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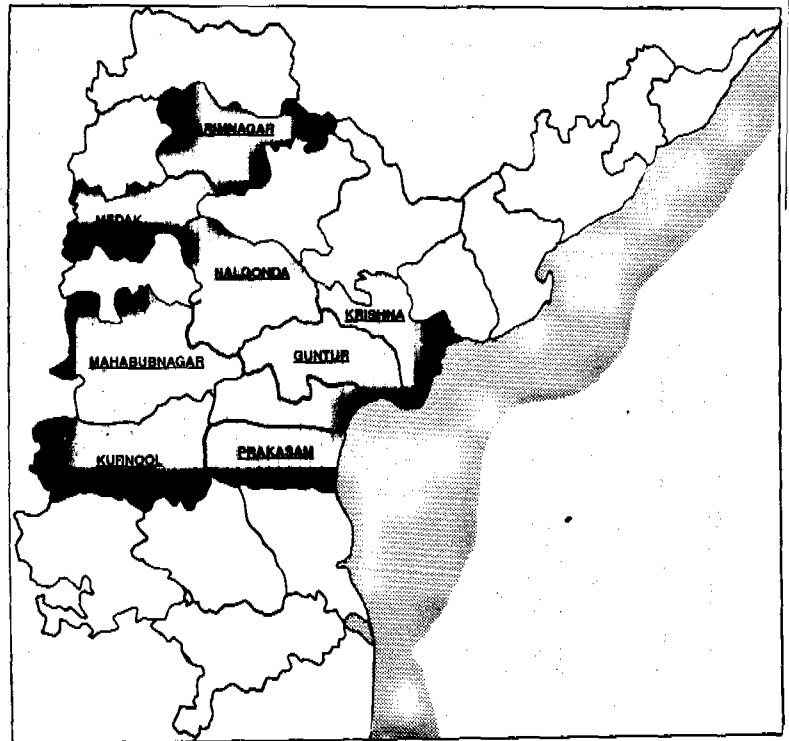
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# NETHERLANDS ASSISTED PROJECTS OFFICE

## HALF-YEARLY PROGRESS REPORT

*JANUARY TO JUNE 1997*

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## LIST OF ABBREVIATIONS

AEV	Additional Enroute Villages
AP	Andhra Pradesh
AP I	First generation of Netherlands Assisted projects in AP
AP II	Second generation of Netherlands Assisted Projects in AP
AP III	Third generation of Netherlands Assisted Projects in AP
APSEB	Andhra Pradesh State Electricity Board
APSRAC	A.P. State Remote Sensing Applications Centre
ASSIST	Local NGO
BR	Balancing Reservoir
CE	Chief Engineer
CMS	Catalyst Management Services
CPWS	Comprehensive Piped Water Supply
CPWSS	Comprehensive Piped Water Supply Scheme
C/W	Clear Water
CWST	Clear Water Sump Tank
DC	District Collector
E-n-C	Engineer-in-Chief
EV	Enroute Village
FRE	Final Revised Estimate
ft	feet
GLSR	Ground Level Service Reservoir
GO	Government Order
GoAP	Government of Andhra Pradesh
GoI	Government of India
GoN	Government of Netherlands
GP	Gram Panchayat
HC	House Connection
HERSELF	Local NGO
H/W	Head Works
HPR	Half-yearly Progress Report
IPWSS	Individual Piped Water Supply Scheme
lakh	100,000
LIS	Lift Irrigation Scheme
lpcd	Litres Per Capita per Day
MARI	Local NGO
MDO	Mandal Development Officer
MEP	Minimum Evaluation Procedure
MI	Minor Irrigation
MIS	Management Information System
MM	Mahila Mandal
MPR	Monthly Progress Report
+ MSL	+ Mean Sea Level
NAP	Netherlands Assisted Projects
NAPO	Netherlands Assisted Projects Office

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## LIST OF ABBREVIATIONS

NEERI	National Environmental Engineering Research Institute
NGO	Non-Government Organization
NS	Nagarjuna Sagar
O&M	Operation & Maintenance
OHSR	Overhead Service Reservoir
PPM	Project Planning Matrix
PRA	Participatory Rural Appraisal
PRED	Panchayat Raj Engineering Department
PRFS	Project Reformulation/Feasibility Study on AP-III
PSP	Public Stand Post
PWS	Piped Water Supply
QPMF	Quarterly Project Monitoring Framework
R&B	Road and Buildings
RGNDWM	Rajiv Gandhi National drinking water Mission
RSF	Rapid Sand Filtration
R/W	Raw Water
RWS	Rural Water Supply
SHGs	Self Help Groups
SM	Support Mission
SNIRD	Local NGO
SSF	Slow Sand Filtration
SST	Summer Storage Tank
TBLLC	Tunga Bhadra Lower Level Canal
TMC	Thousand Million Cubic feet
TRM	Technical Review Mission
WHO	World Health Organisation
WMC	Water Management Committee
WMF	Water Monitoring Format
WSS	Water Supply and Sanitation
VAC	Village Action Committee
VBO	Village Based Organization
VDS	Village Distribution System
YG	Youth Group

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	Address	No. of copies
14.	International Reference Centre (IRC) P.O. Box 93190 2509 AD The Hague The Netherlands	1
15.	MARI Modern Architects for Rural India 13-76, C/o P. Shivchander Court Road, Jogipet Medak District	1
16.	The Chief Engineer Minor Irrigation Errum Manzil Hyderabad 500 082	1

## A. INTRODUCTION

This report covers the reporting period January to June 1997. Though the previous report's title reads HYPR April to September, the report actually covered the activities till December 1996, as it made sense to stretch the reporting period in order to include developments taking place in the last quarter of 1996 regarding the final completion scheduling for AP II and the preparations for AP III. In consultation with RNE the present reporting period hence covers January to June 1997.

### AP II Projects

The report provides:

- an update on the inventory and "as laid" information,
- an assessment of the overall level of completion of the NAP AP II Projects, and the completion per District; in comparison with the Final Completion Schedule,
- an intermediate assessment of the status in the field, made with the assistance of the NGOs,
- and the data and analysis of the water delivery in the villages, indicating the performance or functioning of the schemes.

In addition to the regular monitoring services, some major activities took place during the reporting period, making these 6 months a very busy working period.

### Preparation of AP III Project

During the first three months much activity was directed at assisting the PRED in conceptualizing and drafting an alternative approach to AP III Nalgonda. This approach was based on ground water as a source, a high level of community participation and increased emphasis on documentation, planning and management. A technical support mission with inputs related to these issues, was provided to assist the PRED in these activities. The draft proposal was produced by the beginning of February.

A Bilateral Technical Mission composed of Indian and Netherlands experts, directed to the NAP AP projects by RNE, arrived in Hyderabad early March. The Mission's Terms of Reference included an assessment of the accomplishments of the AP II projects and an appraisal of the proposed activities for AP III Nalgonda. By means of briefings, presentation of documentation and coordinating field visits for the three mission members, PRED and NAPO assisted the mission in conducting their task.

The Mission appraised the AP III draft proposal, and held discussions with PRED and NAPO regarding its comments on the draft document, which thereafter was finalized for submission to Government. (Reference is made to the Mission's report on Assessment of AP II and Appraisal of AP III projects.)

As the Mission advised a Pilot Phase AP III, with a few villages to test the methodology of the AP III approach in the field, PRED and NAPO prepared a work plan for NAPO Technical Assistance to that effect, for the period April to December 1997.

This was followed with NAPO filling in the capabilities needed for the implementation, such as, contracting a professional team for the implementation of the community participation, engaging the services of a hydrogeologist, attracting a project management advisor and making preparations for the start of the pilot project.

PRED appointed staff at ENC's office and at the field level to look after the pilot activities, while the first three villages were selected.

The pilot project was launched from 1 July 1997.

### **Community Participation in AP II**

Meanwhile, the NGOs in the AP II projects had completed their earlier contracts with RNE and were granted an extension / expansion to cover a bigger number of villages in their respective areas, for the period April to December 1997.

Some changes in NAPO / ETC tasks in the set up deserve mentioning. While the NGOs in AP II had been under TA contracts with RNE, during the previous period, the extension contracts for NGOs as well as the contract for the professional Team in AP III, are routed through NAPO. NAPO has entered a management contract on an NGO fund with RNE to that effect. NGO HERSELF had already been funded by NAPO since December '96, through re-appropriations in the NAPO budget at the request of RNE.

Likewise, the funds for the works to be implemented in the three villages during the pilot project are routed through a NAPO management contract, regarding a fund with RNE for immediate rehabilitation RWS Nalgonda, pending the approval of the PRED proposal for FA.

NAPO has also agreed with RNE to render services to the WID Sector, by means of making the NAPO SPC available for a maximum of 35 days, to support the staff responsible for women in development activities in Netherlands-funded projects in Andhra Pradesh.

### **Some critical observations regarding the reporting period**

#### **Completion AP II**

In view of the seemingly never ending delays in this programme, (originally targeted to be completed in four years after the start in 1987), NAPO and Support Mission AP 33 assisted the PRED in making a Final Completion Schedule for the AP II projects, in November 1996.

The final schedule was made by the concerned Engineers of the respective Districts and approved by the PRED Management in November 1996, planning the final overall completion within the year 1997.

During the reporting period NAPO received two letters from the Chief Engineer RWS, intimating two revisions of the "final schedule", once more delaying the completion of AP II, well into 1998. NAPO has put its concern on record but is running out of ideas to stimulate the PRED to speed up the completion. Meanwhile PRED's decision to consider 31 December 1996 as the closing date for financial bookings onto the AP II projects is upheld and will be applied to financial claims to follow.

### **Performance Monitoring**

On the subject of PRED taking over the delivery monitoring system, little action was undertaken. This being a systematic effort towards an institutional contribution (MIS) to the PRED, (informing District SE, and PRED Head Office of the performance of schemes in the field, while also creating a minimum level of accountability), the lack of action is perceived as disappointing. NAP Office suggests PRED be encouraged to take on this responsibility and apply the methodology within the PRED created RWS systems.

On a positive note the bifurcation of RWS in the PRED is well on its way and it may be hoped that the emerging corps of RWS Engineers will take an interest in the performance monitoring system.

Lastly, as much of the activity in the AP III pilot started after the dates of this reporting period, the information is not included here. NAPO targets to make the half yearly progress report for the period July to December 1997, available by the end of January 1998.

December 1997

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## EXECUTIVE SUMMARY

### C. NAP Office

#### 1. Missions & Visits

Missions and Visits are listed in section C. 1. The most important Missions were the Support Mission AP 33 in February-March 1997 and the Bilateral Mission for assessment AP II and appraisal AP III.

#### 2. NAPO Set up & Staffing

Section C.2. provides an organogramme of the NAPO set up and the changes during the reporting period. NAPO was strengthened by filling the vacancy on the position of the Technical Programme Coordinator in the person of Mr. Raj Kumar Daw. Mr. Raj Kumar Daw's experience and insights are expected to give further direction to the technical desk in NAPO and strengthen the level of advisory services NAPO can provide to PRED.

In view of the preparations and start of the AP III Pilot Project NAPO hired the services of a Hydrogeologist Mr. Kleinendorst (IWACO) and Mr. Jayaram Mamidipudi, Project Management Advisor.

On the technical desk Mr. Ravindar Reddy, joined as project officer; while on the social desk, two social project officers joined, (Ms. Nandini Prasad and Mr. Prakash Dutt) one in replacement of Mr. Ravi Kumar who left NAPO, and one to strengthen the staff on the AP III pilot phase.

### D. NAPO MONITORING & SUPPORT SERVICES

#### 1. AP II PROJECTS - RWS COMPONENT

##### 1.1 Comparison inventory & as laid information

Section D.1.1 compares the scheme data provided for design with the data furnished for "as laid". The design data are generally based on "all Indian Standards".

The comparison leads to the following observations:

##### Slow Sand Filters

For seven of the nine schemes using SSF the "As-laid / As-built" capacity is higher than the designed capacity. For two schemes the "as laid" capacity is lower than required.

##### Rapid Sand Filters

A comparison for the RSF in Medak could not be made due to unavailability of the required data.

## Clear Water Sumps

For eight of the total of 12 CPWSS schemes, the clear water capacity "as built" is higher than the design capacity (one hour). CPWSS Sathnur tops the list with 7.6 hours. CPWSS Halvi has less than the required capacity, while the remaining three schemes show the proper capacity

## Raw Water Pumping Capacity

In six of the 12 comprehensive schemes the "as laid" pumping capacity exceeds the designed capacity. In three cases the as laid capacity is less than required. Some of the differences are marginal, except for CPWSS Borancha, where the under-capacity of the pump is significant. For RW pumps the information for Prakasam was not made available.

## Clear Water Pumping

Except for Halvi, the information for the comparison on clear water pumping has not been made available.

## 1.2 Completion of AP II Projects

### 1.2.1 Overall Completion Status

According to the information made available by the PRED, all the 12 comprehensive schemes are in operation, while the programme reached a level of 99.9% of financial completion, with an expenditure of Rs. 4084.3 lakhs on an estimate of Rs. 4089 lakhs.

Out of a total of 1016 works, 1004 works have been completed.

Out of the total targeted coverage of 284 villages, 269 have been covered with water supply. 100 % coverage depends on "stabilization of the schemes".

It may be noted that the above-mentioned information merely provides rough indicators based on the financial progress per physical works.

The term "Works" is rather general, lacking the distinction per volume and an indication of how vital the issue is for the scheme. (Connecting a storage reservoir to the main may be considered a "minor work", but without it, the distribution system remains inoperable).

"Villages covered" indicate that water has reached there during testing. The term "covered" may be misunderstood as the village receiving regular water supply, however, this may not be the case. (Please refer to Section 1.4, where e.g. in Medak the general data lists 97.3% of the villages covered, while some 30% or 22 villages, out of the 67 assessed, had not received RWS, since coverage in 1994).

### 1.2.2 Status per District

Prakasam has reached 96.4% of expenditure, with 98.6% of the villages covered, and 96.8% of the works completed.

Kurnool has reached 102.5% financial expenditure with 86.2% of the villages covered and 100% of the works completed.

Medak has achieved 103% financial expenditure, with 97.3% of the villages covered and 99.4% of works completed.

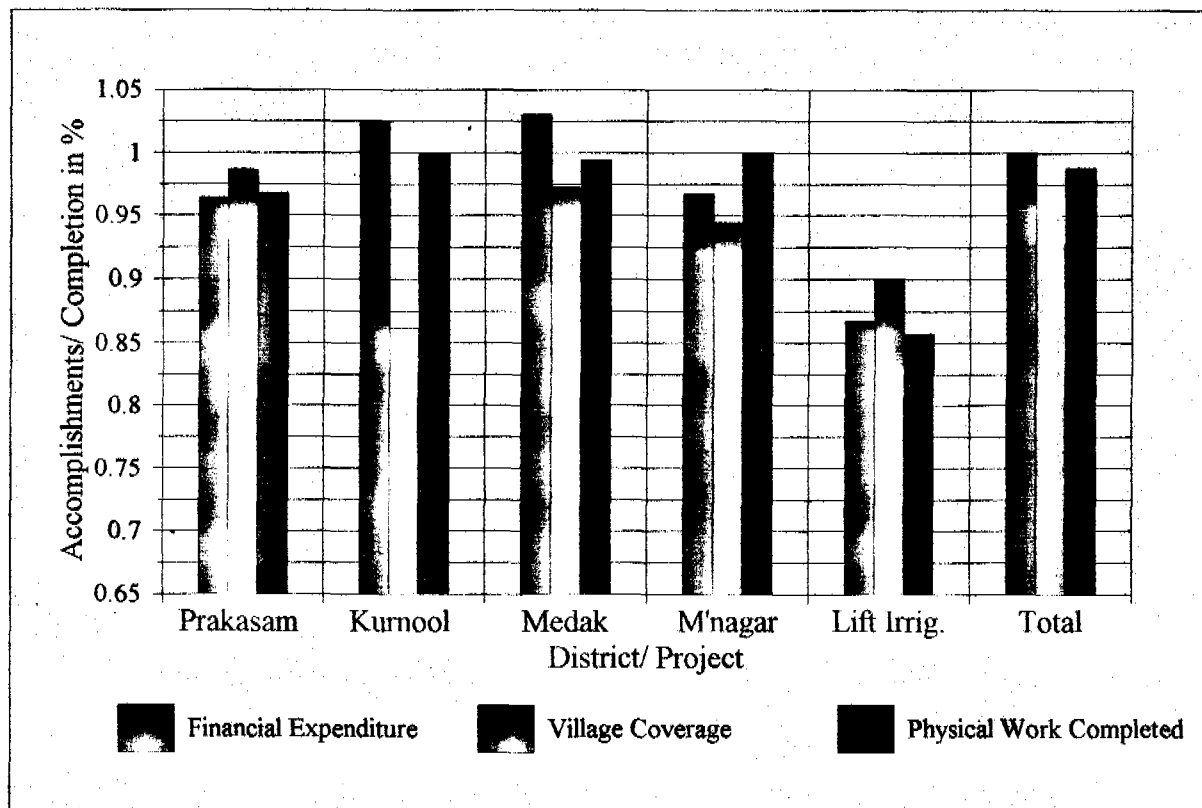
Mahbubnagar has achieved 96.7% financial expenditure, 94.4% of the villages covered and 100% of the works completed.

Lift Irrigation Mahbubnagar has achieved 86.7% financial expenditure, 90% of the area covered and 85.7% of major works completed.

Section 1.2.1 provides the further details on progress reached per District.

**Table: Summary of Physical & Financial Completion of AP II Projects**

District	Prakasam RWS	Kurnool RWS	Medak RWS	Mahbubnagar RWS	Lift Irrig.	Total RWS
<b>Financial Summary (Rs Lakhs)</b>						
FRE	1061.20	1109.80	1088.00	830.00	1187.00	4089
Expenditure	1023.04	1137.42	1121.40	802.44	1028.97	4084.3
Balance	38.16	-27.62	-33.4	27.56	158.03	4.7
<b>Coverage of Villages</b>						
Target	73	65	110	36	10000 acre	284
Covered	72	56	107	34	9000 acre	269
Balance	1	9	3	2	1000 acre	15
<b>Completion of Physical Work</b>						
Total	310	255	323	128	14	1016
Completed	300	255	321	128	12	1004
Balance	10		2		2	12
<b>Percentage Accomplishments</b>						
Financial Expenditure	96.40%	102.49%	103.07%	96.68%	86.69%	99.89%
Village Coverage	98.63%	86.15%	97.27%	94.44%	90.00%	94.72%
Physical Work Completed	96.77%	100.00%	99.38%	100.00%	85.71%	98.82%





### 1.3 Completion Schedule and Status AP II

#### 1.3.1 Overall Completion Schedule and status AP II

The Final Completion Schedule AP II (please refer to previous half yearly report) made by the concerned PRED field engineers from the AP II Districts, was approved in November /December 1996, with 31 December 1996 as the closure date for financial bookings to the NAP AP II projects.

During the reporting period, PRED Chief Engineer RWS sent two revisions of the final completion schedule, delaying the completion well into 1998.

On improvements of O&M and water delivery (O&M manuals, training of operators, PRED taking over the performance monitoring system for water delivery), little activity could be observed.

The differences between the Final Completion Schedule and the later revisions are as follows:

**Table: Revision in Completion of AP II Projects**

District	Physical Works completion by ...		Project Completion Reports by...		Resultant Cumulative delays
	Original	Revised	Original	Revised	
Mahabubnagar	14/04/97	30/01/98	19/05/97	11/03/98	296 days
Kurnool	26/05/97	30/12/97	30/06/97	05/01/98	189 days
Medak	12/05/97	10/11/97	07/07/97	13/02/98	159 days
Prakasam	09/06/97	09/06/98	15/09/97	14/07/98	216 days

NAPO has expressed her concern about the revisions and further delays and is awaiting PRED's response.

#### 1.3.2 Completion schedule and Status per District

Section 1.3.2 provides the details of the revisions per district, calculated in days of delay per item and the total delay. The data are not repeated here.

### 1.4 Intermediate Assessment of Status in the field

The intermediate assessment of the status of the schemes in the field was made for the purpose of establishing the point of departure for the expansion activities of the NGOs, regarding the existence and functionality of the local village RWS facilities. The exercise was conducted rapidly and efficiently by the NGOs. Next to the usefulness of the data for the NGOs, the results and their implications cannot be ignored in view of the completion level of AP II. The data indicate that significant numbers of villages have not been receiving water supply throughout the 12 comprehensive AP II schemes.

The outcome seems inconsistent with the levels of physical and financial progress reported, but seems consistent with the analyses on the performance of the schemes. Please refer Section 1.4 (O&M and Functioning of Schemes).

**Table: Overall Assessment of Water Outlets (PSPs/ Cistern Taps)**

Sl. No.	District	Scheme	Nos. of Villages			Nos. of Villages receiving water			
			Supplied	Assessed	% Assd.	Yes	No	NK	Totals
1	Medak	Borancha	35	24	69%	17	7	11	
2		Ibrahimpur	46	25	54%	20	5	21	
3		Karasguthi	29	18	62%	8	10	11	
Sub total - Medak			110	67	61%	45	22	43	110
1	Kurnool	Halvi	27	27	100%	10	17		
2		Hanawal	8	8	100%	5	3		
3		Sathnur	16	10	63%	8	8		
4		Chinnakothiliki	8	-		5	2	1	
5		Manchala	7	-		7	-		
Sub total - Kurnool			66	45	68%	35	30	1	66
1	Prakasam	A. B. Palem	20	13	65%	19		1	
2		Cherukuru	4	4	100%	4			
3		M. V. Palem	9	3	33%	7		2	
4		Indiv. PWSS	40	30	75%	27	3	10	
Sub total - Prakasam			73	50	68%	57	3	13	73
Total :			249	162	65%	137	55	57	249

Sections 1.4.1 through 1.4.3 provide the details of status in the field per District, which are not repeated here.

### 1.5 Operation and Maintenance of Schemes as per Performance Monitoring Formats

The performance monitoring system was introduced about one and a half years ago in an effort to obtain qualitative data on completion by understanding the level of functioning of the schemes. Four variables in the scheme data allow the performance monitoring system to estimate the level of functioning:

1. The as laid capacity as provided by PRED in the inventory and "as laid " data,
2. The aggregate pumping data on raw water per scheme, per month, as provided by PRED statements,
3. The aggregate pumping data on clear water per scheme, per month, as provided by PRED statements,
4. The data collected by user groups per village, with NGO assistance, which are computed

per scheme by NAPO.

Wherever NGOs are operating the 4 variables are used. If there is no NGO operating in the area, only the first three variables can be used.

Please note that the expansion programme of the NGOs will increase the coverage of the fourth variable to a greater number of villages, thereby increasing the validity of the delivery estimate.

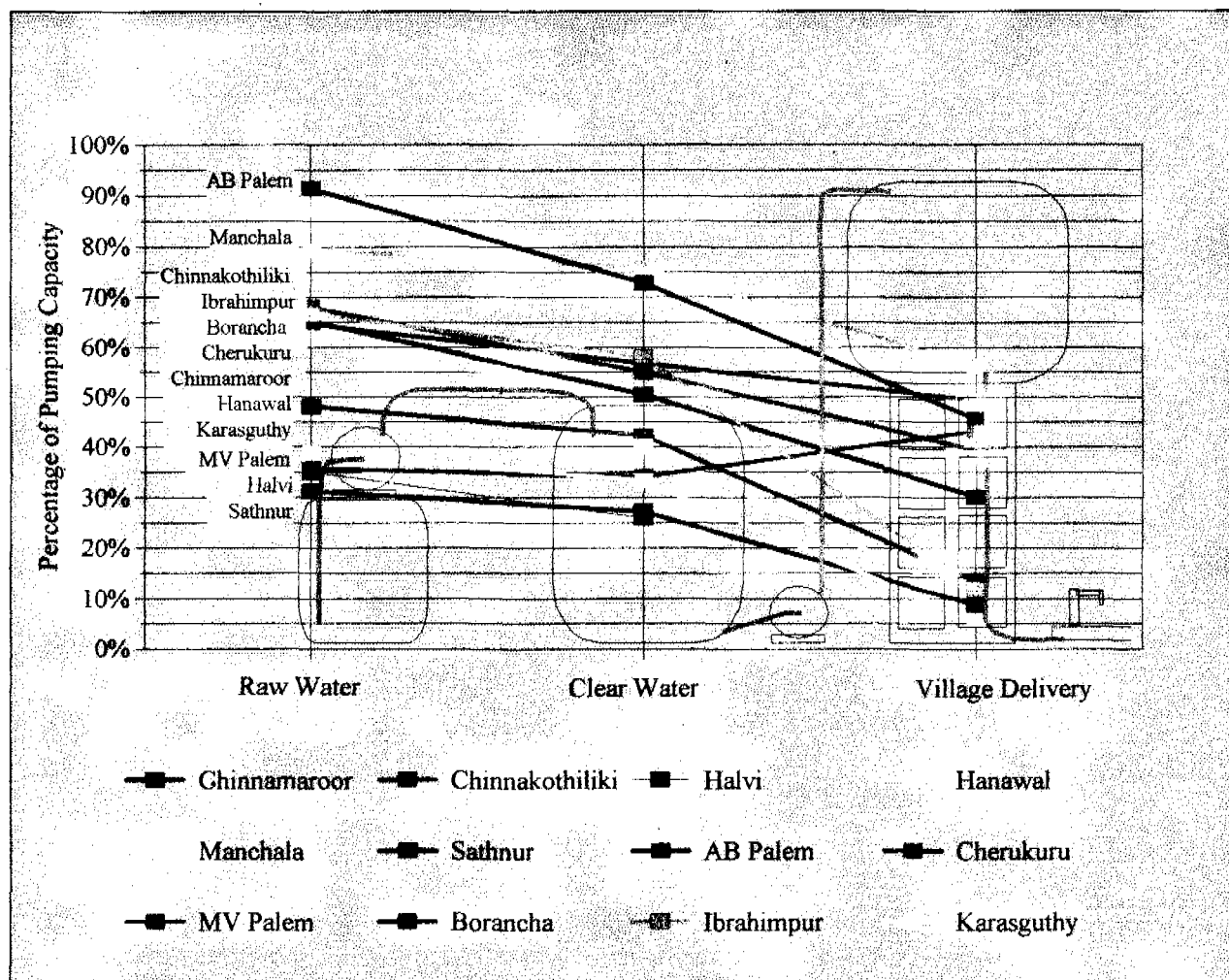
The overall average performance or utilization of the capacity of the schemes follows.

The detailed tabulation of performance and corresponding graphic representations of each scheme are presented in Section 1.5.

In view of the need for the PRED to take on responsibility for the performance monitoring, NAPO suggests that these activities be conducted for one more reporting period, after which the NGOs and village committees will be directed to provide the data collected on water delivery in the villages, to the PRED.

Table : Averages of Aggregate Pumping Data Analysis for 12 CPWSS during Jan - June 97

CPWSS	Water Pumped		Village Delivery		Losses		
	R/W	C/W	PRED	NGO	R/W to C/W	C/W to Vill. (PRED)	C/W to Vill. (NGO)
Percentage Values expressed with reference to Installed Pumping Capacities in each CPWSS							
Chinnamaroor	48.1%	42.2%	13.5%		5.9%	28.7%	
Chinnakothiliki	68.0%	54.9%	39.3%	23.1%	13.0%	15.6%	31.8%
Halvi	35.0%	25.9%			9.1%	30.4%	
Hanawal		40.0%	9.7%				
Manchala	79.2%	75.6%	56.2%	49.1%	3.6%	19.4%	28.0%
Sathnur	31.3%	27.2%	8.8%		4.1%	18.4%	
AB Palem	91.4%	72.8%	45.6%		18.7%	27.2%	
Cherukuru	64.6%	56.7%	49.3%		8.0%	7.3%	
MV Palem	35.6%	34.1%	43.1%	23.0%	1.5%	-9.0%	-0.6%
Borancha	65.2%	50.4%	30.1%	6.5%	14.8%	20.3%	
Ibrahimpur	66.7%	58.1%	12.0%		8.6%	49.5%	
Karasguthy	38.8%	33.2%	5.6%		5.6%	27.7%	



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## **2. COMMUNITY PARTICIPATION COMPONENT & INVOLVEMENT NGOs**

### **2.1 NAPO Support Services to NGOs AP II**

The NGO / community participation activities during the reporting period can be divided into two chapters:

1. the completion of the activities in the original projects / contracts under RNE, till March/ April 1997 (except for ASSIST)
2. the extension / expansion of NGO activities in AP II to a larger number of villages in their respective areas
  - ad1) the focus was on withdrawal with sustainability.
  - ad2) the focus was on a short intervention aimed at village groups to take responsibility for minor O&M of village RWS assets and take on the water delivery monitoring and establish contact between village committee and local PRED.

The methodology used by NAPO to assist the NGOs included:

#### **2.1.1 Workshops**

Several workshops were conducted regarding sustainability, objectives in the expansion phase, uniformity in approach, project planning matrix, reviews of the activities.

#### **2.1.2 Studies undertaken**

A study was undertaken to understand the requirements and needed inputs to create a quality water committee

#### **2.1.3 Field visits**

All NGOs were visited at least 5 days a month. These field visits were aimed at monitoring the ongoing activities, and assisting the NGO in these activities. Reports on these field visits are also used for overall reporting and monitoring of NGOs.

#### **2.1.4 Conceptualization of monitoring/impact indicators**

The indicators earlier agreed upon remained in operation during this period.

#### **2.1.5 Formats for reporting**

The quarterly project monitoring framework has been applied to all the NGOs during the reporting period.

### **2.1.6 Gender Inputs**

The attention for the role of women in the NAP programme has been emphasized in the NGO activities, since 1994. Although much specified in the earlier days of the projects the role of women as the main actors in the local distribution of rural water supply has been clearly acknowledged. Continuous NGO efforts have resulted in a higher profile for women in the NAP rural water supply and increased membership of women in the water committees. Experiences in the programme indicate, however, that women tend to grow diffident and women's membership starts to dwindle as the roles and responsibilities in the water committee get more defined. This experience is even more evident in the APEX / Scheme committee. NAPO intends to conduct a gender audit to gain a better understanding of the situation.

### **2.1.7 Strategies for withdrawal and sustainability**

During the past year NAPO and the NGOs have developed strategies for withdrawal of the NGOs with sustainability of the village groups built up in the past. Levels of redressal and services needed after withdrawal have been discussed.

The activities targeted for continuation include, communication with the local PRED staff, the community's capacity to take responsibility for minor repair and maintenance of the village RWS assets and the monitoring of water delivery to the village. The formation of the apex committee at CPWSS level has been one of the strategies towards consolidation.

## **2.2 Overall Progress of NGOs**

During the reporting period all NGOs have completed their previous commitments under their AP II contracts with RNE. All four have also entered into an extension / expansion programme until December 1997, through activities that have been streamlined on the basis of the previous experiences, into a short intervention with limited and well-defined goals. These include: formation of water committees with the aim to monitor water delivery, take responsibility for the upkeep and minor repairs of village assets.

### **2.2.1 Present status**

In order to be able to assess the impacts of NGO activities the expansion programme included a baseline survey at the start, resulting in the status report per District (please refer to section 1.4). This report indicates the condition of the water facilities in the villages and what the community at local level can do to improve the conditions.

### **2.2.2 Community contributions**

#### **2.2.3 Upkeep and minor maintenance**

Contributions to pay for the needed improvements are being raised in the community.

### **2.2.4 Health and hygiene promotion**

The NGO activities include health and hygiene promotion. Attention is given to school health

clubs (children and women), while emphasis is on collection and storage of drinking water, personal hygiene, domestic hygiene, environmental hygiene, and encouragement to participate in the various government health programmes.

### **2.2.5 Interaction with GP and Government Departments**

Efforts to create rapport with the local government and Gram Panchayat are being made. However, as these institutions are political in nature, interests are often not similar.

### **2.2.6 Impact of NGO involvement**

The results of the NGO efforts are quite visible, however, it remains to be seen if the increased awareness and activity regarding health and hygiene and responsibility for village assets, have been internalised in the village well enough to continue after NGO withdrawal.

## **2.3 Progress per NGO**

### **2.3.1 ASSIST**

ASSIST's latrine programme in 11 villages in Prakasam under AP II was to be completed by 15 April 1997, but got delayed till the end of July. By the end of the reporting period there was a balance of 120 latrines to be completed.

On smokeless chulahs or stoves 72% of the target was constructed when the activities were halted by the onset of the monsoon.

A lack of interest in soakage pits kept the number constructed down to 14. In spite of the NGO's efforts, the villages could not be convinced to consider these a priority.

The health programme contributed to the state immunisation project (polio), while the hygiene programme shifted its methodology to addressing the younger generation through the schools.

As the community participation component did not feature that clearly in the original contract, but was introduced with assistance of NAPO in the last few years, it was suggested to use the remaining balance funds and the extended duration of the technical components to further strengthen the village groups till December 1997.

### **2.3.2 SNIRD**

SNIRD, under contract with RNE, was working in 26 villages, belonging to the AP I projects, till end of March 1997. The extension / expansion till December 1997, brings SNIRD into the AP II programme, with 50 villages in Prakasam. The objectives in the extension phase, are the same as described earlier.

SNIRD has been successful in forming village committees in the targeted villages and took the initiative to consolidate the latter into an apex body, which was formally registered as a association under the Societies Registration act. It is estimated that 80% of the VACs are in a

position to manage the water supply system in their village.

The village bodies have taken many initiatives to take care of the maintenance of their systems, such as representations to the Mandal Development officer/ PRED to insist on repairs of pipelines, replace defunct parts, white washing of tanks and regular chlorination.

The position of women is well recognized, while the PSP committees consist entirely of women. These PSP committees play an important role in the equal/ fair distribution of drinking water. Apart from the water management, women are encouraged to develop leadership qualities and start thrift and credit groups. Till the first quarter of 1997 the groups had mobilized Rs. 1,62,230.

### **Expansion Programme**

SNIRD has documented the status in the 50 villages under their expansion programme, indicating what improvements have to be made. So far village committees have been set up in 43 of the 50 villages. VAC's have so far mobilised contributions to the level of Rs. 34,200/- and have repaired 41 control knobs, repaired 26 PSP's, 4 pipelines and 5 hand pumps, cleared water stagnation at 13 PSPs and cleaned out 10 drinking water ponds. The youth members have numbered 50 % of the PSPs and cleaned 13 OHSR tanks and their surroundings.

### **2.3.3 MARI**

MARI had been working in 10 villages in Medak District, under a one year contract with RNE October 1995-'96, and got extended budget neutral till the end of March 1997, by which time the programme was completed. MARI entered an extension / expansion programme covering 57 additional villages in Medak District for the period April - December 1997.

Training and awareness camps and a programme at the schools were used as tools to build capacity of village groups. Issues included upkeep and maintenance of local facilities, responsibility for WATSAN committees, health and hygiene, general sanitation and defecation habits.

MARI, like SNIRD, introduced apex bodies at scheme level and provided inputs like book-keeping, writing of minutes, correspondence with authorities and establishment of communication platform with the local PRED.

Water monitoring formats for the second quarter indicated a drop in water supply, providing water to the 10 villages only once in 6 to 10 days. The apex body has taken up these issues with the PRED, while women were involved in making presentations

Community initiatives included taking on the upkeep and maintenance of the villages RWS facilities, raising contributions of Rs.28,000 for repairs of taps and pipes and cleaning in the village and around the GLSRs. The surroundings of GLSRs and PSPs were declared "off limits" for laundry purposes.

The status survey listed 101 GLSRs, 8 OHSRs and 169 PSPs, in the 67 villages under MARI. Twenty two villages were not receiving any water, while the remainder of the villages received



water on alternating days.

So far 55 water committees are under formation and are prepared for the tasks targeted, as described earlier.

Water monitoring formats are filled in and sent to NAPO for processing.

#### **2.3.4 HERSELF**

HERSELF had previously been engaged in 20 villages in Kurnool District. 12 of these villages were receiving water at that time. After the earlier project with RNE was completed, HERSELF kept a low profile presence in the villages, until in December 1996, when the work in these 20 villages got reactivated for a period until April 1997, by when an expansion programme was expected to start. The activities during the interim period were financially covered through reappropriation in the NAP Office budget.

HERSELF conducted a status survey for 44 villages to be covered under their expansion programme, to indicate what improvements were to be made on the present status of the local village facilities.

Presently water committees have been set up in 39 of the 44 villages. HERSELF is trying to establish linkages between these committees and the PRED office in the town of Adoni.

### **3. LIFT IRRIGATION COMPONENT**

There is no progress recorded in the lift irrigation component. Section 3 provides details on the present status.

### **4. NAP AP III NALGONDA PROJECT**

#### **Preparations for AP III**

#### **PRFS update**

NAPO and PRED staff conducted further study in the PRFS villages, to assess the feasibility of groundwater for drinking purposes, to understand how the existing systems in the villages were created, the level of functioning of these schemes, their systems for O&M, and the details and feasibility of financially self supporting O&M.

#### **AP III conceptualization, planning and preparation for a Pilot Project**

NAP Office devoted considerable time and energy in assisting the PRED with the conceptualization, planning and preparations for drafting an alternative AP III proposal.

PRED and NAPO requested the services of a technical support mission with the following expertise:

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Engineering (B. Blankwaardt / IWACO)  
Hydrogeology (T. Kleinendorst NAPO / IWACO)  
Community participation (J. v.d. Blik /ETC)  
Alternative energy analysis (F.v.d.Vleuten /ETC)

With this assistance PRED drafted the revised document for AP III Nalgonda. Meanwhile RNE had announced the visit of a bilateral mission to assess the achievements in AP II and appraise the proposal for AP III. The mission had a brief overlap with the support mission, which was considered fruitful. Taking the Mission's comments and recommendations into consideration the revised PRED proposal for AP III Nalgonda was re-drafted and submitted to Government, with an advance copy to RNE.

### **AP III Pilot Project**

The Bilateral Mission emphasised the need for a pilot phase for the proposed AP III approach, during which the methodology can be tested in the field and be further fine-tuned. PRED and NAPO drafted such pilot project into a NAPO Workplan for the period April to December 1997, covering activities involved in winding up the AP II projects and the preparatory activities under the pilot.

The same was submitted to RNE approved in the second half of May. After approval of the NAPO Workplan, ETC/NAPO entered a management contract with RNE for the routing of the cost of implementation by PRED for the activities to be undertaken during the pilot.

After searching for an organization to take on the responsibility for the community participation component, the services of CMS (Catalyst Management Services) were hired for the pilot, as of 1 July, when the pilot project actually took off.

Meanwhile preparations were started in the form of determination of criteria for the selection of three villages, preliminary investigations into these villages, and hydrogeological investigations for:

Village Kothagudem (border Zones D and A)  
Village Domalapalli and Kanchanpalli (Zone D)

The last village was subsequently substituted by village Anthampet, Zone A, based on the complications expected in Kanchanpalli and the indications of good prospects after PRED intimated a positive siting in Anthampet.

As most of the activities implementing the pilot project took place after 1 July, these are not covered in this reporting period. NAPO hopes to present the Half Yearly Progress Report for the period July to December by the end of January, in order to reduce information gaps.

**B. BASIC INFORMATION**

Project name - NAP (Netherlands Assisted Project)

Project Phase - NAP - AP II & AP III

Location - Medak District  
Mahbubnagar District  
Prakasam District  
Kurnool District  
Nalgonda District

**Project Components:            Implementing Institutions:**

RWS - PRED

Sanitation - PRED: project Clean Village (preparation alternate project)  
NGO (ASSIST), Prakasam

Lift Irrigation - Department for Minor Lift Irrigation, combined with  
RWS in Mahbubnagar.

Health Education/ Hygiene Promotion/ Community Participation	NGOs	District
	ASSIST	Prakasam
	HERSELF	Kurnool
	SNIRD	Prakasam (AP I)
	MARI	Medak

Monitoring/  
Support Services/  
Advisory Services - NAPO / ETC

Technical Support  
Mission - IWACO

Reporting Period - January to June 1997

**C. NAP OFFICE**

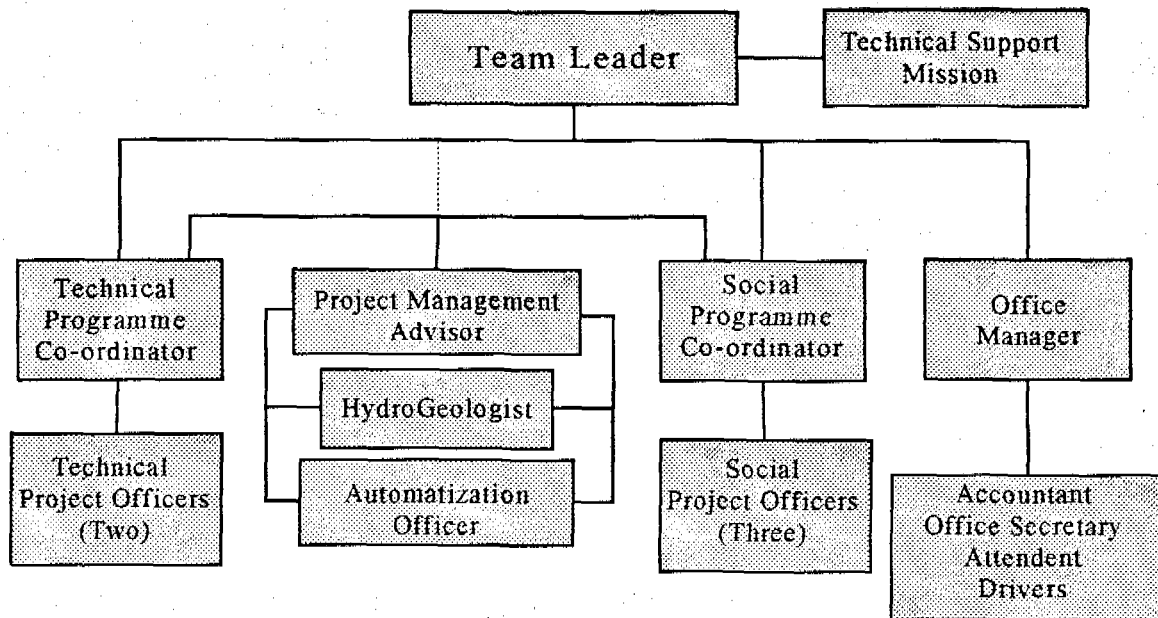
**1. Missions, meetings and visits**

<u>Date</u>	<u>Names &amp; Addresses</u>	<u>Purpose</u>
4-25 Nov 1996	Bob Blankwardt ) Theo Kleinendorst ) IWACO, Netherlands )	Technical Support Mission for AP III
30 Nov-10 Dec	Sjef Gussenhoven ) ETC Netherlands )	Backstopping
22-23 Jan 1997	C.D.L. Brands, RNE ) New Delhi )	Future planning RWSS Schemes in A.P.
11-28 Feb	Bob Blankwardt ) IWACO, Netherlands )	
11-28 Feb	Julie van der Blik ) ETC Lanka )	Technical Support Mission - AP 33
16-26 Feb	Frank van der Vleuten ) ETC Netherlands )	
19 Feb	Ms. Riet Turksma ) Gender Development ) RNE, New Delhi )	
	Ms. K. van der Heijden ) Dy. Head of Development ) Cooperation, RNE )	Gender discussions
	Ms. Rita Moulik ) Gender Development ) RNE, New Delhi )	
Feb	Mr. Peter Garman ) Thropton Energy Services ) U.K. )	River lift irrigation

<u>Date</u>	<u>Names &amp; Addresses</u>	<u>Purpose</u>
2-16 March	H.P.J. van Schaik RIVM, Netherlands	Review and Appraisal Mission for AP II and AP III
	P.G. Shastri Engineering Staff College of India, Hyderabad	
	Ms. Nafisa Barot Utthan Development Action Planning Team, Ahmedabad	
	C.D.L. Brands, RNE New Delhi	
22 Oct, 3-4 Sep	Avinash Zutshi RNE, New Delhi	For discussions on AP II and AP III
3-4 Sep	C.D.L. Brands RNE, New Delhi	
15 Sep	Sjef Gussenhoven ETC Netherlands	Backstopping
16 Sep	N. Bakker, First Secretary RNE, New Delhi	Introduction to local NGO
29-30 Sep	Els Huntjens ETC Netherlands	Review of Administrative and Financial procedures
	Edith van Walsum Saraswati	
	Mans Lanting AME, Bangalore	

## 2. NAP OFFICE AND STAFFING

The NAP Office staffing during the reporting period has been as follows:



NAP Office was able to fill in the position of the **Technical Programme Coordinator (TPC)** by hiring the services of Mr. Raj Kumar Daw, who joined NAPO in June. Mr. Raj Kumar Daw's background and experience are expected to give further inputs and directions to the technical component in the NAP Office and contribute to the level of advisory services NAPO can offer to the PRED.

The Technical desk was further strengthened in view of the requirements for the AP III pilot project, by Mr. Theo Kleinendorst, Hydrogeologist seconded from IWACO, and Mr. Ravindar Reddy, Technical Project Officer.

The position of the **Monitoring Officer (MO)** was changed to the designation **Automatization Officer (AO)** providing software advisory services to both technical and social desk.

Mr. Jayaram Mamidipudi was hired as **Project Management Advisor**, in view of the emphasis on the planning and integration requirements of the many variables in the AP III pilot.

In the Social desk Mr. Ravi Kumar left NAPO and was replaced by Mr. Prakash Dutt, together with an additional **Social Project Officer (SPO)** in view of the AP III pilot requirements, Ms. Nandani Prasad.

