Some time they are collecting twice in a month and some time after two to three months. There is one Laboratory at the state level, which is located at Imphal. One mobile laboratory unit is also there and it is widely used for collection as well as analysis of samples. Latest water sample collected by the PHED was on 28th October 2004.

There are certain instances of quality problem water sample test reports from September 2003 to October 2004 reveals that among the samples collected from pond water contains high turbidity, high total hardness and it is unfit for drinking. The treated water (Tap water) is within the permissible limit but total hardness is at the highest limit. Iron oxide and acidic problem is common. Most of the water samples were not potable for drinking purposes. Treatment is necessary to reduce the excess parameters.

Table-17: Quality of Ground water in Central Manipur Valley, Khuga Valley & Jiribam Valley

Sl. No.	Characteristics	Central Manipur Valley	Khuga Valley	Jiribam Valley
1	PH	6.7-8.3	6.5-8.3	7-7.7
2	CI(ppm)	Feb-60	13-May	13-Apr
3	Total Hardness (ppm)	15-200	Calcium Hardness 5-25	Below 100
4	Bi-Carbonates	55-680	39-263	30-190
5	Iron	Slightly high for drinking		

Source: **www.mastec.nic.in**

C.4 SANITATION

The sanitation condition in the state is improving. Depending upon the economic condition many households have constructed individual latrines within their premises. This had been observed during the field visits also. It seems that people are very much aware about the hygiene condition and hence open defecation has reduced.

According to Census of India, 2001, around 22 percent of the rural households do no have any sanitation facility within their premises

Table-18: Distribution of Household by availability of bathroom, type of latrine within the house

	Total	%	Rural	%
Total number of households	397,656		296,354	
Number of households having bathroom facility within the house	41,504	10.4	24,940	8.4
Type of Latrine within the house				
Pit latrine	265,863	66.9	198,029	66.8
Water closet	34,523	8.7	13,708	4.6
Other latrine	25,829	6.5	17,925	6
No latrine	71,441	18	66,692	22.5

Source: Census of India, 2001

The progress regarding sanitation has started but it is still in the initial stage. According to revised guidelines of the Central Government, the facility of rural sanitation programme (construction of pour flush low cost latrines) is to be extended to the people below the poverty line with equal contribution from the State and Centre. During the 9th Plan Period, it was targeted to construct 22,000 units of Low cost latrines (15,000 units under MNP and 7,000 units under CRSP) to benefit 1.30-lakh rural populations. Against this target the achievement by the end of 2002 March is 5000 units. The outlay of the 9th plan was RS 600.00 lakh and the expenditure was 173.15 lakh. The large shortfall in achievement is on account of non-release of adequate fund to the implementing agency. According to the information provided by the PHED as on 1.4.04 total 20997 units were constructed.

Table-19: Rural Population's Access to Sanitation Facilities (As on 1.4.04)

SN	District	No of units sanctioned	Units constructed	Balance
1	Senapati	7825	3016	4807
2	Tamenglong	4160	1747	2413
3	Churachandpur	5401	2776	2625
4	Chandel	1698	1323	375
5	Thoubal	8422	4761	3661
6	Bishanpur	7658	2849	4809
7	Imphal east	6983	1312	5671
8	Imphal west	7847	1482	6365
9	Ukhurul	4317	1731	2586
	Total	**54311**	**20997**	**33312**

Source: PHED, GoM, 2005

Table-20: Coverage of existing sanitation services

Year	No. of HH covered	Total no. of low cost latrine constructed	Type of service
1996-97	NA	NA	
1997-98	98	888	Leaching pit only
1998-99	98	589	
1999-2000	172	1036	
2000-01	72	434	
2001-02	NA	NA	
2002-03	57	343	
2003-04	53	317	

Source: PHED, GoM, 2005

The proposed outlay for the 10th Plan period is Rs 600.00lakh. Following the instructions of the Central Government it is targeted to take up Total Sanitation Campaign (TSC) in the three districts i.e. Imphal West, Imphal East, and Thoubal districts during 2002-03 and 2003-04 Annual Plan Periods. For Imphal West district the TSC project costing 314.97 lakh has been approved by the Central Government. The project is in its initial stage and is expected to be completed by 2005.the projects for the other districts are yet to be approved by the Central Government.