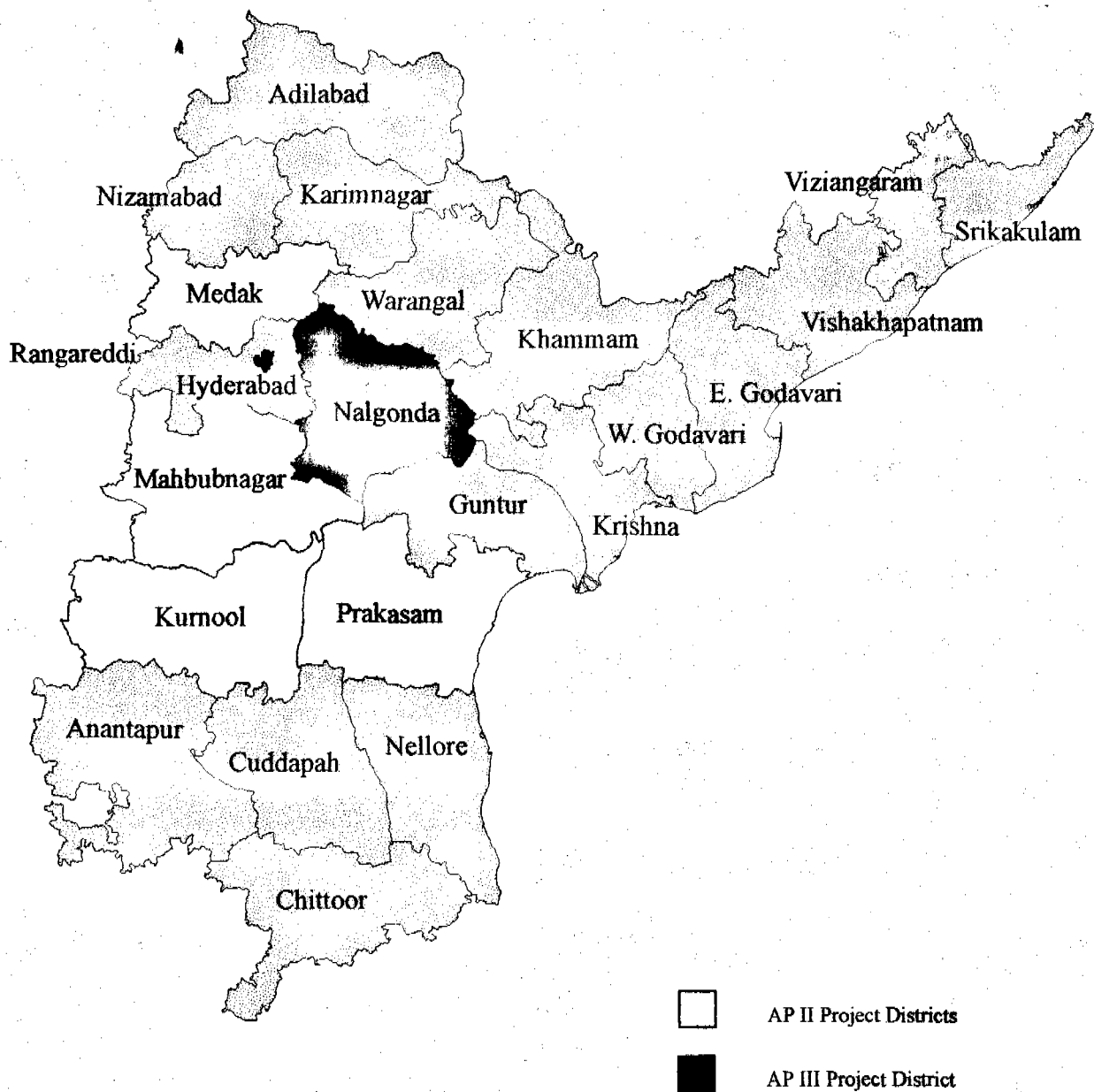
The present contract period between RNE and ETC/NAPO runs for the period April 1997 to December 1997.

The formal approval for the work plan was obtained towards the end of May, (just preceding the holiday season) which is why formal activities and hiring of external services from CMS on the social component in the AP III Pilot could not take place within the reporting period January to June 1997.

NAPO has seen many improvements resulting from the new staff, which are visible in improved analytical capabilities, improved applications of existing software and over all improvements in the support services offered to the PRED.

**The present NAPO staff and positions are as follows:**

(TL)	Team Leader	Mr. F. Hanrath
(TPC)	Technical Programme Coordinator	Mr. R.K. Daw
(SPC)	Social Programme Coordinator	Ms. A. Sharat
(PMA)	Project Management Advisor	Mr. J. Mamidipudi
(TPO)	Technical Project Officer	Mr. S. Kumar
(TPO)	Technical Project Officer	Mr. R. Reddy
(SPO)	Social Project Officer	Mr. G. Das
(SPO)	Social Project Officer	Mr. P. Dutt
(SPO)	Social Project Officer	Ms. N. Prasad
(AO)	Automatization Officer	Ms. M. Nayani
(OM)	Office Manager	Ms. J. Gay
(ACC)	Accountant	Mr. S. Gupta
(OS)	Office Secretary	Ms. T. Vinod
(OA)	Office Attender	Mr. J. Shankar
(DGA)	Driver-cum-General Assistant	Mr. Ismail Mr. Bakkaiah Mr. Bruce Mr. Srinivas
(TSM)	Technical Support Mission	Mr. B. Blankwaardt IWACO
(HG)	Hydrogeologist	Mr. T. Kleinendorst IWACO



**Andhra Pradesh - AP II and AP III Project Districts**



## D. NAPO MONITORING & SUPPORT SERVICES

### 1. AP II PROJECTS RWS COMPONENT

#### 1.1 Comparison of inventory and As-laid / As-built information

PRED had furnished the inventories and as laid maps for all AP II schemes.

Comments from NAPO and requests for improvements and additional information were communicated to PRED. (Please refer to NAPO HYPR April to September 1996 for details.)

Based on the design information furnished in the inventories, the required capacities of pumps, filters and clear water sumps have been calculated and analysed with assistance of PRED. These values were then compared with the capacities of pumps, filters and clear water sumps, listed in the " as laid / built" information provided by PRED.

**Slow Sand Filters:** For the purpose of comparison, design parameters for filters are assumed as: Filtration Rate - 0.1 m/ hr for 16 hours; Declining Rate - 0.075 m/hr for 8 hours; resulting in a Combined Filtration Rate 2.2 m/ day. The resultant computations are given in Table 1.1.1.

In seven cases capacity " as laid/ built", is higher than the capacity in the design.

1. CPWSS Hanawal, Kurnool
2. CPWSS Sathnur, Kurnool
3. CPWSS Manchala, Kurnool
4. CPWSS Chinnakothiliki, Kurnool
5. CPWSS AB Palem, Prakasam
6. CPWSS MV Palem, Prakasam
7. CPWSS Cherukuru, Prakasam

In two cases the capacity built is less than the required and designed capacity.

1. CPWSS Halvi, Kurnool
2. CPWSS Chinnamaroor, Mahbubnagar

**Table 1.1.1: Analysis of Filter Areas**

Sl. No.	Scheme	Ref. Pop.	Ref. Year	Ultim. Pop 2012 AD	Demand cu. m/ day	Filter Area (sq.m)				Conclusion
						Requd.	Provided	Nos.	Tot. Prov.	
1	Chinnamaroor	75080	87	123177	7391	3359	760	3	2280	Less
2	Chinnakothiliki	10092	91	15296	918	417	144	4	576	More
3	Halvi	45000	1996	61775	3707	1685	360	3	1080	Less
4	Hanwal	11000	96	15101	906	412	140	4	560	More
5	Manchala	18000	96	24710	1483	674	225	4	900	More
6	Sathnur	23730	96	32576	1955	888	360	4	1440	More
7	AB Palem	16685	87	27374	1642	747	350	3	1050	More
8	Cherukuru	12612	87	20691	1241	564	260	3	780	More
9	MV Palem	3818	87	6264	376	171	121	2	242	More

**Rapid Sand Filters:** These are present in Medak district but a comparison could not be made because data for sample calculations were not made available.

**Clear Water Sumps:** The norm adopted for designing the capacity of a Clear Water Sump is one hour's supply of water, in Mahbubnagar, Kurnool and Medak. In the case of Prakasam, the norm adopted is two hours' supply. The comparison of designed and "as-built" capacities is given below in Table 1.1.2.

In eight of the 12 Comprehensive Schemes, the "as built" clear water capacity is more than the design capacity. In the case of CPWSS Sathnur the "as built" capacity is very high, 7.6 hours.

1. CPWSS Hanawal, Kurnool
2. CPWSS Sathnur, Kurnool
3. CPWSS Manchala, Kurnool
4. CPWSS Chinnakothiliki, Kurnool
5. CPWSS Ibrahimpur, Medak
6. CPWSS AB Palem, Prakasam
7. CPWSS MV Palem, Prakasam
8. CPWSS Cherukuru, Prakasam

In three of the cases the capacity as laid is around one hour.

1. CPWSS Chinnamaroor, Mahbubnagar
2. CPWSS Borancha, Medak
3. CPWSS Karasguthy, Medak

In the case of CPWSS Halvi, Kurnool, the "as built" capacity provided is less than one hour.

**Table 1.1.2: Analysis of Clear Water Sump Capacities**

Sl. No.	Scheme	Ref. Pop.	Ref. Year	Prosp. Pop. 2002 AD	Discharge		Capacity Provided		Conclusion
					cu. m/ day	cu. m/hr	cu. m	hrs.	
1	Chinnamaroor	75080	87	101048	5558	347	350	1.01	OK
2	Chinnakothiliki	10092	91	12548	690	43	159	3.69	More
3	Halvi	45000	96	50677	2787	174	24.5	0.14	Less
4	Hanwal	11000	96	12388	681	43	164	3.85	More
5	Manchala	18000	96	20271	1115	70	200	2.87	More
6	Sathnur	23730	96	26724	1470	92	697	7.59	More
7	AB Palem	16685	87	22456	1235	77	203.57	2.64	More
8	Cherukuru	12612	87	16974	934	58	130	2.23	More
9	MV Palem	3818	87	5139	283	18	98.95	5.60	More
10	Borancha	46942	95	53922	2966	185	200	1.08	OK
11	Ibrahimpur	43621	95	50107	2756	172	788	4.57	More
12	Karasguthy	33012	95	37920	2086	130	152	1.17	OK

**Pumping Capacity:** Table 1.1.3 below provides a comparison of the designed and "as-built" capacities of raw and clear water pumps.

In 6 out of the 12 CPWS Schemes, the "as laid" pumping capacity exceeds the designed capacity:

1. RW pump in Hanawal CPWSS
2. RW pump in Sathnur CPWSS
3. RW pump in Manchala CPWSS
4. RW pump in Chinnakothiliki CPWSS
5. RW pump in Ibrahimpur CPWSS
6. RW pump in Karasguthy CPWSS

In four Schemes the "as laid" capacity is less than the designed capacity.

1. RW pump in Halvi CPWSS
2. CW pump in Halvi CPWSS
3. RW pump in Chinnamaroor CPWSS
4. RW pump in Borancha CPWSS

In first three cases the difference is marginal but in the fourth case, i.e., CPWSS Borancha, the under-capacity of the raw water pump is significant.

For clear water (CW) pumps in all other CPWSS schemes and for raw water pumps in Prakasam district information has not been made available by the PRED.

**Table 1.1.3: Analysis of Pumping Capacities**

Sl. No.	Scheme	Prosp. Pop. 2002 AD	Discharge		Pumping Main Details			Total		Pump Capacity		Conclusions
			cu. m/ day	lpm	Length Km	Specfn.	Head m	Friction Losses-m	Head m	Reqd. HP	Prov. HP	
1	Chinnamaroor RW	101048	6063	6315	0.74	AC 400	14.56	1.14	15.70	37	35	Less
2	Chinnakothiliki RW	12548	753	784	0.20	AC 200	12.63	0.08	12.71	4	9	More
3	Halvi RW	50677	3041	3167	4.80	AC 300	30.00	8.82	38.82	46	45	Less
4	Halvi CW	50677	2787	2903	0.48	AC 250	69.75	2.13	71.88	77	75	Less
5	Hanawal RW	12388	743	774	0.30	AC+CI 250	5.65	0.19	5.84	2	15	More
6	Manchala RW	20271	1216	1267	0.27	AC 200	9.70	0.65	10.35	5	9	More
7	Sathnur RW	26724	1603	1670	0.29	AC 300	9.80	0.44	10.24	6	35	More
8	Borancha RW	53922	3235	3370	0.15	CI 300	50.84	0.40	51.24	64	45	Less
9	Ibrahimpur RW	50107	3006	3132	0.69	AC 400	25.75	0.39	26.14	30	35	More
10	Karasguthy RW	37920	2275	2370	0.06	CI 300	33.00	0.09	33.09	29	35	More

Notes : For Prakasam schemes details are not available. RW delivery is taken as 60 lpcd, CW delivery is taken as 55 lpcd. Total Frictional Losses include 10% Minor Losses

## 1.2 COMPLETION OF AP II PROJECTS

### 1.2.1 Overall Progress of AP II Projects (ending June 1997)

The project AP II has achieved 99.9% financial progress, i.e., an expenditure of Rs.4084.3 lakhs has been incurred out of the budget provision of Rs.4089 lakhs. 269 villages (94.71%) have been covered with water supply out of total 284 villages in project area. Out of a total of 1016 physical items of work, 1004 items have been completed. Booster stations at Nadichagi in Halvi scheme, at Duddi in Sathnur scheme and at Poolachinta in Chinnakothiliki scheme are examples of later additions, still incomplete.

It may be noted that the above-mentioned information merely provides rough indicators based on the financial progress as per physical works. The term "items of work" is rather general, lacking the distinction of volume and an indication of how vital the issue is for the scheme. (Connecting a storage reservoir to the main may be considered a "minor work", but without it, the distribution system remains inoperable).

"Villages covered" indicate that water reached there during testing. The term "covered" may be misunderstood as the village receiving regular water supply. However, this may not be the case. (Please refer to Section 1.4, where e.g., in Medak the general data lists 97.3% of the villages covered, while some 30% or 22 villages, out of the 67 assessed, had not received RWS, since coverage in 1994).

Prakasam has reached 96.4% of expenditure, with 98.6% of the villages covered and 96.8% of the items of work completed. All the balance items of work are pertaining to mop-up activities.

Kurnool has reached 102.5% financial expenditure with 86.2% of the villages covered (lowest percentage of all four districts) and 100% of the items of work completed.

Medak has achieved 103% financial expenditure, with 97.3% of the villages covered and 99.4% of items of work completed.

Mahbubnagar has achieved 96.7% financial expenditure, 94.4% of the villages covered and 100% of the items of work completed.

Lift Irrigation Mahbubnagar has achieved 86.7% financial expenditure, 90% of the area covered and 85.7% of major items of work completed.

Table 1.2.2.1: Basic Data on AP II Schemes

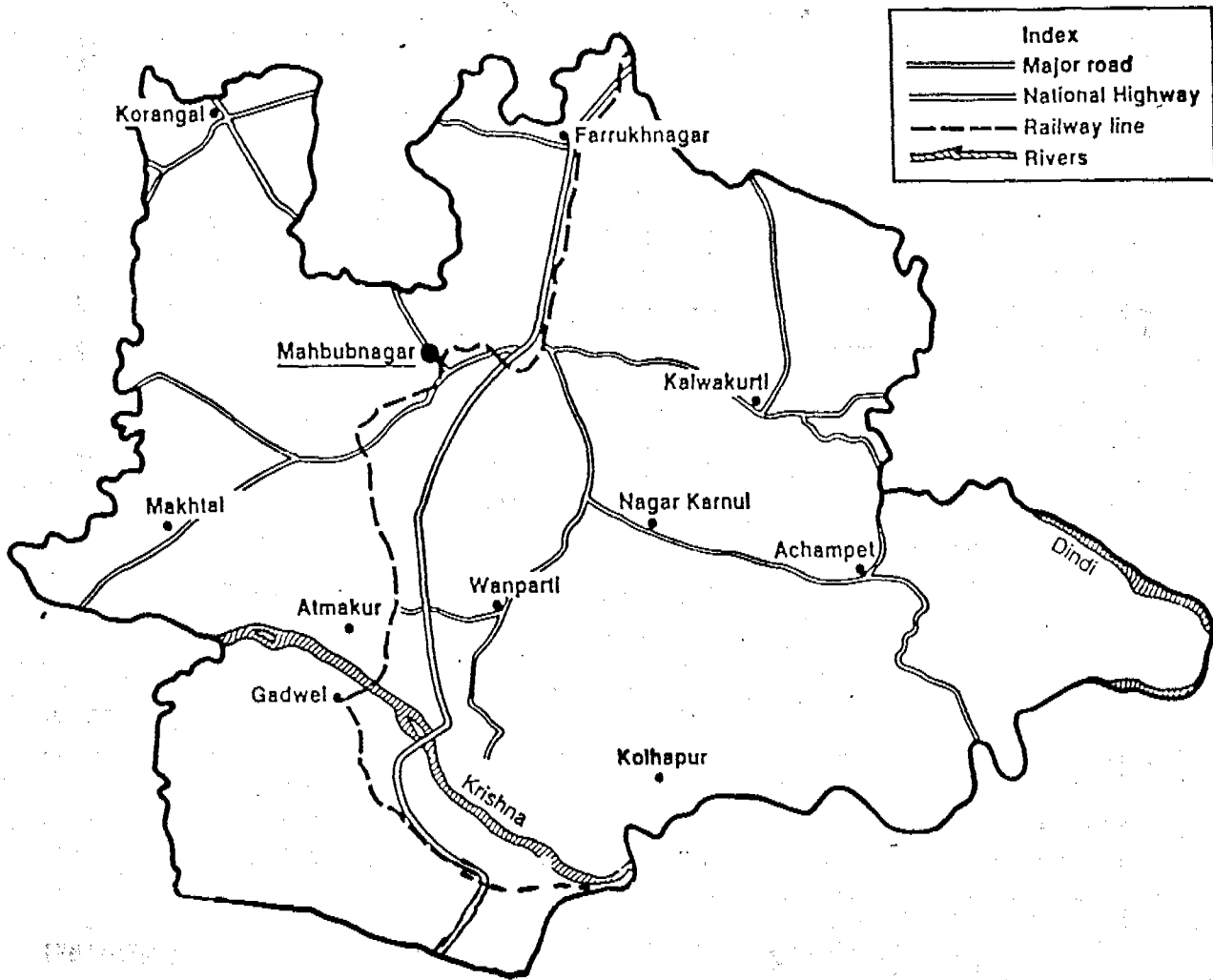
Project/District	Target Villages	Villages presently receiving water		Estimated Costs in Rs (lakhs)		Population	Source
		No.	%	Original	Final revised		
<b>MAHBUBNAGAR</b>							
CPWSS Chinnamaroor	36	34		432.60	830		Krishna River/ Sri Sailam R/v
Lift Irrigation Scheme	10,000 acres			340.00	1187		Krishna River/ Sri Sailam R/v
<b>KURNOOL</b>							
CPWSS Halvi	26						Tungabhadra River
CPWSS Hanaval (+2 IPWSS)	8						T B Low Level Canal
CPWSS Sathnur	16						Tungabhadra River
CPWSS Mancherla	7						Tungabhadra River
CPWSS Chinnakothiliki	8						Tungabhadra River
Total Kurnool	65	56	86.15	741.40	1109.80	173363	
<b>MEDAK</b>							
CPWSS Ibrahimpur	46						Manjeera River
CPWSS Borancha	35						Manjeera River
CPWSS Karasgutti	29						Manjeera River
Total Medak	110	107	97.27	640	1088	176814*	
<b>PRAKASAM</b>							
CPWSS to AB Palem	20						N S Canal
CPWSS to MV Palem	9						N S Canal
CPWSS to Cherukuru	4						Komenur Canal
34 Individual Schemes	40						N S Canal/ K Canal
Total Prakasam	73	72	98.63	735.60	1061.20	246000	

Note: Final Revised Estimate Costs as agreed by PRED and RNE  
Information is as per the reimbursement claims of March 97 and QPR 6/97  
Revised Estimates and Re-revised estimate details are already reported in the NAPO HYPR April - September 96  
\* Population of 176814 is comprised of 114774 original population +62040 population of en route villages

1.2.2 Progress in each District:

**Mahbubnagar:**

The Mahbubnagar project consists of one CPWSS, linked to the AP II Irrigation component, located at Chinnamaroor with 36 villages under its scope. 32 of the 36 villages are listed as "covered" (89%), as per the pumping data furnished by PRED. However PRED's QPR's indicate that 34 (94.4%) villages are covered with water supply.



**District Map of Mahbubnagar**

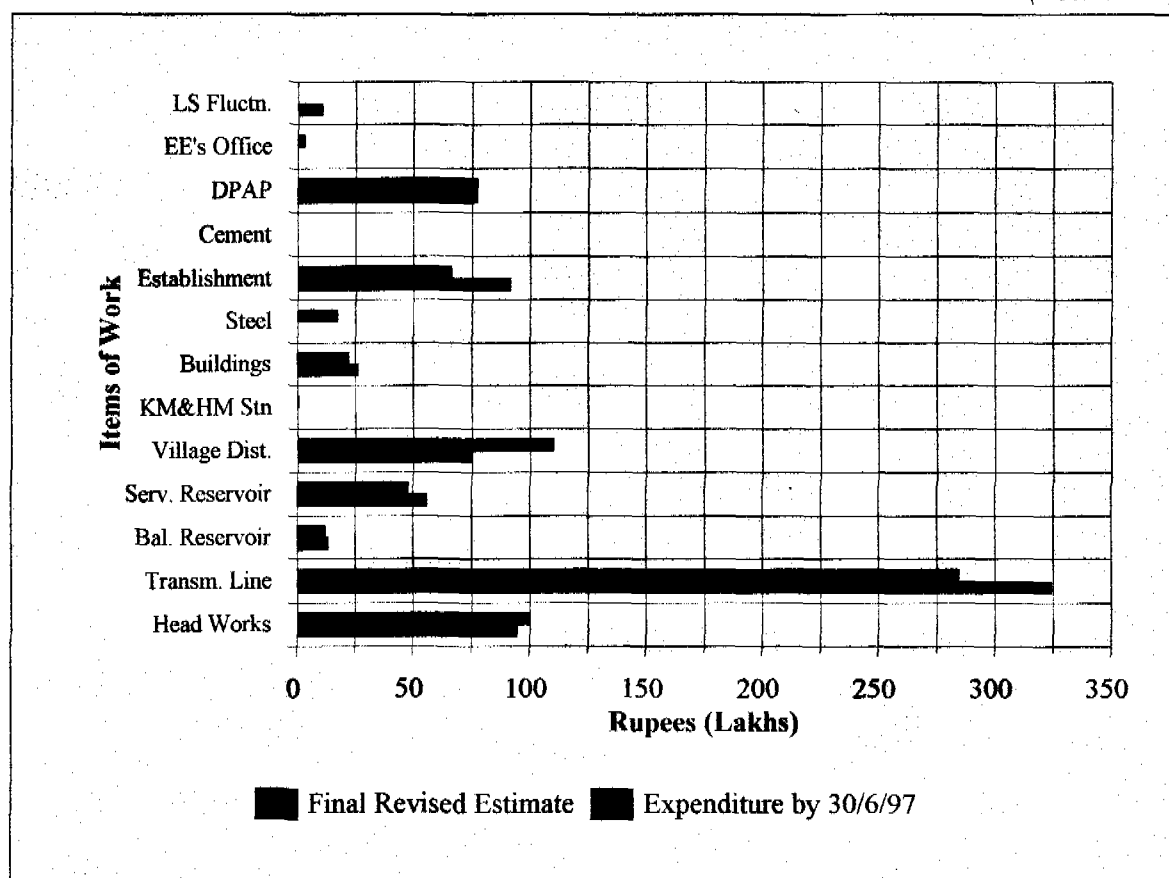
**Table 1.2.2.3 : Abstract of Budget & Expenditure - Mahbubnagar District**

Total Number of Villages : 36

Amount in Rs. (lakhs)

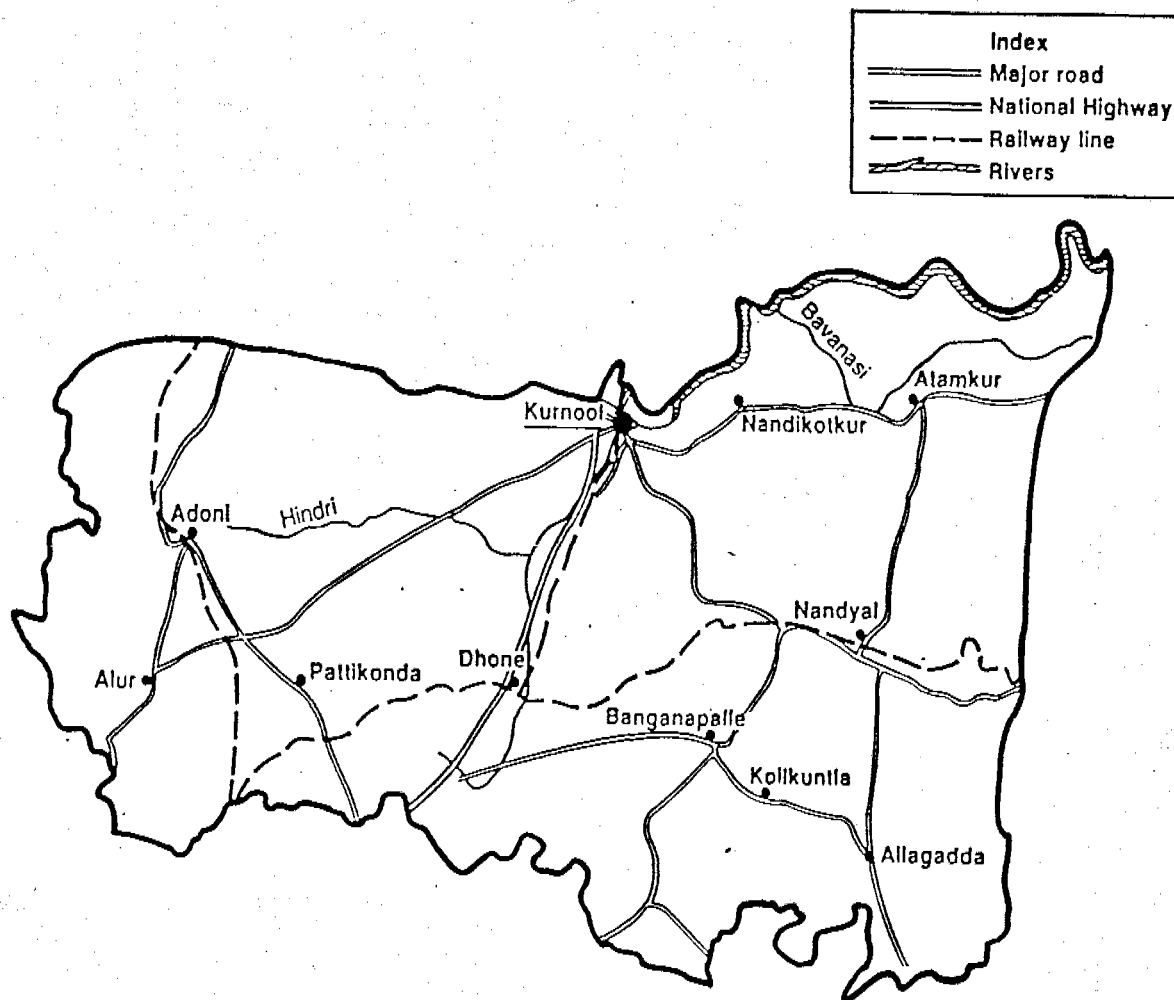
Sl. No.	Items of Work	Final Revised Estimate	Expenditure			Balance by 30/6/97
			by 30/6/96	by 31/12/96	by 30/6/97	
1	Head Works	94.94	89.76	93.35	99.80	-4.86
2	Transmission Line	324.65	297.52	281.81	284.56	40.09
3	Link Channel	62.00	60.07	62.00	62.00	0.00
4	Balancing Reservoir	13.25	8.07	11.17	12.17	1.08
5	Service Reservoir	55.80	40.37	42.18	47.68	8.12
6	Village Distribution	74.25	55.68	109.79	109.79	-35.54
7	K.M. & H.M. Stones	0.00	20.09	0.60	0.60	-0.60
8	Buildings	25.97	0.60	20.50	22.00	3.97
9	Steel	0.00	17.40	0.00	17.40	-17.40
10	Establishment	91.28	77.28	77.28	66.07	25.21
11	Cement	0.00	22.31	0.00	0.00	0.00
12	DPAP	77.37	77.37	77.37	77.37	0.00
13	E.E.'s Office Bulding	0.00	3.00	3.00	3.00	-3.00
14	L. S. Fluctuation	10.49	0.00	0.00	0.00	10.49
15	L.S. Telecom	0.00	0.00	0.00	0.00	0.00
16	Estab. chrgs on O&M	0.00	21.17	0.00	0.00	0.00
<b>Total</b>		<b>830.00</b>	<b>790.69</b>	<b>779.05</b>	<b>802.44</b>	<b>27.56</b>

(+ 88.96-61.4)



**Kurnool:**

The NAP AP II projects in Kurnool District consist of 5 CPWSS and 2 IPWSS. It was initially envisaged to cover 64 villages, but later one more village was added to the list, thus bringing the total targeted villages to 65. Fifty six (94.4%) villages are presently covered with water supply.



**District Map of Kurnool**



**Physical Progress: Status of physical works:**

Total items of Work	:	255
Completed items of Work	:	255
% of completion	:	100%

**Table 1.2.2.4: Status of Major Components - Kurnool District**

Items	Total works	Complete till 9/96	Complete till 6/97	Progress 9/96 - 6/97	Balance 6/97
Filters	7	7	7		
S.S.Tanks	3	3	3		
S. Tanks	4	4	4		
R/W Wells	6	6	6		
C/W Sumps	7	7	7		
Pump Houses	12	12	12		
Pumping Units	23	*	*	*	*
OHSR	25	23	25	2	
BR	4	4	4		
GLSR	10	10	10		
Cisterns	47	*	*	*	*
Buildings	15	15	15		
R/W transm. lines (Km)	5.65	*	*	*	*
C/W transm. lines (Km)	197.6	*	*	*	*
Village Dist. line (Km)	25.9	*	*	*	*

Notes: The above analysis is based on QPRs (ending 12/96, 3/97 and 6/97), reimbursement claims up to 3/97 and progress reports of PRED.

\* Information is not available.

2 OHSRs have been completed during the reporting period. Stabilisation of R/W & C/W transmission lines were the only items of work stated by PRED as incomplete. However, an additional booster pumping station, which is incomplete, has not been reported. Also, some items of pending "rectifications" remain, some of which seem major activities.)

<b>Financial Progress :</b>	Estimated cost	: Rs 1109.8 lakh
	Expenditure ending 6/97	: Rs 1137.42 lakhs
	Excess expenditure	: Rs 27.62 lakhs
	Percentage of Expenditure over estimate	: 103 %
	Percentage of excess expenditure	: 3 %
	Expenditure ending 9/96	: Rs 1104.87 lakhs
	Expenditure during the reporting period	: Rs 32.55 lakhs

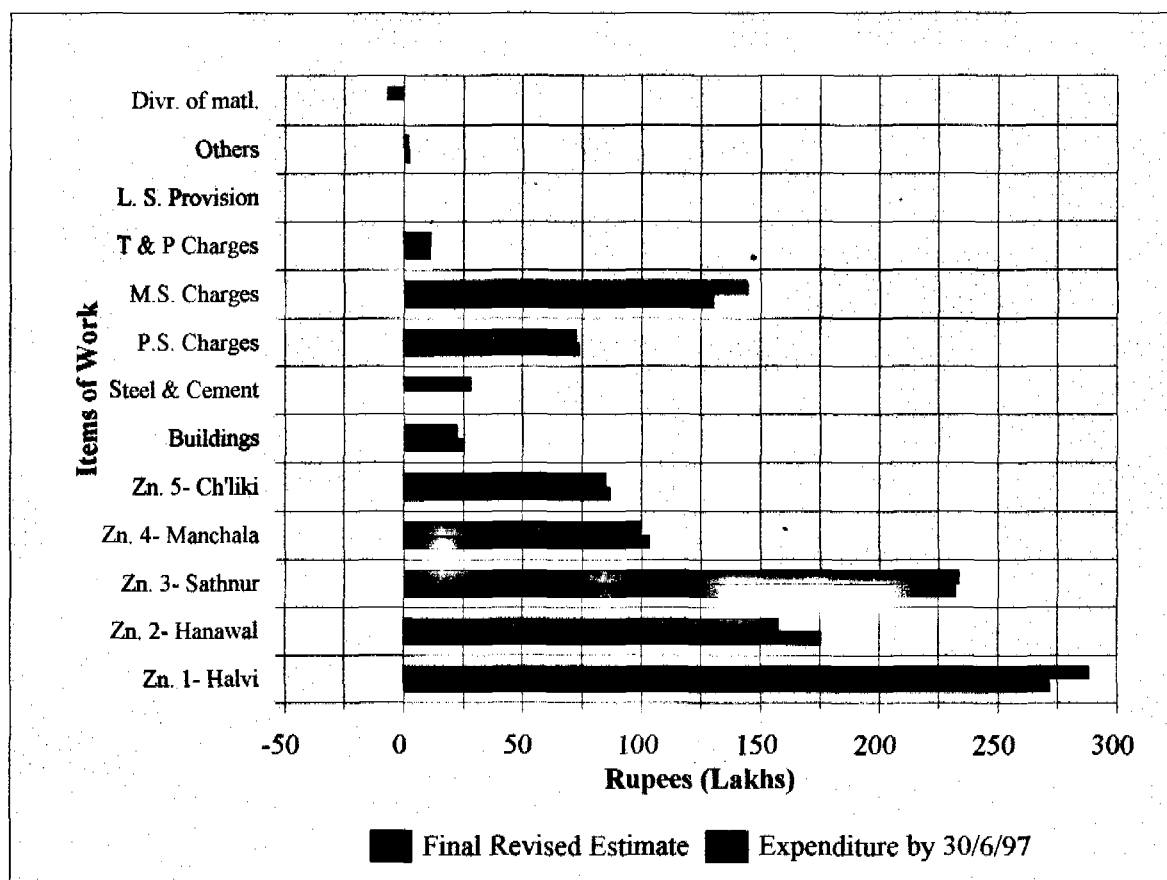
Details of excess expenditure observed under different budget heads are:

1. CPWSS Halvi :	FRE	: Rs 271.50 lakhs
	Expenditure ending 6/97	: Rs 288.83 lakhs
	Excess expenditure	: Rs 17.33 lakhs
2. CPWSS Sathnur:	FRE	: Rs 233.44 lakhs
	Expenditure	: Rs 232.32 lakhs
	Excess expenditure	: Rs 1.12 lakhs
3. MS Charges:	FRE	: Rs 130.04 lakhs
	Expenditure	: Rs 144.40 lakhs
	Excess expenditure	: Rs 14.36 lakhs
4. T&P Charges:	FRE	: Rs 11.00 lakhs
	Expenditure	: Rs 11.71 lakhs
	Excess expenditure	: Rs 0.71 lakhs

**Table 1.2.2.5 : Abstract of Budget & Expenditure - Kurnool District**

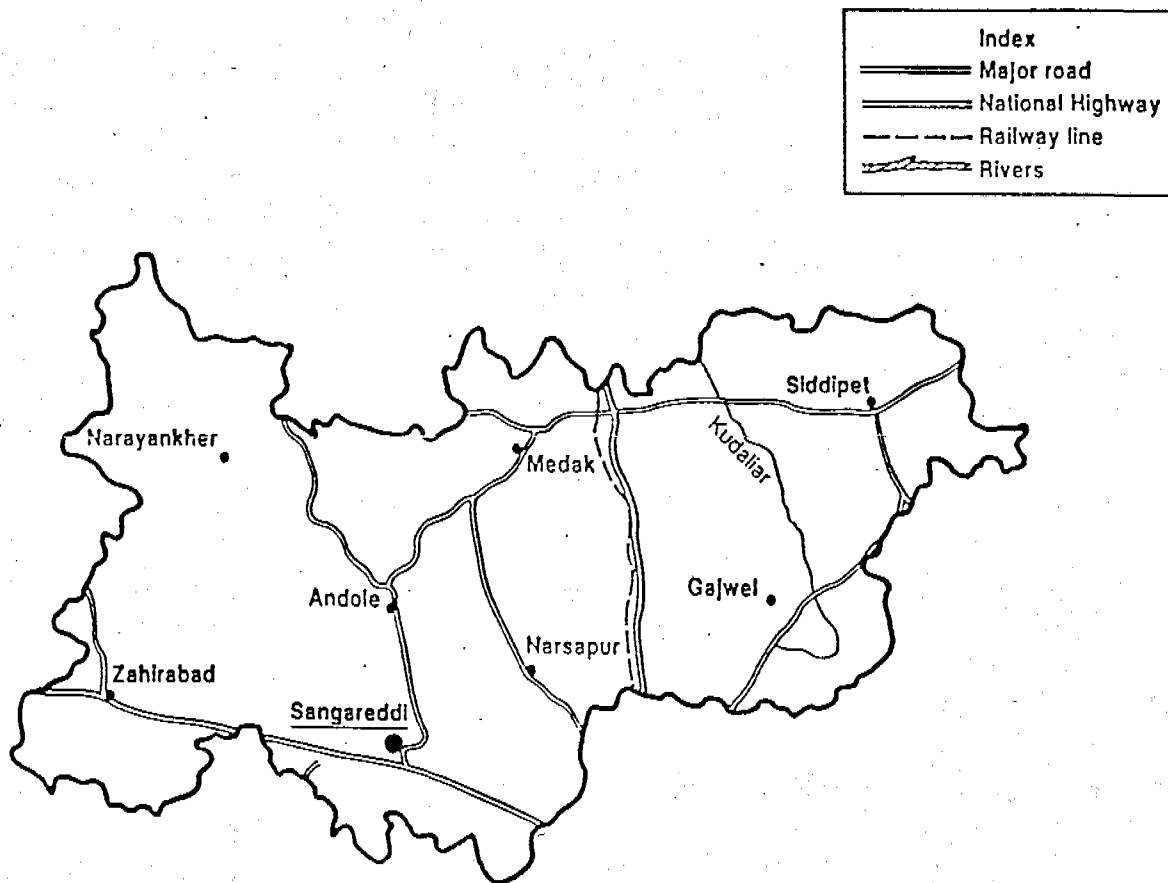
Total Number of Villages : 64			Amount in Rs. (lakhs)			
Sl. No.	Items of Work	Nos. of Villages	FRE	Expenditure		Balance by
				by 30/6/96	by 31/12/96	30/6/97
1	Zone 1- 'CPWSS Halvi	26	271.50	283.36	287.02	288.33
2	Zone 2- 'CPWSS Hanawal	8	175.63	139.76	146.97	157.71
3	Zone 3- 'CPWSS Sathnur	16	232.05	225.15	231.44	233.44
4	Zone 4- CPWSS Manchala	7	103.29	93.81	95.22	99.25
5	Zone 5- CPWSS Chinnakothiliki	7	86.67	84.85	84.94	84.95
6	Buildings	-	24.27	21.65	22.35	22.27
7	Steel & Cement	-	0.00	112.96	21.77	28.40
8	P.S. Charges	-	73.50	71.09	72.57	72.57
9	M.S. Charges	-	130.04	141.94	144.38	144.40
10	T & P Charges	-	11.00	11.71	11.71	11.71
11	L. S. Provision	-	0.00	0.00	0.00	0.00
12	Others	-	1.93	0.81	1.09	1.84
Amount received towards diversion of materials						-6.68
<b>Total</b>		<b>64</b>	<b>1109.88</b>	<b>1187.09</b>	<b>1119.46</b>	<b>1138.19</b>

(-60.88+33.38)



**Medak:**

The NAP AP II projects in Medak District consist of 3 CPWSS, targeted to cover 110 villages. PRED's last QPR states that 107 villages are "covered" (see earlier comment on terminology) with water supply.



**District Map of Medak**

**Physical Progress:** Status of the items of physical work is as follows:

Total items of Work : 323  
Completed items of Work : 321  
% of completion : 99.4%  
% of incompleteness : 0.6%

The pending works are: 1. CPWSS Borancha- Booster at Nagulapally  
2. CPWSS Karasguthy- Gravity Main from Abbenda to Hukrana

In CPWSS Ibrahimpur, all items of physical work have been completed.

**Table 1.2.2.6: Status of Major Components - Medak District**

Items	Total works	Complete till 9/96	Complete till 6/97	Progress 9/96 - 6/97	Balance 6/97
Filters	3	3	3		
S.S.Tanks	-	-	-		
S. Tanks	3	3	3		
R/W Wells	3	3	3		
C/W Sumps	5	5	5		
Pump Houses	7	7	7		
Pumping Units	15	14	14		1
OHSR	4	4	4		
BR	12	12	12		
GLSR	96	95			
Buildings	15	15	15		
R/W transm. lines (Km)	0.9	0.9	0.9		
C/W transm. lines (Km)	261.45	257.8	*	*	*
Village Dist. line (Km)	4	3.74	*	*	*

Notes: The above analysis is based on QPRs (ending 12/96, 3/97 and 6/97), reimbursement claims up to 3/97 and progress reports of PRED.

\* Information is not available.

**Financial Progress :** Estimated cost : Rs 1088 lakhs  
Expenditure ending 6/97 : Rs 1121.4 lakhs  
Excess expenditure : Rs 33.4 lakhs  
Percentage of Expenditure over estimate : 103 %  
Percentage of excess expenditure : 3 %  
Expenditure ending 9/96 : Rs 1093.77 lakhs  
Expenditure during the reporting period : Rs 27.63 lakhs

In the following cases excess expenditure is observed:

1. Major Establishment Charges:	FRE	: Rs 70.72 lakhs
	Expenditure	: Rs 165.17 lakhs
	Excess expenditure	: Rs 94.45 lakhs

In the case of material, steel and cement also there is an excess expenditure over the provision made, which requires book adjustments in accounts as it has to be allotted to various schemes.

Regarding the amount transferred to Miryalaguda division NAPO has earlier reported (please refer NAPO HPR April 96 - September 96) that this amount is not related and should not be included in reimbursement claims of AP II project.

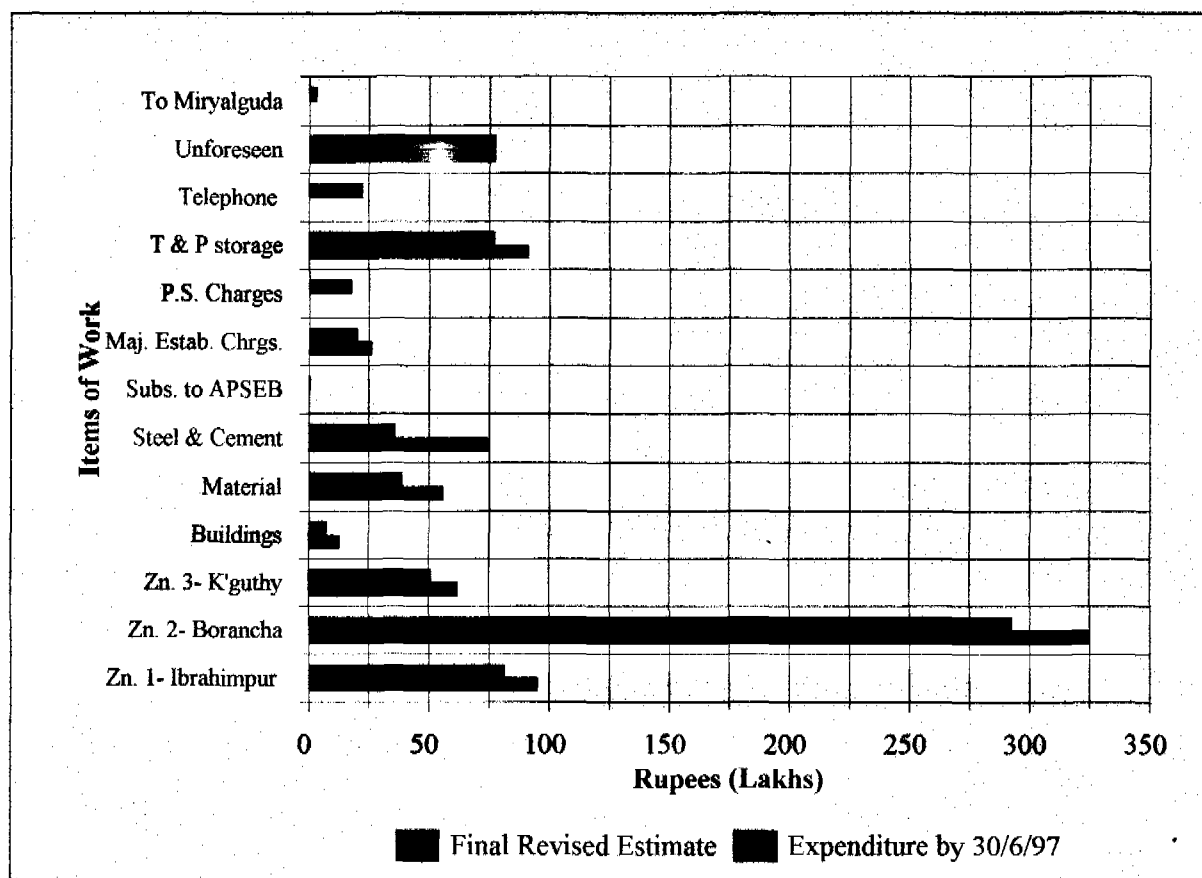
**Table 1.2.2.7 : Abstract of Budget & Expenditure - Medak District**

Total Number of Villages : 110

Amount in Rs. (lakhs)

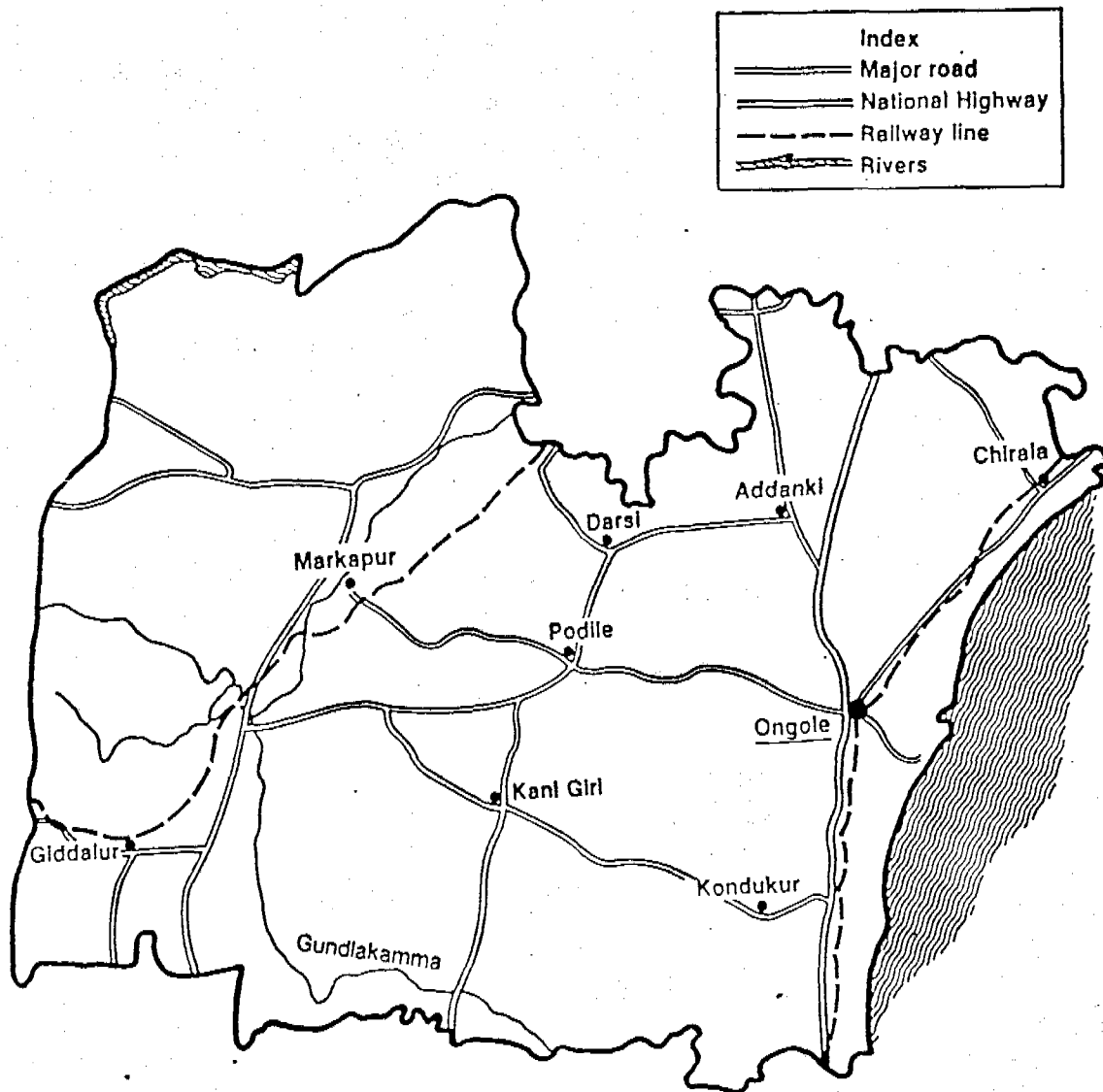
Sl. No.	Items of Work	Nos. of Villages	FRE	Expenditure			Balance by 30/6/97
				by 30/6/96	by 31/12/96	by 30/6/97	
1	Zone 1- 'CPWSS Ibrahimpur	46	422.86	384.10	385.92	387.43	35.43
2	Zone 2- 'CPWSS Borancha	35	252.52	222.70	226.75	229.31	23.21
3	Zone 3- 'CPWSS Karasguthy	29	235.88	205.10	208.01	209.52	26.36
4	Buildings including	-	31.62	31.20	31.19	31.34	0.28
5	Cost of material	-	0.00	16.50	15.59	15.31	-15.31
6	Cost of Steel & Cement	-	0.00	15.40	13.37	12.80	-12.80
7	Subsidy paid to APSEB	-	15.50	14.70	14.73	14.73	0.77
8	Major Establ. Chrgs.	-	70.72	152.70	161.39	168.73	-98.01
9	P.S. Charges	-	37.71	26.70	27.46	27.65	10.06
10	T & P storage	-	12.43	8.90	8.87	8.87	3.56
11	Telephone charges	-	6.00	0.00	0.00	0.00	6.00
12	Other unforeseen items	-	2.76	0.70	0.72	0.72	2.04
13	Transf. - Miryalguda Divn.	-	0.00	15.00	15.00	15.00	-15.00
<b>Total</b>		<b>110</b>	<b>1088.00</b>	<b>1093.70</b>	<b>1109.00</b>	<b>1121.40</b>	<b>-33.40</b>

(107.71-141.12)



**Prakasam:**

The NAP AP II projects in Prakasam district consist of 3 CPWSS and 34 IPWSS with a total target 73 villages and PRED reports that 72 villages are covered with water supply.