There was a provision of Rs 70.00 lakhs for low cost latrines in the Annaul Plan 2002-03 and the target was to construct 1000 low cost latrines under the continuing programme. The committed liabilities for the as on 1.4.2002 for the continuing schemes is Rs. 356.48 lakhs. Further the Central Government has discontinued CRSP. Further due to inadequacy of fund programme for construction of new low cost latrines has not been envisaged in the Work Programme 2002-03.

Total Sanitation Campaign (TSC) Programme

Under the sector reform project, TSC was initiated from April 1st, 1999. The main thrust of the TSC programme is to shift from a high subsidy to low subsidy regime, greater household involvement, choice of technology according to customer preferences, stress on software, development of back up services like trained masons and building materials through the setting up of rural sanitary marts (RSM) and production centres (PC). The components of TSC are: construction of sanitary complex for women, toilet for schools, toilets for Balwadi, Anganwadi etc., besides, funds are being provided for start-up activities like Information, Education and Communication and (IEC) and administrative expenses.

The main features of the TSC are:

- Shift from high subsidy to low subsidy regime – from Rs. 2000 to Rs. 500 per latrine.
- Greater household involvement and participation.
- Technology options as per choice of beneficiaries households.
- Stress on IEC as part of the campaign.
- Emphasis on school sanitation.
- Tie-up with various rural development programmes.

- Involvement of NGOs/ CBOs and local groups.
- Promoting access to the institutional finance.

Table-21: Details of the Pilot project of TSC launched in Imphal west district

Components	No.of units	Cost Approved			
		Centre	State	Beneficiary	Total Project Cost
Const. of individual latrines for BPL @825 (30:30:40)	20608	51.01	51.01	66.00	172.02
Sanitary Complex for Women @ RS 50,000 (60:20:20)	36	10.80	3.60	3.60	18.00
School Sanitation @ Rs. 20,000 (60:30:10)	156	18.72	9.36	3.12	31.20
Start up activities upto 5% (100%)		15.75	0.00	0.00	15.75
IEC up to 15% of project cost (80:20)		37.80	9.45	0.00	97.25
Alternative delivery Mechanism upto 5% (maximum Rs.35 lakh/ dist 80:20)	5	13.60	3.40	0.00	17.00
Administrative Charges upto 5% (80:20)		12.60	3.16	0.00	15.75
Grand Total		160.28	79.97	74.72	314.97

Source: PHED, GoM, 2005

Physical Progress: Under the Total Sanitation Campaign (TSC) programme for providing sanitation facilities in villages, five number of Rural Sanitary Mart/Production center has been established. 300 number of individual house hold latrines, 7 number of women sanitary complex and 107 number of Sanitary latrine for lower primary schools were also constructed during 2004-05 in Imphal west district.

IEC for TSC in Imphal East district (2004-05): During 2004-05 IEC campaign was launched only in the Imphal East district of the state. Under this programme, awareness and educative campaigns were organized. For this purpose 15 street plays were organized which cost about Rs.1, 05,000. Advertisement in the local cable network for 1 minute per day was arranged which costs Rs 60,000. Wallpapers and hoardings were also used for this purpose at the cost of Rs.1, 20,000. Simultaneously motivator's booklets were also printed for the distribution (Rs.1, 80,000). About Rs.2, 00,000 were spend to sensitize implementers and 4 PRIs. As a whole Rs total Rs.6.65 lakh has been spend for IEC activity in Imphal west district. And according to the PHED officials they received good response from the villagers.

Other sanitation interventions
No any state level sanitation programme from the state government is initiated.

Due to the lack of funds and awareness, decreasing expenditure pattern was found in the state.

Table-22: Approved and Actual expenditure in different annual plans for Rural Sanitation

	Actual expenditure	Approved outlay
2001-02	10.99	660.00
2002-03	70.00	23.46
2003-04	7.01	5.96
Total	**88**	**689.42**

Source: Draft Annual Plan of PHED 2003-04.

School Sanitation:
At present sanitation facility under the different programmes in the government schools in the state seems to be very poor. Only in Imphal West district sanitation facility has been provided to 50 schools under TSC (which accounts for 15 percent of the schools in the district 2 percent of the schools in the state). And in 2 schools separate toilet facility has been provided for the girls.

Table-23: Coverage of Rural Schools under Rural Sanitation Programme

District	No of schools	School with toilet facility	School with separate toilet facility for girls
Senapati	562	N.A	N.A
Tamenglong	271	N.A	N.A
Churachandpur	102	N.A	N.A
Chandel	196	N.A	N.A
Thoubal	260	N.A	N.A
Bishanpur	290	N.A	N.A
Imphal east	424	N.A	N.A
Imphal west	342	50	2
Ukhurul	316	N.A	N.A
Total	**2763**	**50**	**2**

Source: PHED, GoM, 2005

Key Constraints in implementing TSC

TSC has just started in the state. It is yet to pick up the momentum in the state of Manipur. The main constraint is availability of fund. Secondly the trainers are to be trained. In February 2005 some PHED officials were sent to Nadia in West Bengal to obtain training. The limited IEC activities for promoting rural sanitation and educating villagers about the health benefits of latrines as opposed to open defecation is another constraint that needs to be addressed. Only in Imphal East district IEC activity was done and spend total Rs.11.15 Lakh for the purpose. It is expected that with the release of the required fund the activity will pick up momentum.

C.5 FIELD VISIT OBSERVATIONS

This section describes the key features of the schemes covered during field visits along with observations on the functioning of the schemes.

Case Study-I:

District: Imphal West **Village- Tairenpokpi**

- Source: Perennial Hill stream named "NINGTHOUROK STREAM"
- Basically gravity feed scheme.
- Present Status: FC
- Sanctioned at 30.03.96 and completed on 102.04.
- Cost of the scheme was estimated to be Rs.25.58lakh but actual expenditure up to the completion was Rs. 34.42 lakh of which 70% cost of pipe and 30% cost of construction.
- Slow sand filter is about 3200 sqm.
- Capacity of reservoir is 0.90 lakh litre per day.
- It fully covered four habitations having 700 HH and 2000 population.
- Total no of stand post is 9. Among all no any tap was found in any stand post.
- Duration of water supply in a day- 2 hours in morning and 2 hours in evening were accepted
- Village level water committee has been formatted. This committee is collecting water tax for O & M of the scheme (Some time through 2 appointed person (@Rs.1000per month) and some time by members itself).
- Amount of Water tax is only Rs.20 per month per HH.
- Three no of visible unauthorized connections were found.
- No record of water loss is available with PHED.
- Distance of water source from scheme is only 3km from the supply point.
- Loktake area Development Authority is responsible for conservation of the scheme.
- Due to the lack of fund in PHED O&M work is very poor.
- There is enough water source and space for construction of additional treatment unit.

Action for betterment:

- Legally hand over this scheme to Village Water Committee.
- Separate treatment unit should be constructed to fulfill the additional demand of water supply.

Case Study-II

District: Imphal West **Village- Kangla Tongbi**

- ARWSP Gravity based water supply Scheme covering only one village having 200 HH, covering only 25-30% population of the village.
- Present Status: PC
- Duration of water supply is only 2 hours daily at morning. Only in few days during evening time supplying water for 1-2 hours.
- Distance of source of water
- From the supply point is 1.5 Km.
- Scheme is having capacity of settling tank is 0.45 lakh litre.
- Average filtration rate is 2.5 lakh litre per day.
- Service reservoir capacity is 1.35 lakh litre.
- Village water committee has appointed 1 person for O& M and paying Rs. 1500per month.
- Collecting water tax @ Rs. 20 per house hold per month with the help of committee members.
- Total 10 stand posts with 2 illegal connections are available in the village.
- Sufficient to feed the local population but during summer shorted of water is observed.
- Two perennial sources of water at the same place.
- Maximum use of major source is for irrigation purpose.
- PRI appointed 1 person for O & M work as well as for tax collection from the users.
- Most of the habitation population is mixed of Bengali, Nepali
- No training for O & M staff by PHED.
- Water level in the village is 15-20 feet.
- 3 non working hand pumps was also found in the village but no one was working.
- Legally scheme is not transferred to the village water committee.
- According to Mr. Purna kumar (a member of village panchayat) total no of members in the water committee is 30 but in general no body is aware about the committee and their members.

Action for betterment:

- To solve the problem of the villagers either separate the source for irrigation and water supply or decide the timing for water supply and irrigation with the consent of Panchayat.
- Conservation measures at the water sources should be adopted as soon as possible for the sustainability.
- Intensive IEC work is needed.