**District Map of Prakasam**



**Physical Progress:** Status of the items of physical work is as follows:

Total items of Work	:	310
Completed items of Work	:	300
Incomplete items of Work	:	10
% of completion	:	96.8%
% of incompleteness	:	3.2%

During the reporting period, installation of 2 pumping units have been completed. The pending works, considered as mop-up activities are:

1. CPWSS AB Palem -
  1. Stone filling intake of SST AB Pacem
  2. Extension VDS Deverapalli II
  3. Extension VDS Bodawda II
  4. Canal off take of GM BPalli
  5. CW sump Chinnanandipadu
2. IPWSS -
  6. Augmentation PWSS Daggubadu
  7. Augmentation PWSS Inkollu
  8. Augmentation Ankireddypalem
  9. RW GM to Pavuluru
  10. Booster station RN Palem

**Table 1.2.2.8: Status of Major Components - Prakasam District**

Items	Total works	Works deleted	Complete till 9/96	Complete till 6/97	Progress 9/96-6/97	Balance 6/97
Filters	27	1	26	26		
S.S.Tanks	40	13	27	27		
R/W Wells	53	7	46	46		
C/W Sumps	26		26	26		
Pump Houses	52	5	47	47		
Pumping Units	151		149	151	2	
OHSR	35		35	35		
BR	1		1	1	-	
Buildings	10		*	*	*	*
R/W transm. lines (Km)	69.65		*	*	*	*
C/W transm. lines (Km)	59.34		*	*	*	*
Village Dist. line (Km)	89.35		*	*	*	*

Notes: The above analysis is based on QPRs (ending 12/96, 3/97 and 6/97), reimbursement claims upto 3/97 and progress reports of PRED.

\* Information is not available.

**Financial Progress :**

Estimated cost (FRE)	:	Rs 1061.2 lakhs
Expenditure ending 6/97	:	Rs 1023.04 lakhs
Balance till 6/97	:	Rs 38.16 lakhs
Percentage of Expenditure	:	96.4%
Percentage of Balance	:	3.6%
Expenditure ending 9/96	:	Rs 1005.8 lakhs
Expenditure from 9/96 to 6/97	:	Rs 17.24 lakhs

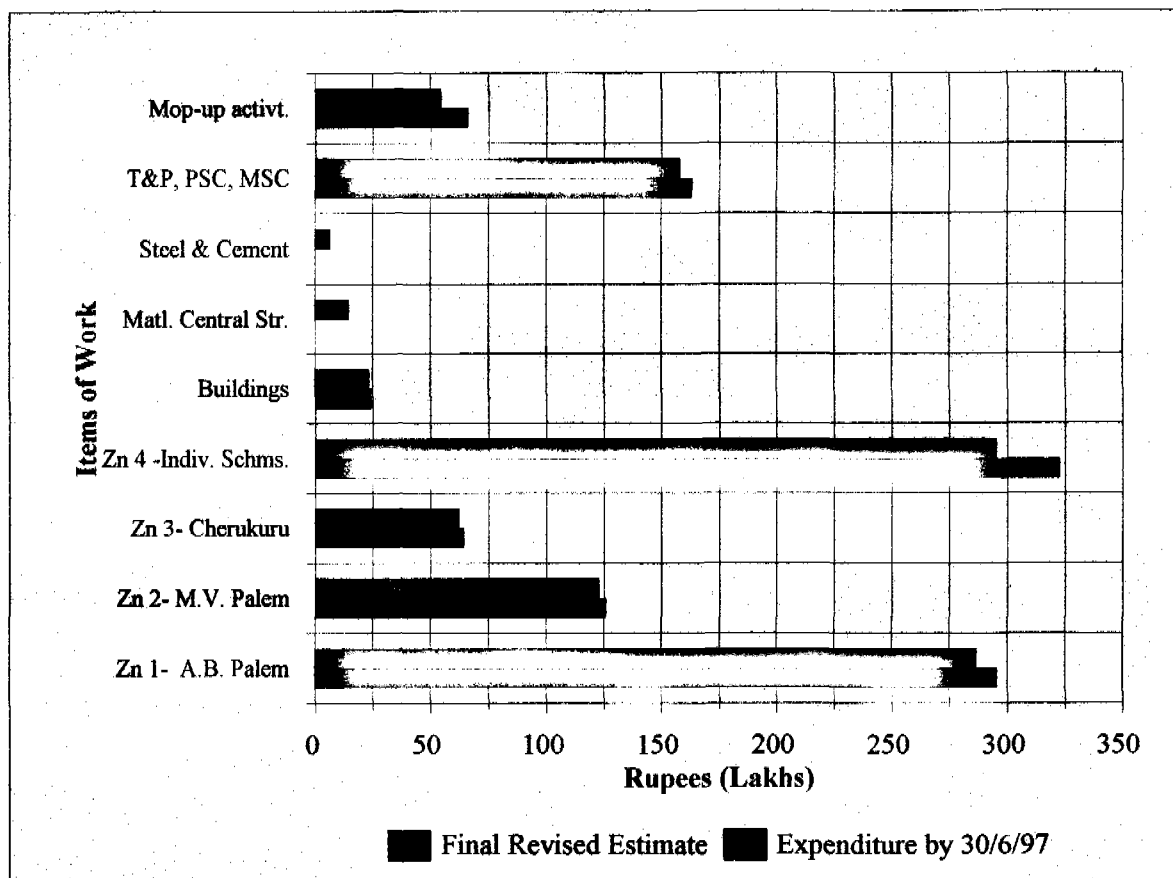
**Table 1.2.2.9 : Abstract of Budget & Expenditure - Prakasam District**

Total Number of Villages : 73

Amount in Rs. (lakhs)

Sl. No.	Items of Work	Nos. of Villages	FRE	Expenditure			Balance by 30/6/97
				by 30/6/96	by 31/12/96	by 30/6/97	
1	Zone 1- CPWSS A.B. Palem	20	295.53	284.65	285.98	286.59	8.94
2	Zone 2- CPWSS M.V. Palem	9	125.64	120.76	122.59	122.59	3.05
3	Zone 3- CPWSS Cherukuru	4	64.26	61.76	62.18	62.18	2.08
4	Zone 4 -Individual Schemes	40	322.52	288.02	293.83	295.34	27.18
5	Buildings	-	23.95	23.18	23.18	23.18	0.77
6	Matl. - Central stores	-	0.00	21.29	14.35	14.55	-14.55
7	Steel & Cement	-	0.00	3.79	6.42	6.42	-6.42
8	T&P and PSC, MSC	-	163.10	157.91	157.91	157.91	5.19
9	Mop-up activities	-	66.20	25.19	44.74	54.28	11.92
Total		73	1061.20	986.55	1011.18	1023.04	38.16

(59.13-20.97)



### 1.3 COMPLETION SCHEDULE

#### 1.3.1 Overall completion schedule and status AP II

**Summary:**

In view of the serious time overruns in the implementation of the NAP AP II programme NAPO assisted the PRED in making a final and realistic schedule to complete and wind up the programme and all its loose ends, to be followed by finalization of financial and administrative closure between the Governments of India and the Netherlands. NAPO called for the assistance of a Technical Support mission to assist PRED staff on the technical details of the completion.

The concerned PRED Engineering staff from all NAP AP II Districts met for a three day workshop in NAP Office for that purpose, which resulted in a final completion schedule made by PRED staff and presented to PRED Management, who approved the same. The agreed completion schedule was presented in the previous NAPO Half Yearly Progress Report.

During the de-briefing meeting of the PRED-NAPO Support Mission, PRED stated that all physical works would be completed by December 96 and if any physical work remained incomplete, such items of work would be financed by PRED through its regular funding lines and not be booked to NAP. PRED Management declared 31 December 1996 as the closure date for financial bookings onto NAP AP II. According to this completion schedule the NAP AP II programme was expected to be completed within 1997.

The PRED presented the completion schedule to the Netherlands Government Mission headed by Mr. van Schaick in March 1997.

Since then and contrary to the above position, PRED has revised the original schedule at their own discretion, and has sent two communications of revisions to NAPO, in which many specifics have been delayed, pushing the completion target dates way into 1998.

On improvements for O&M, operationalized and included in the completion schedules, (through: the creation of O&M manuals, training of operators, and the PRED taking over the responsibility for the monitoring of water delivery), no activity was undertaken except for training of operators (these should have been on the basis of operation manuals, though NAPO has not seen any and draft manual were supposed to be reviewed by NAPO, according to the completion schedule).

As the introduction of a system towards internal monitoring of water delivery has been considered a very serious attempt by NAPO Technical Assistance to the PRED, NAPO advises to monitor if such attempt, declared useful by all in terms of MIS to Head office and introducing levels of accountability in the system, is followed up and adopted by the PRED. If not, conclusions regarding the usefulness of such efforts have to be reviewed.

According to the revised schedule, completion of physical works and preparation of O&M manuals are planned for March 98 and Completion Reports would be submitted to RNE by July 98. In all four districts, physical works have now been rescheduled beyond 31 December 96, the original cut off date proposed by PRED. Table 1.3 1 below summarises the original and revised

dates of completion in view of the latest revisions for completion of AP II projects.

**Table 1.3.1 : Revision in Completion of AP II Projects**

District	Physical Works completion by ...		Project Completion Reports by...		Resultant Cumulative delays
	Original	Revised	Original	Revised	
Mahbubnagar	14/04/97	30/01/98	19/05/97	11/03/98	296 days
Kurnool	26/05/97	30/12/97	30/06/97	05/01/98	189 days
Medak	12/05/97	10/11/97	07/07/97	13/02/98	159 days
Prakasam	09/06/97	09/06/98	15/09/97	14/07/98	216 days

Table 1.3.2 provides a graphic representation of the implications of the above revisions.

Table 1.3.2 : Comparison of Schedules of Completion of AP II Projects

ID	Task Name	11/96		1/97		3/97		5/97		7/97		9/97		11/97		1/98		3/98		5/98		7/98		9/98	
		11/96	12/96	1/97	2/97	3/97	4/97	5/97	6/97	7/97	8/97	9/97	10/97	11/97	12/97	1/98	2/98	3/98	4/98	5/98	6/98	7/98	8/98	9/98	
1	<b>Mahabubnagar Distt.</b>	[Redacted]																							
2	Completion of works	[Redacted]																							
3	Preparation O&M manu	[Redacted]																							
4	Subm. completion repor	[Redacted]																							
5	<b>Kurnool Distt.</b>	[Redacted]																							
6	Completion of works	[Redacted]																							
7	Preparation O&M manu	[Redacted]																							
8	Subm. completion repor	[Redacted]																							
9	<b>Medak Distt.</b>	[Redacted]																							
10	Completion of works	[Redacted]																							
11	Preparation O&M manu	[Redacted]																							
12	Subm. completion repor	[Redacted]																							
13	<b>Prakasam Distt.</b>	[Redacted]																							
14	Completion of works	[Redacted]																							
15	Preparation O&M manu	[Redacted]																							
16	Subm. completion repor	[Redacted]																							

Original Task [Redacted] Original Summary [Redacted]  
 Revised Task [Redacted] Revised Summary [Redacted]

### 1.3.2 Completion Schedule and Status per District

The implications of the new schedules proposed for each district are discussed below.

#### Mahbubnagar :

The major tasks to be accomplished in Mahbubnagar and the corresponding Original and Revised schedules for completion are listed in Table 1.3.3 below. A detailed list of tasks is attached in Annexure 1.

**Table 1.3.3: Completion of AP II in Mahbubnagar District**

Sl. No.	Task Description	Original		Revised		Variance in ....	
		Start	Finish	Start	Finish	Start	Finish
1	General Activities	19/11/96	12/11/97	19/11/96	25/02/98		105
2	Basic information	19/11/96	28/04/97	19/11/96	25/02/98		303
3	O & M Manual	19/11/96	12/05/97	19/11/96	19/01/98		252
4	Training O&M staff	28/01/97	14/04/97	16/06/97	19/01/98	139	280
5	O&M Budget	03/03/97	12/05/97	03/03/97	30/09/97		141
6	Performance Monitoring	02/12/96	12/11/97	02/12/96	12/11/97		
7	CPWSS Chinnamaroor	19/11/96	14/04/97	19/11/96	30/01/98		291
8	Outstanding works	19/11/96	30/12/96	19/11/96	31/01/97		32
9	Scheme stabilisation	19/11/96	03/03/97	19/11/96	28/11/97		270
10	Technical audit	04/03/97	17/03/97	01/12/97	30/12/97	272	288
11	Rectifications	18/03/97	14/04/97	01/01/98	30/01/98	289	291
12	Project Completion Report	19/11/96	19/05/97	19/11/96	11/03/98		296

From Table 1.3.3 above, it follows that delays have occurred on a number of tasks. These are discussed below:

1. Basic information: Basic information consists of items like internal inventory, completion reports and as built drawings. Its compilation was originally scheduled to be completed by April 97 and then rescheduled to be completed by February 98 resulting in a delay of 303 days.
2. O&M Manual: The O&M Manual for CPWSS Chinnamaroor was to be completed by May 97 but has now been rescheduled to January 98 resulting in a delay of 252 days.
3. Training O&M Staff: This activity was scheduled to be completed by April 97 but has now been rescheduled to January 98 resulting in a delay of 280 days.
4. CPWSS Chinnamaroor: This the only scheme under APII in Mahbubnagar district. All physical works were scheduled for completion by December 96 but were then rescheduled to January 97. The stabilisation of the scheme is delayed by 270 days to November 97 resulting in corresponding delays in the technical audit and rectifications by 288 and 291 days, respectively.

All the above-mentioned delays have had a cumulative effect in delaying the preparation of completion reports by 296 days.

**Kurnool :**

Five CPWS schemes were initiated in AP II in Kurnool district. The major tasks to be accomplished and the corresponding Original and Revised schedules for completion are listed in Table 1.3.4, below. A detailed list of tasks is attached in Annexure 1.

**Table 1.3.4: Completion of AP II in Kurnool District**

Sl. No.	Task Description	Original		Revised		Variance in ...	
		Start	Finish	Start	Finished	Start	Finish
1	General Activities	19/11/96	12/11/97	19/11/96	15/06/98		215
2	Basic information	19/11/96	09/06/97	19/11/96	02/01/98		207
3	Operation & Maintenance	03/03/97	11/07/97	03/03/97	15/06/98		339
4	Training O&M staff	28/04/97	11/07/97	21/05/97	15/06/98	23	339
5	O&M Budget	03/03/97	12/05/97	03/03/97	05/05/97		-7
6	Performance Monitoring	02/12/96	12/11/97	02/12/96	04/11/97		-8
7	CPWSS Halvi	19/11/96	26/05/97	19/11/96	30/11/97		188
8	CPWSS Hanawal	19/11/96	26/05/97	19/11/96	30/12/97		218
9	CPWSS Sathnur	19/11/96	26/05/97	19/11/96	30/12/97		218
10	CPWSS Manchala	19/11/96	24/03/97	19/11/96	30/06/97		98
11	CPWSS Chinnakothiliki	19/11/96	24/03/97	19/11/96	30/12/97		281
12	Project Completion	19/11/96	30/06/97	19/11/96	05/01/98		189

There are delays in the following activities:

1. **General Activities:** These include Basic Information (delayed by 207 days), O&M (delayed by 339 days), Training (delayed by 339 days), O&M Budget and Performance Monitoring (advanced by 7 days and 8 days, respectively). Establishment of an O&M budget is reported completed by May 97, but details have not been received by NAPO.
2. **Physical Completion:** For the five CWPSSs, this was scheduled between March to May 97 but now has been postponed to between November and December 97, except for CPWSS Manchala, which is reported completed by June 97. While completion implies the preparation of a technical audit and completion of rectifications, if any, no such details have been received by NAPO for CPWSS Manchala. The completion of all the schemes have now been delayed between 98 days to 218 days in comparison to the original plan.
3. Apart from delays in specific components of schemes within the overall task of Physical Completion, a number of new items have been introduced, that had not been planned earlier:
  - In CPWSS Halvi, a Booster Pumping Station has been included at Nadichagi, with completion period of 293 days.
  - In CPWSS Sathnur, a Booster Pumping Station has been included at Duddi.
  - In CPWSS Chinnakothiliki, a Booster Pumping Station has been included at Poolachinta.
4. **Project Completion:** Overall project completion has now been deferred by 189 days, to end in January 98.



**Medak :**

Three CPWS schemes were initiated in AP II in Medak district. The major tasks to be accomplished and the corresponding Original and Revised schedules for completion are listed in Table 1.3.5, below. A detailed list of tasks is attached in Annexure 1.

**Table 1.3.5: Completion of AP II in Medak District**

Sl. No.	Task Descriptions	Original		Revised		Variance in...	
		Start	Finish	Start	Finish	Start	Finish
1	General Activities	19/11/96	12/11/97	19/11/96	17/02/98		69
2	Basic information	19/11/96	26/05/97	19/11/96	19/11/97		127
3	Operation & Maintenance	25/02/97	07/07/97	31/01/97	17/02/98	-16	161
4	Training O&M staff	22/04/97	07/07/97	21/07/97	17/02/98	64	161
5	O&M Budget	03/03/97	12/05/97	03/03/97	12/05/97		
6	Performance Monitoring	02/12/96	12/11/97	02/12/96	12/11/97		
7	CPWSS Ibrahimpur	19/11/96	12/05/97	19/11/96	10/11/97		130
8	CPWSS Borancha	19/11/96	12/05/97	19/11/96	10/11/97		130
9	CPWSS Karasguthy	19/11/96	12/05/97	19/11/96	10/11/97		130
10	Project Completion	19/11/96	07/07/97	19/11/96	13/02/98		159

There are delays in the following activities:

1. **Basic Information:** This task, including documentation of basic information and preparation of completion reports, was scheduled to be completed by May 97 but has been revised to November 97, resulting in a delay of 127 days.
2. **O&M:** Preparation of O&M Manual was scheduled to be completed by July 97 but was then rescheduled to February 98, resulting in a delay of 161 days.
4. **Training O&M staff:** This activity was scheduled to be completed by July 97 but was then rescheduled to February 98, resulting in a delay of 161 days.
5. **Physical works in CPWSS Borancha:** The following works have been delayed beyond December 96, resulting in an overall delay of 130 days.
  - Staff quarters at Borancha, delayed by 184 days.
  - GLBR at Tumnurgutta, delayed by 75 days.
  - Booster Pumping Station at Nagulapally, delayed by 207 days.
6. **Physical works in CPWSS Ibrahimpur:** Physical completion of the scheme has been delayed by 130 days.
7. **Physical works in Karasguthy CPWSS:** The following works have been delayed beyond December 96, resulting in an overall delay of 130 days.
  - Section Office building at head works, delayed by 67 days.
  - Staff quarters at head works, delayed by 57 days.
  - Gravity Main, Mannur to Maikode, delayed by 89 days.
  - GM, Abenda to Hukrana, delayed by 196 days.
  - GM to Yesgi and Audathpur, delayed by 79 days.

The above-mentioned delays are delaying the Project Completion from July 97 to February 98 or 159 days.

**Prakasam :**

Three CPWS schemes and 33 Individual PWS schemes were initiated in AP II in Prakasam district. The major tasks to be accomplished and the corresponding Original and Revised schedules for completion are listed in Table 1.3.6, below. A detailed list of tasks is attached in Annexure 1.

**Table 1.3.6: Completion of AP II in Prakasam District**

Sl No.	Task Description	Original		Revised		Variance in	
		Start	Finish	Start	Finish	Start	Finish
1	General Activities	19/11/96	12/11/97	19/11/96	23/06/98		159
2	Basic information	19/11/96	23/06/97	19/11/96	23/06/98		261
7	Operation & Maintenance	03/12/96	12/05/97	03/12/96	17/03/98		221
3	Training O&M staff	21/01/97	07/04/97	31/12/97	17/03/98	246	246
4	O&M Budget	03/03/97	12/05/97	03/03/97	12/05/97		
5	Performance Monitoring	02/12/96	12/11/97	02/12/96	12/11/97		
6	CPWSS ABPalem	19/11/96	12/05/97	19/11/96	30/12/97		166
7	CPWSS MV Palem	19/11/96	10/03/97	19/11/96	10/03/97		
8	CPWSS Cherukuru	28/01/97	03/03/97	28/01/97	03/03/97		
9	Individual Schemes	19/11/96	09/06/97	19/11/96	09/06/98		261
10	Outstanding works	19/11/96	30/12/96	19/11/96	31/03/98		326
11	Scheme stabilisation	19/11/96	31/03/97	19/11/97	31/03/98	261	261
12	Technical audit	01/04/97	12/05/97	01/04/98	12/05/98	261	261
13	Rectifications	13/05/97	09/06/97	13/05/98	09/06/98	261	261
14	Project Completion	19/11/96	15/09/97	09/04/97	14/07/98	101	216

Completion of CPWSS MV Palem and CPWSS Cherukuru have been reported. However, Technical Audit documents and Completion Reports have not reached NAPO.

There are delays in the following activities;

1. The collection of Basic Information has been delayed by 159 days.
2. The finalisation of O&M Manual has been delayed by 261 days.
3. Training O&M staff, scheduled to be completed by April 97, has been rescheduled to March 98, resulting in a delay of 246 days.
4. Completion of physical items of work in CPWSS AB Palem has gone beyond December 96 of account of the following:
  - Stone filling around intake of SST has been delayed by 261 days.
  - Extension RW GM Bobbepalli has been delayed by 223 days.
  - CW sump C'padu has been delayed by 261 days.
  - Extension of VDS in Deverapalli II has been delayed by 261 days.
  - Extension of VDS in Bodawada II has been delayed by 261 days.
5. Physical items of work in Individual PWSS: The following schemes and items of work

are reported to be delayed:

- Augmentation PWSS Daggubadu has been delayed by 232 days.
- Augmentation PWSS Inkollu has been delayed by 326 days.
- Augmentation PWSS Ankireddipalem has been delayed by 239 days.
- Raw water gravity main to Pavuluru has been delayed by 262 days.

6. All these are delays have caused an overall delay of 216 days in Project Completion.

NAPO has communicated its observations and concern about these revisions in the completion schedule to the PRED and is awaiting response.

## 1.4 Intermediate Assessment of the Status in the field

### 1.4.1 Introduction

The intermediate assessment was conducted in view of the NGO extension/ expansion in the AP II projects. In general the NGO involvement in the AP II projects had improved considerably in the past few years and included a re-direction towards involving local communities in the minor maintenance and upkeep of the village facilities, and minor repairs of the villages facilities, creation of a platform of communication between the communities and the local PRED staff, involvement of the local community in recording the water delivery at the storage facilities in the village.

Based on the successful expansion of these NGO activities, PRED and NAPO supported an extension/ expansion of NGO coverage in numbers of villages in the existing AP II project areas, in which NGO's were operating. Such expansion also allowed PRED/ NAPO to expand the coverage and hence validity of the information for the water delivery monitoring.

Prior to such expansion, NAPO advised the NGO's to conduct an assessment of the status of village facilities in the villages to be covered under the expansion, so that the impact/ improvement between the status at the beginning and the end of the intervention could be measured.

NAPO would like to commend the NGO's for conducting such survey fast and efficiently. NAPO assisted the NGO's in developing a format for the assessment and the data/ results were compiled and analysed at NAPO.

As has been experienced before, such assessment of village level functioning tends to pull us back into the design and as laid / built stages, searching for explanations why many of the villages are not receiving water.

Although the assessment is still being used for the original purpose of measuring the NGO impact during the extension/ expansion phase, the implications of the data and the analyses of the assessment cannot be ignored in assessing the completion of the AP II projects. An overall summary of the assessment is provided in Table 1.4.1, below.

**Table 1.4.1: Overall Assessment of Water Outlets (PSPs/ Cistern Taps)**

Sl. No.	District	Scheme	Nos. of Villages			Nos. of Villages receiving water			
			Supplied	Assessed	% Assd.	Yes	No	NK	Totals
1	Medak	Borancha	35	24	69%	17	7	11	
2		Ibrahimpur	46	25	54%	20	5	21	
3		Karasguthi	29	18	62%	8	10	11	
Sub total - Medak			110	67	61%	45	22	43	110
1	Kurnool	Halvi	27	27	100%	10	17		
2		Hanawal	8	8	100%	5	3		
3		Sathnur	16	10	63%	8	8		
4		Chinnakothiliki	8	-		5	2	1	
5		Manchala	7	-		7	-		
Sub total - Kurnool			66	45	68%	35	30	1	66
1	Prakasam	A. B. Palem	20	13	65%	19		1	
2		Cherukuru	4	4	100%	4			
3		M. V. Palem	9	3	33%	7		2	
4		Indiv. PWSS	40	30	75%	27	3	10	
Sub total - Prakasam			73	50	68%	57	3	13	73
Total :			249	162	65%	137	55	57	249

#### 1.4.2 Summary from Status Reports of AP II Schemes per District - Medak District

In Medak District, three CPWSS have been constructed at Borancha, Ibrahimpur and Karasguthi. All three schemes have the Manjira River as their source and the head works of each scheme is operational.

**CPWSS Borancha:** This scheme is supposed to provide water to 35 villages. 24 villages were assessed out of which 17 villages were receiving water and 7 villages were not receiving water.

**CPWSS Ibrahimpur:** This scheme is supposed to provide water to 46 villages. 25 villages were visited. 20 villages were receiving water and 5 villages were not receiving water.

**CPWSS Karasguthi:** This scheme is supposed to provide water to 29 villages. 18 villages were visited. 8 villages were receiving water and 10 villages were not receiving water.

Most of the villages not receiving water stated that they had not received any water through the system since 1994.

A total of 186 water outlets were supposed to be present in the three schemes. The assessment of these water outlets is detailed in Table 1.4.2. These findings can be summarised as:

- 46% (85) Stand Posts were found in good condition and 44% did not exist.
- 63% (118) stand post pipes were in good condition and 21% pipes were missing.

37% (69) control knobs were found in good condition and 57% were missing.  
35% (66) platforms were found in good condition and 60% were missing.  
37% (69) drains were found in good condition and 55% drains did not exist.  
No soak pits had been constructed for waste water disposal.  
67% (125) outlets were in functional condition and 23% were non-functional.

**Table 1.4.2: Assessment of Water Outlets (PSPs/ Cistern Taps)**

	Good	Poor	Bad	Absent	Not Working	Not Used	Total
Stand Posts	85	15	5	81			186
Pipes	118	23	6	39			186
Control Knobs	69	14	5	98			186
Platforms	66	13	1	106			186
Drains	69	11	4	102			186
Soak pits				187			187
Outlet Functionality	125	14	4		43		186
Outlet Utilisation	139	1	3			43	186

### 1.4.3 Summary from Status Reports of AP II Schemes - Kurnool District

In Kurnool District, three CPWSS have been assessed at Halvi, Hanawal, Sathnur. Two other schemes at Chinnakothiliki and Manchala were not visited.

**CPWSS Halvi:** This scheme is supposed to provide water to 27 villages. All 27 villages were visited. 10 villages were receiving water and 17 villages were not receiving water.

**CPWSS Hanawal:** This scheme is supposed to provide water to 8 villages. 8 villages were visited. 5 villages were receiving water and 3 villages were not receiving water.

**CPWSS Sathnur:** This scheme is supposed to provide water to 16 villages, of which 8 were receiving water and 8 villages were not receiving water. 10 villages were visited.

**CPWSS Chinakothiliki:** This scheme is designed to provide water to 8 villages, of which 5 were receiving water and 2 villages were not receiving water.

**CPWSS Manchala:** This scheme is supposed to provide water to 7 villages, all of which 5 were receiving water.

A total of 190 water outlets were supposed to be present in the three schemes visited. The assessment of these water outlets are detailed in Table 1.4.3. These findings can be summarised as:

- 11% (20) Stand Posts were found in good condition and 20% did not exist.
- 11% (21) Stand Post pipes were in good condition and 22% pipes were missing.
- 7% (13) Control Knobs were found in good condition and 63% were missing.
- 7% (14) Stand Post platforms were found in good condition and 36% were missing.
- 5% (9) drains were found in good condition and 48% drains did not exist.
- 11% (21) soak pits were found functional and 53% had not been constructed.
- 43% (82) outlets were in functional condition and 43% were non-functional.

**Table 1.4.3: Assessment of Water Outlets (PSPs/ Cistern Taps)**

	Good	Poor	Bad	Absent	Not Working	Not Used	Total
Stand Posts	20	120	14	36			190
Pipes	21	117	11	41			190
Control Knobs	13	51	7	119			190
Platforms	14	84	24	68			190
Drains	9	76	18	87			190
Soak pits	21	55	13	101			190
Outlet Functionality	82	11	14		83		190
Outlet Utilisation	81	3	13			86	183

#### 1.4.4 Summary from Status Reports of AP II Schemes - Prakasam District

In Prakasam District, three CPWSS have been assessed at A. B. Palem, at Cherukuru and at M. V. Palem along with 33 IPWSS.

- CPWSS A. B. Palem : This scheme is designed to provide water to 20 villages, of which 13 were assessed. 19 out of the 20 villages in the scheme were reported to be receiving water.
- CPWSS Cherukuru : This scheme is supposed to provide water to 4 villages, all of which were assessed. All 4 villages were receiving water.
- CPWSS M. V. Palem : This scheme is supposed to provide water to 9 villages of which 7 were reported to be receiving water.
- IPWSS : 30 Individual Piped Water Supply Schemes are reported to be supplying 40 villages. 27 of the 40 villages are reported to be receiving water, 3 are not receiving water and the status of 10 is not known. There is some ambiguity about the total number of IPWSS and the list of villages under IPWSS.

A total of 1064 water outlets were supposed to be present in the three CPWSS and 30 IPWSS. The assessment of these water outlets is detailed in Table 1.4.4.

These findings can be summarised as:

- 79% (843) Stand Posts were found in good condition and 5% (56) did not exist.
- 91% (970) Stand Post pipes were in good condition and 3% (28) pipes were missing.
- 38% (409) Control Knobs were found in good condition and 53%(565) were missing.
- 41% (438) platforms were found in good condition and 13%(136) were missing.
- 2% (18) drains were found in good condition and 92% (981) drains did not exist.
- 100% (1064) soak pits had not been constructed.
- 82% (896) outlets were in functional condition and 12% (126) were non-functional.

**Table 1.4.4: Assessment of Water Outlets (PSPs/ Cistern Taps)**

	Good	Poor	Bad	Absent	Not Working	Not Used	Total
Stand Posts	843	95	70	56			1064
Pipes	970	33	33	28			1064
Control Knobs	409	76	14	565			1064
Platforms	438	323	167	136			1064
Drains	18	21	44	981			1064
Soak pits				1064			1064
Outlet functionality	896	25	17		126		1064
Outlet Utilisation	894	32	10			128	1064

As there is no NGO operating in Mahbubnagar District the exercise could not be conducted in this District. We have no reason to assume however that the situation would be different from the other Districts.

#### 1.4.5 Conclusion

The data gathered in this intermediate status assessment in the field differ to a great extent from the levels of completion of AP II as stated in the PRED physical and financial progress reports. NAP Office contributes the differences to the characteristics of the MIS methods in the PRED system, which concentrate on completion of the **construction** of physical infrastructure and the **financial expenditures** incurred. Limiting the MIS to these issues, ignores the level of functioning of the constructed infra structure.

The observation of shortcomings in the method of assessing AP II progress was observed in 1994, when NAPPO suggested improvements in the PRED formats for progress reporting. These suggestions were rejected at that time, with the argument that the existing system had been well established and served the purpose. Since then PRED has agreed to the development of the performance monitoring system, which now provides qualitative data to match the quantitative data on physical progress and finance and consequently brings out the differences.

PRED however has not adhered to the agreement to take over the responsibility to continue and



operate this monitoring of performance of the schemes, (scheduled for 50% in June and 50% in September), while NAPO thinks that if not introduced the PRED may be missing the point in assessing their own progress.

As a consequence NAPO expects that declaring schemes completed, on the basis of quantitative reports indicating the infrastructure built and the funds spent, will lead to serious differences of opinion.

NAPO takes the level of completion and the success or impact of the programme as assessed by the quantity and quality of water delivered, compared to the design parameters, rather than the levels of completion of the infrastructure and the expenditure incurred.

The factual outcome of the status assessment in the field will still be used for its original purpose, i.e. to provide a picture of the starting point for the 9 months NGO intervention in the expansion villages.

The expansion programme of the NGOs from April to December 1997, includes a component to raise local funds from the users to patch up and improve the village RWS facilities and conduct repairs. The patching up can only be limited to the local village facilities. In view of the time frame of 9 months, the NGO's will concentrate their efforts on improvements of the villages that are receiving regular water supply. For the villages which are not receiving regular water supply, there is little merit in improving the village level facilities until such time the PRED is delivering water to these villages.

## 1.5 Functioning of the Schemes as per Performance Monitoring Format

### 1.5.1 Summary:

Performance information on the twelve CPWSS in the four districts is being received from PRED, regularly for some schemes and incomplete in some other cases. The performance information consists of monthly reports of estimates of production/aggregate pumping data of Raw and Clear Water and Village Delivery (delivery of clear water to village level storage structures). Since October 96, PRED has been monitoring village level supply with the involvement of local villagers. This information is further supplemented at NAPO by monthly estimation of Village Delivery by local NGOs.

The schemes being monitored are:

District	Location of CPWSS
Mahbubnagar	Chinnamaroor
Kurnool	Chinnakothiliki, Halvi, Hanawal, Manchala, Sathnur
Medak	Borancha, Ibrahimpur, Karasguthy
Prakasam	AB Palem, Cherukuru, MV Palem

From the information supplied, the following parameters have been calculated in three successive levels for each CPWSS (the detailed description and methodology of these computations have been presented earlier in the Half-yearly Progress Report NAPO for the period April - September 96 and remains unchanged).

- Volume of raw water pumped per month
  - Volume of clear water pumped per month
  - Aggregate volume of clear water supplied to the villages level storage structures per month
- Capacity to produce Raw water in LPCD
  - Raw water actually pumped in LPCD
  - Capacity to produce Clear water in LPCD
  - Clear water actually pumped in LPCD
  - Aggregate Village supply LPCD as Clear water delivered to all village storage structures, as per PRED records.
  - Aggregate Village supply LPCD as Clear water delivered to all village storage structures, as per users/ NGO records.
- With respect to Raw water pumping capacity:

  - Percentage of Raw water pumped
  - Percentage of Clear water pumped
  - Percentage of Village supply ( as per PRED records)
  - Percentage of Village supply ( as per NGO records)
  - Percentage losses between Raw water pumping and Clear Water pumping
  - Percentage losses between Clear water pumping and Village Delivery (as per

PRED records)

- Percentage losses between Clear water pumping and Village Delivery (as per NGO records)

Following the above methodology, analysis of Aggregate Pumping Data has been made for each scheme and has been summarised. This analysis is presented in the tables and graphs that follow.

### 1.5.2 Overall Analysis:

Table 1.5.01, below provides details of the number of villages that each CPWSS should have been supplying and compares this with the actual position during January - June 1997.

**Table 1.5.01: Monthly Record of numbers of villages receiving water per month**

Name of CPWSS	Total Vill. in the CPWSS	Number of Villages supplied during Jan- June 97						Avg.
		Jan	Feb	Mar	Apr	May	Jun	
Chinnamaroor	36	32	32	32	22	22	22	27
Chinnakothiliki	8	7	6	7	7	6	6	6.5
Halvi	26	NA	NA	NA	NA	NA	NA	NA
Hanawal	6	6	6	6	6	5	5	5.7
Manchala	7	5	6	6	6	6	6	5.8
Sathnur	16	9	9	9	10	10	10	9.5
AB Palem	11	11	11	11	11	11	11	11
Cherukuru	4	4	4	4	4	4	4	4
MV Palem*	5	5	5	5	5	5	5	5
Borancha	35	33	29	27	30	30	NA	29.8
Ibrahimpur	46	38	0	37	38	38	41	32
Karasguthy	29	12	11	19	15	18	17	15.3
Totals	229	162	119	163	154	155	127	151.6

\* MV Palem actually supplies 9 villages, of which 4 are considered as under augmentation and 5 villages are considered as the actual supply target.

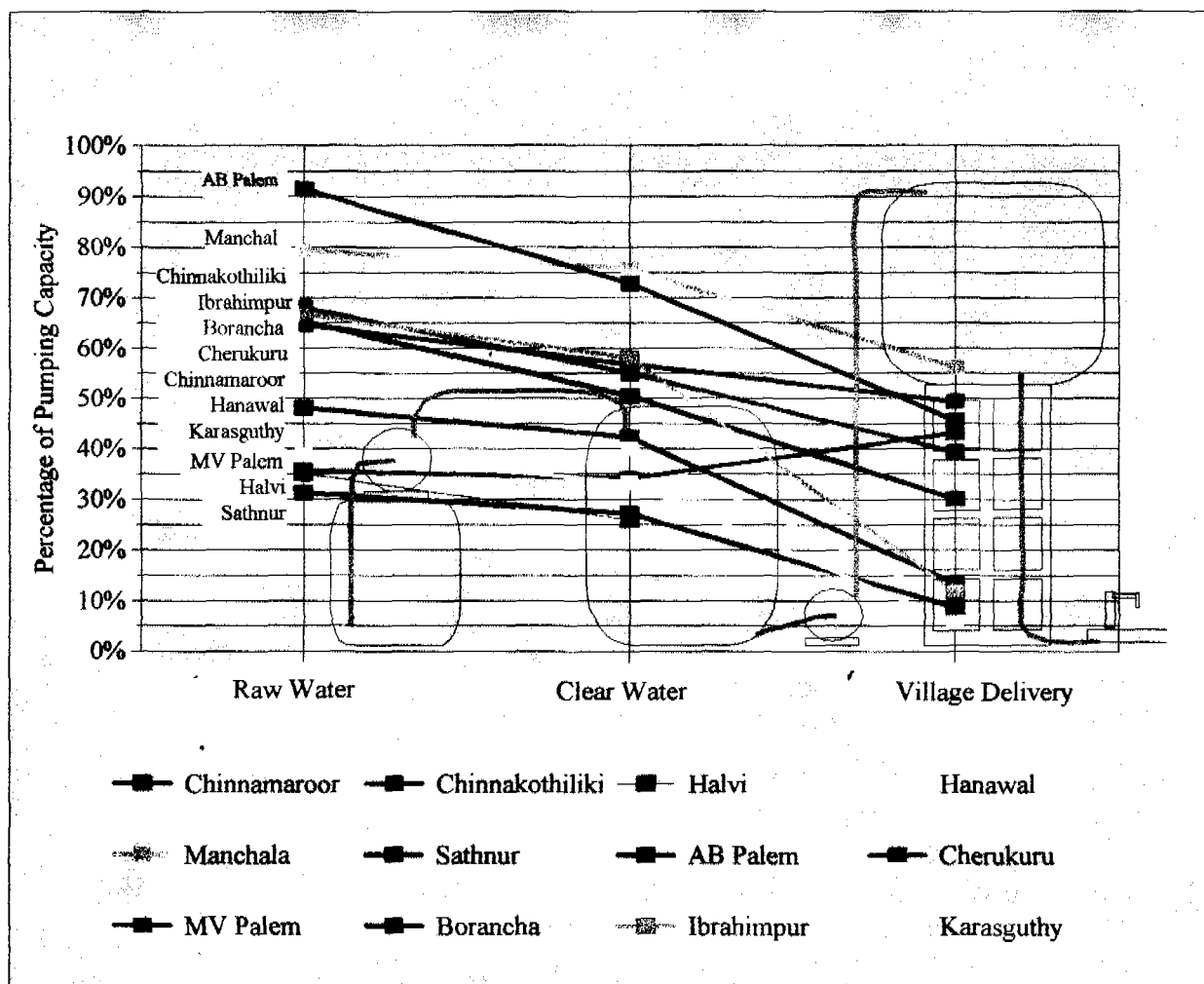
The table indicates that the proportion of villages actually supplied water as compared to the targeted number of villages was highest in the cases of CPWSS AB Palem, Cherukuru, and MV Palem (all villages received water) and the least in Karasguthy (15.3 villages out of 29). However, the data provided on AB Palem, Cherukuru, and MV Palem. are questionable, as has been discussed in Section 1.5.3.4.

Table 1.5.02 examines the average figures of each scheme's Aggregate Pumping Data by the parameters of percentages of Raw Water and Clear Water pumped and Village Delivery in comparison to the installed Raw Water pumping capacity in each scheme.

The analysis indicates that the average percentage Raw Water production is the highest for AB Palem (91.4) and the lowest in Sathnur (31.3%). In the case of Clear Water production, Manchala shows the highest average (79.2%) and Halvi has the lowest average of 25.9%. When considering Village Delivery, Manchala has the highest average of 56.2% and Karasguthy has the lowest average of 5.6%. Village Delivery figures are available for 11 out of 12 schemes from PRED and only for four schemes from NGOs. It is difficult to correlate the data from the two sources.

**Table 1.5.02: Averages of Aggregate Pumping Data Analysis  
for 12 CPWSS during Jan - June 97**

CPWSS	Water Pumped		Village Delivery		Losses		
	R/W	C/W	PRED	NGO	R/W to C/W	C/W to Vill. (PRED)	C/W to Vill. (NGO)
Percentage Values expressed with reference to Installed Pumping Capacities in each CPWSS							
Chinnamaroor	48.1%	42.2%	13.5%		5.9%	28.7%	
Chinnakothiliki	68.0%	54.9%	39.3%	23.1%	13.0%	15.6%	31.8%
Halvi	35.0%	25.9%			9.1%	30.4%	
Hanawal		40.0%	9.7%				
Manchala	79.2%	75.6%	56.2%	49.1%	3.6%	19.4%	28.0%
Sathnur	31.3%	27.2%	8.8%		4.1%	18.4%	
AB Palem	91.4%	72.8%	45.6%		18.7%	27.2%	
Cherukuru	64.6%	56.7%	49.3%		8.0%	7.3%	
MV Palem	35.6%	34.1%	43.1%	23.0%	1.5%	-9.0%	-0.6%
Borancha	65.2%	50.4%	30.1%	6.5%	14.8%	20.3%	
Ibrahimpur	66.7%	58.1%	12.0%		8.6%	49.5%	
Karasguthy	38.8%	33.2%	5.6%		5.6%	27.7%	



Average percentage losses between Raw and Clear water production are a maximum (18.7%) in AB Palem (though its average Raw water production is the highest) and is the lowest in MV Palem (1.5%). The next stage of losses, between Clear water production and Village Delivery, is the highest (49.5%) in Ibrahimpur and the least in MV Palem (- 9.0%). However, since the quantity of water between raw and delivery at village level seems to be going up in MV Palem, it must be concluded that the data provided for MV Palem are unreliable. The next lowest loss between Clear water production and Village Delivery, is 7.3% for CPWSS Cherukuru.

Data from PRED are incomplete for Hanawal and Halvi, because of which averages for all parameters could not be computed. Partial data has been provided by for Borancha, Ibrahimpur and Karasguthy and averages for these schemes have been computed with three and four months data for the six months period.

Though the present monitoring system was introduced one and half years ago, it is evident that the collection and presentation of data was far from complete. The information provided to NAPO has a number of anomalies such as:

- Data on raw water production have not been furnished in the case of CPWSS Hanawal, Kurnool. The arrangement for raw water supply is by both pumping and gravity flow. While repeated requests have been made, it appears that PRED is not recording gravity flow.
- Information on village supply is not provided for CPWSS Halvi in Kurnool, as the scheme is still reported as "under stabilization" .
- There are variations in the pump capacities in the information provided on CPWSS AB Palem, MV Palem and Cherukuru. In AB Palem the raw water production is nearly 100% of capacity for two months and exceeds the capacity in one month.

In the other two schemes, instances are seen where monthly clear water production is higher than raw water production and village supply is more than clear water production. In the case of MV Palem, the discrepancies are grave that they distort the six-monthly average figures.