Case Study-III:

District: Imphal East **Village- Ningthong**

- ARWSP water pumping scheme stated in 1985 covering 6750 populations.
- 5-6 hours are required to collect the water from the source through pumping.
- VWC has 14 members but nobody is active.
- Present Status: NC (Scheme is not functioning).
- Legally handed over to PRI, but cannot do O&M. Political Problem with local influential club.
- Due to heavy dues of electricity bills no supply of electricity. Diesel pump is required for pumping.
- No body is paying money for the 10-ltr diesel of the engine required per day.
- Since last 1 year no cleaning of tanks.
- Near pond 1 toilet is constructed by the PHED, which is polluting tank water.
- Now villagers are taking water from river.
- Since long time community has enjoyed free water facility so nobody is ready to contribute for water now. Village pradhan is also responsible for this situation. He has politicized the matter and misguiding the community.
- Practically no O&M work is doing by PHED due to lack of fund.

Action for betterment:

- Handing over the scheme to the PRI after IEC.
- Minimise the political interferences.
- Cancellation of contract between PHED and local club members.

Case Study-IV:

District: Imphal East Village- Makhapat

- Pumping main feed and Gravity based supply.
- This village comes under partially coverd village.
- Very old scheme but not functioning now.
- According to the villagers not even 10 days villagers are getting water from this scheme.
- Scheme is in very bad shape. Its required heavy maintenance. Before maintenance PRI is not ready to take over the scheme.
- 20 stand posts are there.
- Near the plant Chaukidar is residing their. He is having water about 10 months old.
- Neither any cleaning nor maintenance work is doing by the PHED since 2-3 years.
- Community members has taken illegal connections from the transformer.

Action for betterment:

- Major repair work should be done by the department and handover to the PRI.
- Separate transformer is required for the better running of the pump.
- Community should not take illegal connections from this transformer.

Case Study-V: School Sanitation under TSC

District: Imphal West Sekmai Khunou Primary School

- Latrine is not constructed according to the design provided by MoRD, GOI.
- Only 2 latrines without septic tank were constructed.
- No any provision of urinal in the toilet.
- No provision of water near 200 meter of that school.
- According to the concerned PHED officials its constructed in Rs.20,000.
- Both of the toilets were found locked and not available for use.
- No body is aware about the school sanitation and hygiene education and their provisions in the schools.
- The department has done no IEC work.
- Due to the terrorism problem nobody wanted to frequently visit the site.

Action for betterment:

- Trainers are required to trained about the guidelines. Even Executive Engineer Was found not aware about the guidelines of the TSC and other programmes of the water supply and sanitation
- IEC work is badly needed in the schools.

C.6 PANCHAYATS IN MANIPUR

Manipur has had a long history of community governance by way of Panchayats. The modern Panchayat system was first introduced in Manipur in 1960.

The first election under this act was held in May 1978. 107 Gram Panchayats, 43 Nagar Panchayats and 9 Panchayat Swamitis were constituted in 1978.Though the act provides for establishment of three tier system of Panchayats, viz, gram Panchayats, panchayat Samitis and Zila Parishads, the last was not constituted. Necessary elections were held in 1978,1985 and 1991. 166 Gram Panchayats and 9 Panchayat samitis set up in September 1991 ended in Septembwer, 1996.

District Autonomous Councils

The Manipur (Hill Areas) District Councils Act,1971 and its Rules,1972 to provide for the District Councils in the hill areas in Manipur was notified on 9th March 1972. Under this act 6 ADCs at the district level was constituted. Each ADC has 18 elected members and 2 nominated members for 5 years which coube extended to an other year in exigencies of work. Chairman and Vice-Chairman of each ADC are chosen by the members of the council. Further under the village authority act 1956 each recognized a village was provided with a village authority whose size depend on the population, with a chairman. The village authority is the village level body similar to the Gram Panchayat in the valley area. The elections to the district councils have not been held for some time due to demand for the constitution of the council under the sixth schedule.

Hill Village Authority

Every village having 20 or more tax paying houses shall have a village council and it shall be known by the traditional local name like ***Haosha*** in Kuki village and ***Peikai*** in Kabui village, khulapka etc. in other Naga villages.

Village authority is constituted with the 5-12 elected members, depending on the no of tax paying houses in the village. Among these members one will be the Chair person elected by the members. Term of the office of the members is only 3 years from the date appointed from its first meeting.