In the cases of AB Palem and Cherukuru the six-monthly average figures do not show the discrepancy directly. This problem could have occurred because pumps have been replaced and the new pump capacities have not been recorded, reported and, therefore, not considered for capacity calculations. These discrepancies are a direct reflection on the quality of data coming from Prakasam district.

- Requested Information regarding the number of days water is being supplied in each month from all 12 schemes in the four districts, have not been made available.

Discussions of the results of the analysis of data for each CPWSS in detail, arranged in order of Districts, follows.

### 1.5.3 Analyses per District

#### 1.5.3.1 Mahbubnagar District:

##### CPWSS Chinnamaroor

Water has reached to 32 out of 36 villages. Table 1.5.03 gives the information regarding the number of villages served during the reporting period.

**Table 1.5.03 : Monthly Record of no. of villages receiving water per month**

	Total Vill.	Jan 97	Feb	Mar	Apr	May	Jun 97	Avg.
Villages served	36	32	32	32	22	22	22	27

Four villages have not received water during the reporting period: Kethepally, Tellarallapalli, Chickepalli and Busireddipalli

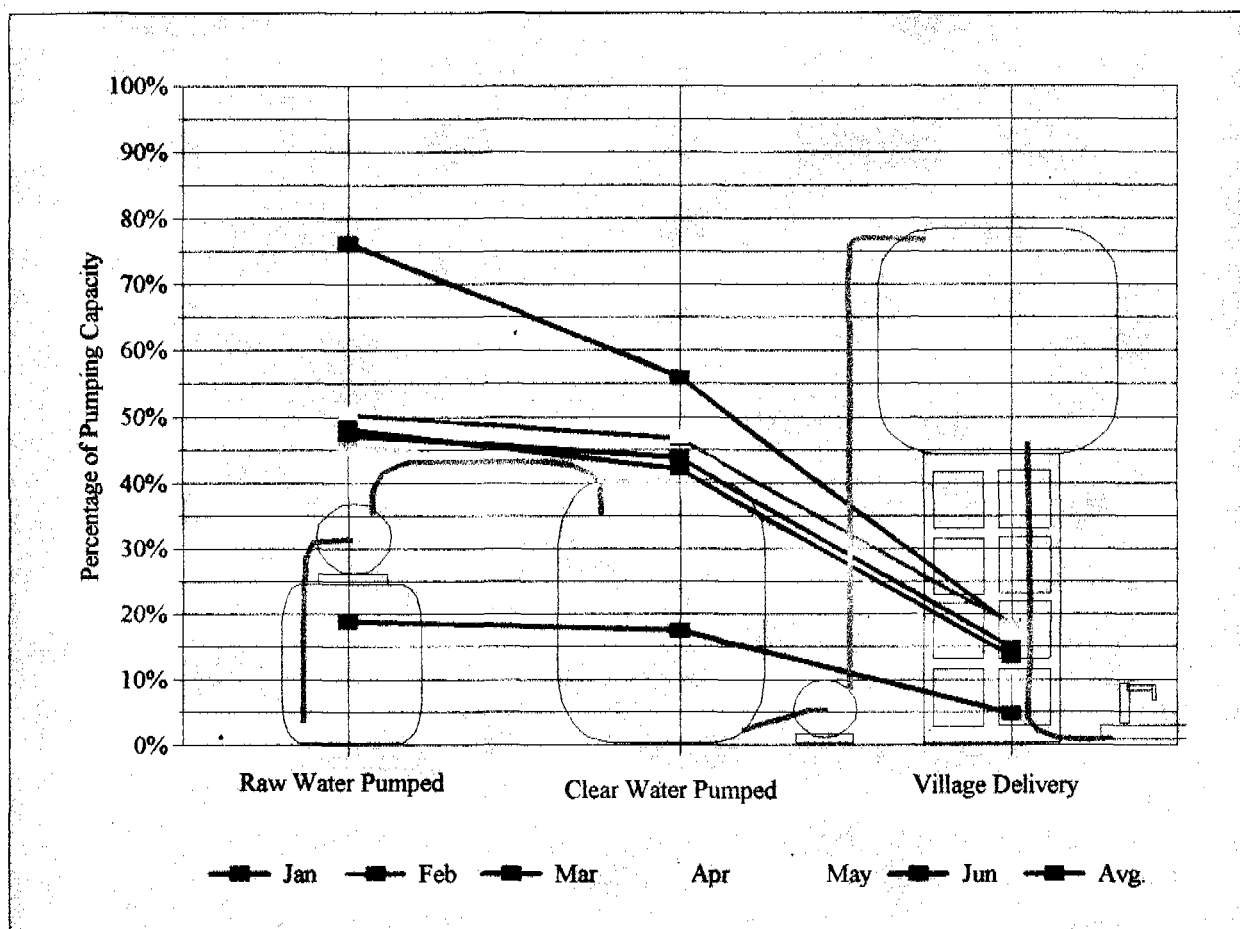
Table 1.5.04 provides details for the reporting period, i.e., January 97 to June 97. Referring to the Average figures in the Table, at 48% utilisation of Raw water pumping capacity, Raw water pumped comes to 44 LPCD. At 42% utilisation of Raw water pumping capacity, Clear water pumped is 38.4 LPCD and at 13% utilisation of Raw water pumping capacity, the Village supply is 16.25 LPCD.

Average percentage losses with respect to Raw water capacity are; 6% between Raw water and Clear water produced and 29% between Clear water produced and Village Delivery.

Raw water production was the highest in Jan., at 76% and varied between 45% to 50% during Feb. to May. Losses appeared consistently higher between Clear water pumped and Village supply, ranging between 28% to 38%, except in June. A sudden drop in volumes can be noticed in Raw water production in June 97, 19%, though Village Delivery did not drop proportionately.

Table 1.5.04: CPWSS, Chinnamaroor - Analysis of Aggregate Pumping Data (Jan - Jun 97)

Month	Jan	Feb	Mar	Apr	May	Jun	Avg.
<b>Pumping and Supply Volumes in liters per month</b>							
R/W capacity	197160	178080	197160	190800	197160	190800	191860
R/W pumped	150255	89437.5	93015	96593	89438	35775	92419
C/W pumped	110211	83116.5	86441	89766	83117	33247	80983
Village Delivery (PRED)	36045	32625	29250	24840	23000	9200	25827
<b>Pumping and Supply details in LPCD</b>							
R/W Capacity	91.3	91.3	91.3	91.3	91.3	91.3	91.3
R/W pumped	69.5	45.8	43.1	46.2	41.4	17.1	43.9
C/W pumped	51.0	42.6	40.0	42.9	38.5	15.4	38.4
Village Delivery (PRED)	18.2	18.5	17.3	19.2	17.2	7.1	16.2
<b>Percentage with respect to Raw Production Capacity</b>							
R/W pumped	76.2%	50.2%	47.2%	50.6%	45.4%	18.8%	48.1%
C/W pumped	55.9%	46.7%	43.8%	47.0%	42.2%	17.4%	42.2%
Village Delivery (PRED)	18.3%	18.3%	14.8%	13.0%	11.7%	4.8%	13.5%
<b>% Losses in different stages with respect to Raw Production Capacity</b>							
R/W - C/W pumped	20.3%	3.5%	3.3%	3.6%	3.2%	1.3%	5.9%
C/W pumped - Village Deliv. (PRED)	37.6%	28.4%	29.0%	34.0%	30.5%	12.6%	28.7%



1.5.3.2 Kurnool District:

Information on all the five CPWSS - Chinnakothiliki, Halvi, Hanawal, Manchala and Sathnur, has been received.

CPWSS Chinnakothiliki:

Table 1.5.05 : Monthly Record of no. of villages receiving water per month

	Total Vill.	Jan 97	Feb	Mar	Apr	May	Jun 97	Avg.
Villages served	8	7	6	7	7	6	6	6.5

Water is not supplied at all in TS Kullur village and in Soganur water supply is erratic.

Table 1.5.06 provides details for the reporting period, i.e., January 97 to June 97. Referring to the Average figures in the Table, average production of Raw water was at 68% of Raw water pumping capacity, or 56.4 LPCD, average Clear water pumped was 55% of the capacity, at 45.6 LPCD and the Village supply was 39% or 40.2 LPCD as per the PRED records Village supply as per the NGO records is 22.8 LPCD at 23% capacity utilisation.

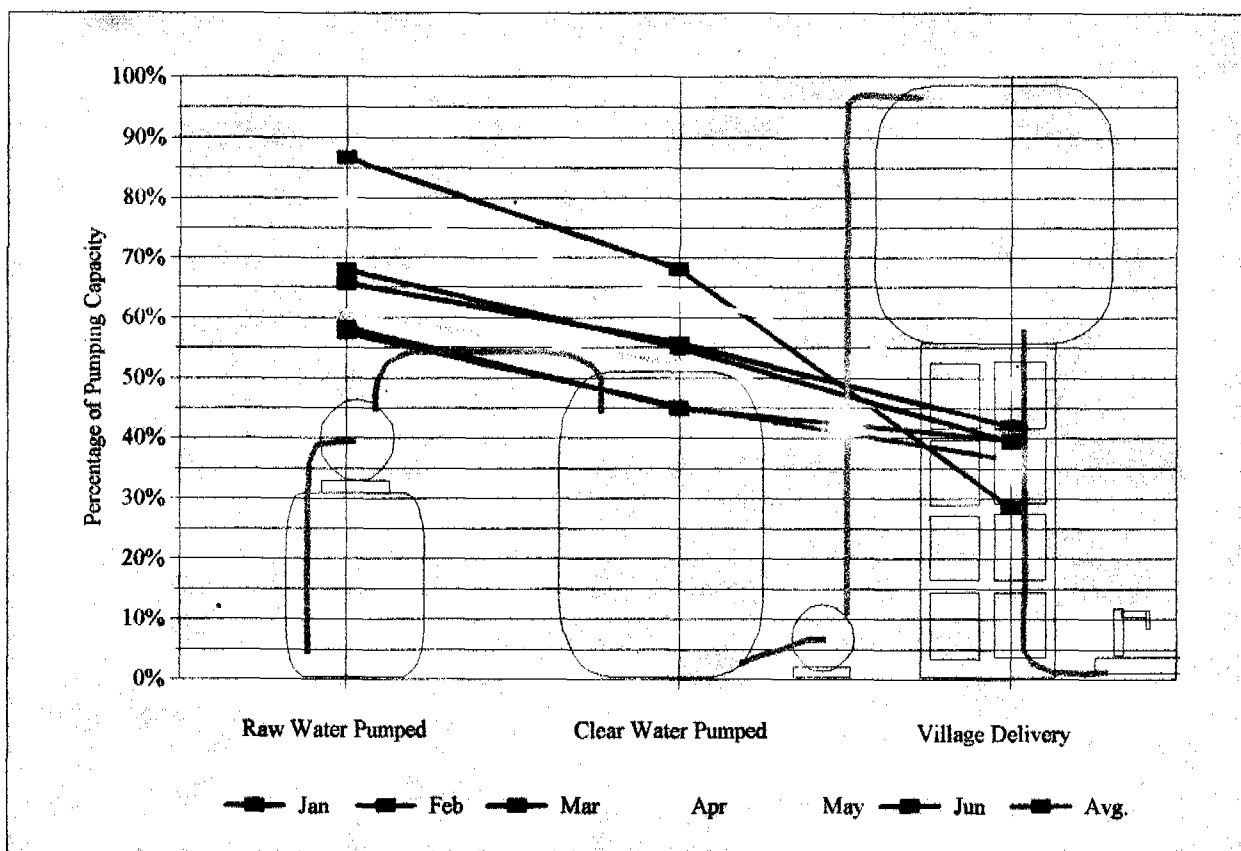
Average percentage losses with respect to Raw water capacity are; 13% between Raw water produced to Clear water produced and 16% between Clear water produced and Village Delivery ( as per PRED records) whereas it is 32% between c/w pumping to Village Delivery ( as per NGO records).

Raw water production was the highest in Jan., at 87% and lowest in Feb. at 57%. Losses between Raw and Clear water pumped ranged from 8% (May) to 19% (Jan). Losses between Clear water pumped and Village supply, ranged between 5% (June) to 39% (Jan). Losses estimated by NGOs between Clear water pumped and Village supply were consistently higher, ranging between 43% to 20%. While Raw water production was highest in Jan, this month showed the most losses, a total of 58%.



Table 1.5.06: CPWSS, Chinnakothiliki - Analysis of Aggregate Pumping Data (Jan - Jun 97)

Month	Jan	Feb	Mar	Apr	May	Jun	Avg.
<b>Pumping and Supply Volumes in liters per month</b>							
R/W capacity	26784	24912	26784	25920	26784	25920	26184
R/W pumped	23218	13865	17577	20574	16200	15120	17759
C/W pumped	18218	10928	14912	16498	13977	11634	14361
Village Delivery (PRED)	7638	8801	11219	12728	10854	10275	10253
Village Delivery (NGO)	5375	4855	6255	6595	4160	4545	5298
<b>Pumping and Supply details in LPCD</b>							
R/W Capacity	83.0	83.0	83.0	83.0	83.0	83.0	83.0
R/W pumped	72.0	47.6	54.5	65.9	50.2	48.4	56.4
C/W pumped	56.5	37.5	46.2	52.9	43.3	37.3	45.6
Village Delivery (PRED)	23.7	38.1	43.9	51.5	42.5	41.5	40.2
Village Delivery (NGO)	21.0	21.0	24.5	26.7	20.4	23.0	22.8
<b>Percentage with respect to Raw Production Capacity</b>							
R/W pumped	86.7%	57.3%	65.6%	79.4%	60.5%	58.3%	68.0%
C/W pumped	68.0%	45.2%	55.7%	63.7%	52.2%	44.9%	54.9%
Village Delivery (PRED)	28.5%	36.4%	41.9%	49.1%	40.5%	39.6%	39.3%
Village Delivery (NGO)	25.3%	25.3%	29.5%	25.4%	15.5%	17.5%	23.1%
<b>% Losses in different stages with respect to Raw Production Capacity</b>							
R/W - C/W pumped	18.7%	12.1%	10.0%	15.7%	8.3%	13.4%	13.0%
C/W pumped - Village Deliv. (PREI)	39.5%	8.8%	13.8%	14.5%	11.7%	5.2%	15.6%
C/W - Village Delivery (NGO)	42.7%	19.9%	26.2%	38.2%	36.7%	27.3%	31.8%



**CPWSS Halvi:**

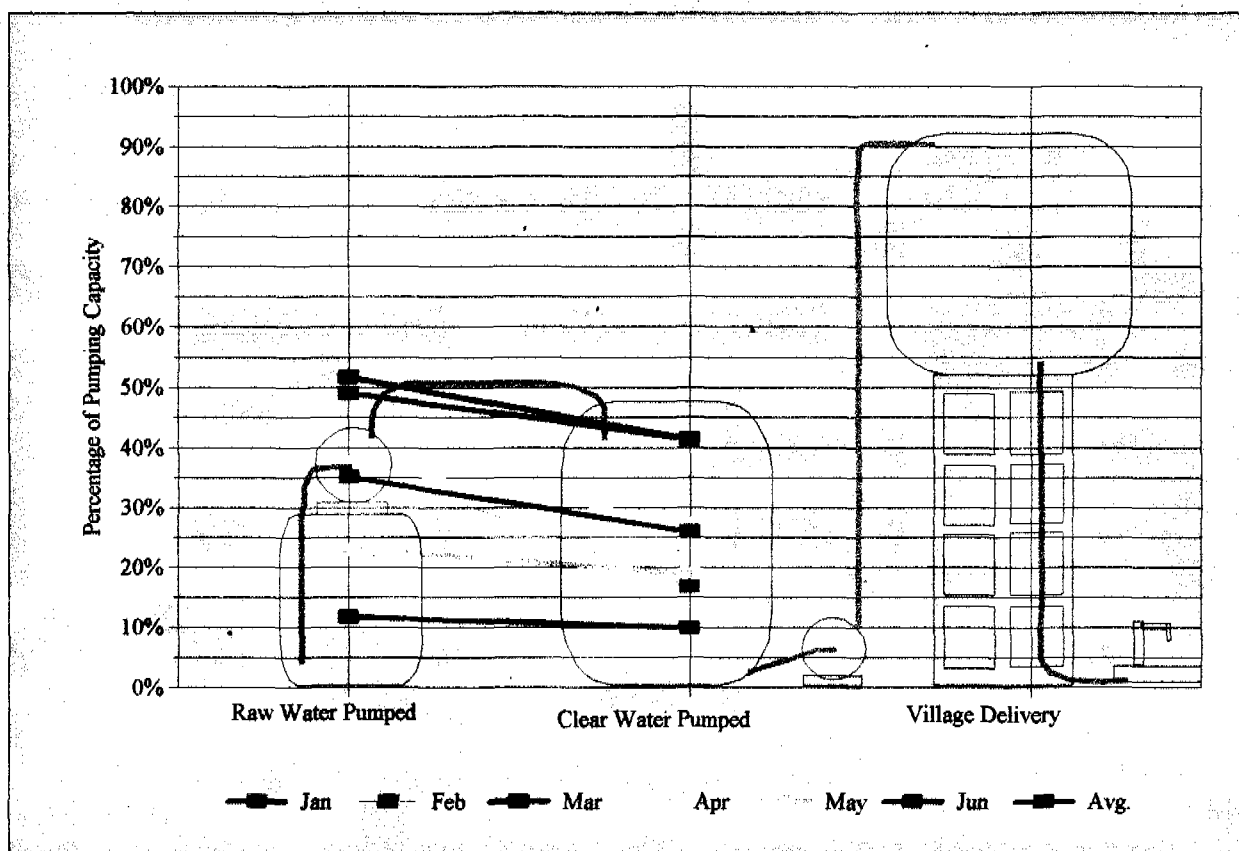
For CPWSS Halvi, Village supply details are not given as scheme is reported as under stabilisation.

Table 1.5.07 provides details for the reporting period, i.e., January 97 to June 97. Referring to the Average figures in the Table, at 35% utilisation of Raw water pumping capacity, Raw water pumped comes to 21.2 LPCD. At 26% utilisation of Raw water pumping capacity, Clear water pumped is 15.7 LPCD. Average percentage losses with respect to Raw water capacity are; 9% between Raw and Clear water produced.

Raw water production was the highest in March, at 52% and lowest (12%) in June. Losses between Raw water and Clear water pumped was highest in Feb. (21%) and lowest in June (2%). It is reported that in June 97, volumes dropped because the scheme was not operated for some period as river was polluted with molasses.

**Table 1.5.07: CPWSS, Halvi - Analysis of Aggregate Pumping Data (Jan - Jun 97)**

Month	Jan	Feb	Mar	Apr	May	Jun	Avg.
<b>Pumping and Supply Volumes in liters per month</b>							
R/W capacity	86066	77737	86066	83290	86066	83290	83752
R/W pumped	42165	29106	44508	31234	19781	9717	29419
C/W pumped	35631	12985	35631	22602	16417	8201	21911
Village Delivery (PRED)	NA	NA	NA	NA	NA	NA	NA
<b>Pumping and Supply details in LPCD</b>							
R/W Capacity	60.5	60.5	60.5	60.5	60.5	60.5	60.5
R/W pumped	29.6	22.6	31.3	22.7	13.9	7.1	21.2
C/W pumped	25.0	10.1	25.0	16.4	11.5	6.0	15.7
Village Supply (PRED)							
<b>Percentage with respect to Raw Production Capacity</b>							
R/W pumped	49.0%	37.4%	51.7%	37.5%	23.0%	11.7%	35.0%
C/W pumped	41.4%	16.7%	41.4%	27.1%	19.1%	9.8%	25.9%
Village Delivery (PRED)							
<b>% Losses in different stages with respect to Raw Production Capacity</b>							
R/W - C/W pumped	7.6%	20.7%	10.3%	10.4%	3.9%	1.8%	9.1%
C/W pumped - Village Deliv. (PRED)							



**CPWSS Hanawal:**

**Table 1.5.08 : Monthly Record of no. of villages receiving water per month**

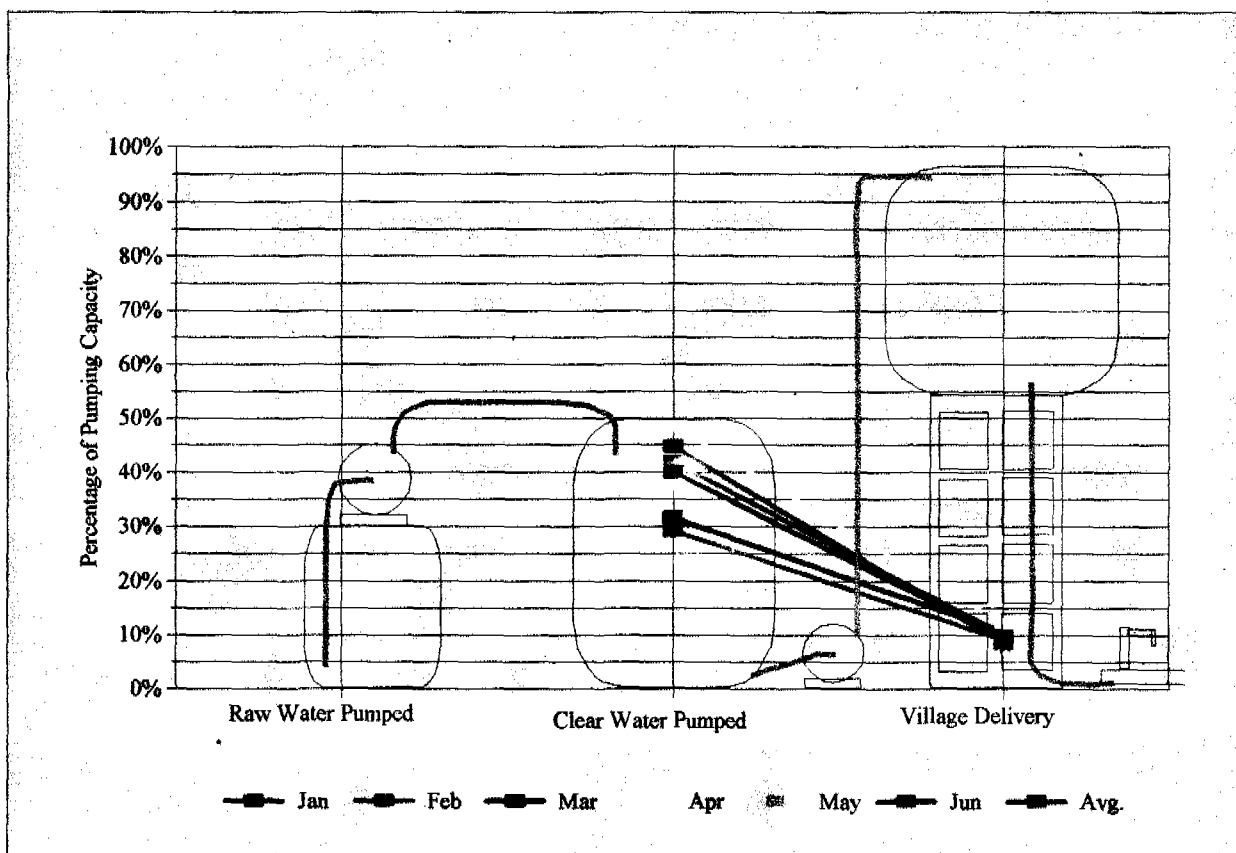
	Total Vill.	Jan 97	Feb	Mar	Apr	May	Jun 97	Avg.
Villages served	6	6	6	6	6	5	5	5.7

In Badinehal village water supply is erratic.

Table 1.5.09 provides details for the reporting period, i.e., January 97 to June 97. Raw water production was not available for the scheme for the entire six-monthly period. The arrangement for raw water supply is by both pumping and gravity flow. It appears that PRED is not recording gravity flow. Referring to the Average figures in the Table, the average Clear water production is about 40% of Raw water pumping capacity, at 29.6 LPCD. The monthly Village Delivery figures were persistently low for all six months, ranging between 7.4% to 10.6%, with an average of 9.7% or 7.2 LPCD. Correspondingly, losses between Clear water produced and Village Delivery ranged between 20% to 36.9%, averaging 30.4%.

**Table 1.5.09: CPWSS, Hanawal - Analysis of Aggregate Pumping Data (Jan - Jun 97)**

Month	Jan	Feb	Mar	Apr	May	Jun	Avg.
<b>Pumping and Supply Volumes in liters per month</b>							
R/W capacity	32825	29649	32825	317667	32825	31766	79593
R/W pumped	NA	NA	NA	NA	NA	NA	NA
C/W pumped	13752	8649	10357	15422	14566	14213	12827
Village Delivery (PRED)	3337	2687	3480	3899	2423	2720	3091
<b>Pumping and Supply details in LPCD</b>							
R/W Capacity	74.0	74.0	74.0	74.0	74.0	74.0	74.0
R/W pumped							
C/W pumped	31.0	21.6	23.3	35.9	32.8	33.1	29.6
Village Delivery (PRED)	7.5	6.7	7.8	9.1	5.5	6.3	7.2
<b>Percentage with respect to Raw Production Capacity</b>							
R/W pumped							
C/W pumped	41.9%	29.2%	31.6%	48.5%	44.4%	44.7%	40.0%
Village Delivery (PRED)	10.2%	9.1%	10.6%	12.3%	7.4%	8.6%	9.7%
<b>% Losses in different stages with respect to Raw Production Capacity</b>							
R/W - C/W pumped							
C/W pumped - Village Deliv. (P)	31.7%	20.1%	21.0%	36.3%	36.9%	36.2%	30.4%



**CPWSS Manchala:**

**Table 1.5.10 : Monthly Record of no. of villages receiving water per month**

	Total Vill.	Jan 97	Feb	Mar	Apr	May	Jun 97	Avg.
Villages served	7	5	6	6	6	6	6	5.8

Water supply has been erratic in two villages: Ibrahimpur and Chilakaladona

Table 1.5.11 provides details for the reporting period, i.e., January 97 to June 97. Referring to the Average figures in the Table, at 79.2% utilisation of Raw water pumping capacity, Raw water pumped comes to 36.7 LPCD. At 75.6% utilisation, Clear water pumped is 35.1 LPCD and at 56.2% utilisation, the Village supply is 29.9 LPCD.

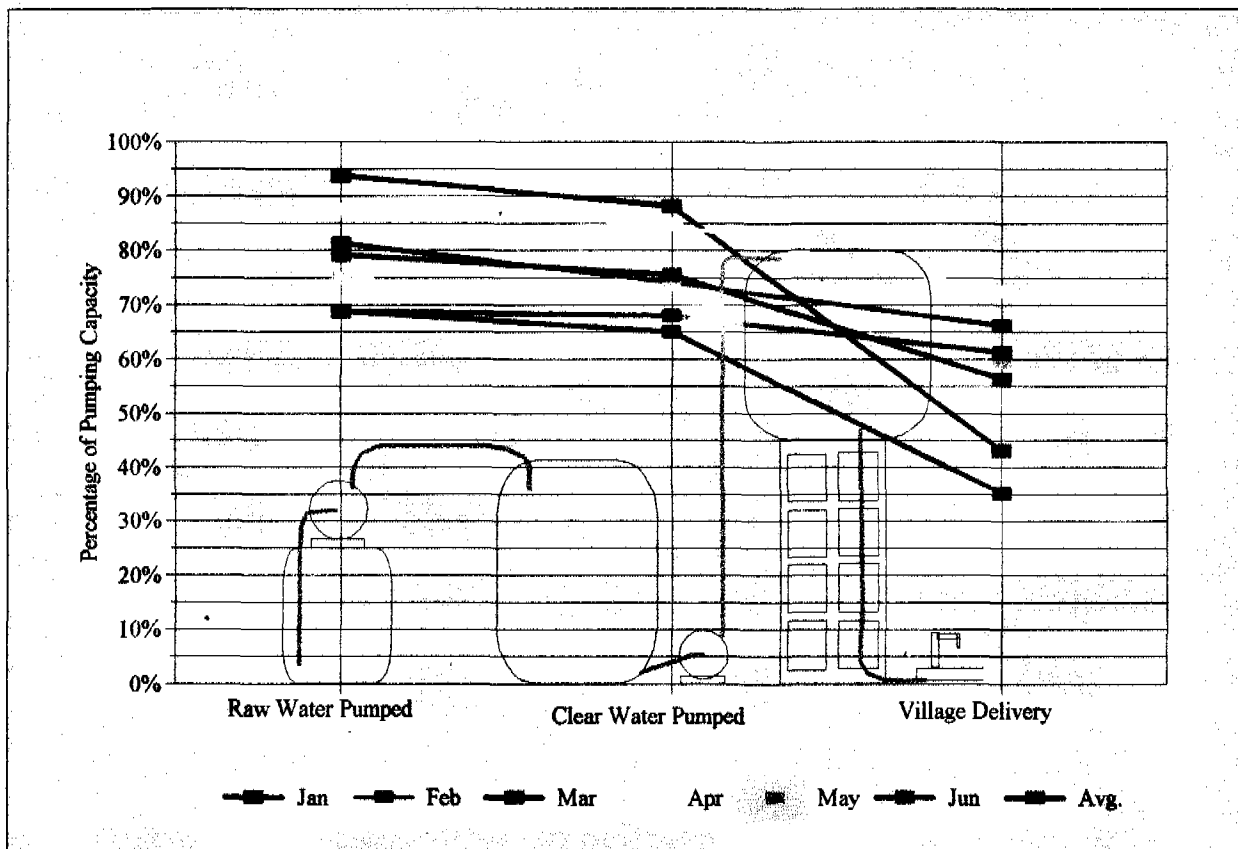
Average percentage losses with respect to Raw water capacity are; 3.6% between Raw water produced to Clear water produced and 19.4% between Clear water produced and Village Delivery.

Raw water production was the highest in March, at 93.8% and went to the lowest in Jan. and June, at 68.8%. While Raw water production was highest in March, losses were also the highest in March, at 50.5%.

This scheme data shows a relatively greater degree of consistency between data reported by PRED and by NGOs, for figures of Village Delivery, indicating a greater degree of reliability of the data in general.

**Table 1.5.11: CPWSS, Manchala - Analysis of Aggregate Pumping Data (Jan - Jun 97)**

Month	Jan	Feb	Mar	Apr	May	Jun	Avg.
<b>Pumping and Supply Volumes in liters per month</b>							
R/W capacity	26784	24192	26784	25920	26784	25920	26064.0
R/W pumped	18414	19656	25110	22680	20088	17820	20628.0
C/W pumped	17414	17931	23599	21971	19693	17640	19708.0
Village Delivery (PRED)	9424	16000	11560	18764	15904	15850	14583.7
Village Delivery (NGO)	9025	13744	12500	14944	13588	16875	12760.2
<b>Pumping and Supply details in LPCD</b>							
R/W Capacity	46.4	46.4	46.4	46.4	46.4	46.4	46.4
R/W pumped	31.9	37.7	43.5	40.6	34.8	31.9	36.7
C/W pumped	30.2	34.4	40.9	39.3	34.1	31.6	35.1
Village Delivery (PRED)	16.3	35.6	23.3	39.0	32.0	32.9	29.9
Village Delivery (NGO)	18.2	30.6	25.1	31.1	27.3	35.1	26.5
<b>Percentage with respect to Raw Production Capacity</b>							
R/W pumped	68.8%	81.3%	93.8%	87.5%	75.0%	68.8%	79.2%
C/W pumped	65.0%	74.1%	88.1%	84.8%	73.5%	68.1%	75.6%
Village Delivery (PRED)	35.2%	66.1%	43.2%	72.4%	59.4%	61.1%	56.2%
Village Delivery (NGO)	33.7%	56.8%	46.7%	57.7%	50.7%	65.1%	49.1%
<b>% Losses in different stages with respect to Raw Production Capacity</b>							
R/W - C/W pumped	3.7%	7.1%	5.6%	2.7%	1.5%	0.7%	3.6%
C/W pumped - Village Deliv. (PRED)	29.8%	8.0%	44.9%	12.4%	14.1%	6.9%	19.4%
C/W -Village Delivery (NGO)	31.3%	17.3%	41.4%	27.1%	22.8%	3.0%	28.0%



**CPWSS Sathnur:**

**Table 1.5.12 : Monthly Record of no. of villages receiving water per month**

	Total Vill.	Jan 97	Feb	Mar	Apr	May	Jun 97	Avg.
Villages served	16	9	9	9	10	10	10	9.5

Water supply has been erratic in Ramapuram village. Six villages did not receive water supply during the reporting period: Irangal, Jamapuram, Kosigi, Moogaladoddi, Deverabetta and Sajjalagudem.

Table 1.5.12 provides details for the reporting period, i.e., January 97 to June 97. Referring to the Average figures in the Table, at 31.3% utilisation of Raw water pumping capacity, Raw water pumped comes to 78.7 LPCD\*. At 27% utilisation of Raw water pumping capacity, Clear water pumped is 68.5 LPCD and at 9% utilisation of Raw water pumping capacity, the Village supply is 27.5 LPCD. Village supply as per NGO records is 41.7 LPCD in the 6 villages where NGO is operating.

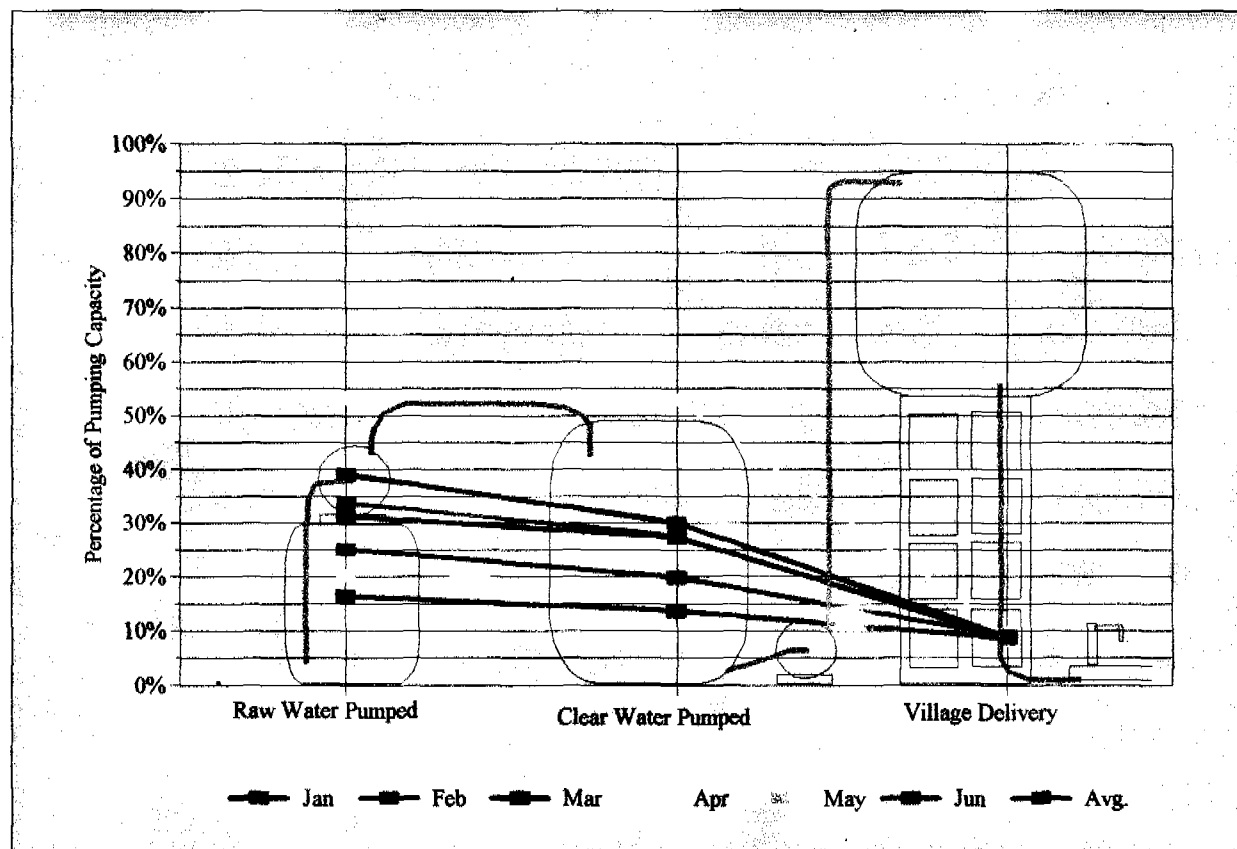
Average percentage losses with respect to Raw water capacity are; 4% between Raw water produced to Clear water produced and 18% between Clear water produced and Village Delivery.

Raw water production was highest in April, at 53.3% and lowest in Jan., at 16.3%. Though Raw water production varied substantially, the PRED report of Village Delivery was consistently around 8% to 9%. This phenomenon cannot be easily explained and indicated the possibility of unreliable reports of Village Delivery figures. This is substantiated by the situation where, in January 97, NGO records have reported no water supply in villages where they are operating whereas PRED showed supply to the same villages.



Table 1.5.13: CPWSS, Sathnur - Analysis of Aggregate Pumping Data (Jan - Jun 97)

Month	Jan	Feb	Mar	Apr	May	Jun	Avg.
<b>Pumping and Supply Volumes in liters per month</b>							
R/W capacity	122016	110208	122016	110880	122016	110880	116336.0
R/W pumped	19904	37126	47663	62951	24785	29520	36991.5
C/W pumped	16552	30329	36597	62428	23803	23382	32181.8
Village Delivery (PRED)	10428	9368	10812	11436	10196	10631	10478.5
Village Delivery (NGO)	0	2160	7350	7330	7350	7330	5253.3
<b>Pumping and Supply details in LPCD</b>							
R/W Capacity	92.9	92.9	92.9	92.9	92.9	92.9	92.9
R/W pumped	41.1	84.8	98.3	134.2	51.1	62.9	78.7
C/W pumped	34.1	69.3	75.5	133.1	49.1	49.8	68.5
Village Delivery (PRED)	26.6	26.5	27.6	30.2	26.0	28.1	27.5
Village Delivery (NGO)	0.0	29.7	63.5	46.6	63.5	46.6	41.7
<b>Percentage with respect to Raw Production Capacity</b>							
R/W pumped	16.3%	33.7%	39.1%	53.3%	20.3%	25.0%	31.3%
C/W pumped	13.6%	27.5%	30.0%	52.9%	19.5%	19.8%	27.2%
Village Delivery (PRED)	8.5%	8.5%	8.9%	9.7%	8.4%	9.0%	8.8%
<b>% Losses in different stages with respect to Raw Production Capacity</b>							
R/W - C/W pumped	2.7%	6.2%	9.1%	0.4%	0.8%	5.2%	4.1%
C/W pumped - Village Deliv. (PRED)	5.0%	19.0%	21.1%	43.2%	11.2%	10.8%	18.4%



1.5.3.3 Medak District:

CPWSS Borancha:

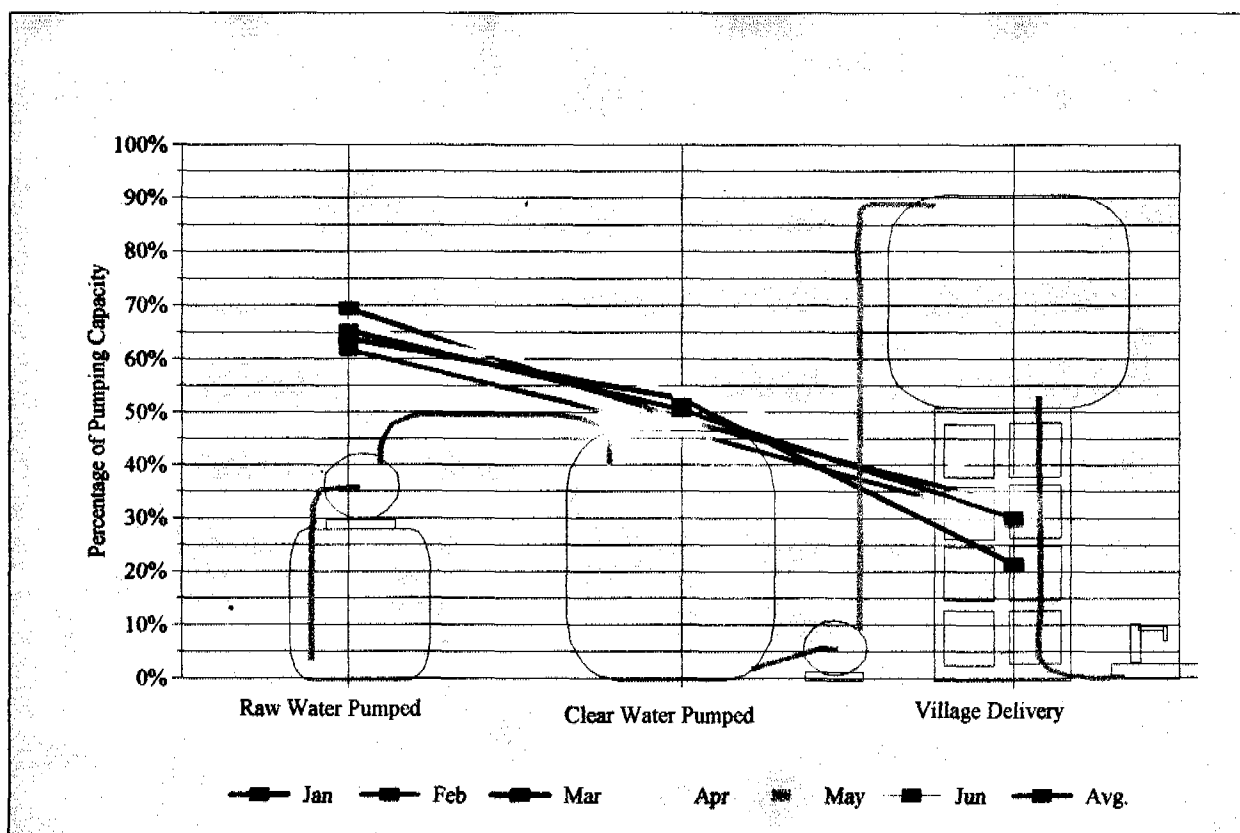
Table 1.5.14: Monthly Record of no. of villages receiving water per month

	Total Vill.	Jan 97	Feb	Mar	Apr	May	Jun 97	Avg.
Villages served	35	33	29	27	30	30	NA	29.8

Table 1.5.15 provides details for the months of January 97 to April 97. Pumping information has not been provided for the months of May and June. Based upon the limited information available, average Raw water production was 65.2% utilisation of Raw water pumping capacity, or 41.4 LPCD. At 50.4% utilisation of Raw water pumping capacity, Clear water pumped is 32 LPCD and at 30.1% utilisation of Raw water pumping capacity, the Village supply is 20.9 LPCD. Village supply as per NGO records is far lower than that reported by PRED, 4.1 LPCD.

Table 1.5.15 : CPWSS, Borancha - Analysis of Aggregate Pumping Data (Jan - Jun 97)

Month	Jan	Feb	Mar	Apr	May	Jun	Avg.
<b>Pumping and Supply Volumes in liters per month</b>							
R/W capacity	94161	85048	94160	91123	NA	NA	91123
R/W pumped	65324	52464	60084	60175	NA	NA	59512
C/W pumped	45781	39671	49444	49001	NA	NA	45974
Village Delivery (PRED)	30498	25030	20100	33836	NA	NA	27366
<b>Pumping and Supply details in LPCD</b>							
R/W Capacity	63.4	63.4	63.4	63.4			63.4
R/W pumped	44.0	39.1	40.5	41.9			41.4
C/W pumped	30.8	29.6	33.3	34.1			32.0
Village Delivery (PRED)	21.7	22.2	13.5	26.0			20.9
Village Delivery (NGO)	5.2	5.6	2.5	3.1			4.1
<b>Percentage with respect to Raw Production Capacity</b>							
R/W pumped	69.4%	61.7%	63.8%	66.0%			65.2%
C/W pumped	48.6%	46.6%	52.5%	53.8%			50.4%
Village Delivery (PRED)	32.4%	29.4%	21.3%	37.1%			30.1%
Village Delivery (NGO)	8.2%	8.8%	3.9%	4.9%			6.5%
<b>% Losses in different stages with respect to Raw Production Capacity</b>							
R/W - C/W pumped	20.8%	15.0%	11.3%	12.3%			14.8%
C/W pumped - Village Deliv. (PRED)	16.2%	17.2%	31.2%	16.6%			20.3%
C/W - Village Delivery (NGO)	40.4%	37.8%	48.6%	48.9%			43.9%



CPWSS Ibrahimpur:

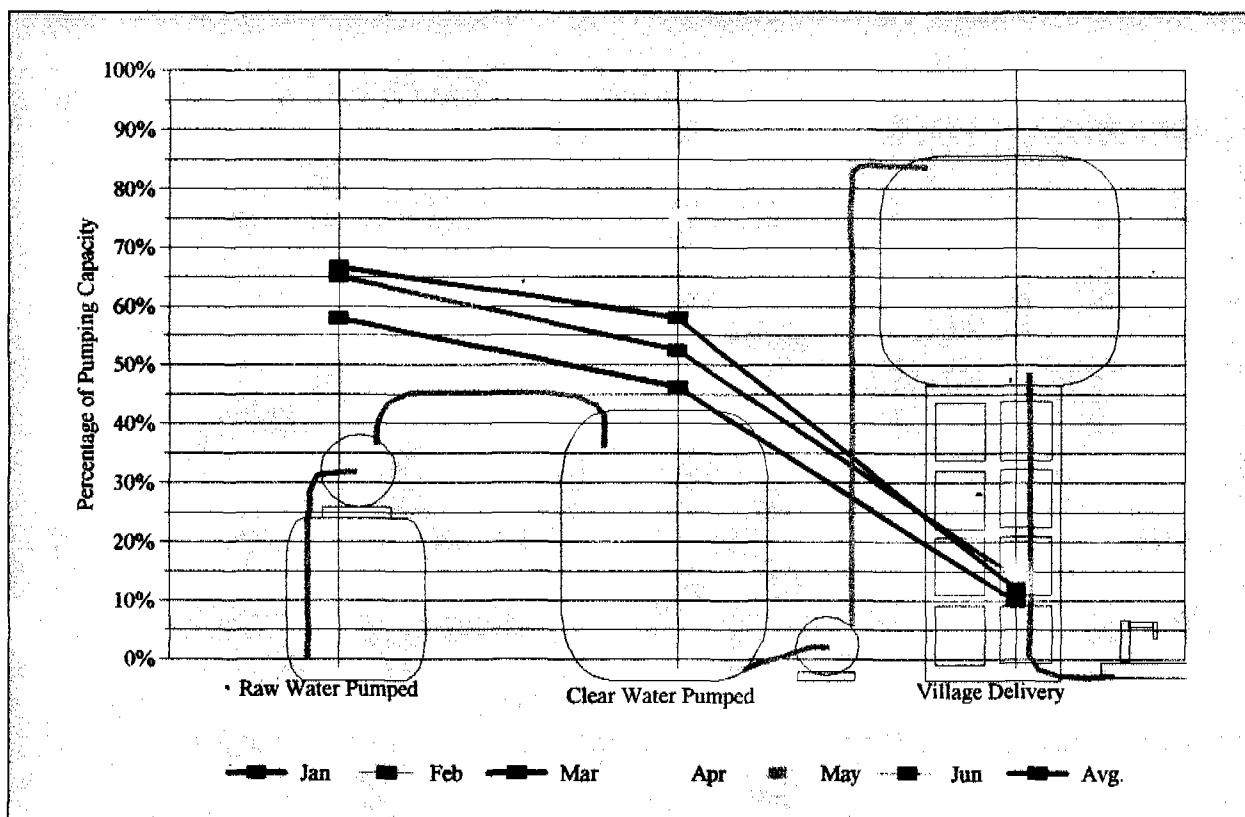
**Table 1.5.16: Monthly Record of no. of villages receiving water per month**

	Total Vill.	Jan 97	Feb	Mar	Apr	May	Jun	Avg.
Villages served	46	38	0	37	38	38	41	32

Table 1.5.17 provides details for the months of January, March and April 97. The above table indicates that the scheme was not operational in Feb. 97. The pumping information for April is incomplete, while no data have been provided for the months of May and June. Based upon the limited information available, average Raw water production was 66.7% utilisation of Raw water pumping capacity, or 58.7 LPCD. At 58.1% capacity utilisation, Clear water pumped is 47.5 LPCD and at 12% capacity utilisation, the Village supply is 12.6 LPCD. The reported losses in Jan. and March between Clear water production and Village Delivery are quite high, 50.9% and 48.1%, respectively.

**Table 1.5.17: CPWSS, Ibrahimpur - Analysis of Aggregate Pumping Data (Jan - Jun 97)**

Month	Jan	Feb	Mar	Apr	May	Jun	Avg.
<b>Pumping and Supply Volumes in liters per month</b>							
R/W capacity	136538	123325	136538	132134	NA	NA	132134
R/W pumped	88750	NA	79192	101785	NA	NA	89909
C/W pumped	71673	NA	63142	83247.7	NA	NA	72688
Village Delivery (PRED)	19297	NA	13528	NA	NA	NA	16413
<b>Pumping and Supply details in LPCD</b>							
R/W Capacity	88.1	88.1	88.1	88.1			88.1
R/W pumped	57.3		51.1	67.9			58.7
C/W pumped	46.2		40.7	55.5			47.5
Village Delivery (PRED)	14.7		10.6				12.6
<b>Percentage with respect to Raw Production Capacity</b>							
R/W pumped	65.0%		58.0%	77.0%			66.7%
C/W pumped	52.5%		46.2%	75.5%			58.1%
	14.1%		9.9%				12.0%
<b>% Losses in different stages with respect to Raw Production Capacity</b>							
R/W - C/W pumped	12.5%		11.8%	1.6%			8.6%
C/W pumped - Village Deliv. (PRED)	50.9%		48.1%				49.5%



CPWSS Karasguthy:

**Table 1.5.18 : Monthly Record of no. of villages receiving water per month**

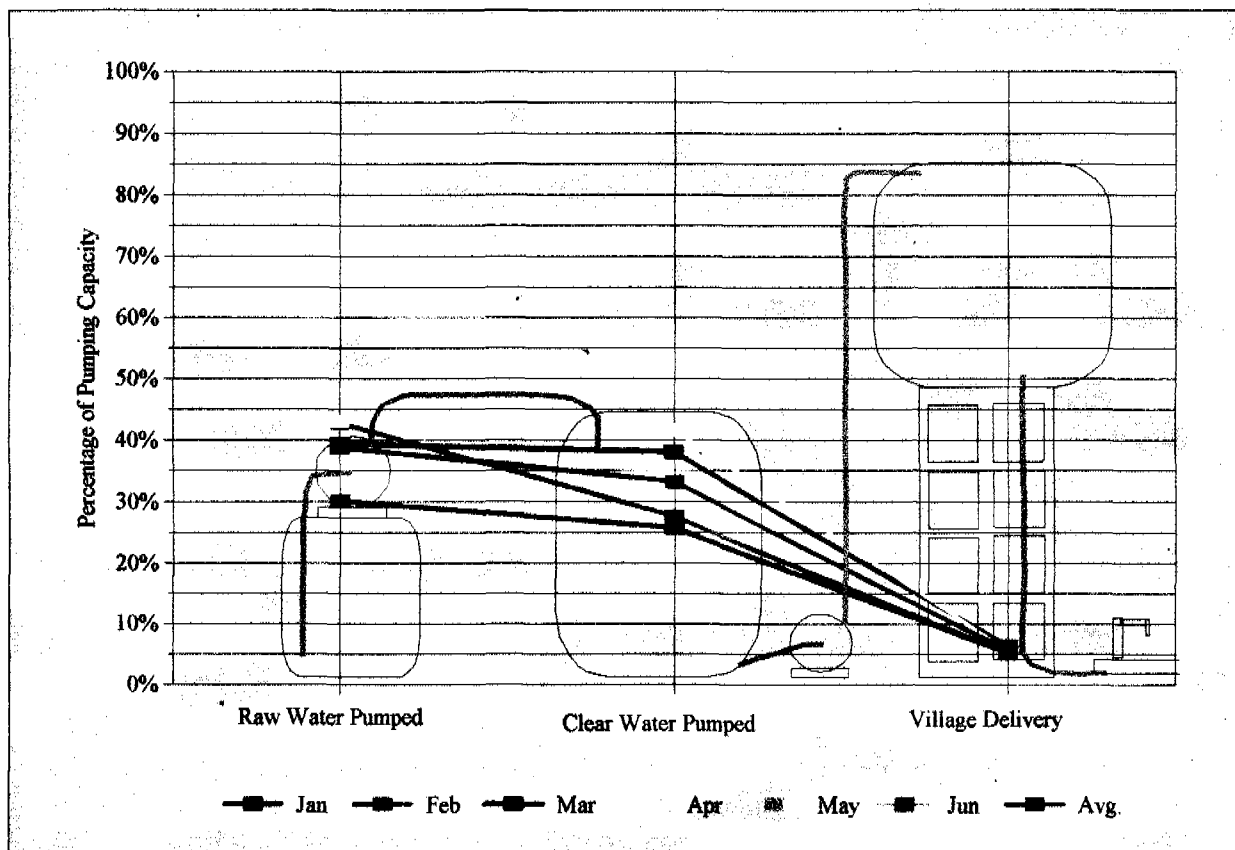
	Total Vill.	Jan 97	Feb	Mar	Apr	May	Jun 97	Avg.
Villages served	29	12	11	19	15	18	17	15.3

Table 1.5.19 provides details for the months of January 97 to April 97. Pumping information has not been provided for the months of May and June. Based upon the limited information available, average Raw water production was 38.8% utilisation of Raw water pumping capacity, or 25.9 LPCD. At 33.2% utilisation of Raw water pumping capacity, Clear water pumped is 22.2 LPCD and at 5.6% utilisation of Raw water pumping capacity, the Village supply received is 8.3 LPCD.

Low levels of losses are reported between Raw and Clear water production during Jan., March and April (4.4%, 1.3% and 1.4%). In comparison, corresponding losses of 15% in Feb. are quite high. The quantity of water delivered at the villages for all four months is persistently low, ranging between 5.1% to 6.3%, with losses between Clear water production and Village Delivery correspondingly higher, in the range of 20.5% to 36%.

**Table 1.5.19: CPWSS, Karasguthy - Analysis of Aggregate Pumping Data (Jan - Jun 97)**

Month	Jan	Feb	Mar	Apr	May	Jun	Avg.
<b>Pumping and Supply Volumes in liters per month</b>							
R/W capacity	73656	66528	73656	71280	NA	NA	71280
R/W pumped	22182	28422	28957	30656.3	NA	NA	27554
C/W pumped	18937	18351	27971	29765.9	NA	NA	23756
Village Delivery (PRED)	3836	3385	4660	4038	NA	NA	3980
<b>Pumping and Supply details in LPCD</b>							
R/W Capacity	66.8	66.8	66.8	66.8			66.8
R/W pumped	20.1	28.5	26.3	28.7			25.9
C/W pumped	17.2	18.4	25.4	27.8			22.2
Village Delivery (PRED)	9.5	10.5	6.4	6.9			8.3
<b>Percentage with respect to Raw Production Capacity</b>							
R/W pumped	30.1%	42.7%	39.3%	43.0%			38.8%
C/W pumped	25.7%	27.6%	38.0%	41.6%			33.2%
Village Delivery (PRED)	5.2%	5.1%	6.3%	5.7%			5.6%
<b>% Losses in different stages with respect to Raw Water Production Capacity</b>							
R/W - C/W pumped	4.4%	15.1%	1.3%	1.4%			5.6%
C/W pumped - Village Deliv. (PRED)	20.5%	22.5%	31.6%	36.0%			27.7%



**1.5.3.4 Prakasam District:**

**CPWSS AB Palem :**

The AB Palem scheme consists of 20 villages but only 11 villages are considered as the other 9 villages are considered augmentation villages. (AB Palem provided augmented raw water to these villages).

**Table 1.5.20 : Monthly Record of no. of villages receiving water per month**

	Total Vill.	Jan 97	Feb	Mar	Apr	May	Jun 97	Avg.
Villages served	11	11	11	11	11	11	11	11

Table 1.5.21 provides details for the reporting period, i.e., January 97 to June 97. Referring to the Average figures in the Table, at 91.4% utilisation of Raw water pumping capacity, Raw water pumped comes to 59.3 LPCD. At 72.8% utilisation of Raw water pumping capacity, Clear water pumped is 47.2 LPCD and at 45.6% utilisation of Raw water pumping capacity, the Village Delivery is 29.5 LPCD. Village Delivery information from NGOs is not available, as there is no NGO operationing in this area.

Average percentage losses with respect to Raw water capacity are; 18.7% between Raw water produced to Clear water produced and 27.2% between Clear water produced and Village Delivery.

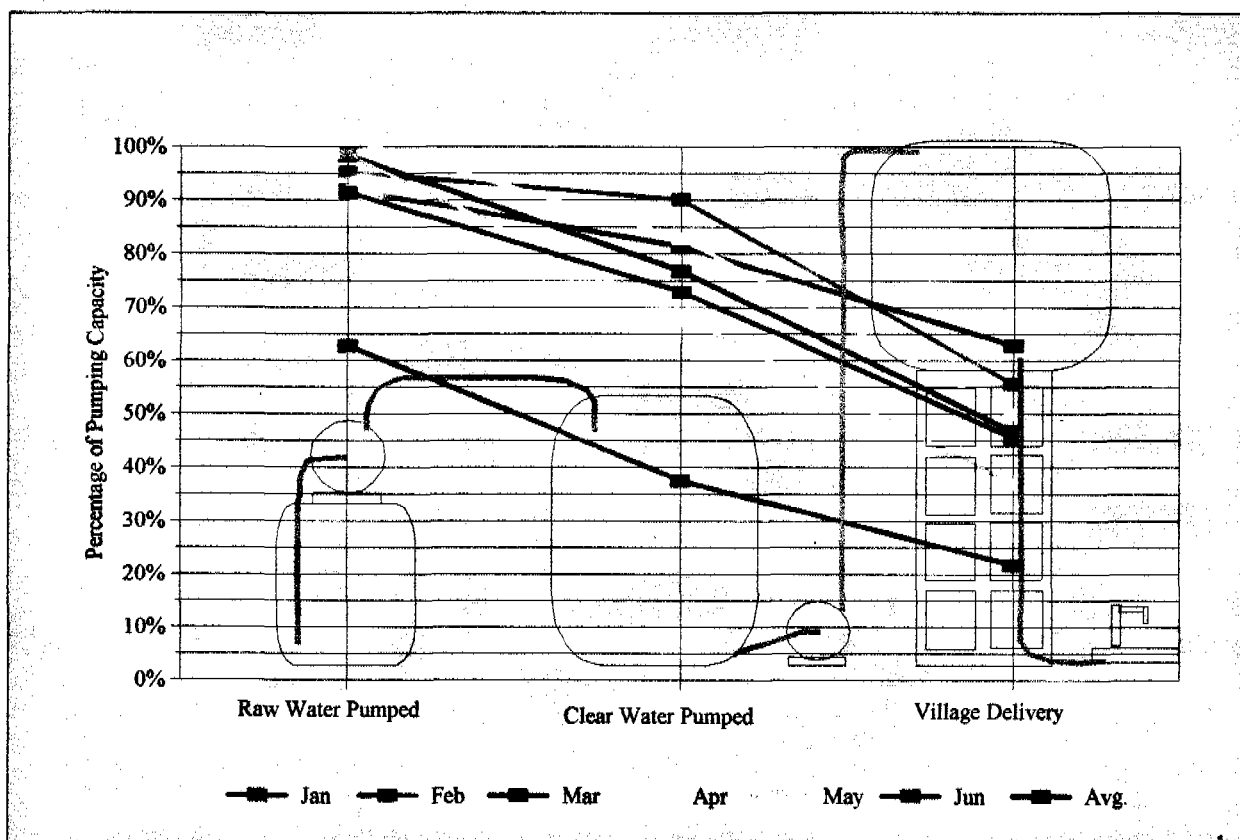
Raw water production was the highest in April, at 101.6% which casts doubts on the validity of the data. It was the lowest in June, at 62.7%. Clear water production ranged between 37.5% in June to 90.1% in Feb. The Village Delivery information also varied in a similar manner, 21.7% in June to 62.7% in Jan.

There is a strong possibility that pumps (and therefore, pumping capacities) have been changed, both at raw water and clear water stages, without intimation to PRED-HQ or NAPO, which may have resulted in very over estimated Raw water production. In April 97, Raw water production is reported to be 101.6% of the production capacity. The explanation provided is that pumps were operated for durations longer than designed operational durations of 16 hours per day. (While in general the lack of electric power provision is commonly used to excuse a low level of operation of the systems). Transmission losses are very high, especially between Clear water production and Village Delivery. The monthly variations in clear water production and in village delivery are also very significant.



**Table 1.5.21: CPWSS, AB Palem - Analysis of Aggregate Pumping Data (Jan - Jun 97)**

Month	Jan	Feb	Mar	Apr	May	Jun	Avg.
<b>Pumping and Supply Volumes in liters per month</b>							
R/W capacity	22230	20079	22230	21513.6	22230	21513.6	21632.70
R/W pumped	20438	19113	21883	21849.8	21952	13486	19786.97
C/W pumped	18060	18087	17045	17830	15727	8067.8	15802.80
Village Delivery (PRED)	13935	11155	10362	10730	8225	4665	9845.33
<b>Pumping and Supply details in LPCD</b>							
R/W Capacity	64.8	64.8	64.8	64.8	64.8	64.8	64.8
R/W pumped	59.6	61.7	63.8	65.9	64.0	40.6	59.3
C/W pumped	52.7	58.4	49.7	53.7	44.3	24.3	47.2
Village Delivery (PRED)	40.6	36.0	30.2	32.3	24.0	14.1	29.5
<b>Percentage with respect to Raw Production Capacity</b>							
R/W pumped	92%	95%	98%	102%	99%	63%	91%
C/W pumped	81%	90%	77%	83%	68%	38%	73%
Village Delivery (PRED)	63%	56%	47%	50%	37%	22%	46%
<b>% Losses in different stages with respect to Raw Water Production Capacity</b>							
R/W - C/W pumped	11%	5%	22%	19%	30%	25%	19%
C/W pumped - Village Deliv. (PRED)	19%	35%	30%	33%	31%	16%	27%



CPWSS Cherukuru:

**Table 1.5.22 : Monthly Record of no. of villages receiving water per month**

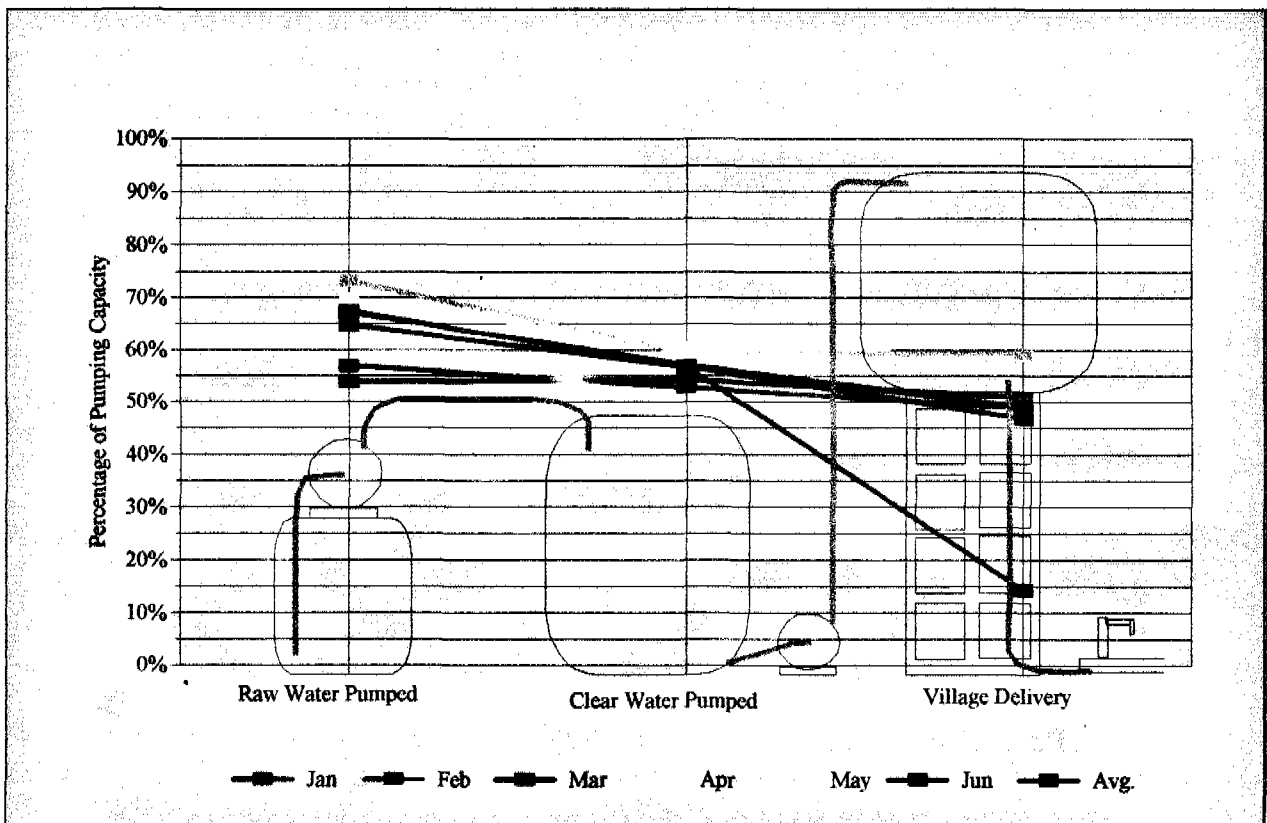
	Total Vill.	Jan 97	Feb	Mar	Apr	May	Jun 97	Avg.
Villages served	4	4	4	4	4	4	4	4

Table 1.5.23 provides details for the reporting period, i.e., January 97 to June 97. An analyses of losses indicate major inconsistencies in the data. In January there is a marginal gain in production between Raw and Clear water production. In March, April and May, marginal gains are seen between Clear water production and Village Delivery. These gains are not physically possible. The loss figure of 42.4% in June between Clear water production and Village Delivery is dramatic but occurs with no explanation.

The data provided for this scheme is entirely unreliable and do not provide a basis to comment on the performance of the scheme.

**Table 1.5.23: CPWSS, Cherukuru - Analysis of Aggregate Pumping Data (Jan - Jun 97)**

Month	Jan	Feb	Mar	Apr	May	Jun	Avg.
<b>Pumping and Supply Volumes in liters per month</b>							
R/W capacity	22587	20401	22587	21859	22587	21859	21980.0
R/W pumped	12141	11603	15148	15246	16517	14714	14228.2
C/W pumped	12250	10746	12888	13186	13393	12388	12475.2
Village Delivery (PRED)	11470	9970	11040	12889	13380	3116	10310.8
<b>Pumping and Supply details in LPCD</b>							
R/W Capacity	85.9	85.9	85.9	85.9	85.9	85.9	85.9
R/W pumped	46.2	48.9	57.6	59.9	62.8	57.9	55.6
C/W pumped	46.6	45.3	49.0	51.8	51.0	48.7	48.7
Village Delivery (PRED)	43.6	42.0	42.0	50.7	50.9	12.3	40.2
<b>Percentage with respect to Raw Production Capacity</b>							
R/W pumped	54%	57%	67%	70%	73%	67%	65%
C/W pumped	54%	53%	57%	60%	59%	57%	57%
Village Delivery (PRED)	51%	49%	49%	59%	59%	14%	47%
<b>% Losses in different stages with respect to Raw Water Production Capacity</b>							
R/W - C/W pumped	-0%	4%	10%	9%	14%	11%	8%
C/W pumped - Village Deliv. (PRED)	3%	4%	8%	1%	0%	42%	10%



**CPWSS MV Palem:**

**Table 1.5.24 : Monthly Record of no. of villages receiving water per month**

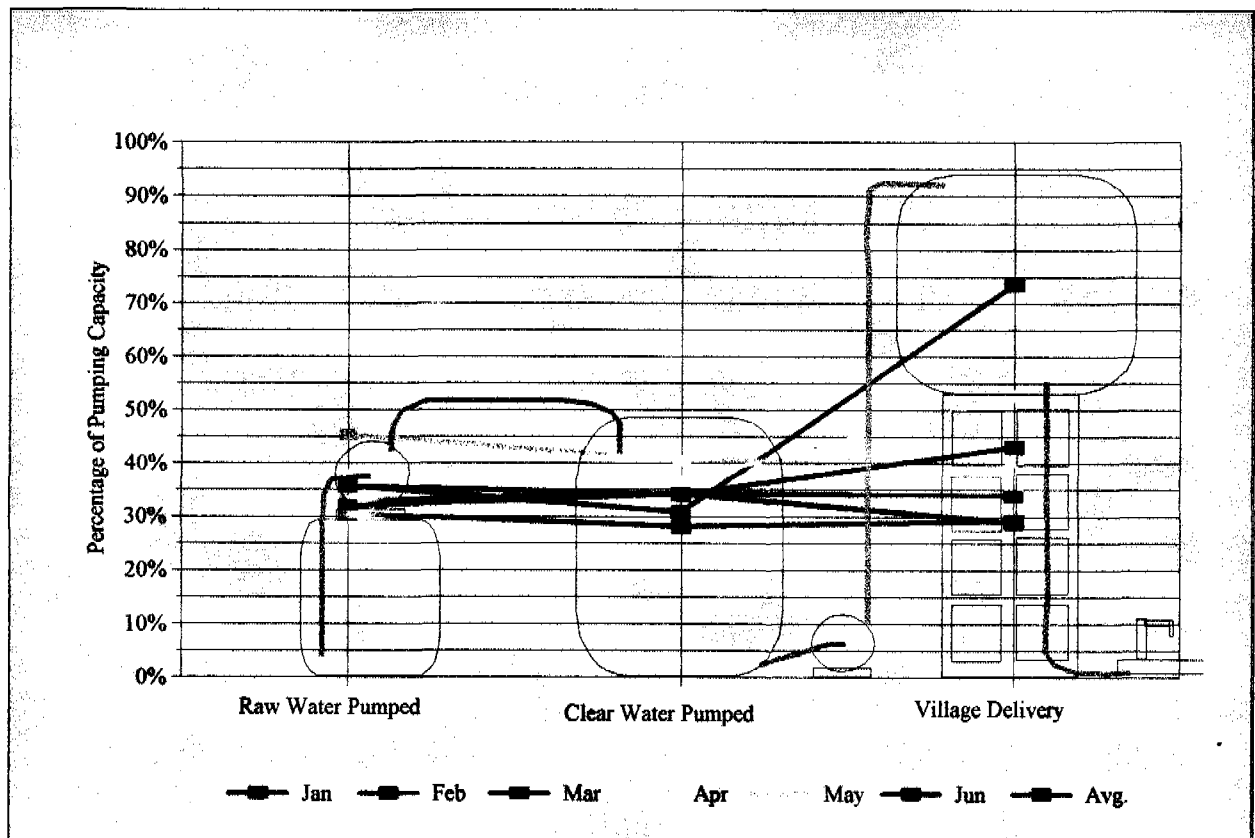
	Total Vill.	Jan 97	Feb	Mar	Apr	May	Jun 97	Avg.
Villages served	5	5	5	5	5	5	5	5

Table 1.5.25 provides details for the reporting period, i.e., January 97 to June 97. An analyses of losses indicate serious discrepancies in the data. Clear water production is greater than Raw water production in the months of Feb. and March leading NAPO to question the authenticity of the low loss figures (between 1.1% to 4.9%) in the remaining four months. Similarly, Village Delivery is greater than Clear water production in four out of six months, going to an absurd figure of a gain of 42.6% in January.

The data provided for this scheme is entirely unreliable and do not provide a basis to comment on the performance of the scheme.

**Table 1.5.25: CPWSS, MV Palem - Analysis of Aggregate Pumping Data (Jan - Jun 97)**

Month	Jan	Feb	Mar	Apr	May	Jun	Avg.
<b>Pumping and Supply Volumes in liters per month</b>							
R/W capacity	9166	8279	9166	8870	9166	8870	8919.5
R/W pumped	3265	2716	2927	3342	4153	2691	3182
C/W pumped	2827	2836	2644	3246	3708	2492	2959
Village Delivery (PRED)	6734	2808	2643	4677	3716	2585	3860.5
<b>Pumping and Supply details in LPCD</b>							
R/W Capacity	121.1	121.1	121.1	121.1	121.1	121.1	121.1
R/W pumped	43.2	39.7	38.7	45.6	54.9	36.7	43.1
C/W pumped	37.4	41.5	35.0	44.3	49.0	34.0	40.2
Village Delivery (PRED)	89.0	41.1	34.9	63.9	49.1	35.3	52.2
Village Delivery (NGO)	48.9	39.3	30.3	48.9	NA	NA	27.9
<b>Percentage with respect to Raw Production Capacity</b>							
R/W pumped	35.6%	32.8%	31.9%	37.7%	45.3%	30.3%	35.6%
C/W pumped	30.8%	34.3%	34.3%	36.6%	40.5%	28.1%	34.1%
Village Delivery (PRED)	73.5%	33.9%	28.8%	52.7%	40.5%	29.1%	43.1%
Village Delivery (NGO)	40.4%	32.4%	25.0%	40.4%			23.0%
<b>% Losses in different stages with respect to Raw Water Production Capacity</b>							
R/W - C/W pumped	4.8%	-1.4%	-2.3%	1.1%	4.9%	2.2%	1.5%
C/W pumped - Village Deliv. (PRED)	-42.6%	0.3%	5.4%	-16.1%	-0.1%	-1.0%	-9.0%
C/W - Village Delivery (NGO)	-9.5%	1.8%	9.2%	-3.8%			-0.6%



#### 1.5.4 Conclusion

While the monitoring system has provided us with better insights and understanding of the level of functioning of the schemes in the AP II projects, the validity of the data does not allow accurate evaluation of the functioning.

Repeated requests to improve the data and explanation to PRED staff of the inconsistencies in the data provided, have not resulted in improvements.

As a consequence of the extension/expansion programme of the NGO's, the water monitoring format will be applied in many more villages.

Whereas the system was introduced as a form of institutional support to PRED, to create an information system for SE's in the Districts and for PRED Head Office on the performance in the field, and to introduce some form of accountability, with the expectation that the PRED would adopt such system, with whatever changes they felt necessary, and apply such system throughout their Schemes in the State, little initiative in that direction has emerged.

In the NAP AP II projects, it was agreed that PRED would take on the responsibility of monitoring of delivery for half the schemes by June 1997 and the remaining half by September 1997. The underlying intentions to continue the delivery monitoring in AP II are :

1. to continue the generation of performance data, indicating how the operation can be improved,
2. to continue the existence of a platform for communication between village committees and the local PRED staff, as they would have to work together to gather the data.

While the NGO's are phasing out of the AP II programme and have developed strategies for withdrawal with sustenance of these village communities, PRED has yet to undertake action to take over the performance monitoring.

## **2. COMMUNITY PARTICIPATION COMPONENT INVOLVEMENT OF NGOs**

### **2.1 NAPO Support Services provided to the NGOs**

#### **Introduction**

The social component has been engaged in the combined activities for the AP II Programme and the preparatory activities for the AP III Pilot project.

Specific interventions in the AP II projects were aimed at consolidating the groups and improvements built thus far towards a sustained functionality of the AP II projects, after withdrawal at the end of the year, while efforts were also made to project the experiences thus gained on the approaches for AP III.

On the NGO front the four NGOs, ASSIST, SNIRD, MARI and HERSELF continued to extend their cooperation in mobilising the user groups in responsibility sharing at the village level and in enlisting the cooperation from the PRED at the cluster/scheme level.

#### **The Focus:**

The NGO involvement in the villages under the contracts with RNE, in the AP II programme was expected to be completed by mid 1997 and hence the focus shifted to identifying the requirements and strategies for withdrawal, in such ways that the village committees can continue by themselves.

Of the four NGOs, ASSIST and SNIRD had only 6 months (mid April 97) for completion and questions related to the future course of action and sustainability were often discussed. MARI contractually had only one month for completion and requested for an extension for one more quarter, which later got stretched to the end of March 97.

HERSELF came back with a request for skeletal staff and programme support to extend their intervention till March 97. Meanwhile, the request by PRED and NAPO for extension and expansion of the NGO's till the end of 1997 (when the technical components was expected to be completed) was also under consideration.

The target for the reporting period was for the NGO's to phase out of their existing contracts by March end, and conduct an expansion programme in a number of villages in their area not yet supported with social inputs.

#### **NAPO Support Services consisted of :**

##### **2.1.1 Workshops**

Supplementary to the decisions taken earlier, different thematic workshops were organised for the NGO personnel. The first in the series was the workshop at ASSIST on sustainability during 15 - 17 October 1996.

The theme of the workshop was:

- Integration of health, water and sanitation interventions
- Self Management
- Role of Village Development Society in self management

The participants included the project staff and representatives of the Village Development Societies in the project area. The methodology adopted was predominantly group work, and to supplement the information provided songs and role plays were also used in addition to the audio visuals. Inputs were provided by the lecture method. A questionnaire was used to evaluate the workshop.

The main evaluation of the findings are:

- 63% of the participants felt that the workshop helped them to become more efficient community workers, while the remaining felt that it helped them only to a certain extent
- All participants felt that all the topics covered were very useful, of which the topic on self management was the most useful(37%)
- 63% perceived the usefulness of the cultural programmes as very good

Another workshop was held on 26 March 1997, at NAPO for the partner NGOs involved in the AP II programme. The NGOs were invited for a discussion based on the project proposal submitted earlier for extension and expansion.

The workshop aided at elucidating the RWS Programme objective and the project rationale. The decision to expand the services of the NGOs to other villages was an offshoot of the experiences in the AP II projects. Though in the AP II programme the community participation component was included, in practice there were several handicaps from the start. The process of community participation got hampered due to the introduction of the NGOs at a later stage of programme execution thereby excluding the possibilities for participation during planning and implementation. Delays in technical completion resulted in a lack of synchronization between the social and the technical components.

In locations where the technical component had not performed in providing water, the social component faced a higher level of problems in terms of social organizing. Eventually, wherever water supply was regularised, NGO intervention for organising the social component was not possible as their contracts had either expired or was at the last stage of performance. Difficulties were also experienced by the fact that the NGOs involvement was originally limited to sanitation and hygiene promotion, and by the fact that the conceptual capabilities of the NGOs were in need of improvement. This resulted in difficulties in operationalising the programmes/ activities into objectives and measurable targets.

The workshop mainly focused on consistency and levels of uniformity in the approach and methodology in order to arrive at a realistically defined short intervention. The NGO project heads, coordinators and the NAP desk incharge from each project were invited for the workshop. Methodology included open group discussions, and project sub-group discussions. The output of the workshop was to arrive at a design for the possible approaches and activities, on which the NGOs would base their proposals, and budgetary requirements.



The next in the series was the workshop on the Project Planning Matrix (PPM) organised on 23 April 1997 at NAPO for the NGO partners involved in the AP II programme. Earlier, NAPO had introduced the PPM for the NGOs, and found it an effective monitoring tool. The workshop aided at effectuating the NGO efforts to further define the intervention plan in a much larger area in a short period.

The focus of the workshop was to quantify activities and outputs, refining statements in qualitative terms, and specifying a time frame. It is envisaged that the PPM will not only facilitate better internal monitoring by the NGO but also help NAPO in effective monitoring. The project leaders and the Coordinators were invited for the workshop. The methodology included NAPO coordinating the efforts of the NGOs to put together an overall common planning matrix to be further defined for NGO specific intervention.

The output of the workshop is:

- The preparation of the PPM for the AP II expansion projects
- Preparation of the NAPO monitoring and support plan

On 11 June 1997, a review meeting was organised for the NGO partners in NAP office. The expansion activities having been executed for a quarter it was felt necessary that a review be made regarding the progress achieved and the need for mid course corrections, if any. The objective was to make an assessment and decide on the further course of action based on the PPM prepared.

The NGO partners were asked for a feed back per NGO and the need for close monitoring and documenting requirements stressed. As an outcome of the deliberations in addition to the quarterly monitoring, a decision was taken to prepare a status report per NGO. A decision was taken that the NGOs would report once a fortnight to update NAPO on the field position. The NGOs were to initiate the process of introducing the water monitoring formats and later mobilise the community to take up the task by themselves.

### **2.1.2 Studies undertaken**

NAPO undertook a study on the water committees. The study was undertaken between December 2, 1996 to January 9, 1997, to assess the (probable) required period of NGO involvement in the RWS programme and to recommend policy changes if necessary for future community participation interventions in the Netherlands Assisted water supply Programme. The study focused on 2 NGOs who were involved in the RWS programme - one NGO who had a longer period of involvement (3 Years) and the other with a shorter (1 year) intervention. The two NGOs were selected based on certain criteria.

The main findings of the study are;

- The strength of the Water committees is directly related to the status of water supply
- Women representation ranges between 40-45 %
- Better representation of the SC/ ST community yielded better results
- Representation of the GP members did not effectuate the quality of the committee
- The water committees who had representation from the distribution points were effective
- The water committees are involved in the O&M
- For best results the software component intervention of 1.5 years - 2 years seems to be ideal

The report is attached as Annexure 2.

### **2.1.3 Field Visits:**

Field visits were planned to ensure that each NGO was visited on an average of 5 days in a month. The purpose of the visit was broadly defined as monitoring and support services. However, each visit was further defined and a checklist prepared incorporating the requests from each NGO and the issue to be addressed in the present quarter.

The field visits included visits to the target villages, discussion with the village based organisations and with the community at large - Clarifying and reiterating the purpose and the goal of the programme. Visits also observed the activities undertaken by the NGO and included participation in their internal training programmes either as co-trainers or as facilitators. The field visits were scheduled to streamline the NGO activities. Discussions were held with the GP representatives and the village leaders. Wherever possible efforts were made to meet with the field engineers of the PRED and give feedback.

The field visits often concluded with a staff meeting at the NGO level where the NGO action plan for the previous quarter was reviewed and new targets set. Monitoring also included the physical and financial monitoring.

### **2.1.4 Monitoring Indicators/Impact indicators**

As the indicators listed out earlier per NGO were agreed upon and as there were no major points for deviation in the reporting period the same were being regularly monitored by NAPO.

### **2.1.5 Formats for reporting**

During the reporting period no fresh formats were introduced for reporting/monitoring purposes. The hitherto introduced QPMF (Quarterly Project Monitoring Framework) was being used by all the four NGOs and the same is being monitored by NAPO after incorporating the NGO specific requirements. In the extension phase the format had to be slightly modified to suit the project specific requirements. Though initially the NGOs were apprehensive about the usefulness and adaptability of the format, the practical use of the format has convinced the NGOs of its effectiveness.

The QPMF is enclosed as Annexure 3.

NAPO extended its expertise to the NGOs in the reporting period in the areas of imparting training, progress review and preparation of the quarterly action plans. During field visits the RWS status scheme wise is reviewed and feed back given to the Technical wing of NAPO for further action. In addition the expansion phase called for closer scrutiny of the NGO intervention hitherto implemented and getting translated into the preparation of the proposals for expansion and the PPM.

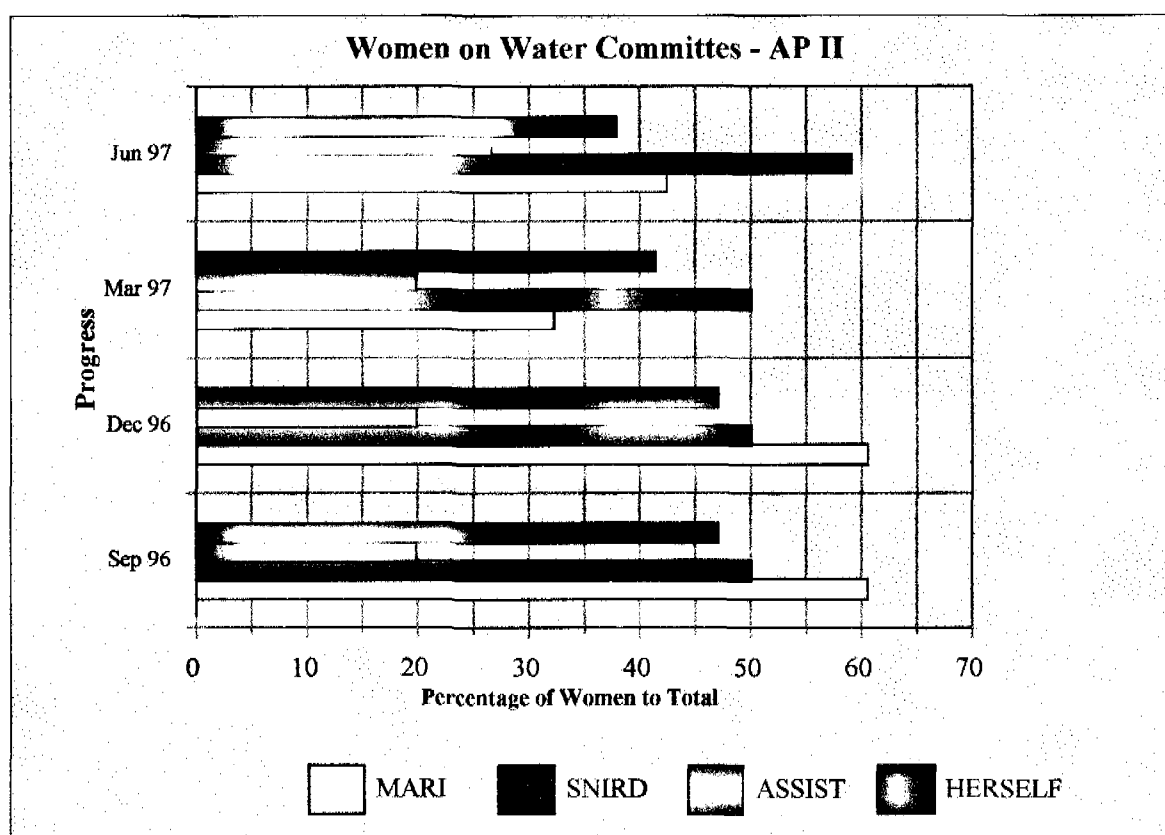
### **2.1.6 Gender inputs**

Though Gender concerns are an integral part of the project the issue is not that concretely described in the project document. For NAPO it was imperative that the NGOs make all efforts

to incorporate gender issues. Repeated efforts have resulted in increased representation of women members on the water committees. However, there is variation among the different NGOs. Of the three NGOs ASSIST, SNIRD AND HERSELF the memberships have risen while for MARI there seems to be fluctuation in the membership.

The experience seems to indicate that the more defined the roles of the water committee members get the more diffident women seem to become to shoulder such responsibility. This fact gets compounded by the willingness and acceptability of the women to be on the APEX/SCHEME committee. NAPO intends to do a gender audit to get a better understanding of the situation.

The Graph representing the women on the water committees follows.



### 2.1.7 Strategies for withdrawal and sustainability

The strategies for withdrawal and sustainability have been pursued along the lines determined as in the previous quarter. NAPO's efforts have been in assisting the NGOs to set up the respective Scheme/APEX committees, defining their roles and functions, deliberations on the possible levels of redressal and the methods of redressal.

Focus is also on the hitherto adopted methods to understand and incorporate sustainability as part of everyday monitoring to build the confidence, capacity and capability of the community and the communities' self- initiative to take care of the assets by attending to the minor maintenance

and upkeep issues. The other efforts in this direction are allowing the water committees to conduct and record meetings by themselves with minimum or no involvement of the NGO staff, collecting contributions and accounting for the contributions collected, attending to the problems of abuse of water, disruption in water supply or leakages and breakages (minor repairs and breakages).

The Water Monitoring Formats are being filled regularly and the community has started to realise how important a tool it is. In fact, it is interesting to note that these formats are being introduced in the new villages and the response seems to be quite good.

## 2.2 Overall Progress & Expansion of NGOs

In view of the expectation that the technical component would take until the end of 1997 to be completed, PRED and NAPO support a request for extension/expansion of the NGO activities for the period April to December 1997.

ASSIST reported delays in the completion of the hardware component due to liquidity problems. This resulted in the completion getting shifted to July 31, 1997. In principle a decision was taken at NAPO that the expansion activities could be initiated only on completion of the earlier latrine construction programme. ASSIST hence will be involved in the software programme for a period of 5 months (August to December), working in the same 11 villages.

Of the other NGOs, SNIRD has expanded its activities to 50 villages in Prakasam while also maintaining skeletal services in the earlier 26 villages under the AP II programme. HERSELF has expanded its services to 45 villages in Kurnool, while continuing skeletal work in the earlier 20 villages. MARI has expanded its activities to another 57 villages in Medak District, while continuing minimum support work in the earlier 10 villages.

Consolidation of experiences clearly brought out the need for a uniform and well defined intervention strategy within the specified time frame. At a workshop at NAPO a joint decision was taken by the NGOs and NAPO and guidelines for the expansion proposals agreed upon. It was decided that the three issues that would be addressed are:

- Introducing procedures for community upkeep of the assets
- Performance monitoring of the water delivered and
- Establishing functional water committees

Based on these the NGOs presented their proposals for the expansion phase.

### 2.2.1 Present Status

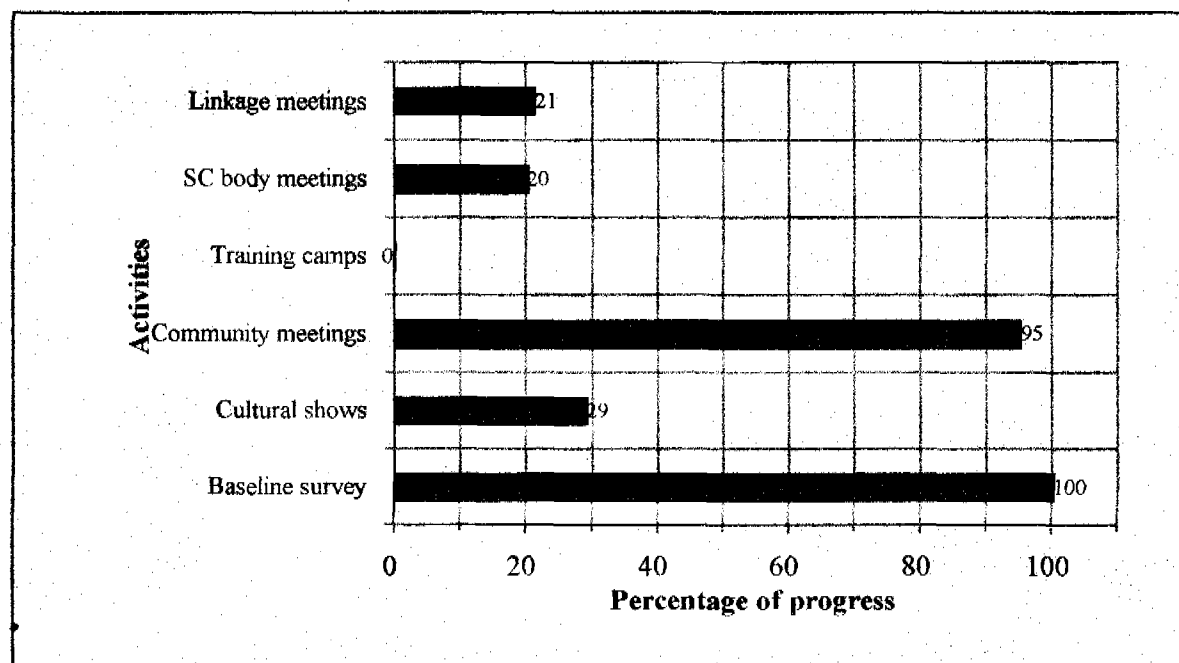
The following activities would be taken up by the NGOs in a sequence.

- Conduct a baseline survey in all the villages the NGO proposes to work in.
- Organise cultural shows/awareness meetings/small group meetings for information dissemination
- Form the water management committees
- Organise training camps for the village/scheme committees
- Linkage meetings

To have a working document the need for a status report was felt. A decision was taken to prepare the status report per NGO giving all the details of the RWS situation in the village. This document would be the basis to decide on the NGO intervention. It would also provide indications as the point of departure of the expansion against which the NGO intervention can be measured.