Two members from village authority will be appointed as Judge for 3 years by notification of chief commissioner. DC can remove any member of a village authority from his office. Chief commissioner is the supreme authority to take decision. He can also make any rule for the village authority.

Now there are 165 Gram Panchayats 9 valley blocks areas in 4 districts i.e Imphal east, Imphal west, Thoubal and Bishnupur of the state. It includes Municipal Councils, Nagar Panchayats, small towns etc. Under the MPR Act, 1994 Panchayati Raj institution have been fully entrusted with the formation of development plans of the districts for meaningful implementation in various development schemes.

There is an approved outlay of Rs. 2392.50 lakhs for tenth plan (2002-07) in respect of community development and Panchayat. It includes Rs. 1414 lakhs for eleventh finance commission awards (Rs. 392 lakh for augmentation of traditional water sources for CD and Rs. 1022 lakhs for Panchayats).

Our field visits also indicated similar views from village and Panchayat members. However we also found a high degree of interest in taking on more responsibilities provided political intervention was eliminated and capacities were strengthened.

In the net therefore merely transferring O&M functions without appropriate strengthening of the PRIs would not be advisable. In other words, intensive capacity building measures that include improving skills, attitudes, and knowledge of PRI staff should precede successful implementation of the Swajaldhara guidelines.

Provision of amount in Eleventh Finance Commission for water

The Eleventh Finance Commission recommended a sum of Rs. 392 lakh for the year 2000-05 for Augmentation of traditional water sources since the state government had not released the provision for 2000-01as yet. The said amount of Rs. 392 lakhs is proposed to be utilized during 10th plan period 2002-07. The scheme to be taken up under EFC. Award is for protection of traditional water sources/repair or renovation of drinking water ponds. Districtb wise allocation is as follow;

Table-24: Finance Commission award for Augmentation of traditional water sources

SN	District	Amount(Lakh Rs.)
1	Ukhrul	42.50
2	Se3napati	42.50
3	Tamenglong	42.50
4	Churachandpur	42.50
5	Chandel	42.50
6	Bishnupur	44.00
7	Thoubal	44.50
8	Imphal east	45.00
9	Imphal West	46.00
Total		**392.00**

Source: Draft Annual plan(2005-06), Manipur

C.7 INSTITUTIONAL CAPACITY AND DECENTRALIZATION

GoM has designated the Public Health Engineering Department (PHED) as the nodal agency for implementation of RWSS programmes. The PHED is dealing with planning investitigation, executaion and O&M of both rural and urban water supply in the state.. The Chief Engineer is the over all incharge who is directly assisted by the accounts, administrative and technical section of the department. The additional chief engineer works directly under the chief engineer, there are 3 Superintending Engineers (one for urban and two for rural areas) who reports directly to the Additional Chief Engineer. However the Executive Engineer HRD Cell works directly under the chief Engineer. The jurisdiction of the both Superintending Engineers (Rural) is divided into twelve divisions. There are 18 Executive Engineers, 37 Assistant engineers, 1 geo hydrologist, 1 Geophysicst and 1chemist. In addition to the engineers, the department has other supporting staff whose strength is 1259 for the purpose of correspondence, accounts, estimation, drawings, etc. The total strength of the PHED as of 2002-03 stands to be 1322. As of 2004-05 there are 77 engineers and 254 management graduates in the department.

Training Programmes: Training of the staff member is very important for their personal development and successful running of the schemes. Information available from the PHED reveals that during 2003-04 no such courses were undertaken. During 2000-01, five and 2001-02, seven technical courses for the engineers and operators were undertaken. Similarly, 32 training programmes were undertaken for Project Management and O&M (Mix. of technical and Management) during 2000-01 and 8 programmes for the same purpose during 2001-02. But no information is available on the number of persons attended these courses.

Apart from the Government department, the Panchayati Raj institutions (PRIs) are also involved in RWSS. In line with the requirements of SRP/Swajaldhara, the GoM has notified the creation of various entities to supervise RWSS programmes, cutting across Government departments and PRIs.