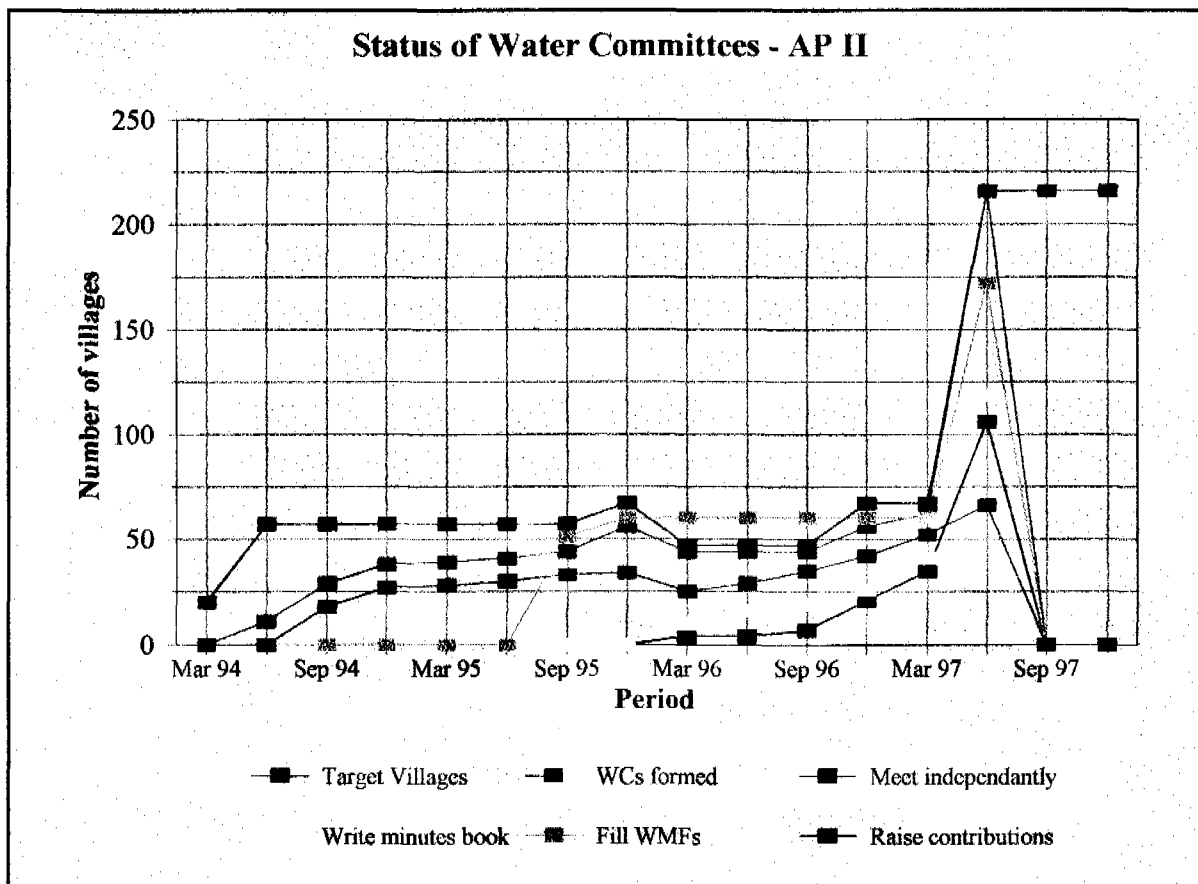
The Checklist for the Status Report is enclosed in Annexure 4.

Based on the status report the physical progress in the total of all the 182 villages covered by the 3 NGOs, SNIRD, HERSELF and MARI in the three Districts Prakasam, Kurnool and Medak respectively, is graphically presented below.



The formation of the Water Management Committees and strengthening of these committees was taken on a priority basis. All efforts were made to ensure that the correct representatives would be on the Water Management Committee. It was imperative that the necessary training be imparted to these members to ensure sustainability of the committees.

The status of the water committees by June 97, is presented in the graph below.



### 2.2.2 Community Contribution:

Raising contributions from the community to attend to minor repairs has become part of the VAC responsibilities. The community is well aware of their responsibility to take care of minor break downs in the water supply systems. The vandalism earlier observed in the programme now seems under control. However, the overall functioning of the systems is predominantly in the hand of the PRED who should elevate the performance to one of reliable and predictable water supply.

The table below is indicative of the community contributions raised by the 4 NGOs.

Table: 2.2.2.1: Community Contribution raised by VCS - AP II by June 1997

NGO	Amount (Rs.)
SNIRD	135000
MARI	28000
HERSELF	48600
ASSIST	22600
<b>Total</b>	234200

### 2.2.3 Upkeep and Maintenance:

In the villages covered by NGOs the target of the intervention is for the upkeep and minor maintenance of the village systems to become the full responsibility of the communities. The earlier reported systems of responsibility sharing still exists in the villages where the village level Youth Groups, Mahila Mandals or Village Action Committees continue to take responsibility. It is expected that as a result of the training given, either one of these groups will immediately attend to the problem. Efforts are also made by the NGOs to build up linkages with the PRED.

The continued presence and constant support of the NGOs at the village level gave the much required assurance and courage for the community to take action. However, there is every possibility that constant political interference and power politics may undermine the efforts of the NGOs and the interest of the community.

### 2.2.4 Health and Hygiene promotion

Health and hygiene promotion is one of the issues often addressed in every visit/meeting/ training by the NGOs. With education and awareness levels of the community being rather low, NGO efforts are directed towards getting the community to recognise the issue as a priority and work towards habit formation.

Efforts in this direction have been the strengthening of the school health clubs, entrusting the responsibility of health promotion to children and women and addressing issues at the family and the community level. Simple issues like collection, storage and use of water, personal hygiene,

domestic hygiene and environmental hygiene are issues addressed. The NGOs have the multipurpose health workers and the PHC Doctors visiting the community members. The community is encouraged to participate in the different Government programmes.

### **2.2.5 Interaction with GP's and other Government Departments**

In all the villages the NGOs have been making efforts to link up the VACs and the GPs. However, since the Sarpanch and the GPs are predominantly driven by political motivations determining their agenda's, the interests of the water committees, who are a-political and the Gram Panchayat are not always compatible. In cases where the Sarpanch and the GP interests have been above politics, the NGOs have made efforts to link up their activities.

### **2.2.6 Impact of NGO involvement:**

Increase in the knowledge and awareness levels of the community related to RWS, health and hygiene aspects is evident when one observes the practices of the people and responsibility sharing. However, to what extent it has become a habit formation, which will continue without the NGO assistance can only be assessed after the NGO support has been absent for some time. Some of the key evidences are:

- Greater understanding among the community regarding the value of RWS and the need to protect the abuse and misuse by people
- The rise in the awareness levels has resulted in the representation of the issues to the VACs/Scheme committees/APEX committees, and they in turn taking the action or representing their problems to the PRED
- Increased initiatives to fill in the Water Monitoring Formats by the community themselves.
- Collection of contributions from the community and maintenance of the local village assets.
- Initiatives to have a water fund as part of the APEX body by mobilising membership fee by the members themselves, from the GPs and from community contributions.
- Registration of the APEX body and the introduction of the systems for water management.

## **2.3 Progress per NGO:**

### **2.3.1 ASSIST**

ASSIST was to complete its contract with the RNE by April 15, 1997. However, liquidity problems and other operational problems resulted in delays in the completion of the construction of latrines. Completion dates shifted to May and later to the end of July. In principle a decision was taken that until the hardware - sanitation component is completed, the software component (targeted for the extension) will not be initiated.

### **Completion of Hardware component**

As of end June there is a balance of about 120 latrines yet to be built. The NGO feels that by the end of July they will be able to achieve the target. NAPO was given to understand that the



construction was halted during the period 1 April - 18 June, as ASSIST faced liquidity problems. Added to this heavy rains resulting in floods, damaged approach roads to the village. People being busy with agricultural works paid less attention to the latrine component. (The project was indeed completed by the end of July). Though the physical targets incurred delays, a very positive trend was apparent in the increasing number of people who became interested and paid their share. This could be due to the community awareness programmes organised by ASSIST.

### Progress of Software extension

As the focus was on latrine construction, launching of software extension did not take place, until after the completion of the hardware component. However, the software activities in the present 11 villages that ASSIST is working in continues with the concentration being on imparting training for the VDS members to strengthen the committees and on health education related to personal hygiene, issues related to owning of a latrine and linking it up to environmental hygiene. ASSIST also used the approach of addressing each non participant by way of a personalised letter followed by house visits.

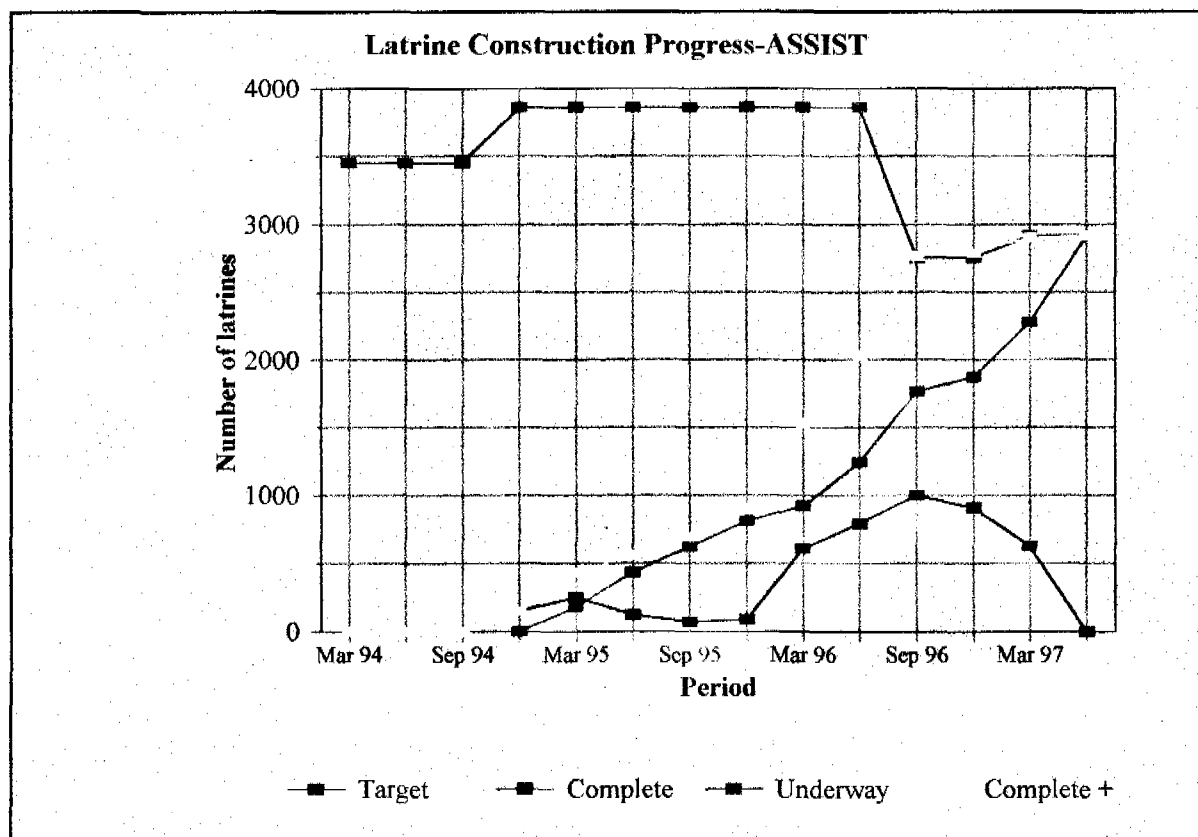
### Physical Progress

#### Latrine construction

The status of latrine construction as on 30 April 97, is given in the following table

**Table 2.3.1.1 : Status of Latrine construction**

Sl.N	Village	Reset Target	Cont.. Raised	Complete	Balance
1	Pasumarru	960	972	971	-12
2	TB Palem	147	149	125	22
3	MV Palem	97	98	98	-1
4	Chimatavari Palem	148	150	125	23
5	Polur	473	473	440	33
6	SV Palem	78	79	78	0
7	Eddanapudi	401	394	384	17
8	Vinjanampadu	198	185	178	20
9	Ananthavaram	319	316	300	19
10	KV Palem	46	47	47	-1
11	Chilkurivaripalem	46	45	47	-1
	Total	2913	2908	2793	120



In some of the villages, contributions have been returned to the beneficiaries as there seemed to be an unwillingness on the part of the beneficiary to construct latrine for cultural reasons.

**Table 2.3.1.2 : Water Committee (Village Development Society)**

Sl.N	Village	No. of families	No. of VAC GBMembers	Percentage
1	Pasumarru	1312	93	7.09
2	TB Palem	211	83	39.34
3	MV Palem	96	76	79.17
4	Chimatavari Palem	138	56	40.58
5	Polur	725	20	2.76
6	SV Palem	91	45	49.45
7	Eddanapudi	752	60	7.98
8	Vinjanampadu	335	50	14.92
9	Ananthavaram	551	60	10.89
10	KV Palem	60	25	41.67
11	Chilkurvaripalem	60	60	100.00
	<b>TOTAL</b>	<b>4337</b>	<b>628</b>	<b>14.48</b>

It was planned to enrol 75% of families, in all villages, as members of Village Development Societies. The achievement was only 14.48%. The progress during last couple of months is only 3.48%.

The reasons attributed to the low output of members enrolling for the latrines were:

- High expectations of the community for aid
- Mistrust on present leadership
- Political factionalism and non-cooperation
- Misappropriation of public funds
- Belief that latrine construction is bad when the woman in the house is pregnant
- Proximity to towns
- Size of the village

The total fund raised from the community towards upkeep costs of water supply systems is shown in the table below.

Table 2.3.1.4: Community Contributions

Sl.N	Village	Fund Raised (In Rs.)
1	Pasumarru	4,150.00
2	TB Palem	6,900.00
3	MV Palem	1,420.00
4	Chimatavari Palem	1,120.00
5	Polur	900.00
6	SV Palem	8,500.00
7	Eddanapudi	1,000.00
8	Vinjanampadu	1,075.00
9	Ananthavaram	200.00
10	KV Palem	500.00
11	Chilukurivaripalem	450.00
	<b>Total</b>	<b>26,515.00</b>

During the last quarter, activity of Village Development Societies was assessed through taking into account meetings planned/conducted and attended by quorum. (3 X 11) 33 meetings were planned in the last quarter of which 30 have been conducted, all of them attended by quorum. MV Palem exceeded its target of 3 and went on to conduct 5 meetings. 8 villages were said to have tapped GP funds for water supply and sanitation related works and also mobilized support from PRED.

### **Construction of Smokeless stoves/chulahs**

Against the target, only 72% could be achieved as changes were to be made depending on the available resources. The onset of heavy rains made it difficult in collection of material and training of the masons. The usage of these chulahs is found to have a positive impact on the people as it resulted in smokeless kitchens and cleaning of the vessels became easier as they are free from soot formation.

### **Construction of the soakage pits:**

Lack of interest among the villagers was a great hurdle to achieve the set targets. Though the staff are well trained on the technical aspects they were unable to convince the people. As a result against the set targets only 14 got constructed.

### **Dissemination**

Rallies and awareness campaigns on pulse polio immunisation programme were organised aiming at 100% vaccination in 11 villages. The Community Organisers and Health workers contributed to make it a success.

Health education was done during the quarter by two methods: House visits and school health programmes. The message disseminated through this activity is personal hygiene and environmental sanitation focusing more on the importance of usage of the latrines. As it was evident that among the non users of latrines 70% of them were children it was decided to focus on school health programme through which usage of latrine was promoted. Mid course corrections resulted in training the staff and in developing related materials and audio-visual aids to effectively disseminate the message.

### **Training**

Training camps were organised to orient the staff about soakage pits and on school health programmes. A workshop/training was organised with the help of NAP Office on self-management which enabled the project staff to understand the concept, feel the importance and identify means to achieve sustainability in villages by making the villagers responsible for the maintenance of drinking water schemes and promoting hygienic environment.

Training programs were organised for the committee members on the need to have a clear understanding of the efforts and effects of strengthening of the committees, need for by laws and on monitoring of drinking water schemes. The indicators to be monitored under this activity have been clarified to the villagers and the importance of water monitoring formats explained.

### **Reformation of the committees:**

The workshop organised for the staff and villagers on self management brought about the need to reformulate the committees. The process of strengthening of the committees resulted in number of women representatives increasing from 11.1% to 24.32%. The committees have achieved a certain degree of organisational capacity and have taken up responsibility of managing

their water systems. It is interesting to note that reformation has resulted in the average attendance raising from 60% to 94%. Efforts are on to formulate the by-laws and register the VDS as it gives a legal status and also enhances the committees accountability to the villagers.

### **Community Initiatives**

The reformulation committees resulted in creating very enthusiastic and task oriented groups. The interaction between various committees has helped in creating a sense of ownership and healthy competitive spirit, which in turn resulted in the communities taking up initiatives towards the upkeep of their systems and resources. The committees prepared the by-laws and the membership drive for enrolling the members ensured a cross section of people becoming the members. The membership fee ranging between Rs.10 - Rs.50. A common fund per village has also been started. Cess is being collected and added to that fund.

The water situation in the first quarter was rather bad. The Village Development Society members, however, used the WMFs to request the PRED/concerned Dy. Executive Engineer and get the systems rectified to a large extent. The Village Development Society has also become aware of the need to monitor the RWS and also undertake chlorination. Efforts are on to further mobilise the community to take care of the assets. Though there are few incidences of the villagers taking responsibility to mobilise finances and attend to minor repairs, the process is yet to take on an organised form. ASSIST feels that this can be taken up only when the Village Development Society is strengthened as a full fledged body at the village level. ASSIST realises that work needs to be done in this direction.

#### **2.3.2 SNIRD**

SNIRD was working in 26 villages under AP I till March 97, by which time the contract with the RNE came to an end. In its extension phase beginning April 1, 1997 activities are undertaken in 50 villages of Parchoor, Inkollu, Karamchedu and Chinnaganjam Mandals of Prakasam District under AP II. The objective of the extension phase is on the same lines as of the earlier intervention which aims at creating awareness among the people to enable them to upkeep and monitor the protected water supply systems through participative methods.

### **Village Committees**

During the first quarter of the reporting period SNIRD had continued its efforts in strengthening the village committees and APEX body by imparting training. Monitoring the hitherto agreed upon responsibilities of the VACs, YGs,MMs and APEX body was the main concern of the NGO. SNIRD was also successful in assisting the APEX body members to register themselves as an association under the Societies Registration Act (Reg.No.536/1996) on 26 November 1996. The APEX body met thrice and assessed the overall water situation and distribution channels. Representations to PRED resulted in getting the sanction to replace the motors at Chandavaram reservoir.

At the village level the VACs meet regularly and discuss the issue of water management and other development initiatives to be taken up in the village. During the last phase, the VACs took the lead in the upkeep of the system. It is encouraging to note that almost 80% of the VACs are in

a position to take the lead in the management of water supply system. The VACs serve as planning and monitoring bodies whereas the action programmes are implemented by the youth and Mahila sanghams (women's groups) who are trained to take up such responsibilities.

### Capacity Building - Training

Training continue to be an important tool used for capacity building of the village bodies. Training cover issues like aspects of management of the water systems and related issues like health and sanitation. Other topics included were aspects on sanitation, communication, and leadership. The impact of the training is evident from the way the community has taken initiatives in addressing the issues. Information dissemination emphasising the need for peoples participation is also done through mass awareness campaigns, cultural shows and exposure trips.

### Community Initiatives

The village bodies are actively involved in the upkeep of their water systems. The community has taken several initiatives like representations to the Mandal Development Officer/PRED to repair the pipelines/replace defunct systems, cleaning, repairing and white washing of the tanks /OHSR, regular chlorination, cleaning of OHSR campus, repairing the drainage, platform and soak pits of handpumps, replacement of the control knobs and prevention of stagnation. Representations to APSEB for electricity to the village streets and to A.P. State Road Transport Corporation for the bus services where it was needed have been other issues addressed.

### WID/GENDER

The involvement of women is well recognised and the PSP committees are constituted only with women members. The PSP committee plays a major role in ensuring equity in the distribution of water and promoting sanitation by cleaning and checking the washing of clothes near the water collection points. In the last phase women associations played a major role in the operation and maintenance of WSS. Almost 80% of women associations conducted meetings by themselves. Apart from the water management women are encouraged to represent their grievances to the concerned authorities, develop leadership qualities and start thrift and credit groups. Till this first quarter the groups have mobilised Rs.1,62,230.75.

### Extension phase - Status Report

SNIRD has documented the status of the water supply schemes in Prakasam, its present area of operation. The status of the water supply systems as on 1 April 1997 is as follows;

Total PSPS	:	1064
Functioning PSPs	:	896
With control Knobs	:	309
With soak pits	:	0
With good Platforms	:	438
PSPs with proper Drains	:	18
Total Filter Beds	:	56
Functioning Ftr.Beds	:	47
Total Motors	:	108
Motors in working condtn	:	89
Total House holds served	:	25857
Total Population	:	128798

## Community Mobilisation

Pamphlet printing & distribution, Burrakathas, film shows, village level & small group meetings were conducted as a means of mobilising the community to understand the concept of health and hygiene and take up the responsibility of managing the drinking water systems of the village.

To give an organisational base for sustaining the community involvement in village development efforts, Scheme Committees were formed with the representatives from Village Advisory Committees and Village Advisory Committees from PSP committees. VACs are formed in 43 of the 50 villages. In all the committees women constitute 55% of the total members. VACs meet every month and discuss problems and strategies. VACs maintain Minute books, account books and correspondence file. 61 VAC meetings were held with quorum out of the targeted 71 .

## VAC Achievements

1. VACs have been mobilising local contributions amounting to approximately Rs.34,200 and have fixed 41 control knobs, repaired 26 PSPs, 4 pipelines and 5 hand pumps, cleared water stagnation at 13 PSPs and cleaned 10 drinking water ponds.
2. Youth and the VAC committee members have numbered 50% of the PSPs and cleaned the surroundings and the tank of 13 OHSRs.
3. 9 villages have sent representations of their water problems to PRED/MDOs office
4. Regular monitoring of the water supply in the village and filling in the Water delivery monitoring formats (WMF).

These activities are a beginning and efforts will be made by the NGO to ensure that the same interest and enthusiasm will sustain.

### 2.3.3 MARI

MARI was working in 10 villages under the Boroncha scheme till March 1997. Originally MARI had a one year contract with the RNE ending October 1996. As there was a balance of budget and activities yet to be completed in these 10 villages, based on the request of MARI the programme got extended to first one quarter and later on till the end of March 1997.

Since April, MARI has undertaken to extend their activities to 57 villages, in Medak District.

#### Training/Awareness camps:

Training and awareness camps seem to be the tools used for capacity building of village bodies. Issues dealt with included status of the RWS & their up keep, responsibility of the WATSAN committees, maintenance of WSS, health and hygiene, general sanitation and defecation habits. As an added incentive competitions were organised for the schools and committees. Cultural programmes and Audio-visuals aids were also used.

MARI organised two training camps for the APEX body members. The requirements for the effective functioning of the APEX body was stressed. Issues related to Book keeping, writing of the minutes book, correspondence file, communication channels were dealt with.

### **Water monitoring formats**

The WMF are filled and forwarded to NAPO regularly. During the second quarter of the reporting period the formats revealed that the ten villages seldom received water. During this time the water supply in most of these villages was once in 6 to 10 days. The problem is doubly compounded due to low power, lack of funds with PRED to purchase the diesel and frequent leakages. Water monitoring formats are being filled, in all the villages, by persons nominated by the committee.

### **Linkages**

MARI had facilitated the process of representation by the people to the concerned authorities to address their grievances. It is interesting to know that women had visited Deputy Executive Engineer and made representation about the status of the water supply.

### **Community Initiatives/Contributions**

The impact of the awareness camps can be seen in the initiatives the communities have taken in the maintenance and upkeep of the systems. Collection of contributions amounting to Rs.28,000/- was mobilised to fix the taps and pipes. Shramadan (voluntary service) to ensure cleanliness in the village, around GLSRs, stopping washing clothes at GLSRs and PSPs are some of the activities. The APEX body had taken up the issue of lack of water supply very seriously and represented to all the concerned authorities and even meet the District Collector.

### **Status Survey**

According to the status survey, of the 67 villages the NGO is working in, there are 101 GLSRs, 8 OHSRs, and 169 PSPs. 21 villages were not receiving water while 48 villages received water on alternate days. Cleanliness around GLSRs and PSP's needs improvement.

### **Community Mobilisation**

Community mobilisation has been through small group and village level meetings, mass awareness campaigns and individual contacts. The 6 group meetings in each village and the 1st phase of the mass awareness campaigns held with the help of two professional troupes followed by village level meetings resulted in many volunteers willing to organise themselves for the upkeep of the drinking water, hygiene and sanitation of the village.

### **Water Management Committees**

55 Water Management committees are formed so far. Model agendas are given to the committees as guidelines. The committees were also given minutes book, accounts book and correspondence file. The committee members are also approaching PRED with representations for rectifying water problems.



### 2.3.4 HERSELF

#### Establishment

HERSELF renewed activities in 20 villages under the Mantralaya scheme from December till March 1997, with a reappropriation of budget made available from NAP office. The extension Phase activities were initiated in 44 villages from the 1st of April 1997.

#### Status Report

The functional and utilitional Status of the RWS of the 44 project villages through the status survey. The following is the abstract of the status before the start of the project intervention in April 97.

#### RWSSs Functionality

	Functioning	Total
GLSRs -	15	of 47 (32%)
OHSRs -	10	of 16 (62.5%)
PSPs -	93	of 206 (45%)
CPWSS -	228	of 307 (74%)

#### Activities

##### Audio Visual/Cultural Shows

Burrakathaas, songs, Magic shows, skits, short lectures and action songs were held in all the 44 villages as the first spell of activities. Of the aimed 60%, 48% of the villagers are made aware of the aims, objectives and the proposed activities of the project.

##### Formation of water Management Committees

The Audio Visual/Cultural shows are immediately followed by the field staff contacting the village leaders in an effort to form the WMC. 39 of the 44 villages have the WMCs formed.

##### Linkages between PRED, HERSELF and WMCs

A joint meeting with the Executive Engineer (EE), PRED, Adoni, and HERSELF was held to mutually discuss the RWS situation in the project area. The positive attitude of the EE to the NGOs' initiatives lead to another large group meeting, in which all the concerned field engineers of PRED were present and some important issues were ratified on the spot. Encouraged by the cooperative attitude of the PRED staff, there have been repeated efforts by the WMC to represent issues.

### 3. LIFT IRRIGATION SCHEME (MAHBUBNAGAR)

There is no progress in the physical works of lift irrigation scheme.

Completion of D-5 channel and field channels is still pending. Two pumps are yet to be commissioned.

There is no increase in the irrigation potential created which remains at 9000 acres. Target for the irrigation potential is 10000 acres.

#### Financial Progress:

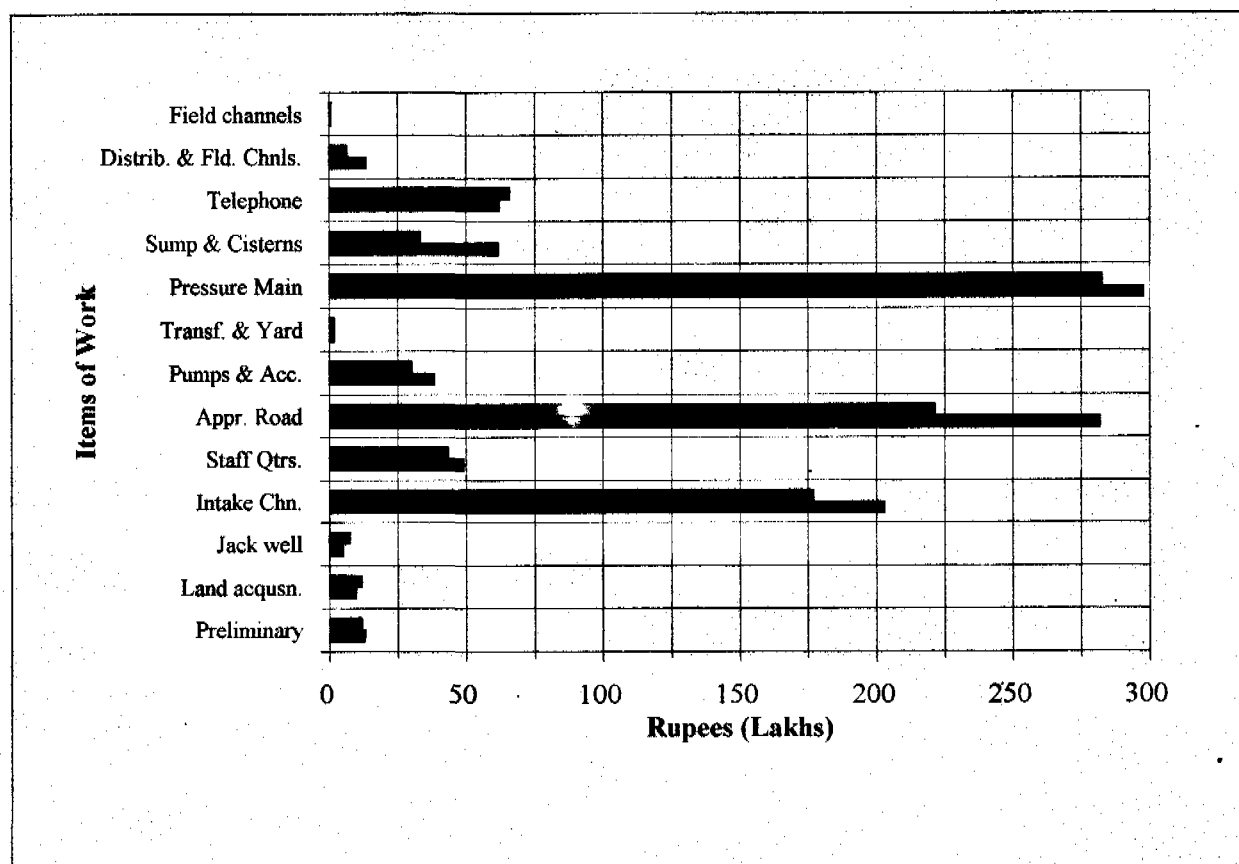
The financial status of this project activity is detailed in Table 3.0 and is summarized below:

RRE	:	Rs 1187
Expenditure ending 6/97	:	Rs 1028.97
% progress	:	86.7 %
Balance	:	Rs 158.03
% balance	:	Rs 13.3 %
Expenditure ending 9/96	:	Rs 1006.11
Expenditure during the reporting period	:	Rs 22.86

Table 3.0: Comparative Financial Statement for Lift Irrigation Scheme, Nagarkurnool

Amount in Rs. (Lakhs)

Sl. No.	Name of Work	FRE 1994	Tot Expns			Balance by 30/6/97
			by 30/6/96	by 31/12/96	by 30/6/97	
1	Preliminary	0.75	1.02	1.02	1.02	-0.27
2	Land acquisition	53.00	38.25	38.25	38.25	14.75
3	Jack well	100.00	94.69	94.69	94.69	5.31
4	Intake channel	12.78	11.76	11.76	11.76	1.02
5	Staff quarters	9.70	11.80	11.8	11.8	-2.10
6	Approach road	5.04	7.53	7.53	7.53	-2.49
7	Pumps & accessories	203.00	177.08	177.08	177.08	25.92
8	Transformers & Tr. Yard	49.50	43.92	43.92	43.92	5.58
9	Pressure Main	282.00	221.52	221.52	221.52	60.48
10	Sump and cisterns	38.42	30.24	30.24	30.24	8.18
11	Telephone	1.92	1.89	1.89	1.89	0.03
12	Distributories & Field Chnls.	297.98	276.18	282.48	282.48	15.50
	Field channels	62	-	15.26	33.53	28.47
13	Electrical works	62.13	61.07	61.48	66.07	-3.94
14	Direct & Indirect charges	13.47	6.60	6.6	6.6	6.87
15	LS provision & unforseen	0.63	0.59	0.59	0.59	0.04
	<b>TOTAL</b>	<b>1192.32</b>	<b>984.14</b>	<b>1006.11</b>	<b>1028.97</b>	<b>163.35</b>



#### 4. AP III PILOT PROJECT

##### Preparations AP III

##### PRFS study update

NAPO felt the need to take up further study to update the information on the 9 PRFS villages.

The focus of the survey has been on the feasibility of the ground water potential, to understand the background of the existing schemes and how they came about, to collect data on how the existing schemes were operated and the issues related to the cost recovery and self sustainability of the RWS. It was expected that this document would provide the required information and would be one of the base documents for future planning.

The findings of the study indicate that:

1. There is the possibility of acceptable levels of ground water being available in the area for drinking water purposes.
2. The systems have been constructed under the responsibility of the local Government and have been functioning effectively.
3. The systems for O&M in these schemes seem to be more effective and reliable than the regular systems in AP II, but the capacity is generally under utilized.
4. The systems suffer from unreliable and limited electric power supply.
5. The lacunae seems to be the passive involvement of the community in the planning and the execution of the scheme. However it can be concluded that with more effective participation of the community the schemes could function to a better capacity.
6. The costs of O&M seem limited and can be covered by the community. In a number of the PRFS villages, cost recovery is already being applied.

##### AP III Planning and preparation for the pilot project

NAP Office devoted considerable time and energy in assisting the PRED with the preparations for drafting an alternative AP III proposal. After elaborate meetings between PRED and NAPO staff, PRED produced the first two draft documents.

With a new emphasis on documentation, planning and management, and inviting the community to participate from the very start, this alternative proposal was clearly taking the lessons learned from the AP II projects into consideration. All activities projected to be undertaken were listed in steps for the technical as well as the social components.

PRED and NAPO requested for the services of a support mission, consisting of expertise on:

General engineering (B. Blankwaardt/TWACO)  
Hydrogeology (T. Kleinendorst/TWACO)  
Community participation (J. v.d. Blik/ETC) and  
Alternative energy analysis (F. v.d. Vleuten/ETC).

With the assistance of this support mission and NAP Office PRED drafted the document for AP III Nalgonda.

Meanwhile the RNE has announced the visit of a Mission to assess the AP II programme and appraise the AP III proposal. This mission, consisting of Mr. H. van Schaik (RIVM), Prof. Sastri and Ms. Barot, visited in March. The final draft of the proposal took the appraisal mission's comments into consideration and was submitted to Government, with an advance copy to RNE. (Please refer Proposal AP III Nalgonda).

The appraisal mission emphasized the rationale for a pilot phase for the AP III programme, during which the methodology can be further enhanced and tested, before a scaling up of activities would take place after approval of the main proposal.

PRED with the assistance of NAPO drafted the activities to be undertaken during such pilot phase into a NAPO work plan April- December, covering the continued activities for AP II and the preparatory and pilot activities for AP III. The same was submitted to RNE and approved by the second half of May 1997.

#### **Progress AP III Pilot Project**

The activities during the reporting period (till June 1997) were preparatory in nature, pending the approval for the pilot project, which materialized by the end of May. After some interruptions due to the summer holidays, the pilot commenced per 1 July 1997.

Since February NAPO was strengthened with the expertise of a hydrogeologist. The status of available capability and human resources on hydrogeology, were assessed, as were the availability of information and documentation in the PRED and NAP Office, the State Groundwater Department, Irrigation Department, APSRAC and the A.P. Well programme. These assessments also aided PRED in drafting the requirements for the AP III proposal.

PRED and NAP Office started to streamline the list of steps in the AP III proposal into a limited number of milestones, for operational purposes.

PRED and NAP Office reviewed six organizations with regards to their suitability to assist in the community participation component. Three organizations out of these six were short listed and invited for an interview. These three were then requested to write up an outline, of their suggested methodology and approach on the basis of the briefing and project draft document provided them.

After review of these approaches, PRED and NAPO jointly opted to invite CMS to assist in taking responsibility for the community participation in three villages in the Pilot project. This selection could be formalised in June after the approval for the pilot project was received. CMS started their activities per 1 July 1997.

Three villages were targeted as the pilot villages:  
Kothaguda (border Zones D and A),  
Domalapalli (Zone D) and Kanchanpalli (Zone D).

The latter was substituted by a village called Anthampet in zone A, based on complications expected in Kanchanpalli and the prospects of a positive siting by the PRED in Anthampet.

NAPO/ETC entered into a management contract with RNE for the administration and routing of the costs to be incurred by the PRED in the implementation of works in the three villages of the pilot and the overhead costs incurred by the PRED.

As most of the activities on the pilot project started after 1 July 1997, these are not covered in this reporting period. NAPO will try to complete the Half Yearly Progress Report for the period July to December 1997, by the end of January so that the information regarding the progress in the AP III Pilot will be made available as soon as possible.

# ANNEXURES

## **ANNEXURE 1**

### **COMPLETION SCHEDULES OF AP - II PROJECT DISTRICTS**

**(Refer Section 1.3)**



Table: Completion of AP II in Mahbubnagar District

Sl. No.	Task Description	Original		Revised		Variance in ....	
		Start	Finish	Start	Finish	Start	Finish
1	<b>GENERAL ACTIVITIES</b>	19/11/96	12/11/97	19/11/96	25/02/98		105
2	<b>Basic information</b>	19/11/96	28/04/97	19/11/96	25/02/98		303
3	Internal inventory	19/11/96	02/12/96	19/11/96	02/12/97		365
4	Compl. reports	19/11/96	31/03/97	19/11/96	30/12/97		274
5	Revision compl. reports	15/04/97	28/04/97	12/02/98	25/02/98	303	303
6	As-built drawings	19/11/96	02/12/96	19/11/96	15/11/97		348
7	<b>Operation &amp; Maintenance</b>	19/11/96	12/05/97	19/11/96	19/01/98		252
8	O&M Manuals	19/11/96	03/03/97	19/11/96	01/12/97		273
9	Draft version	19/11/96	27/01/97	19/11/96	30/10/97		276
10	Comments NAPO	28/01/97	10/02/97	16/06/97	15/11/97	139	278
11	Final version	11/02/97	03/03/97	30/06/97	01/12/97	139	273
12	<b>Training O&amp;M staff</b>	28/01/97	14/04/97	16/06/97	19/01/98	139	280
13	Identification of needs	28/01/97	03/02/97	16/06/97	15/10/97	139	254
14	Design of training plan	04/02/97	17/02/97	23/06/97	15/10/97	139	240
15	Conducting training	18/02/97	14/04/97	07/07/97	19/01/98	139	280
16	<b>O&amp;M Budget</b>	03/03/97	12/05/97	03/03/97	30/09/97		141
17	Budget Preparation	03/03/97	14/03/97	03/03/97	29/08/97		168
18	Allocation by PRED	01/04/97	12/05/97	01/09/97	30/09/97	153	141
19	<b>Performance Monitoring</b>	02/12/96	12/11/97	02/12/96	12/11/97		
20	Aggregate pumping data	02/12/96	05/11/97	02/12/96	05/11/97		
45	Aggr. delivery data	02/12/96	05/11/97	02/12/96	05/11/97		
46	Analysis by HQ/NAPO	06/12/96	12/11/97	06/12/96	12/11/97		
59	<b>CPWSS CHINNAMAROOR</b>	19/11/96	14/04/97	19/11/96	30/01/98		291
60	<b>Outstanding works</b>	19/11/96	30/12/96	19/11/96	31/01/97		32
61	PM KPally-BPally	19/11/96	30/12/96	19/11/96	31/01/97		32
62	PM KPally-TPally	19/11/96	30/12/96	19/11/96	31/01/97		32
63	PM TPally-CPally	19/11/96	30/12/96	19/11/96	31/01/97		32
64	PM TPally-TPthanda	19/11/96	30/12/96	19/11/96	31/01/97		32
65	VDS -Chinnamaroor	19/11/96	30/12/96	19/11/96	31/01/97		32
66	VDS-Veltoor	19/11/96	30/12/96	19/11/96	31/01/97		32
67	VDS-Koppunur	19/11/96	30/12/96	19/11/96	31/01/97		32
68	VDS-Jetprole	19/11/96	30/12/96	19/11/96	31/01/97		32
69	VDS-Kondur	19/11/96	30/12/96	19/11/96	31/01/97		32
70	VDS-Peddamaroor	19/11/96	30/12/96	19/11/96	31/01/97		32
71	VDS-Velgonda	19/11/96	30/12/96	19/11/96	31/01/97		32
72	VDS-Weepanagandla	19/11/96	30/12/96	19/11/96	31/01/97		32
73	VDS-KPally	19/11/96	30/12/96	19/11/96	31/01/97		32
74	Scheme stabilisation	19/11/96	03/03/97	19/11/96	28/11/97		270
75	Technical audit	04/03/97	17/03/97	01/12/97	30/12/97	272	288
76	Rectifications	18/03/97	14/04/97	01/01/98	30/01/98	289	291
77	<b>PROJECT COMPLETION</b>	19/11/96	19/05/97	19/11/96	11/03/98		296
78	Draft report	19/11/96	14/04/97	19/11/96	30/12/97		260
79	Final completion report	15/04/97	12/05/97	02/01/98	15/01/98	262	248
80	Submission to RNE	13/05/97	19/05/97	26/02/98	11/03/98	289	296

### Completion Schedule of AP II in Mahbubnagar District

ID	Task Name	1997												1998					
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
1	<b>GENERAL ACTIVITIES</b>	[Gantt bar spanning Nov 1997 to Feb 1998]																	
2	Basic information	[Gantt bar spanning Nov 1997 to Feb 1998]																	
3	Compl. reports-item	[Gantt bar spanning Nov 1997 to Dec 1997]																	
4	Revision compl. reports	[Gantt bar spanning Apr 1998 to Feb 1998]																	
5	As-built drawings	[Gantt bar spanning Nov 1997 to Oct 1997]																	
6	<b>Operation &amp; Maintenance</b>	[Gantt bar spanning Nov 1997 to Dec 1997]																	
7	<b>O&amp;M Manuals</b>	[Gantt bar spanning Nov 1997 to Nov 1997]																	
8	Draft Version	[Gantt bar spanning Nov 1997 to Oct 1997]																	
9	Comments NAPO	[Gantt bar spanning Jan 1998 to Sep 1997]																	
10	Final version	[Gantt bar spanning Feb 1998 to Sep 1997]																	
11	<b>Training O&amp;M staff</b>	[Gantt bar spanning Jan 1998 to Dec 1997]																	
12	Identification needs	[Gantt bar spanning Jan 1998 to Oct 1997]																	
13	Design training plan	[Gantt bar spanning Feb 1998 to Oct 1997]																	
14	Conduct training	[Gantt bar spanning Mar 1998 to Dec 1997]																	
15	<b>O&amp;M Budget</b>	[Gantt bar spanning Feb 1998 to Nov 1997]																	
16	Budget Preparation	[Gantt bar spanning Mar 1998 to Sep 1997]																	
17	Allocation by PRED	[Gantt bar spanning Apr 1998 to Sep 1997]																	
18	<b>Performance Monitoring</b>	[Gantt bar spanning Nov 1997 to Nov 1997]																	

Completion Plan Mahabubnagar



### Completion Schedule of AP II in Mahbubnagar District

ID	Task Name	1997												1998					
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
58	<b>CPWSS CHINNAMAROOR</b>	[Redacted]																	
59	<b>Outstanding works</b>	[Redacted]																	
60	PM KPally-BPally	[Redacted]																	
61	PM KPally-TPally	[Redacted]																	
62	PM TPally-CPally	[Redacted]																	
63	PM TPally-TPthanda	[Redacted]																	
64	VDS -Chinnamaroor	[Redacted]																	
65	VDS-Veltoor	[Redacted]																	
66	VDS-Koppunur	[Redacted]																	
67	VDS-Jetprole	[Redacted]																	
68	VDS-Kondur	[Redacted]																	
69	VDS-Peddamaroor	[Redacted]																	
70	VDS-Velgonda	[Redacted]																	
71	VDS-Weepanagandla	[Redacted]																	
72	VDS-KPally	[Redacted]																	
73	Scheme stabilisation	[Redacted]																	
74	Technical audit	[Redacted]																	
75	Rectifications	[Redacted]																	
76	<b>PROJECT COMPLETION</b>	[Redacted]																	
77	Prep. draft final report	[Redacted]																	
78	Final completion report	[Redacted]																	
79	Submission to RNE	[Redacted]																	

**Table : Completion of AP II in Kurnool District**

Sl. No.	Task Description	Original		Revised		Variance in ...	
		Start	Finish	Start	Finished	Start	Finish
1	<b>GENERAL ACTIVITIES</b>	19/11/96	12/11/97	19/11/96	15/06/98		215
2	<b>Basic information</b>	19/11/96	09/06/97	19/11/96	02/01/98		207
3	Internal inventory	19/11/96	24/02/97	19/11/96	30/05/97		95
4	Completion reports	19/11/96	31/03/97	19/11/96	29/11/97		243
5	Revision of Compl. reports	27/05/97	09/06/97	16/08/97	02/01/98	81	207
6	As-built drawings	19/11/96	24/02/97	19/11/96	30/06/97		126
7	<b>Operation &amp; Maintenance</b>	03/03/97	11/07/97	03/03/97	15/06/98		339
8	O&M Manuals	17/03/97	23/05/97	16/04/97	31/12/97	30	222
9	Draft Version	17/03/97	25/04/97	16/04/97	31/12/97	30	250
10	Comments from NAPO	28/04/97	09/05/97	21/05/97	15/12/97	23	220
11	Final version	12/05/97	23/05/97	02/06/97	30/12/97	21	221
12	<b>Training O&amp;M staff</b>	28/04/97	11/07/97	21/05/97	15/06/98	23	339
13	Identification of needs	28/04/97	02/05/97	21/05/97	15/12/97	23	227
14	Designing training plan	05/05/97	16/05/97	27/05/97	30/12/97	22	228
15	Conducting training	19/05/97	11/07/97	07/06/97	15/06/98	19	339
16	<b>O&amp;M Budget</b>	03/03/97	12/05/97	03/03/97	05/05/97		-7
17	Budget Preparation	03/03/97	14/03/97	03/03/97	13/03/97		-1
18	Allocation by PRED	01/04/97	12/05/97	01/04/97	05/05/97		-7
19	<b>Performance Monitoring</b>	02/12/96	12/11/97	02/12/96	04/11/97		-8
20	Aggregate pumping data	02/12/96	05/11/97	02/12/96	04/11/97		-2
33	Aggr. delivery data	02/12/96	05/11/97	02/12/96	06/10/97		-31
45	Analysis by HQ-NAPO	06/12/96	11/12/97	06/12/96	10/10/97		-62
57	<b>CPWSS HALVI</b>	19/11/96	26/05/97	19/11/96	30/11/97		188
58	Outstanding works	19/11/96	30/12/96	19/11/96	30/11/97		335
59	Booster at Nadichagi	NA	NA	22/09/97	30/11/97	NA	NA
60	GM GLBR Halvi-25 Villages	19/11/96	30/12/96	19/11/96	30/12/96		
61	VDS Urukonda	19/11/96	16/12/96	19/11/96	20/01/97		35
62	Scheme stabilisation	19/11/96	31/03/97	19/11/96	30/11/97		244
63	Technical audit	01/04/97	28/04/97	31/05/97	28/11/97	60	214
64	Rectifications	29/04/97	26/05/97	24/06/97	28/11/97	56	186
65	<b>CPWSS HANAWAL</b>	19/11/96	26/05/97	19/11/96	30/12/97		218
66	Outstanding works	19/11/96	30/12/96	19/11/96	30/05/97		151
67	OHSR Upperhal	19/11/96	30/12/96	19/11/96	30/05/97		151
68	OHSR Rowdur	19/11/96	30/12/96	19/11/96	15/04/97		106
69	VDS- Upprhal	19/11/96	30/12/96	19/11/96	20/01/97		21
70	VDS- Rowdur	19/11/96	30/12/96	19/11/96	20/01/97		21
71	Scheme stabilisation	19/11/96	31/03/97	19/11/96	30/12/97		274
72	Technical audit	01/04/97	28/04/97	03/02/97	30/11/97	-57	216
73	Rectifications	29/04/97	26/05/97	01/07/97	30/12/97	63	218
74	<b>CPWSS SATHNUR</b>	19/11/96	26/05/97	19/11/96	30/12/97		218
75	Outstanding works	19/11/96	30/12/96	19/11/96	30/11/97		335
76	Booster at Duddi	NA	NA	20/08/97	30/11/97	NA	NA
77	Fencing at Sathnur	19/11/96	30/12/96	19/11/96	30/12/96		
78	GM Duddi to Segment I	19/11/96	30/12/96	19/11/96	31/01/97		32
79	GM Kaggal to Seg. II	19/11/96	30/12/96	19/11/96	15/01/97		16
80	VDS Moogaladoddi	19/11/96	02/12/96	19/11/96	06/01/97		35
81	VDS Sathnur	19/11/96	02/12/96	19/11/96	31/12/96		29
82	VDS Katchapuram	19/11/96	02/12/96	19/11/96	31/12/96		29
83	VDS 52 Basapuram	19/11/96	02/12/96	19/11/96	31/12/96		29
84	Scheme stabilisation	19/11/96	31/03/97	19/11/96	30/11/97		244
85	Technical audit	01/04/97	28/04/97	31/05/97	30/11/97	60	216
86	Rectifications	29/04/97	26/05/97	24/06/97	30/12/97	56	218

**Table : Completion of AP II in Kurnool District**

Sl. No.	Task Description	Original		Revised		Variance in ...	
		Start	Finish	Start	Finished	Start	Finish
87	<b>CPWSS MANCHALA</b>	19/11/96	24/03/97	19/11/96	30/06/97		98
88	Scheme stabilisation	19/11/96	30/12/96	19/11/96	30/12/96		
89	Technical audit	28/01/97	24/02/97	30/06/97	30/06/97	153	126
90	Rectifications	25/02/97	24/03/97	30/06/97	30/06/97	125	98
91	<b>CPWSS CHINNAKOTHILIKI</b>	19/11/96	24/03/97	19/11/96	30/12/97		281
92	Booster Station at Poolachinta	NA	NA	22/09/97	30/11/97	NA	NA
93	Scheme stabilisation	19/11/96	27/01/97	19/11/96	30/11/97		307
94	Technical audit	28/01/97	24/02/97	30/06/97	09/12/97	153	288
95	Rectifications	25/02/97	24/03/97	30/06/97	30/12/97	125	281
96	<b>PROJECT COMPLETION</b>	19/11/96	30/06/97	19/11/96	05/01/98		189
97	Draft report	19/11/96	26/05/97	19/11/96	30/11/97		188
98	Final completion report	27/05/97	23/06/97	16/08/97	20/12/97	81	180
99	Submission to RNE	24/06/97	30/06/97	09/09/97	05/01/98	77	189

### Completion Plan Kurnool APII

ID	Task Name	1997																	1		
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	<b>GENERAL ACTIVITIES</b>	[Redacted]																			
2	<b>Basic information</b>	[Redacted]																			
3	Internal inventory	[Redacted]																			
4	Compl. reports-item	[Redacted]																			
5	Revision compl. reports	[Redacted]																			
6	As-built drawings	[Redacted]																			
7	<b>Operation &amp; Maintenance</b>	[Redacted]																			
8	<b>O&amp;M Manuals</b>	[Redacted]																			
9	Draft Version	[Redacted]																			
10	Comments NAPO	[Redacted]																			
11	Final version	[Redacted]																			
12	<b>Training O&amp;M staff</b>	[Redacted]																			
13	Identification needs	[Redacted]																			
14	Design training plan	[Redacted]																			
15	Conduct training	[Redacted]																			
16	<b>O&amp;M Budget</b>	[Redacted]																			
17	Budget Preparation	[Redacted]																			
18	Allocation by PRED	[Redacted]																			
19	<b>Performance Monitoring</b>	[Redacted]																			

Project : Completion Plan Kurnool

Original Task [Redacted] Original Summary [Redacted]

Revised Task [Redacted] Revised Summary [Redacted]

### Completion Plan Kurnool APII

ID	Task Name	1997												1							
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
57	<b>CPWSS HALVI</b>	[Redacted]																			
58	<b>Outstanding works</b>	[Redacted]																			
59	Booster @ Nadichagi	[Redacted]																			
60	GM GLBR Halvi-25 Villages	[Redacted]																			
61	VDS Urukonda	[Redacted]																			
62	Scheme stabilisation	[Redacted]																			
63	Technical audit	[Redacted]																			
64	Rectifications	[Redacted]																			
65	<b>CPWSS HANAWAL</b>	[Redacted]																			
66	<b>Outstanding works</b>	[Redacted]																			
67	OHSR Upperhal	[Redacted]																			
68	OHSR Rowdur	[Redacted]																			
69	VDS- Upperhal	[Redacted]																			
70	VDS- Rowdur	[Redacted]																			
71	Scheme stabilisation	[Redacted]																			
72	Technical audit	[Redacted]																			
73	Rectifications	[Redacted]																			
74	<b>CPWSS SATHNUR</b>	[Redacted]																			
75	<b>Outstanding works</b>	[Redacted]																			
76	Booster at Duddi	[Redacted]																			
77	Fencing at Sathnur	[Redacted]																			





**Table : AP II Completion in Medak District**

Sl No.	Task Descriptions	Original		Revised		Variance in...	
		Start	Finish	Start	Finish	Start	Finish
1	<b>GENERAL ACTIVITIES</b>	19/11/96	12/11/97	19/11/96	17/02/98		69
2	Basic information	19/11/96	26/05/97	19/11/96	19/11/97		127
3	Internal inventory	19/11/96	02/12/96	19/11/96	25/09/97		213
4	Completion reports	19/11/96	27/01/97	19/11/96	24/10/97		194
5	Revision compl. reports	13/05/97	26/05/97	13/05/97	19/11/97		127
6	As-built drawings	28/01/97	24/02/97	28/01/97	05/08/97		116
7	<b>Operation &amp; Maintenance</b>	25/02/97	07/07/97	31/01/97	17/02/98	-16	161
8	O&M Manuals	25/02/97	02/06/97	31/01/97	27/11/97	-16	128
9	Draft	25/02/97	21/04/97	31/01/97	10/10/97	-16	124
10	Comments NAPO	22/04/97	05/05/97	30/05/97	24/10/97	29	124
11	Final version	06/05/97	02/06/97	30/05/97	27/11/97	19	128
12	<b>Training O&amp;M staff</b>	22/04/97	07/07/97	21/07/97	17/02/98	64	161
13	Identification of needs	22/04/97	28/04/97	21/07/97	30/10/97	64	133
14	Design of training plan	29/04/97	12/05/97	28/07/97	20/11/97	64	138
15	Conducting training	13/05/97	07/07/97	11/08/97	17/02/98	64	161
16	<b>O&amp;M Budget</b>	03/03/97	12/05/97	03/03/97	12/05/97		
17	Budget Preparation	03/03/97	14/03/97	03/03/97	14/03/97		
18	Allocation by PRED	01/04/97	12/05/97	01/04/97	12/05/97		
19	<b>Performance Monitoring</b>	02/12/96	12/11/97	02/12/96	12/11/97		
20	Aggregate pumping data	02/12/96	05/11/97	02/12/96	05/11/97		
33	Aggr. delivery data	02/12/96	05/11/97	02/12/96	05/11/97		
46	Analysis by HQ-NAPO	06/12/96	12/11/97	06/12/96	12/11/97		
59	<b>CPWSS IBRAHIMPUR</b>	19/11/96	12/05/97	19/11/96	10/11/97		130
60	Scheme stabilisation	19/11/96	31/03/97	19/11/96	30/08/97		109
61	Technical audit	01/04/97	14/04/97	01/07/97	10/10/97	65	129
62	Rectifications	15/04/97	12/05/97	15/07/97	10/11/97	65	130
63	<b>CPWSS BORANCHA</b>	19/11/96	12/05/97	19/11/96	10/11/97		130
64	Outstanding works	19/11/96	30/12/96	19/11/96	15/10/97		207
65	Staff quarters Borancha	19/11/96	16/12/96	19/11/96	30/08/97		184
66	GLBR at Tumnurgutta	19/11/96	16/12/96	19/11/96	31/03/97		75
67	Booster at Nagulapally	19/11/96	30/12/96	19/11/96	15/10/97		207
68	Scheme stabilisation	19/11/96	31/03/97	19/11/96	15/09/97		120
69	Technical audit	01/04/97	14/04/97	30/05/97	10/10/97	44	129
70	Rectifications	15/04/97	12/05/97	30/05/97	10/11/97	34	130
71	<b>CPWSS KARASGUTHY</b>	19/11/96	12/05/97	19/11/96	10/11/97		130
72	Outstanding works	19/11/96	30/12/96	19/11/96	30/09/97		196
73	SO building at h/w	19/11/96	02/12/96	19/11/96	05/03/97		67
74	Staff quarters h/w	19/11/96	16/12/96	19/11/96	05/03/97		57
75	GM Mannur to Maikode	19/11/96	02/12/96	19/11/96	04/04/97		89
76	GM Abenda to Hukrana	19/11/96	30/12/96	19/11/96	30/09/97		196
77	GM to Yesgi & Audathpur	19/11/96	16/12/96	19/11/96	04/04/97		79
78	Scheme stabilisation	19/11/96	31/03/97	19/11/96	15/10/97		142
79	Technical audit	01/04/97	14/04/97	02/06/97	22/10/97	44	137
80	Rectifications	15/04/97	12/05/97	16/06/97	10/11/97	44	130
81	<b>PROJECT COMPLETION</b>	19/11/96	07/07/97	19/11/96	13/02/98		159
82	Draft report	19/11/96	14/04/97	19/11/96	30/12/97		186
83	Final completion report	03/06/97	30/06/97	01/09/97	30/01/98	64	154
84	Submission to RNE	01/07/97	07/07/97	02/02/98	13/02/98	154	159

### Completion Schedule of AP II Medak District

ID	Task Name	1997												1998				
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	
1	<b>GENERAL ACTIVITIES</b>	[Redacted]																
2	<b>Basic information</b>	[Redacted]																
3	Internal inventory	[Redacted]																
4	Compl. reports-item	[Redacted]																
5	Revision compl. reports	[Redacted]																
6	As-built drawings	[Redacted]																
7	<b>Operation &amp; Maintenance</b>	[Redacted]																
8	<b>O&amp;M Manuals</b>	[Redacted]																
9	Draft Version	[Redacted]																
10	Comments NAPO	[Redacted]																
11	Final version	[Redacted]																
12	<b>Training O&amp;M staff</b>	[Redacted]																
13	Identification needs	[Redacted]																
14	Design training plan	[Redacted]																
15	Conduct training	[Redacted]																
16	<b>O&amp;M Budget</b>	[Redacted]																
17	Budget Preparation	[Redacted]																
18	Allocation by PRED	[Redacted]																
19	<b>Performance Monitoring</b>	[Redacted]																

Completion Plan Medak APII

Original Task      [Redacted]      Original Summary      [Redacted]  
 Revised task      [Redacted]      Revised Summary      [Redacted]

### Completion Schedule of AP II Medak District

ID	Task Name	1997												1998			
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
59	<b>CPWSS IBRAHIMPUR</b>	[Task bar spanning from Nov 1997 to Oct 1997]															
60	Scheme stabilisation	[Task bar spanning from Nov 1997 to Aug 1997]															
61	Technical audit	[Task bar spanning from Apr 1997 to Jul 1997]															
62	Rectifications	[Task bar spanning from Apr 1997 to Sep 1997]															
63	<b>CPWSS BORANCHA</b>	[Task bar spanning from Nov 1997 to Oct 1997]															
64	<b>Outstanding works</b>	[Task bar spanning from Nov 1997 to Oct 1997]															
65	Staff quarters Borancha	[Task bar spanning from Nov 1997 to Aug 1997]															
66	GLBR at Tumnurgutta	[Task bar spanning from Nov 1997 to Mar 1998]															
67	Booster NPally	[Task bar spanning from Nov 1997 to Oct 1997]															
68	Scheme stabilisation	[Task bar spanning from Nov 1997 to Sep 1997]															
69	Technical audit	[Task bar spanning from Apr 1997 to Jul 1997]															
70	Rectifications	[Task bar spanning from Apr 1997 to Sep 1997]															
71	<b>CPWSS KARASGUTHY</b>	[Task bar spanning from Nov 1997 to Oct 1997]															
72	<b>Outstanding works</b>	[Task bar spanning from Nov 1997 to Oct 1997]															
73	SO building at h/w	[Task bar spanning from Nov 1997 to Mar 1998]															
74	Staff quarters h-w	[Task bar spanning from Nov 1997 to Mar 1998]															
75	GM Mannur to Maikode	[Task bar spanning from Nov 1997 to Mar 1998]															
76	GM Abenda to Hukrana	[Task bar spanning from Nov 1997 to Sep 1997]															
77	GM to Yesgi & Audathpur	[Task bar spanning from Nov 1997 to Mar 1998]															
78	Scheme stabilisation	[Task bar spanning from Nov 1997 to Sep 1997]															
79	Technical audit	[Task bar spanning from Apr 1997 to Jul 1997]															
80	Rectifications	[Task bar spanning from Apr 1997 to Sep 1997]															

**Completion Schedule of AP II Medak District**

ID	Task Name	1997												1998				
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	
81	<b>PROJECT COMPLETION</b>	[Redacted]																
82	Prep. draft final report	[Redacted]																
83	Final completion report	[Redacted]																
84	Submission to RNE	[Redacted]																

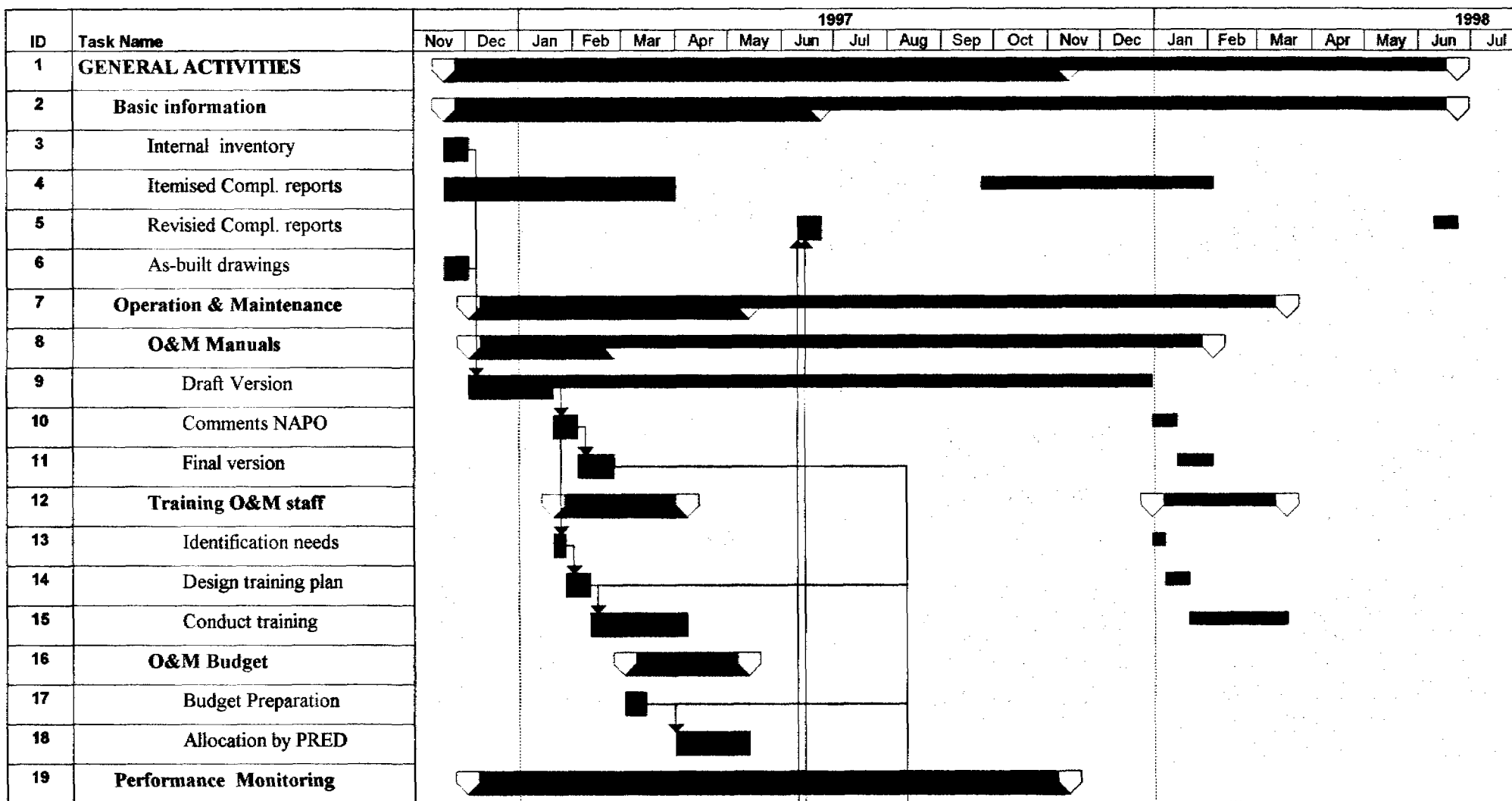
**Table : AP II Completion in Prakasam District**

Sl No.	Task Description	Original		Revised		Variance in	
		Start	Finish	Start	Finish	Start	Finish
1	<b>GENERAL ACTIVITIES</b>	19/11/96	12/11/97	19/11/96	23/06/98		159
2	<b>Basic information</b>	19/11/96	23/06/97	19/11/96	23/06/98		261
3	Internal inventory	19/11/96	02/12/96	19/11/96	02/12/96		
4	Completion reports	19/11/96	31/03/97	24/09/97	03/02/98	221	221
5	Revision of Compl. reports	10/06/97	23/06/97	10/06/98	23/06/98	261	261
6	As-built drawings	19/11/96	02/12/96	19/11/96	02/12/96		
7	<b>Operation &amp; Maintenance</b>	03/12/96	12/05/97	03/12/96	17/03/98		221
8	O&M Manuals	03/12/96	24/02/97	03/12/96	03/02/98		246
9	Draft	03/12/96	20/01/97	03/12/96	30/12/97		246
10	Comments NAPO	21/01/97	03/02/97	31/12/97	13/01/98	246	246
11	Final version	04/02/97	24/02/97	14/01/98	03/02/98	246	246
12	<b>Training O&amp;M staff</b>	21/01/97	07/04/97	31/12/97	17/03/98	246	246
13	Identification of needs	21/01/97	27/01/97	31/12/97	06/01/98	246	246
14	Design of training plan	28/01/97	10/02/97	07/01/98	20/01/98	246	246
15	Conducting training	11/02/97	07/04/97	21/01/98	17/03/98	246	246
16	<b>O&amp;M Budget</b>	03/03/97	12/05/97	03/03/97	12/05/97		
17	Budget Preparation	03/03/97	14/03/97	03/03/97	14/03/97		
18	Allocation by PRED	01/04/97	12/05/97	01/04/97	12/05/97		
19	<b>Performance Monitoring</b>	02/12/96	12/11/97	02/12/96	12/11/97		
20	Aggregate pumping data	02/12/96	05/11/97	02/12/96	05/11/97		
33	Aggr. delivery data	02/12/96	05/11/97	02/12/96	05/11/97		
46	Analysis by HQ/NAPO	06/12/96	12/11/97	06/12/96	12/11/97		
59	<b>CPWSS AB PALEM</b>	19/11/96	12/05/97	19/11/96	30/12/97		166
60	<b>Outstanding works</b>	19/11/96	30/12/96	19/11/96	30/12/97		261
61	Stone filling around intake	19/11/96	30/12/96	19/11/96	30/12/97		261
62	Extn RW GM B'palli	19/11/96	23/12/96	19/11/96	30/10/97		223
63	CW Sump Adusumalli	19/11/96	30/12/96	19/11/96	30/12/96		
64	CW Sump Inagallu	19/11/96	30/12/96	19/11/96	30/12/96		
65	CW Sump C'padu	19/11/96	30/12/96	19/11/97	30/12/97	261	261
66	Extn VDS AB Palem II	19/11/96	30/12/96	19/11/96	30/12/96		
67	Extn VDS Deverapalli II	19/11/96	30/12/96	19/11/96	30/12/97		261
68	Extn VDS Bodawada II	19/11/96	30/12/96	19/11/96	30/12/97		261
69	Canal off take for GM at B'Palli	03/03/97	25/04/97	03/03/97	25/04/97		
70	Scheme stabilisation	19/11/96	31/03/97	23/06/97	31/10/97	154	154
71	Technical audit	01/04/97	14/04/97	03/11/97	14/11/97	154	154
72	Rectifications	15/04/97	12/05/97	17/11/97	12/12/97	154	154
73	<b>CPWSS MV PALEM</b>	19/11/96	10/03/97	19/11/96	10/03/97		
74	<b>Outstanding works</b>	19/11/96	30/12/96	19/11/96	30/12/96		
75	Addl. Pumps at Punur	19/11/96	30/12/96	19/11/96	30/12/96		
76	Extn VDS MVPalem &4	19/11/96	30/12/96	19/11/96	30/12/96		
77	Scheme stabilisation	31/12/96	27/01/97	31/12/96	27/01/97		
78	Technical audit	28/01/97	10/02/97	28/01/97	10/02/97		
79	Rectifications	11/02/97	10/03/97	11/02/97	10/03/97		
80	<b>CPWSS CHERUKURU</b>	28/01/97	03/03/97	28/01/97	03/03/97		
81	Technical audit	28/01/97	10/02/97	28/01/97	10/02/97		
82	Rectifications	11/02/97	03/03/97	11/02/97	03/03/97		

**Table : AP II Completion in Prakasam District**

Sl No.	Task Description	Original		Revised		Variance in	
		Start	Finish	Start	Finish	Start	Finish
83	<b>INDIV. SCHEMES</b>	19/11/96	09/06/97	19/11/96	09/06/98		261
84	Outstanding works	19/11/96	30/12/96	19/11/96	31/03/98		326
85	Augm. PWSS Daggubadu	19/11/96	30/12/96	08/01/97	19/11/97	36	232
86	Augm. PWSS Subbareddyp	19/11/96	30/12/96	19/11/96	30/12/96		
87	Augm. PWSS Inkollu	19/11/96	30/12/96	20/05/97	31/03/98	130	326
88	Augm. PWSS Ankirpalem	19/11/96	30/12/96	17/01/97	28/11/97	43	239
89	RW GM to Bodawada	19/11/96	30/12/96	19/11/96	30/12/96		
90	VDS Budawada	19/11/96	30/12/96	19/11/96	30/12/96		
91	RW GM to Pavuluru	19/11/96	30/12/96	21/04/97	31/12/97	109	262
92	Booster Stn RN Palem	19/11/96	30/12/96	21/07/97	29/08/97	174	174
93	VDS Kothapalem	19/11/96	30/12/96	19/11/96	30/12/96		
94	VDS ZV Palem	19/11/96	30/12/96	19/11/96	30/12/96		
95	VDS Nakkalapalem	19/11/96	30/12/96	19/11/96	30/12/96		
96	Scheme stabilisation	19/11/96	31/03/97	19/11/97	31/03/98	261	261
97	Technical audit	01/04/97	12/05/97	01/04/98	12/05/98	261	261
98	Rectifications	13/05/97	09/06/97	13/05/98	09/06/98	261	261
99	<b>PROJECT COMPLETION</b>	19/11/96	15/09/97	09/04/97	14/07/98	101	216
100	Draft report	19/11/96	11/08/97	09/04/97	30/12/97	101	101
101	Final completion report	12/08/97	08/09/97	10/06/98	07/07/98	216	216
102	Submission to RNE	09/09/97	15/09/97	08/07/98	14/07/98	216	216

### Completion Plan Prakasam APII



Completion Plan Prakasam APII

Original Task		Original Summary	
Revised Task		Revised Summary	

### Completion Plan Prakasam APII

ID	Task Name	1997												1998								
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
59	<b>CPWSS AB PALEM</b>	[Solid black bar from Nov 1997 to Dec 1997]																				
60	<b>Outstanding works</b>	[Solid black bar from Nov 1997 to Dec 1997]																				
61	Stone filling around intake	[Solid black bar from Nov 1997 to Dec 1997]																				
62	Extn RW GM Bpalli	[Solid black bar from Nov 1997 to Oct 1997]																				
63	CW Sump Adusumalli	[Solid black bar from Nov 1997 to Dec 1997]																				
64	CW Sump Inagallu	[Solid black bar from Nov 1997 to Dec 1997]																				
65	CW Sump C'padu	[Solid black bar from Nov 1997 to Dec 1997]																				
66	Extn VDS ABPalem II	[Solid black bar from Nov 1997 to Dec 1997]																				
67	Extn VDS Deverapalli II	[Solid black bar from Nov 1997 to Dec 1997]																				
68	Extn VDS Bodawada II	[Solid black bar from Nov 1997 to Dec 1997]																				
69	Canal off take for GM BPalli	[Solid black bar from Mar 1997 to Apr 1997]																				
70	Scheme stabilisation	[Solid black bar from Nov 1997 to Apr 1997] → [Solid black bar from Jul 1997 to Oct 1997]																				
71	Technical audit	[Solid black bar from Apr 1997 to May 1997] → [Solid black bar from Nov 1997 to Dec 1997]																				
72	Rectifications	[Solid black bar from May 1997 to Jun 1997] → [Solid black bar from Nov 1997 to Dec 1997]																				
73	<b>CPWSS MV PALEM</b>	[Solid black bar from Nov 1997 to Dec 1997]																				
74	<b>Outstanding works</b>	[Solid black bar from Nov 1997 to Dec 1997]																				
75	Addi. Pumps at Punur	[Solid black bar from Nov 1997 to Dec 1997]																				
76	Extn VDS MV Palem & 4 vill.	[Solid black bar from Nov 1997 to Dec 1997]																				
77	Scheme stabilisation	[Solid black bar from Jan 1998 to Feb 1998] → [Solid black bar from Mar 1998 to Apr 1998]																				
78	Technical audit	[Solid black bar from Feb 1998 to Mar 1998] → [Solid black bar from Apr 1998 to May 1998]																				
79	Rectifications	[Solid black bar from Mar 1998 to Apr 1998] → [Solid black bar from May 1998 to Jun 1998]																				
80	<b>CPWSS CHERUKURU</b>	[Solid black bar from Jan 1998 to Feb 1998]																				
81	Technical audit	[Solid black bar from Feb 1998 to Mar 1998] → [Solid black bar from Apr 1998 to May 1998]																				
82	Rectifications	[Solid black bar from Mar 1998 to Apr 1998] → [Solid black bar from May 1998 to Jun 1998]																				



### Completion Plan Prakasam APII

ID	Task Name	1997												1998								
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
83	<b>INDIV. SCHEMES</b>	[Redacted]																				
84	<b>Outstanding works</b>	[Redacted]																				
85	Augm. PWSS Daggubadu	[Redacted]																				
86	Augm. PWSS Subbareddyp	[Redacted]																				
87	Augm. PWSS Inkollu	[Redacted]																				
88	Augm. PWSS Ankirpalem	[Redacted]																				
89	RW GM to Bodawada	[Redacted]																				
90	VDS Budawada	[Redacted]																				
91	RW GM to Pavuluru	[Redacted]																				
92	Booster stn RN Palem	[Redacted]																				
93	VDS Kothapalem	[Redacted]																				
94	VDS ZV Palem	[Redacted]																				
95	VDS Nakkalapalem	[Redacted]																				
96	Scheme stabilisation	[Redacted]																				
97	Technical audit	[Redacted]																				
98	Rectifications	[Redacted]																				
99	<b>PROJECT COMPLETION</b>	[Redacted]																				
100	Prep. draft final report	[Redacted]																				
101	Final completion report	[Redacted]																				
102	Submission to RNE	[Redacted]																				

**ANNEXURE 2**

**WATER COMMITTEE REPORT**

Study Report on:

# **WATER COMMITTEES**

ETC - NETHERLANDS ASSISTED PROJECTS OFFICE  
42/4 RT, BARKATPURA, HYDERABAD - 500 027

2 Dec. 1996 -- 8 Jan. 1997

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### ANNEXES:

- Annex I Village-wise data collection format  
Annex II Communication methods tools used by MARI and SNIRD

## CHAPTER 1: THE RATIONALE

In tune with the UN resolution - 'Safe drinking water for all by 2000 AD', Government of India and Government of Netherlands entered a bilateral agreement which envisaged to provide safe drinking water to fluoride/salinity problem villages, in AP, UP, Gujarat, Kerala and Karnataka.

GoN support in Andhra Pradesh dates back to 1978. In the first phase, referred to as AP I (1978-85), a population of 7,38,000 is covered by 4 CPWS and 52 IPWS Schemes, in 6 districts. Current phase i.e., AP II (1985-96) covers another 279 villages with 12 CPWS and 37 IPWS Schemes designed to serve a population of 7,10,300 in 4 districts.

Main institutions involved in the implementation of programme is The Panchayat Raj Engineering Department (PRED). Some of the components of the programme were implemented by the AP Dairy Development Co-operative Federation and the Institute of Preventive Medicine. Non Governmental Organisations were involved to ensure community participation. 5 NGOs involved were spread over 4 Districts and 103 villages. AIRDS being the first NGO to be involved in the RWS programme took up related software activities in Mehaboobnagar District for 3 years (1992 - 95), HERSELF in Kurnool District for over 2 years (1993 - 95), ASSIST and SNIRD working in Prakasam Districts since 3 years (1993- 97) and MARI working in Medak District since over a year (1995 - 1996 ).

The Netherlands Assisted Projects Office (NAPO) provides technical support and advice, apart from monitoring. It also acts as a link between the implementing agencies and the Royal Netherlands Embassy in New Delhi. ETC Consultants India Pvt. Ltd. are contracted by RNE to manage NAPO, since 1993.

The involvement of NGOs in RWS is a recent phenomenon and came into fore only in 1992, as an after thought in the AP II programme. Till then, the NGO involvement is limited to sanitation component - project clean village.

The main task of NGOs is to ensure user involvement at village level in the use and maintenance of the RWS assets created and improve the sanitary conditions through awareness and hygiene promotion at individual and community points. Institution building to ensure village level O & M of schemes forms the thrust areas of intervention. Hence, formation and skill development of Water Committees is a major component of NGO activities, apart from health and hygiene education.

NGOs - SNIRD and MARI have been selected for the purpose of the study taking into consideration the project duration. A long term (3 years) intervention strategy is adopted in case of SNIRD, while it is short (1 year) in the case of MARI. One common feature is the project area, which in each case is covered under single Comprehensive Piped Water Supply Scheme (Chandavaram in case of SNIRD and Borancha in case of MARI). The two NGOs also happen to be working in two different geographical areas of AP. SNIRD in the coastal area and MARI in Telangana area. In addition SNIRD also happens to be working in the AP I project area and MARI in AP II area.

Present study is carried out by NAP Office to draw conclusions about the effectiveness of strategies tried out in each case and the possible required period of NGO involvement in the RWS programme, and to recommend policy changes if necessary for future software intervention in Netherlands Assisted Warer supply schemes.

## CHAPTER 2: OBJECTIVES AND METHODOLOGY

Objectives of the study are as follows:

- > To compare approach/steps followed by two NGOs in formation/strengthening of Water Committees.
- > To look into different methods/tools used by two NGOs for community motivation/awareness.
- > To bring out relationship, if any, between the membership characteristics and efficiency of Water Committees.
- > To analyse NGO inputs in two cases, and relevance thereof.
- > To assess Awareness levels and Managerial efficiency of Water Committees by using Common Performance Indicators.
- > To list out O&M tasks performed by Water Committees and effect on overall O&M of the scheme.
- > To bring out linkage between tasks of Water Committee and resultant physical condition at Water Delivery Points.
- > To look into habit formation of hygiene practises, if any among water users.
- > To classify Water Committees based on Common Performance Indicators.
- > To come out with concrete recommendations for future software interventions.

The study is carried out by Social wing of NAPO, in the following steps.

- I Desk work at NAPO
  - 1) Document review
  - 2) Preparation of format for data collection
  - 3) Selection of Sample
- II Data collection at Project level
  - 1) Brainstorming with Project staff
  - 2) Review of NGO documents
  - 3) Physical verification at WDPs/OHSR
  - 4) Formal meeting with Water Committee
  - 5) Verification of records kept by Water Committee
- III Analysis and Report Writing at NAPO
  - 1) Tabulation
  - 2) Data Analysis
  - 3) Chapterization
  - 4) Report writing

Document review is done at NAPO level to identify and list out key themes. Documents referred included project proposals, Quarterly Progress Reports and SPO reports. Basis for listing out key themes is the issues identified in the project proposals and activities taken up to address them, by each NGO under study.

Based on NAPO's Monitoring experience and themes identified in document review, a common Proforma is prepared for data collection. Though it is prepared for village level, sections of it were relevant only at the project level. This method is adopted to ensure commonality and ease. [Copy of the Format is appended to the report as Annex I]. The format is divided into 4 main parts viz., checklist for collecting data from NGO, protocol for verification of WDPs/ OHSRs, questionnaire for meeting with Water Committees and Checklist for verification of Water Committee records.

Keeping in view size of the project, it is decided, in a Social sector meeting, that the study would be carried out for Sample villages rather than the whole target area. Sample size is decided as 50% of the total project area. Selection of sample villages is done in consultation with concerned NGOs, based on the following criteria.

- \* Distance from the Head Works
- \* Water Supply Status
- \* Assumed Efficiency of Water Committee

Technical Sector of NAPO provided information on first two aspects of the selection criteria while information on the third topic is provided by the concerned NGO.

Villages were classified as Head (first two villages from headwork), Tail (last two villages on a distribution line) and Middle (anywhere between tail and head).

Water supply status has been classified as Regular (continuous supply), Irregular (intermittent breaks in supply) and No (no or negligible supply). NGO is given discretion to classify Water Committees as Strong, Weak and Medium, as per their perception. The resultant sample size is 5 out of 10 villages in MARI and 13 out of 26 villages in SNIRD.

Table 1, provides list of villages selected for study and their respective characters.



VC	VILLAGE	LOCATION	WS STATUS	ASS. EFF.
1	Nagulapalli	Tail	Irregular	Medium
2	Gorrekal	Middle	Irregular	Weak
3	Dosapalli	Head	Regular	Medium
4	Gatpalli	Middle	Regular	Strong
5	Palvatla	Tail	Irregular	Weak
6	Chandavaram	Head	Regular	Strong
7	Badapuram	Head	Regular	Strong
8	Tummedalapadu	Tail	Irregular	Medium
9	Gangadevipalli	Middle	Irregular	Strong
10	Rudrasamudram	Middle	Irregular	Strong
11	Anathavaram	Tail	No	Medium
12	W. Gangavaram	Tail	No	Weak
13	Oddipadu	Tail	Irregular	Weak
14	Veerepalli	Tail	Irregular	Medium
15	N.N. Palem	Middle	Regular	Strong
16	Polepalli	Head	Regular	Strong
17	Aravellapadu	Middle	Irregular	Medium
18	Kallur	Middle	Irregular	Strong

VC : Village Code  
 WS STATUS : Water Supply Status  
 ASS. EFF. : Assumed Efficiency

Percentages of sample characters, NGO wise:

	SNIRD	MARI
I) Location		
1. Tail-end	38%	40%
2. Middle-reach	39%	40%
3. Head-reach	23%	20%
II) Water Supply		
1. Regular	38%	40%
2. Irregular	47%	60%
3. No	15%	0%
III) Assumed efficiency		
1. Strong	54%	20%
2. Medium	31%	40%
3. Weak	15%	40%

Thus, it is ensured that the sample selected exhibited desired combination of characters.

Data is collected at the project/village level (during 9-10 and 16-20 December, 1996) from five main information sources viz., NGO records, interviews of Project Staff, Water Committee members, Water Committee records and physical observation in the village.

The first part of the Format (Checklist for collecting information from NGO) is filled in at the Project Office in consultation with project staff. The second (Protocol for verification at WDPs), third (Questionnaire for meeting with Water Committee) and fourth (Checklist for verification of Water Committee records) parts of the format were used to collect data at village level.

First part of the format covers basic information about the project like steps in water committee formation / strengthening, number of water committees - village wise, communication methods/tools, training, awareness generation, chloroscopes and WMFs. Relevant documents were cross checked to establish the authenticity of the information gathered from the brain-storming exercise.

Second part yielded information about physical status of WDPs including mode of water delivery, number / functional WDPs, control knobs, platforms, drains, surroundings of the water points, pipelines and general village sanitation.

Formal and informal interaction with members of Water Committee/ Users furnished the information for third part of the format. The focus is on common water supply problems, membership, constitution, criteria for selection of members, tasks of water committee, funds raised, and the responsibility of book keeping. General health and hygiene awareness levels of committee members is also assessed.

Fourth part is filled in by verifying records kept by Water Committees such as; Minutes register, Account book and Correspondence file which are useful sources of information with regards to activities of each water committee.

After the data collection, tabulation is done, keeping in view the expected output. Analytical statements was made for each table prepared. Based on the analytical material thus derived, chapterization is done. Final Report emerged after a series of brainstorming sessions within the Social Sector.

## CHAPTER 3: STUDY FINDINGS

### 3.1 STEPS IN COMMITTEE FORMATION/STRENGTHENING:

Both MARI and SNIRD have followed two types of steps viz., Common and Revised in committee formation / strengthening.

**Common set of Steps** is pre-determined in the sense that the NGO desired to follow the same in all the target villages. **Revised set of Steps** denotes the changes made in each/cluster village/s in the pre-determined common set of Steps. Table 2 gives a chronological list of common / revised Steps. Last row of the table gives the coverage (%) under respective set of steps.

If we compare *Common Steps*, it becomes clear that SNIRD has two additional steps viz., collection of data on fluoride levels and shramadan (Cleaning around OHSR/GLSR). However, there is difference in chronology. SNIRD carried out Household Survey after building up rapport with villagers, while MARI started its village intervention with the survey itself. Village level Water Committee, OHSRC/GLSRC in case of SNIRD and WATSANC in case of MARI, is constituted immediately after HH survey, in a Village Meeting. Water Delivery Point Committee (PSP/GLSR) is formed at a later stage. Coverage by Common Steps is 80% in case of MARI and 23% in case of SNIRD. One more clear difference in Common Steps is reformation of Committee. SNIRD reformed OHSR/GLSR Committees into Village Action Committees (VAC) with increased representation of women. MARI is yet to do the same.

There are three sets of Revised Steps in case of SNIRD and only one for MARI. 20% of sample is covered by Revised steps in MARI's case. Set (1) Revised Steps of SNIRD covers 38.5% of its sample. Coverage of set (2) and set (3) of SNIRD's Revised Steps is 23% and 15.5%, respectively.

Revised steps of MARI are different from its Common Steps in the sense that Awareness Camp is conducted in step no. 7 itself, in stead of step no. 9. The reason for shift, reportedly, is poor response of the community to form into Water Committee. It is felt by the NGO that Awareness Camp followed by Committee formation is more effective.

SNIRD, in its Revised Steps - Set (1), had to make a minor change in (Common) Step 5. They clubbed Film show with Mass meeting to ensure good community participation, thereby leading to formation of Water Committee.

Revised step - Set (2) of SNIRD departed from Common steps at step no. 5 (Mass meeting) onwards. As Mass meeting at these village/s is not possible immediately after step 4 (Water/family survey), they inserted another additional activity - small group meetings followed by steps similar to Set (1).

TABLE : 2. STEPS IN FORMATION/STRENGTHENING

STE	SNIRD				MARI	
	COMMON STEPS	REVISED STEPS			COMMON STEPS	REVISED STEPS
		(1)	(2)	(3)		
1	Fluoride data collection	Fluoride data collection	Fluoride data collection	Fluoride data collection	HH Survey	HH Survey
2	Meet GP/informal meetings	Meet GP/informal meetings	Meet GP/informal meetings	Meet GP/informal meetings	Meet GP	Meet GP
3	Rapport building	Rapport building	Rapport building	Rapport building	SG Meetings	SG Meetings
4	Water/family survey	Water/family survey	Water/family survey	Water/family survey	Gram Sabha	Gram Sabha
5	Mass meetings	Film show/ Mass meeting	Small group meetings	Film shows/Mass meetings	Identify OLs	Identify OLs
6	OHSR/GLSRC formation	OHSRC formation	Film show/Mass meetings	Street corner meetings	Inform OLs	Inform OLs
7	PSPC formation	PSPC formation	OHSRC formation	SHC, Chlorination of wells	Constitute WATSANC	Awareness Camp
8	Street corner meetings	Street corner meetings	PSPC formation	HP repairs	Constitute GLSRC	Constitute VWC
9	PSPC meetings	PSPC meetings	Street corner meetings	Mass meetings	Awareness Camp	Constitute GLSRC
10	Cleaning around OHSR/GLSR	Cleaning around OHSR/GLSR	PSPC meetings	VAC formation	Meeting/Trg/Propaganda	Meeting/Trg/Propaganda
11	Drainage cleaning	Drainage cleaning	Cleaning around OHSR/GLSR	PSPC formation	-	-
12	Trg,Cul.pro,Soakpits,Camp.	Trg,Cul.pro,Soakpits,Camp.	Drainage cleaning	PSPC meetings	-	-
13	-	-	Trg,Cul.pro,Soakpits,Camp.	Cleaning around OHSR/GLSR	-	-
14	-	-	-	Drainage cleaning	-	-
15	-	-	-	Trg,Cul.pro,Soakpits,Camp.	-	-
	COVERAGE : 23%	COVERAGE : 38.5%	COVERAGE : 23%	COVERAGE : 15.5%	COVERAGE : 80%	COVERAGE : 20%

LIST OF ABBREVIATIONS :

- |                |                                 |
|----------------|---------------------------------|
| 1.GP           | :Grampanchayat                  |
| 2.OHSR         | :Overhead Service Reservoir     |
| 3.GLSRC        | :Ground Level Service Reservoir |
| 4.PSPC         | :Public Stand Post Committee    |
| 5.Trg          | :Trainings                      |
| 6.Cul.pro.     | :Cultural programmes            |
| 7.Camp.        | :Campaigns                      |
| 8.HP           | :Hand Pumps                     |
| 9.VAC          | :Village Action Committee       |
| 10.HH Survey   | :House Hold Survey              |
| 11.SG Meetings | :Small Group Meetings           |
| 12.OLs         | :Opinion Leaders                |
| 13.WATSANC     | :Water and Sanitation Committee |
| 14.WVC         | :Village Water Committee        |

Committee formation took place only at Step 10 in Set (3) of SNIRD's Revised Steps. Mass Meeting appeared two times i.e., in step 5 and step 9. It had to insert number of motivational activities between step 4 (water / family survey) and step 6 of Common set (formation of OHSRC / GLSRC) which included street corner meetings in step 6, SHC formation and Well Chlorination in step 7 and HP repairs in step 8.

One clear difference in SNIRD and MARI Common set of steps is the element of motivating people through **shramadan by staff**. It is reported by SNIRD that it proved to be a very powerful tool in mobilizing the unwilling community around water and sanitation issue.

Another noteworthy difference in formation / strengthening steps of two NGOs is the handling of Gender issue. While SNIRD reportedly built up women membership of the committees stretching through the long project period, MARI focused on the issue right from the word go. The effect of women representation on Committees is discussed, at length, in later part of the report.

### 3.2 MOTIVATIONAL METHODS

A variety of methods are used to mobilise / motivate / build the community. Person-to-person dialogue (individual interaction) is used by MARI to inform elected Committee members, while SNIRD used it during Fluoride data collection and establishing contact with GP. Family based interaction method is used by MARI during HH Survey while, SNIRD used it in Street Corner meetings. Group interaction tool is used to inform the elected Opinion Leaders while SNIRD used it during formation of PSPC formation.

Group meeting method is used by MARI in the step - Small Group Meetings, while SNIRD used it for PSPC meetings. Mass meeting is used by both the NGOs for electing members of Village Water Committee.

Tamki / tappeta is used by both to inform villagers about gram sabha, awareness camps, meetings, training camps, cultural programmes etc.

Audio-visual aids, folk-art, role play / skit, demonstration, pamphlets / charts, wall writings / paintings, competitions and Public Address System are used by both NGOs for training, meeting, propaganda and awareness camps. SNIRD used additional tools such as: mass rallies, information boards, PSP / Well numbering and display of names of committee members.

Annex II gives a list of motivational methods used by NGOs.

### 3.3 MEMBERSHIP CHARACTERISTICS:

It is evident from Table 3 that average period of establishment of Village Water Committees took place 10 months ago in case of MARI and 25 months ago in case of SNIRD. Average membership of MARI Committees is 17 while that of SNIRD is 20.

On an average, MARI Committees had 50% Women membership while, SNIRD Committees are constituted with 39%. It can be recalled here that the women membership is raised by SNIRD during the reformation of OHSR / GLSR Committees into VAC.

While 44% of Village Water Committee is represented by SC/ST members in MARI villages, the SC / ST representation in SNIRD committees is as low as 9%.

Representation of Youth is poor in both the cases. It is 4% and 13% in Committees of MARI and SNIRD, respectively.

Gram Panchayat representation is also low (11-13%) in both the areas.

Opinion Leaders such as teachers, ANM worker, dayi, lineman, etal had good representation (17%) in case of SNIRD whereas it is negligible (1%) in case of MARI.

User Committees, directly responsible for ensuring code of conduct and cleanliness at Water Delivery Points are poorly represented in SNIRD Committees (23%) while MARI Committees had very good representation (86%)

**TABLE 3: BASIC DATA ON VILLAGE WATER COMMITTEES**

SN	VILLAGE	AGE(M)	MEMBERS	PERCENTAGE TO TOTAL MEMBERSHIP					
				WOMEN	SC/ST	YOUTH	GP	UCS	OLS
1	Nagulapalli	10	15	47	47	7	26	67	0
2	Gorrekal	10	17	53	41	12	0	88	0
3	Dosapalli	10	18	44	44	0	6	89	6
4	Gatpalli	10	18	44	44	0	22	100	0
5	Palvatla	10	16	62	NA	0	12	88	0
<b>M</b>	<b>AVERAGE</b>	<b>10</b>	<b>17</b>	<b>50</b>	<b>35</b>	<b>4</b>	<b>13</b>	<b>86</b>	<b>1</b>
6	Chandavaram	18	20	30	0	5	5	5	20
7	Badapuram	23	20	40	0	15	10	20	10
8	Tummedalapadu	27	20	40	0	10	15	70	15
9	Gangadevipalli	27	20	40	20	5	10	20	20
10	Rudrasamudram	27	20	40	25	15	15	40	25
11	Anathavaram	20	20	40	0	20	10	0	5
12	W. Gangavaram	27	20	40	0	15	15	0	20
13	Oddipadu	27	20	40	5	15	15	0	10
14	Veerepalli	27	20	40	10	15	15	0	5
15	N.N. Palem	27	20	40	5	25	5	80	15
16	Polepalli	27	20	40	10	0	10	40	25
17	Aravellapadu	27	20	40	40	15	10	0	35
18	Kallur	27	20	40	5	15	5	25	15
<b>S</b>	<b>AVERAGE</b>	<b>25</b>	<b>20</b>	<b>39</b>	<b>9</b>	<b>13</b>	<b>11</b>	<b>23</b>	<b>17</b>

**INDEX**

- SC/ST : Scheduled Caste/  
Scheduled Tribe  
GP : Gram Panchayat  
UCs : User Committees  
OLs : Opinion Leaders

### 3.4 INPUT OF NGOS

#### 3.4.1 Awareness/Capacity building

Major activity of both NGOs is awareness creation among the community at large, and Water Committees in particular. Table 5 gives an account of coverage of expected topics / issues covered in various forms (awareness camps, trainingc, exposure visits, cultural shows etc.). Except for training on Book-Keeping, in case of MARI, the coverage is 100%.