As per the orders of the Govt. order (No.9/13/95-Dev(p)/Pt-III(A) dated 13.06.2000, published in Manipur Government Gazette dated 20th December, 2001 the following bodies have been constituted for the implementation of RWSS programmes in the state at various levels:

(a) Manipur State Water and Sanitation Mission (MSWSM): This is an independent body under the aegis of Public Health Engineering Department, Government of Manipur. The job of this mission is to provide operational flexibility to the State for integrated implementation of community participation project for water supply (WS) and TSC. It has overall responsibility for the formulation of Policy, Guideline and implementation of the same and receipts, disbursement of project funds, accounts and audits, liaison and co-ordination with the Central Government as well as the State Government. It is also responsible for close monitoring and evaluation of the programme and project implementation. This body shall meet at least once in a year. The Chief Secretary of Government of Manipur heads this mission as its Chairman. The Commissioner/Secretary (GoM) of the Public Health Engineering Department is the Nodal Secretary. The other members associated with this mission are the Commissioner/Secretaries, of different State Government Departments (GoM).

(b) State Level Executive Committee: The functions of this committee are to identify and select the district for water supply and TSC, to ensure the establishment of District level Water and Sanitation Mission in consultation with the District Collectors, Zila Parishads, CEO's, to ensure opening of separate bank account at district level, to have a district plan prepared for executing the WS and TSC in a time bound manner, to extend all IEC, HRD, MIS support to the District Mission, to ensure monitoring (internal & external Assessment) of the implication of WS & TSC in the districts trough various level structures monitoring formats, documents, the feed back/ progress (village wise), ensure regular submission of physical and financial reports under the WS & TSC to the Mission Head Quarters, New Delhi by DWSM. This body shall meet at least twice a year. This body is headed by the Commissioner/Secretary to GoM, Public Health Engineering Department as the Chairman and Executive office. Among the other nine members five are nominees from different departments. The remaining four members are from the Executive Director, PHED and one representative from the media and one from the NGOs and the Chief Engineer of the PHED will be the member of this committee.

(c) District Water and Sanitation Mission (DWSM): This body is affiliated to the State Water and Sanitation Mission. The major functions of this body is formulation and management of the WS & TSC project ensuring the project development objectives are achieved, receipt of Central Fund for the project and their management for effective implementation of the project, selection of private agencies/ NGOs on a competitive basis and signing of MOU with them for project implementation and overall supervision, sensitising the Panchayati Raj Functionaries, related Government Officials, local opinion makers, politicians regarding the merits and modalities of community managed projects. Formation of **Village Water and Sanitation Committee (VWSC**) at every Gram Panchayat (GP) level after generation of demand for any particular scheme as per the Sector Reform Project, to open a separate bank account known as "District Water and Sanitation Mission" where the funds will be transferred from the State Mission, to execute bi/tripartite agreement between VWSC, GP/ Block level Panchayat Samiti as the case may be and the DWSM for taking up the scheme under this programme. The mission is also entrusted to tie up with key institutions for imparting training on all aspects of the programme with special thrust on community managed programme implementation with the view that the benefits reaches all level of beneficiaries, to prepare the strategy for water quality monitoring surveillance by involving community at grass root level and Carry out IEC (Awareness) Campaign and Training (HRD) activities, interact with Government of India/ State Government/ SWSM. This body headed by the Deputy Commissioner/ Chairman, shall meet at least once every quarter and shall broadly function as an Advisor and facilities for the District WS & TSC.

(d) Village Water And Sanitation Committee (VWSC): The Sarpanch of the village will be the Chairman of this committee and the committee shall meet at least once in a moth and a Member should keep a note on the proceeding in a separate register. The responsibilities of this committee as per Swajaldhara Guidelines are to ensure GP's take up Swajaldhara implementation in each Gram Sabha meeting, ensuring community participation in decision making at levels of scheme activities, organizing community participation in capital costs (both cash and kind), opening and operating bank account on behalf of the community for the purpose of O&M, signing of various agreements with the DWSM, Commissioning and taking over the completed WS and Sanitation works through a joint inspection with the DWSM, under what ever RWS programme these may be completed.

The VWSC is also responsible for collection of funds through a tariff, charges and deposit system for O&M of water supply and sanitation works for proper managing and financing O&M of the service on a sustainable basis, and empowering women for a day to day operation and repairs of the schemes, promoting awareness of drinking water, sanitation and hygiene in the panchayat, participation in communication and development activities in other villages, co-ordinate with the DWSC and send regular report of the implementation status to it, undertake annual audit of account of funds utilized by it and most important is to register the VWSC under the Panchayati Raj Act.

Extent of Decentralization

The PHED with the view to promote long-term sustainability of the RWSS facilities created under a project and to meet the beneficiary participation and cost recovery objectives has started handing over responsibility for O&M to Panchayats. By having utility responsibilities of O&M and finances closer to the customer than presently with the PHED, service is expected to become more responsive to customer needs. Preliminary cost estimates, a standard design reflecting village facility needs under the project and cost sharing formulas, will be made available to the Gram Sabha by PHED prior to the village committing to the project. Scope of this component depends on the following tasks:

- VWSCs will act as a supervisory committee to look in to the working of the project. The VWSC will be the representatives of the villagers.
- SWSMs for the multi village schemes. The SWSCs will be representative of the VWSCs under the scheme.
- Village Participation Support: the village support strategy constitutes one of the most important activities required to meet the project objectives and maintain participation momentum. It is also important to deliver effective message on the health education task of the project, and to support village participation because the delivery and effectiveness of the message are often hampered by the negative perceptions of those targeted for behavioral changes.

Roles, responsibilities and capacity of different tiers of PRIs

The GoM announced its decision to hand over O&M of RWSS to the Gram Panchayats in October 2003. The PHED will thus hand over the responsibility of O&M of single village schemes in the first phase and multi village schemes in the next phase. PHED has not made sufficient efforts to hand over water supply scheme through IEC campaign as well as persuading panchayats through the Department of Rural Development.

Table-25: Devolution of Powers to PRIs (on 23rd June ,2002)

Particulars of Items	Powers and Functions of Zila Parishad	Powers and Functions of Gram Panchayats
Repair and maintenance of drinking water wells, tanks and pond. Prevention and control of water pollution. Maintenance of selected rural water supply schemes including handpumps. Collection of water charges subject to framing of rules by the administration department Conservation and protection water source including protection of catchments areas.	Supervision and monitoring in the implementation of schemes/programmes and finalization of proposal for selection of beneficiaries for low cost latrines/other health and sanitation programme/schemes.	Identification of beneficiaries through Gramsabha.

Present Position:

- Panchayats exists only at the four districts of the state.
- At all the PRIs political intervention and corruption is at the highest level
- The state government has not yet given any power to the panchayats
- They are not aware about their roles and responsibilities
- Thus the PRI's should be strengthened and given power for successful implementation of any developmental schemes.
- No information was available from the state head quarter on the hill districts. The system should be transparent.

C.8 FINANCE

Funding of investments and O&M of the RWSS sector is available from various schemes/programs discussed below:

Accelerated Rural Water Supply Program (ARWSP) - Funding is available from the GoI in the form of grants to GoM under ARWSP. Of the total funds received, 65% is used for construction of water supply schemes, 20% is allotted for sub-mission projects under ARWSP (dealing primarily with solutions to water quality problems) where the GoM has to make a contribution of one-third of the funds GoI provided and 15% is used for O&M of rural water supply schemes. The Sector Reform Projects and Swajaldhara projects involving 10% community contribution to the capital cost are also being taken up under the overall umbrella of the ARWSP. The GoI also provides funding under AWRSP for the setting up of district water quality laboratories and for computerisation of the PHED , with GoM providing a part of the total fund required for these institutional strengthening measures.

State Government schemes under the Minimum Needs Program (MNP) – The GoM provides funding under the MNP for taking up various water supply schemes. Apart from providing matching funds for some components under the ARWSP, funds under the MNP are available for various water supply schemes taken up in response to local requirements. The schemes are further distinguished as either district level schemes (where the GoM releases funds to the district planning boards) or as state level schemes where the funds are released directly to the PHED.Now this scheme is merged with PMGY.

Pradhan Mantri Gramodaya Yojana (PMGY) – Launched in 2000, funds are made available by GoI to State Governments under PMGY for creating rural infrastructure in five sectors, including drinking water supply. The program includes provision of drinking water facilities at rural schools. Now MNP has merged in this scheme.

Total Sanitation Campaign (TSC) - This program was launched so as to replace the Central Rural Sanitation Program in 1999. TSC provided for the construction of individual household latrines (IHHLs), Rural Sanitary Marts (RSM) and Production Centres, community toilets and toilets in Government schools. The program is taken up district-wise, and considerable emphasis is given to IEC activities. A minimum of 15% of the project cost is to be spent on IEC. For different components under TSC there are different norms for cost sharing between the GoI, the State Government and the beneficiaries. The details of capital outlay under various programs, expenditure on Operation and Maintenance (O&M) of RWSS schemes during the period 1999-2000 to 2003-04 is given below:

Table-26: RWSS Capital Outlay (Rs. Lakh)

	Capital Outlay				
Schemes	**1999-2000**	**2000-01**	**2001-02**	**2002-03**	**2003-04**
ARWSP	4744.40	6200.00	6125.00	1826.00	1833.00
MNP/ PMGY	1274.98	2310.54	2261.61	1701.73	5651.00
Total	**6019.38**	**8510.54**	**8386.61**	**3527.73**	**7484**
O&M Expenditure	300.89	492.27	696.1	1514.59	1586.95

Source: PHED,GoM, 2005

It can be observed that the capital outlay under ARWSP increased from 1999-2001 but there after it decreased till 2004. Where as in case of PMGY/MNP the amount increased from 1999-2002. But during 2002-03 it came down and again increased during 2003-04. The significant aspect is that the O&M expenditure has increased five times from 1999-2000 to 2003-04. It is clear that the PHED has been able to step up investments significantly from 1999 onwards with additional funding by GoI under PMGY/MNP.

The PHED, has invested Rs.14676.46 lakhs from 1995-96 up to 2003-04 for rural water supply in the state of Manipur. Of this entire amount during the above mentioned period 40 percent has been spent on providing water supply connections and 6o percent on treatment of water.

Table-27: Financing, Pricing and Cost recovery (Rs. In Lakh)

Year	Water supply connections	Water supply treatment	Total water supply
1995-96	427.2	640.76	1067.96
1996-97	516.2	774.27	1290.47
1997-98	711.54	1067.31	1778.85
1998-99	177	265.52	442.52
1999-2000	600.2	900.39	1500.59
2000-01	274.7	412.09	686.79
2001-02	675.4	1013.15	1688.55
2002-03	1235.7	1853.6	3089.3
2003-04	1252.6	1878.83	3131.43
Total	**5870.54**	**8805.92**	**14676.46**

Source: PHED, GoM

The all sources of funds for total investments in the state (rural) is given below.

Table-28: All Sources of funds for investments (Rs in Lakhs)

Sources	Latest available	Year	Envisaged/Expected	Year
Central Government	1924.69	2003-04	1713.41	2004-05
State Government	1702.36	2003-04	1912.00	2004-05
*DONER(NLCPR Schemes)	933.33	2004-05	800.00	2004-05
TSC	102.73	2003-04		

*Department of North eastern Region, GOI.

Source: PHED, GoM, 2005

C.9 CONCLUSIONS

The success of water supply and sanitation projects has been limited in Manipur, Only in Imphal east and west districts some progress can be observed. People still have the notion of getting water free of cost. The gravity-based schemes are successful and sustainable. So far no measure has been taken to conserve the water sources. The failure of the pumping schemes can be attributed to lack of maintenance and insufficient funds. Most of the pumps are old and needs replacement or major repair.

The PHED is not performing properly. The majority of the officials are not aware about the guidelines of the different schemes. There is no accountability in the department no records are maintained properly specially for the hill districts. To some extent this may be attributed to the existing law and order problem in the state as there is a constant threat of extortion and abduction from certain sections for which the engineers dare to go to the villages in certain parts of the state.

The panchayats are yet to be given power and they are not aware of their roles and responsibilities. With regard to O&M expenditure being fully met by the PHED. The PRI's are not ready to take charge of the old schemes, which require huge repair work. Though there are instances where the villagers are willing to take charge of the schemes and ready to pay for the same depending upon affordability. The role of the NGOs are negligible.

While an institutional structure for RWSS has been created, it is now necessary to ensure that entities like the State Water and Sanitation Mission come to play a role in ensuring effective inter-departmental co-ordination and linkages between the State Government and Local Government entities active in RWSS. The proposed MoU between GoM and RGNDWM can be used to define this role as well as ensuring a role for various component of the RWSS institutional structure in the monitoring and reporting of RWSS programmes.

There is a need for the proposed MoU to specify a time-bound implementation plan for improving the physical infrastructure for water quality testing as well as for regular periodic checks of all sources.