SN	AWARENESS/CAPACITY BUILDING INPU	COVERAGE (%)	
		MARI	SNIRD
1	Purpose of NAP	100	100
2	Objectives of NGO	100	100
3	Water Borne Diseases	100	100
4	Personal hygiene	100	100
5	Domestic hygiene	100	100
6	Environemental hygiene	100	100
7	Mother & Child Care	100	100
8	Family Planning	100	100
9	Immunisation	100	100
10	ORT	100	100
11	PHC services	100	100
12	Water use hygiene	100	100
13	Functioning of scheme	100	100
14	Preventive maintenance	100	100
15	COC at WDPs	100	100
16	Conduct of Meeting	100	100
17	Book Keeping	80	100
18	Water Supply Monitoring	100	100



### 3.4.2 Linkage Establishment

As a prelude for establishment of sustainable village level institutions, both NGOs attempted to establish linkage between water committees and other similar local institutions. Table 5 provides a list of such linkages and coverage of the sample.

Gram Panchayat, Women groups, PRED, PHC, DRDA, Education and Social Forestry Departments had been linked to all the water committees covered under the study, both in MARI and SNIRD area. SNIRD Committees had additional linkages with Diocese (religious groups), District Collector, Railway Officers Club, ABUVA (funding agency), Revenue Department and other two NGOs. MARI Committees had linkages with APMMS (NGO).

Linkage is existing between some of the water committees (coverage is shown in the table 5) and other institutions like Youth clubs and Mandal Praja Parishad.

SN	NAME OF THE INSTITUTION	GO/NG	COVERAGE (%)	
			MARI	SNIRD
1	Gram Panchayat	GO	100	100
2	Women Groups	NGO	100	100
3	Youth Groups	NGO	60	92
5	Diocese	NGO	0	23
6	Panchayat Raj Engineering Deptt.	GO	100	100
7	Mandal Praja Parishad	GO	20	15
8	Primary Health Centre	GO	100	100
9	District Rural Development Agency	GO	100	100
10	District Collectorate	GO	0	48
11	CPR Environment Centre	NGO	0	62
12	Railway officers club	NGO	0	23
13	ABUVA	FA	0	8
14	Mandal Revenue Office	GO	0	100
15	Mandal Education Office	GO	100	100
16	Forest Range Office (Social Forestry)	GO	100	100
17	MASA	NGO	0	8
18	Ministry for Pauper	NGO	0	8
19	APMMS	NGO	20	0

### 3.5 PERFORMANCE OF COMMITTEES

Analysis of Performance of Committees is done by 4 key result areas viz., Awareness levels, Managerial efficiency, Involvement in O&M and Physical condition at Water Delivery Points.

In each case, Performance had been rated under three categories viz., Good (75% and above), Satisfactory (75 to 60%) and Poor (below 60%).

Total score obtained by each Water Committee in each key result area and percentage to Maximum Score formed the basis for classification of Water Committees into three Strength Classes viz., Strong (75% and above), Medium (75 to 60%) and Weak (less than 60%).

#### 3.5.1 Awareness level

It is assumed, in the study, that members of Water Committees would have Awareness on 6 broad themes, as listed below.

- i. Water Borne diseases
- ii. Personal hygiene
- iii. Domestic hygiene
- iv. Environmental hygiene
- v. Water Supply Scheme
- vi. NGO Intervention

Awareness level of Water Committees is assessed through questioning of members in a group interview. Based on the nature of knowledge the group had about each theme, both by numbers and quality of answers, Awareness level is classified as Good, Average and Poor. 100, 50 and 0 marks are allotted against each category, respectively. Percentage of the total score of each committee lead to Ratings as shown in Table 6.

It is evident from Table 6 that overall Awareness level of Water Committees formed by both MARI and SNIRD are Satisfactory (70% and 63%, respectively).

Awareness on Water borne diseases is rated to be 70% in case of MARI and 54% in case of SNIRD. MARI scored 80% on the theme of Personal hygiene while, SNIRD scored 65%. Domestic hygiene levels are 80% in MARI and 62% in SNIRD. Environment Awareness is 70% in MARI and 54% in SNIRD.

50% of Water Committees knew about the water supply scheme in MARI while, the percentage is 69 in case of SNIRD. Awareness about NGO intervention is 70% and 73% for MARI and SNIRD, respectively.

Out of 18 Water Committees studied, Awareness levels are good in 7, satisfactory in 3 and Poor in 8. Two Water Committees (Nagulapalli and Gatpalli) of MARI had Good Awareness, 2 (Gorrekal and Dosapally) Satisfactory and one (Palvatla) poor.

Chandavaram, Veerepalli, N.N. Palem, Aravellapadu and Kallur (4) of SNIRD are rated as Good while, awareness level of Badapuram, Temmedalapadu, Gangadevipalli, Rudrasamudram, Ananthavaram, W. Gangavaram and Oddipadu (8) is rated as poor. The remaining one (Polepalli) is rated as having satisfactory awareness level.

SN	VILLAGE	AWARENESS INDICATOR CODE						TOTAL	%	RT
		1	2	3	4	5	6			
1	Nagulapalli	100	100	100	100	0	50	450	75	GD
2	Gorrekal	50	50	50	50	100	100	400	67	ST
3	Dosapalli	50	100	100	50	50	50	400	67	ST
4	Gatpalli	100	100	100	100	100	100	600	100	GD
5	Palvatla	50	50	50	50	0	50	250	42	PR
<b>M</b>	<b>AVERAGE</b>	<b>70</b>	<b>80</b>	<b>80</b>	<b>70</b>	<b>50</b>	<b>70</b>	<b>420</b>	<b>70</b>	<b>ST</b>
6	Chandavaram	100	50	50	50	100	100	450	75	GD
7	Badapuram	50	50	50	50	50	50	300	50	PR
8	Tummedalapadu	50	50	50	50	50	50	300	50	PR
9	Gangadevipalli	50	50	50	50	50	50	300	50	PR
10	Rudrasamudram	50	50	50	50	50	50	300	50	PR
11	Anathavaram	50	50	50	50	50	50	300	50	PR
12	W. Gangavaram	50	50	50	50	50	50	300	50	PR
13	Oddipadu	0	50	50	0	50	50	200	33	PR
14	Veerepalli	50	100	100	100	100	100	550	92	GD
15	N.N. Palem	100	100	100	100	50	100	550	92	GD
16	Polepalli	50	50	50	50	100	100	400	67	ST
17	Aravellapadu	50	100	50	50	100	100	450	75	GD
18	Kallur	50	100	100	50	100	100	500	83	GD
<b>S</b>	<b>AVERAGE</b>	<b>54</b>	<b>65</b>	<b>62</b>	<b>54</b>	<b>69</b>	<b>73</b>	<b>377</b>	<b>63</b>	<b>ST</b>

1 Water Borne diseases

2 Personal hygiene

3 Domestic hygiene

4 Environmental hygiene

5 Water Supply Scheme

6 NGO Intervention

(Good: 100, Satisfactory: 50, Poor: 0)

RATING (RT):

75% and above : Good (GD)

75 to 60% : Satisfactory (ST)

60% and below : Poor (PR)

### 3.5.2 Managerial Efficiency

7 major themes which are looked into while analysing the managerial efficiency of committees, are as follows;

- i. Meeting once in month
- ii. Calling meeting on their own
- iii. Ensuring quorum
- iv. Updating minutes book
- v. Updating account book
- vi. Keeping Correspondence file
- vii. % of decisions put into action

Physical inspection of records kept by Water Committees provided the needed information. First six themes are responded with simple yes or no while the last (% of decisions put into action) information is derived through checking of minutes book. 100 and 0 marks, are given to each yes and no response, in first 6 thematic cases, respectively. Actual percentage is derived in the last case.

In this key result area - managerial efficiency, maximum possible score is 700, 100 each for each theme. Efficiency classes are derived keeping the same cut-off as in the case of Awareness level.

Table 7 shows that overall performance in managerial efficiency is poor (68%), in MARI committees and satisfactory (72%) in SNIRD. Both NGOs have done very well, scoring cent per cent on themes - regularity of committee meeting, ensuring quorum and updating minutes book. On the theme of - keeping correspondence file, both NGOs scored Zero. With regards to efficiency of calling and conducting meeting on own, MARI scored 80 and SNIRD scored 69. No Committee of MARI kept Account book while, 38% of SNIRD committees did. Both MARI and SNIRD committees stood almost equal (94 and 93, respectively) on the theme of % of decisions put into action.

Of the total 18 Water Committees under study, 5 are rated possessing Good managerial efficiency, 8 satisfactory and 4 Poor. Of the 5 good committees, one (Nagulapalli) is formed by MARI and 4 (Chandavaram, Tummedalpadu, Polepalli and Aravellapadu) are formed by SNIRD. One (Dosapalli) of the poor committee belonged to MARI while there are 3 (Tummedalpadu, Gangadevipalli and Rudrasamudram) in SNIRD's case. MARI had a share of 3 (Gorrekal, Gatpalli and Palvatla) satisfactory committees while SNIRD had 6 (Ananthavaram, W. Gangavaram, Oddipadu, Veerepalli, N.N. Palem and Kallur).

**TABLE 7.: MANAGERIAL EFFICIENCY OF WATER COMMITTEES**

SN	VILLAGE	EFFICIENCY INDICATOR							TOTAL	%	RT
		1	2	3	4	5	6	7			
1	Nagulapalli	100	100	100	100	0	0	92	492	82	GD
2	Gorrekal	100	100	100	100	0	0	90	490	70	ST
3	Dosapalli	100	0	100	100	0	0	100	400	57	PR
4	Gatpalli	100	100	100	100	0	0	90	490	70	ST
5	Palvatla	100	100	100	100	0	0	100	500	71	ST
<b>M</b>	<b>AVERAGE</b>	<b>100</b>	<b>80</b>	<b>100</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>94</b>	<b>474</b>	<b>68</b>	<b>PR</b>
6	Chandavaram	100	100	100	100	100	0	97	597	85	GD
7	Badapuram	100	100	100	100	100	0	93	593	85	GD
8	Tummedalapadu	100	0	100	100	0	0	85	385	55	PR
9	Gangadevipalli	100	0	100	100	0	0	93	393	56	PR
10	Rudrasamudram	100	0	100	100	0	0	91	391	56	PR
11	Anathavaram	100	100	100	100	0	0	95	495	71	ST
12	W. Gangavaram	100	100	100	100	0	0	91	491	70	ST
13	Oddipadu	100	100	100	100	0	0	92	492	70	ST
14	Veerepalli	100	100	100	100	0	0	97	497	70	ST
15	N.N. Palem	100	0	100	100	100	0	92	492	70	ST
16	Polepalli	100	100	100	100	100	0	95	595	85	GD
17	Aravellapadu	100	100	100	100	100	0	100	600	86	GD
18	Kallur	100	100	100	100	0	0	93	493	70	ST
<b>S</b>	<b>AVERAGE</b>	<b>100</b>	<b>69</b>	<b>100</b>	<b>100</b>	<b>38</b>	<b>0</b>	<b>93</b>	<b>501</b>	<b>72</b>	<b>ST</b>

- 1 Meeting once in month (100=Yes; 0=No)
- 2 Calling meeting on their own
- 3 Ensuring Quorum
- 4 Updating minutes book
- 5 Updating Account Book
- 6 Keeping Correspondance file
- 7 % of decisions put into action

RATING (RT):

- 75% and above : Good (GD)
- 75 to 60% : Satisfactory (ST)
- Below 60% : Poor (PR)

### 3.5.3 Role in O&M

12 indicators are used to assess the involvement of Water Committees in O&M of Water Supply Scheme. They are:

- i. Fund raising for broken taps
- ii. Tank cleaning
- iii. Platform cleaning
- iv. Clearing drains
- v. Cleaning streets/bushes
- vi. Chlorination
- vii. Co-ordinating with GP
- viii. Co-ordinating with PRED
- ix. Eradicating open defecation
- x. Enforcing code of conduct at WDPs
- xi. Conducting chlorination test
- xii. Filling Water Monitoring Formats

The scoring and rating methodology used in previous key result areas is repeated here.

Source of information for indicators (2 tank cleaning), 3 (platform cleaning), 4 (Clearing drains), 5 (cleaning streets/bushes), 7 (co-ordinating with GP) and 8 (co-ordinating with PRED) is the minutes book, whereas scoring is given based on direct question-answer method for the remaining i.e., 1 (fund raising for broken taps), 6 (chlorination), 9 (eradicating open defecation), 10 (enforcing code of conduct at WDPs), 11 (conducting chlorine test) and 12 (filling Water Monitoring Formats).

It is evident from Table 8 that there is 77% (Good) on the whole involvement in village level O&M in case of MARI, it is 86% (Good) in case of SNIRD.

The involvement of committees is found to be 100% in both the NGOs, for tasks -- tank cleaning, platform cleaning, co-ordinating with PRED and filling water monitoring formats.

While fund-raising for replacement of broken taps is done by 100% of MARI water committees, it is 92% in case of SNIRD. 80% of MARI Committees are involved in clearing of drains at WDP, while it is 69% in case of SNIRD. While 100% of committees of SNIRD are involved in cleaning streets/bushes, it is only 40% in MARI. Chlorination is done by 100% committees of SNIRD, while in MARI case it is only 20%.

While there is 100% Committee-GP co-ordination in SNIRD area, it is 80% for MARI. 84% of MARI committees took steps to eradicate open defecation, while 54% of SNIRD did the same. 100% of MARI Committees evolved a code of conduct at WDPs, while SNIRD committees are successful to the extent of 73%. While 20% of MARI Committees are conducting chlorination test, 77% of SNIRD are doing the same.

TABLE 8.: INVOLVEMENT LEVELS OF WATER COMMITTEES IN VILLAGE LEVEL O&M

SN	VILLAGE	TASK CODE												TOTA	%	RT
		1	2	3	4	5	6	7	8	9	10	11	12			
1	Nagulapalli	100	100	100	0	0	0	100	100	100	100	0	100	800	67	ST
2	Gorrekai	100	100	100	100	100	0	0	100	0	100	0	100	800	67	ST
3	Dosapalli	100	100	100	100	0	100	100	100	100	100	0	100	1000	83	GD
4	Gatpalli	100	100	100	100	100	0	100	100	100	100	0	100	1000	83	GD
5	Palvatta	100	100	100	100	0	0	100	100	100	100	100	100	1000	83	GD
<b>M</b>	<b>AVERAGE</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>80</b>	<b>40</b>	<b>20</b>	<b>80</b>	<b>100</b>	<b>80</b>	<b>100</b>	<b>20</b>	<b>100</b>	<b>920</b>	<b>77</b>	<b>GD</b>
6	Chandavaram	100	100	100	100	100	100	100	100	100	100	100	100	1200	100	GD
7	Badapuram	100	100	100	100	100	100	100	100	100	100	100	100	1200	100	GD
8	Tummedalapadu	100	100	100	100	100	100	100	100	100	100	100	100	1200	100	GD
9	Gangadevipalli	100	100	100	0	100	100	100	100	0	100	100	100	1000	83	GD
10	Rudrasamudram	100	100	100	100	100	100	100	100	0	NA	100	NA	900	75	GD
11	Anathavaram	100	100	100	0	100	100	100	100	100	NA	0	NA	800	83	GD
12	W. Gangavaram	100	100	100	100	100	100	100	100	100	100	0	100	1100	92	GD
13	Oddipadu	100	100	100	100	100	100	100	100	0	0	0	100	900	75	GD
14	Veerepalli	0	100	100	0	100	100	100	100	0	100	100	100	900	75	GD
15	N.N. Palem	100	100	100	0	100	100	100	100	100	100	100	100	1100	92	GD
16	Polepalli	100	100	100	100	100	100	100	100	0	0	100	100	1000	83	GD
17	Aravellapadu	100	100	100	100	100	100	100	100	0	100	100	100	1100	92	GD
18	Kallur	100	100	100	100	100	100	100	100	100	0	100	100	1100	92	GD
<b>S</b>	<b>AVERAGE</b>	<b>92</b>	<b>100</b>	<b>100</b>	<b>69</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>54</b>	<b>73</b>	<b>77</b>	<b>100</b>	<b>1038</b>	<b>86</b>	<b>GD</b>

- 1 Fund raising for broken taps
- 2 Tank cleaning
- 3 Platform cleaning
- 4 Clearing drains
- 5 Cleaning streets/bushes
- 6 Chlorination
- 7 Co-ordinating with GP
- 8 Co-ordinating with PRED
- 9 Eradicating open defecation
- 10 Enforcing Code Of Conduct at WDPs
- 11 Conducting Chlorination test
- 12 Filling Water Monitoring Formats

Rating (RT):

- 75% and above : Good (GD)
- 75% to 60% : Satisfactory (ST)
- Less than 60% : Poor (PR)

Of the 18 Water Committees, 16 showed Good involvement levels in O&M and the remaining two (Nagulapalli and Gorrekal of MARI) levels of involvement is satisfactory.

#### 3.5.4 Physical Condition at WDPs

It is assumed in the study that physical condition at WDPs is a direct indicator of efficiency of water committee. 6 aspects are looked at the sample WDPs in each village. The same are as follows.

1. % of functional Water Delivery Points
2. % of delivery points with Control Knobs
3. % of delivery points with platforms
4. % of clean platforms
5. % of delivery points with drain
6. % of delivery points with clean surroundings

The data source for above themes is visual observation of sample Water Delivery Points, at village level.

Marks allocation and analysis in this case is similar to previous key result areas.

Table 9 showed that overall situation at WDPs is satisfactory (70%) in case of MARI Committees while at SNIRD it is Poor (57%).

While 61% of the Water Delivery points sampled are functional in MARI villages, 76% are functional in SNIRD villages. Out of the total functional WDPs, there are 100% taps with control knobs in MARI area while, there are 88% taps with control knobs in SNIRD area. 90% of WDPs in MARI villages had platforms and SNIRD score is 72%. At MARI 80% of the platforms are clean and at SNIRD 36%. 30% of WDPs had functional drains in MARI area while SNIRD had 29%. MARI area had 60% WDPs with clean surroundings while at SNIRD it is 41%.

Physical Condition of WDPs at two (Gorrekal and Dosapalli) MARI villages is rated as Good while at remaining 3 villages it is satisfactory. 2 (Veerepalli and N.N. Palem) villages of SNIRD showed Good rates, 3 satisfactory and 4 Poor (Rudrasamudram, Polepalli, Aravellapadu and Kallur). Remaining 2 villages (Ananthavaram and W. Gangavaram) are not considered in the final rating as there is no water supply at these places.



**TABLE 9: PHYSICAL CONDITION AT SAMPLE WDPS (WATER DELIVERY POINTS)**

SN	VILLAGE	CONDITION CODE						TOTAL	%	RT
		1	2	3	4	5	6			
1	Nagulapalli	75	100	100	50	0	50	375	63	ST
2	Gorrekal	40	100	100	100	50	100	490	82	GD
3	Dosapalli	50	100	100	100	0	100	450	75	GD
4	Gatpalli	83	100	100	100	50	0	433	72	ST
5	Palvatla	57	100	50	50	50	50	357	60	ST
<b>M</b>	<b>AVERAGE</b>	<b>61</b>	<b>100</b>	<b>90</b>	<b>80</b>	<b>30</b>	<b>60</b>	<b>421</b>	<b>70</b>	<b>ST</b>
6	Chandavaram	100	100	0	0	0	0	200	33	PR
7	Badapuram	100	100	100	60	0	60	420	70	ST
8	Tummedalapadu	33	100	100	0	100	100	433	72	ST
9	Gangadevipalli	100	67	83	50	17	50	367	61	ST
10	Rudrasamudram	40	25	75	0	0	25	165	28	PR
11	Anathavaram	NA	NA	NA	NA	NA	NA	0	NA	NA
12	W. Gangavaram	NA	NA	NA	NA	NA	NA	0	NA	NA
13	Oddipadu	50	100	33	0	0	0	183	31	PR
14	Veerepalli	50	100	100	100	100	100	550	92	GD
15	N.N. Palem	66	100	100	100	100	100	566	94	GD
16	Polepalli	100	80	80	20	0	0	280	47	PR
17	Aravellapadu	100	100	60	10	0	10	280	47	PR
18	Kallur	100	100	60	60	0	10	330	55	PR
<b>S</b>	<b>AVERAGE</b>	<b>76</b>	<b>88</b>	<b>72</b>	<b>36</b>	<b>29</b>	<b>41</b>	<b>343</b>	<b>57</b>	<b>PR</b>

1. % of Functional Water Delivery Points
2. % of Delivery Points with Control Knobs
3. % of Delivery points with Platform
4. % of Clean Platforms
5. % of Delivery Points with Drain
6. % of Delivery Points with Clean surroundings

**RATING (RT):**

- 75% and above : Good (GD)  
 75 to 60% : Satisfactory (ST)  
 Below 60% : Poor (PR)

### 3.5.5 Resultant Strength Classes

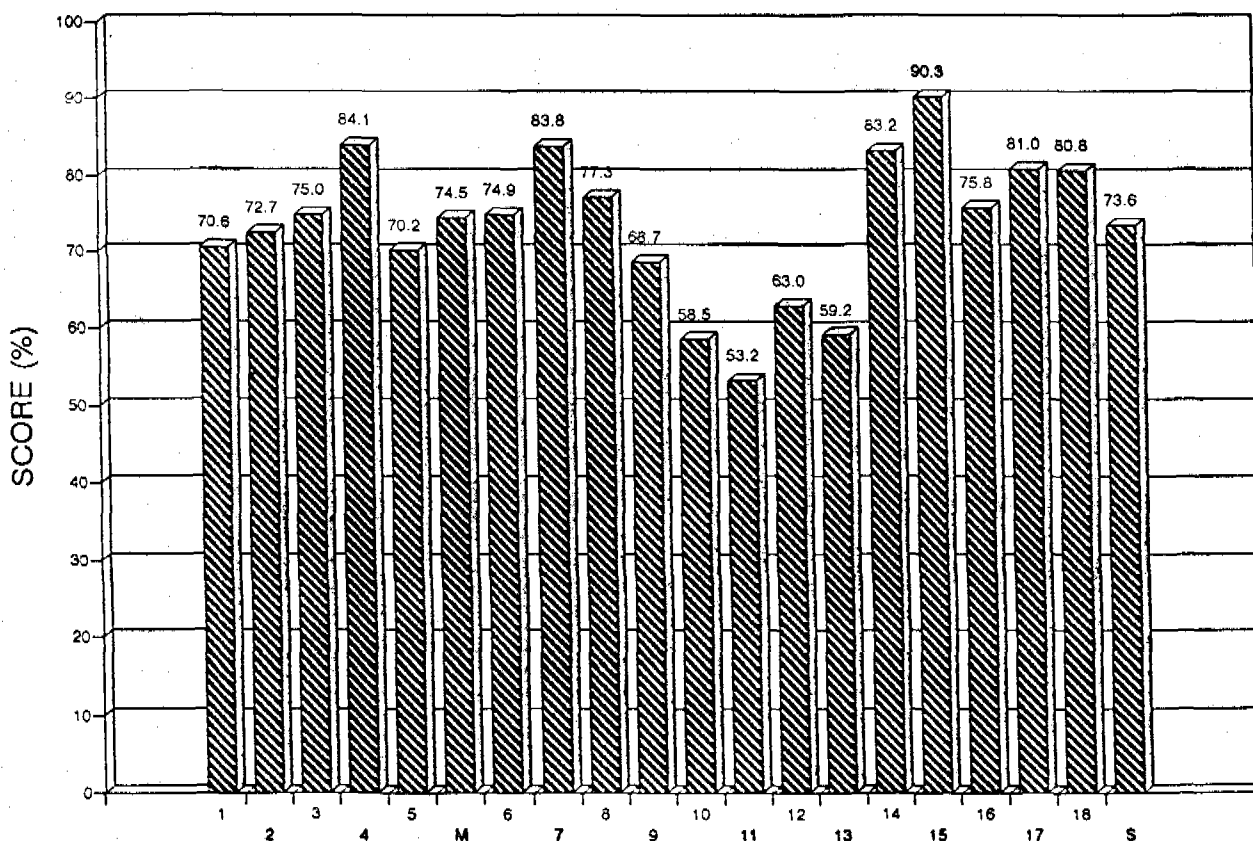
By totalling the scores in tables 6, 7, 8 and 9 and working out percentage to the maximum score possible, Water Committees are classified into three categories viz., Strong (75% and above), Medium (75% to 60%) and Weak (Less than 60%).

While Graph A made visual presentation of the Final Scores (% to maximum), Table 10 gave numerical summary of the attempt.

It is evident from the table and graph that MARI had two (40%) Strong (Gatpalli and Dosapalli) and three (60%) medium (Nagulapalli, Gorrekal and Palvatla) Water Committees. On the other hand, SNIRD had seven (54%) Strong (Badapuram, Thummedalapadu, N.N. Palem, Polepalli, Aravellapadu and Kallur), three (23%) Medium (Chandavaram, Gangadevipalli and W. Gangavaram) and three (23%) weak (Oddipadu, Ananthavaram and Rudrasamudram) committees.

Graph A revealed that the Strongest Water Committee among the sample is N.N. Palem. Water Committee with lowest score (among the medium) is Ananthavaram. Both of them are formed by SNIRD. If we look at the strength of Water Committees within individual NGOs, Gatpalli and Palvatla stand as strongest and weakest Committees, respectively, for MARI. As mentioned earlier, the strongest is N.N. Palem and weakest is Ananthavaram, in case of SNIRD.

GRAPH A:  
SCORES OF WATER COMMITTEES



**TABLE 10: RESULTANT STRENGTH CLASSES OF WATER COMMITTEES**

VC	VILLAGE	SCORES				TOTAL SCORE	PERCENTAG	CLASS
		Tab.7	Tab.8	Tab.9	Tab.10			
1	Nagulapalli	450	492	800	375	2117	70.6	MEDIUM
2	Gorrekal	400	490	800	490	2180	72.7	MEDIUM
3	Dosapalli	400	400	1000	450	2250	75.0	STRONG
4	Gatpalli	600	490	1000	433	2523	84.1	STRONG
5	Palvatla	250	500	1000	357	2107	70.2	MEDIUM
<b>M</b>	<b>AVERAGE</b>	<b>420</b>	<b>474</b>	<b>920</b>	<b>421</b>	<b>2235</b>	<b>74.5</b>	<b>MEDIUM</b>
6	Chandavaram	450	597	1200	200	2447	74.9	MEDIUM
7	Badapuram	300	593	1200	420	2513	83.8	STRONG
8	Tummedalapadu	300	385	1200	433	2318	77.3	STRONG
9	Gangadevipalli	300	393	1000	367	2060	68.7	MEDIUM
10	Rudrasamudram	300	391	900	165	1756	58.5	WEAK
11	Anathavaram	300	495	800	0	1595	53.2	WEAK
12	W. Gangavaram	300	491	1100	0	1891	63.0	MEDIUM
13	Oddipadu	200	492	900	183	1775	59.2	WEAK
14	Veerepalli	550	497	900	550	2497	83.2	STRONG
15	N.N. Palem	550	492	1100	566	2708	90.3	STRONG
16	Polepalli	400	595	1000	280	2275	75.8	STRONG
17	Aravellapadu	450	600	1100	280	2430	81.0	STRONG
18	Kallur	500	493	1100	330	2423	80.8	STRONG
<b>S</b>	<b>AVERAGE</b>	<b>377</b>	<b>501</b>	<b>1038</b>	<b>343</b>	<b>2207</b>	<b>73.6</b>	<b>MEDIUM</b>

STRONG : 75% and above  
MEDIUM : 75% to 60%  
WEAK : Less than 60%

## CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

### 4.1 WATER SUPPLY STATUS:

In general, regular water supply villages possessed Strong to Medium Water Committees (see table 11). Irregular/No water supply villages ranged between medium to weak. Therefore, strength of committee is directly related to status of water supply. The team felt that, more effort should be put by NGOs in Irregular/ No water supply villages to organise people around the issue. The focus in those cases should be to equip the committee with needed administrative /legal/liasoning skills. They should work towards strengthening Water Committee - PRED link so that both partners come together and deal with real problems. Joint action within the capacity of each should be facilitated to ensure water supply. Water Monitoring Format should be used by the Committee for authenticated redressal.

### 4.2 REPRESENTATION ON WATER COMMITTEE:

Table 11 also throws light on effect of representation of different sections of the society on water committee.

#### 4.2.1 Women:

Women representation is highest at Palvatla (62%), followed by Gorrekal (53%) and Nagulapalli (47%). One would expect good physical condition of WDPs at these villages, as women are assumed to be the traditional water and sanitation in-charges. But table 9 revealed that these high women representative villages scored 60, 82 and 63%, respectively. Surprisingly, highest scores are that of N.N. Palem (94%) and Veerepalli (92%) where women representation is less (40%).

Average representation of Women on Committees is satisfactory in both NGOs, ranging between 40-45%. However, it is evident that satisfactory women representation on water committees did not have any bearing over the strength of the committee. It is 40 in case of strong committees, 45 in case of medium and 41 in case of weak. However, participation levels of women in the programme might have had a relationship. A detailed Gender Audit should be carried out to introduce more effective Gender perspective into Software Component.

#### 4.2.2 Youth:

If we compare Youth representation and strength classes, it clearly emerges from Table 11 that there is no relationship. Strong committees had 11% average youth representation, medium 7% and weak 17%.

When bearing of involvement of youth on O&M is probed by comparing table 11 and 8, it emerged that the committees with high youth representation i.e., N.N. Palem (25%) and Ananthavaram (20%) scored 92 and 83%, respectively while highest scores (100%) went to Committees with 15% (Badapuram), 10% (Tummedalapadu) and Chandavaram (5%).

STRENGTH CLASS	VILLAGE	CHARACTERISTICS						
		WATER SUPPLY STATUS	REPRESENTATION (% to Total)					
			W	Y	SC/ST	GP	UC	OL
STRONG	Dosapalli	Regular	44	0	44	6	89	6
STRONG	Gatpalli	Regular	44	0	44	22	100	0
STRONG	Badapuram	Regular	40	15	0	10	20	10
STRONG	Tummedalapadu	Irregular	40	10	0	15	70	15
STRONG	Veerepalli	Irregular	40	15	10	15	0	5
STRONG	N.N. Palem	Regular	40	25	5	5	80	15
STRONG	Polepalli	Regular	40	0	10	10	40	25
STRONG	Aravellapadu	Irregular	40	15	40	10	0	35
STRONG	Kallur	Regular	40	15	5	5	25	15
AVG.		R:6, IR:3	41	11	18	11	47	14
MEDIUM	Nagulapalli	Irregular	47	7	47	26	67	0
MEDIUM	Gorrekal	Regular	53	12	41	0	88	0
MEDIUM	Palvatla	No	62	0	0	12	88	0
MEDIUM	Chandavaram	Regular	30	5	0	5	5	20
MEDIUM	Gangadevipalli	Regular	40	5	20	10	20	20
MEDIUM	W. Gangavaram	No	40	15	0	15	0	20
AVG.		R:3, IR:1, No:2	45	7	18	11	45	10
WEAK	Rudrasamudram	Irregular	40	15	25	15	40	25
WEAK	Ananthavaram	No	40	20	0	10	0	5
WEAK	Oddipadu	Irregular	40	15	5	15	0	10
AVG.		IR:2, No:1	40	17	10	13	13	13

W : Women Committee  
 Y : Youth Committee  
 SC/ST : Scheduled castes/  
 Scheduled Tribes  
 GP : Gram Panchayat  
 UC : User Committees  
 OL : Opinion Leaders

When we compare Managerial Efficiency and Youth representation, the point that emerged is Committees with high efficiency (see table 7) i.e., Aravellapadu (86%), Polepalli, Chanadavaram, Badapuram (85%) and Nagulapalli (82%) had representation of 15, 0, 5, 15 and 7, respectively.

Hence, the youth representation had little or no effect on overall strength, O&M involvement level and managerial efficiency of the Committee. The possible effect of linking pre-existing Youth Groups with Water Committee can be tried in forthcoming software interventions.

#### 4.2.3 SC/ST:

Better representation of SC/ST community yielded better results, as evident from Table 11. Strong and Medium committees had a better representation (18%) when compared to weak (10%) committees.

It is noteworthy to mention here that the general observation of the study team is that SC/ST representatives showed more interest in the programme. Keeping this in mind, it would prove rational to build up committee as per ethnicity of user community, reserving certain membership for the deprived, i.e., SC/ST.

#### 4.2.4 Gram Panchayat:

Formal representation of GP on Committees had no bearing on the strength of the committee. Strong and medium committees had an average representation of 11% whereas weak 13%.

It can be concluded that GP members might be too involved in other developmental activities in the village, rather than only on water related issues. NGOs should take all necessary steps to motivate GP members so that they can become sensitive to water and sanitation issues. Awareness Generation Activities exclusively for GP members could be of help.

#### 4.2.5 WDP level / User Committees:

It came out very clearly in the study that wherever Village Water Committee had good representation from WDP level/User Committee (PSP/GLSR), the output is good. Table 11 shows that strong and medium committees are represented by 47 and 45% UC members respectively, while weak committees had only 13% representation. Thus, one major learning of the study is to evolve Village Water Committee from User Committees and not the other way around.

#### 4.2.6 Opinion Leaders:

Representation of Opinion Leaders did not affect the strength of the committee, as evident from the figures of 14, 10 and 13% representation in strong, medium and weak committees. The reason could be the same as in the case of GP.

Necessary motivational/ awareness/skill development activities targeting these opinion leaders such as teacher, lineman, dayi, ANM worker, Akshara-jyothi volunteer, post-master, etc. should be tried in future software projects to ensure their active involvement in the water committee.

#### 4.3 INTERVENTION STRATEGY:

##### 4.3.1 Communication methods:

When comparison of communication methods (Annex II) and awareness levels (Table 6) of Committees is done, it became clear that all the communication methods are very effective. On an average, MARI and SNIRD scored 70% and 63%, respectively.

Innovative Communication tools that are tried included; Information boards, PSP Well numbering, Writing members names on a wall at central place etc.

All methods used by NGOs under the present study should prove useful at appropriate stages of a software project.

##### 4.3.2 Linkages:

It is observed during village / project level data collection that the linkages in both cases are more evident between NGO-Other Institutions rather than Other Institutions and Water Committees. It is advisable that both NGOs should take initiative to build up direct linkage between water committees and Other Institutions for better sustainability.

Both NGOs are in the process of strengthening the Apex Committees formed recently with the aim of establishing sustainable WATSAN institution after withdrawal of software intervention. Apex Committees are formed with representation from all Village level Water Committees under the scheme. Both the NGOs need to adopt different strategies to further equip the Apex Committees.

SNIRD on account of its linkage with PHC is able to organise bleaching powder from PHC culminating in chlorination of wells at village level. It had also, reportedly, distributed nutritional plants in the target area as a result of its linkage with the Department of Forestry (Social Forestry wing). These integrating activities should be looked at as steps towards promoting hygiene in the project area. Another Water-Sanitation-Health related activity which arose out of linkage with CPR Environment Foundation is estimation of fluoride levels in villages covered by NAP scheme.

Two major lessons should be learnt from SNIRD and MARI experience:

- 1) Health and hygiene promotion can be tackled better in a village by building up linkages with other institutions working in the field of Health-Water-Sanitation.
- 2) The concept of Apex Committee needs to be incorporated right from the word go. This is essential to enable the NGO to spend some time in "hand-holding" and "watching" after the capacity building phase which would then enable the community to gain the confidence to manage issues on their own.

#### 4.3.3 Self Management:

Comparison of Table 7 (Managerial efficiency) Table 11 (Resultant Strength Classes) revealed that most of the strong Committees (Gatpalli, Badapuram, Veerepalli, N.N. Palem, Polepalli, Aravellapadu and Kallur) possessed Good to Satisfactory managerial efficiency.

Towards self management of Water Committees it is essential for the NGO to equip the water committees with needed skills in conducting meetings, recording procedures and book keeping. Information pertaining to other aspects like liasoning, techniques of community organisation, health education need to be imparted. It is also essential for each committee to make sure that atleast couple of people with writing skills are included/hired to take care of book-keeping.

#### 4.3.4 Involvement in O&M:

Involvement of Water Committee in village level O&M is found to be Good at all villages, except two (Nagulapalli and Gorrekal) wherein it is rated as satisfactory. In general, there is scope for improvement in the following areas.

- 1) Clearing drains
- 2) Co-ordinating with GP
- 3) Chlorination at Village level
- 4) Co-ordinating with PRED
- 5) Enforcing Code of Conduct at WDPS
- 6) Conducting chlorination test

A change in approach of formation of People's Institutions might bring about the required improvement in involvement of community in O&M. The approach of both NGOs is to form Village Water Committee and then the WDP level water Committee. A reverse, as suggested below, can be tried in future software intervention.

Tap Committee --> Reservoir Committee --> Village Committee -->  
Pipe-line Committee --> Scheme Committee --> District Committee  
--> NAP/State Committee

Care-takers, at all the levels, should either form part of the committee or be employed by the committee.



#### 4.3.5 Project Period:

It is evident from Table 2 that, SNIRD revised pre-determined implementation steps at 77% while, MARI did it at 20% places. Main reason for this could be the project period. SNIRD had a long duration wherein there is scope for innovation while MARI could not afford to do the same as it had very tight annual project implementation schedule. However, it is observed during interaction with project staff that SNIRDS' repetitive activities (giving same message through different media) reached a peak after two years. MARI's project period in comparison is rather short forcing a sense of urgency.

On basis of the study and remarks of project staff, it can be concluded that the ideal project period for implementation of software programme could be 1.5 to 2 years with a possible break up involving the following phases:

1. Preparatory Phase
  - a) Establishment
  - b) Staff recruitment
  - c) Staff orientation/training/exposure
  - d) Base line KAP Study
  - e) Rapport building
  - f) Introduction of the project objectives
2. Mass Awareness Phase
  - a) Rallies
  - b) Cultural Shows
  - c) Awareness Camps
  - d) Wall writing, pamphlets, etc.
  - f) Use of different media
3. Water User Committee Phase
  - a) Village meetings
  - b) Listing of water User Groups
  - c) Formation of water User Committees
  - d) Capacity building of User Committees
4. Reservoir Committee Phase
  - a) Listing of Reservoir Users
  - b) Formation of Reservoir User Committee
  - c) Capacity building RUC
5. Village Committee Phase
  - a) Base-line data on villages
  - b) Formation of Village Committee
  - c) Capacity building of VCs
  - d) Linkage building
6. Strengthening Phase
  - a) Strengthening of Committees
  - b) Internal assessments/Evaluation

7. Village level Withdrawal Phase
  - a) Impact Assessment
  - b) withdrawal strategies/sustainability
  
8. Formation of Apex Committees Phase
  - a) Formation of Apex Committee
  - b) Capacity building of AC
  - c) Hand-holding and Linkage building
  - d) community management
  - f) Project Withdrawal

Depending on the community and the NGO the phases might be interchanged for maximum efficiency.

----- X -----



## Table Continued.....2.

- 
- e) Group meetings with
    - i) Formal groups
    - ii) Informal groups
  - f) Awareness and Education Campaign
  - g) Evolving norms for maintenance
  - h) Identification of issues at cluster level
  - i) Cluster level campaigns
  - j) Training
  - k) Formation of WCs
  - l) Formation of YCs
  - m) Formation of PSPCs
  - n) Formation of GLSRCs
  - o) Formation of OHSRC
  - p) Formation of VAC

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 10. Methods of community mobilization:
 

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- | Method                           | Stage |
|----------------------------------|-------|
| a) Street corner meetings        |       |
| b) Shop meetings                 |       |
| c) House visits                  |       |
| d) Cultural Shows                |       |
| e) Wall writings                 |       |
| f) Meeting with informal leaders |       |
| g) Meeting with formal leaders   |       |
| h) Audio-visual shows            |       |
| i) Focus group meetings          |       |
| j) Public Address System         |       |
| k) Tamki/ tappeta                |       |

11. Topics of training conducted :

- a)
- b)
- c)
- d)
- e)
- f)
- g)
- h)
- i)

- 12. Was the Chloroscope provided? : Yes/No
- 13. Was training given on chloroscope usage : Yes/No
- 14. Were WMFs provided : Yes/No
- 15. Was training given on filling WMF : Yes/No

II. Protocol for verification at WDPs:

- 1. What is the mode of water delivery?
  - a) Public Stand Post
  - b) Ground Level Service Reservoir
  - c) Cistern
- 2. Number of WDPs:
  - a) Provided:
  - b) Functional:
- 3. Sample Number: .....
- 4. Physical condition of WDPs:

S.No.	Co.	Kn.	Plat.	Plat.	Drain.	Surr.	PL Leak	PL break
	P/A	P/A	C/UC	P/A	C/UC	P/A	P/A	P/A
1.								
2.								
3.								
4.								
5.								
6.								
7.								



## 4. Representative Membership in VAC:

Representation	No.	Men	Women	Total
a) Total				
b) PSPC				
c) GLSRC				
d) OHSRC				
e) WC				
f) YC				
g) SC families				
h) ST families				
i) BC families				
j) OC families				
k) Wards				
l) Teachers				
m) VAO				
n) Lineman				
o) Dayi				
p) Sarpanch				
q)				
r)				
s)				

## 5. How VAC is constituted:

Method	by whom	Periodicity
a) by election		
b) by nomination		
c) Volunteering		
d)		

## 6. What is the criteria for selection of VAC members?:

Criteria	E/N/V
a) Opinion leader	
b) Known for initiative	
c) Powerful	
d) Represents a section of the village	
e) Formal leader	
f) Related to Health, Water and Sanitation	
g) Gender	
h) Age	
i) Members of pre-existing VBOs	
j) Related to education	
k) Caste	
l) Ability to pay	

(E-by election; N-by nomination; V-by volunteering)

## 7. Tasks performed by VAC:

Task	Resp. person
a) Ensuring cleanliness at WDPs	
b) Enforcing COC at WDPs	
c) Operating village level control valves	
d) Attending minor repairs/replacements at WDPs	
e) Procuring minor spare-parts	
f) Raising funds/labour/material/support	
g) Keeping watch on village distribution line	
h) Reporting major problems to PRED	
i) Book keeping	
j) Filling up WMF	
k) Handling chloroscope	
l) Handling of Finances	
m) Ensuring good sanitary condition at village level	
n) Educating the community in health and hygiene	
o) Tapping other health related progs.	
p) Ensuring Domestic hygiene	
q) Ensuring Safe Waste disposal	
r) Ensuring Safe excreta disposal	
s) Liasoning with other Agencies	
t)	
u)	
v)	
w)	
x)	
y)	
z)	

## 8. Funds raised, in cash, by VAC for water supply &amp; sanitation:

a) Source	Users	GP	ZP	Others
b) Purpose/s				
c) Responsibility				
d) Mode of collection				
e) Collection Period				
f) Balance, if any				

## 9. Funds raised, in kind, by VAC for water supply &amp; sanitation:

a) Source	Users	GP	ZP	Others
b) Kind (L/M/S)				
c) Purpose				
d) Responsibility				
e) Period				

(L: Labour; M: Material; S: Support)



10. Who authorises spending of finances raised?  
 a) VAC President  
 b) VAC Secretary  
 c) VAC Treasurer  
 d) Sarpanch  
 e) Informal leader  
 f) Combination (.....)
11. Who keeps account of income-expenditure?  
 a) VAC President  
 b) VAC Secretary  
 c) VAC Treasurer  
 d) Sarpanch  
 e) Informal leader  
 f) Educated villager  
 g) Combination (.....)
12. How many present tasks performed by NGO can be taken up by VAC.  
 -----  
 Present NGO task                    //X Who will take up the resp.  
 -----  
 a) Training  
 b) Awareness generation  
 c) Liaisoning with Govt.  
 d) Educate users to ensure,  
   i) cleanliness at WDPS  
   ii) maintenance of WDPS  
   iii) judicious water use  
 e)  
 f)  
 g)  
 -----
13. Awareness on causes of Water Borne Diseases:  
 a) Good    b) Satisfactory    c) Poor
14. Awareness on Personal Hygiene practices:  
 a) Good    b) Satisfactory    c) Poor
15. Awareness on Domestic Hygiene:  
 a) Good    b) Satisfactory    c) Poor
16. Awareness on Environmental Hygiene:  
 a) Good    b) Satisfactory    c) Poor
17. Awareness on Water supply scheme:  
 a) Good    b) Satisfactory    c) Poor
18. Awareness on NGO intervention:  
 a) Good    b) Satisfactory    c) Poor

19. List of the records kept by VAC:

Record	_//X	Responsibility	
		Updating	Supervision
a) Minutes Register			
b) Account book/s			
c) Correspondence file			
d) Byelaws			
e) Any other			

20. How members of VAC are informed about meeting? :

- a) Fixed date and venue
- b) Verbal communication
- c) Tappeta
- d) Notice Board
- e) Post
- f) Door-to-door

21. Who calls meeting of VAC:

- a) NGO representative
- b) VAC President
- c) VAC Secretary
- d) Other VAC member
- e) Informal leader

IV. Checklist for verification of VAC records:

1. Minutes Register:

a) First date of recording: .....

b) No. of times record has been updated: .....

c) Average attendance:

Total	Men	Women
-----	-----	-----
-----	-----	-----

d) Common guests at meetings: \_//X      No. of times

- i) NGO representative
- ii) Non-member villager
- iii) Others



## REMARKS:

## Abbreviations:

RWS.....	Rural Water Supply
CPWS.....	Comprehensive Piped Water Supply
NGO.....	Non Governmental Organisation
NAP.....	Netherlands Assisted Projects
VBO.....	Village Based Organisation
WDP.....	Water Delivery Point
WC.....	Women Committee
YC.....	Youth Committee
PSPC.....	Public Stand Post Committee
GLSRC.....	Ground Level Service Reservoir Committee
OHSRC.....	Over Head Service Reservoir Committee
VAC.....	Village Action Committee
AC.....	Apex Committee
Form.....	Formation
Reg.....	Registration
Co. Kn.....	Control Knob
Plat.....	Platform
Drain.....	Drainage
Surr.....	Surrounding
PL Leak.....	Leakages in Pipe Line
PL Break.....	Breakages in Pipe Line
P.....	Present
A.....	Absent
C.....	Clean
UC.....	Unclean
VAO.....	Village Administrative Officer
COC.....	Code Of Conduct
Resp.....	Responsibility
GP.....	Gram Panchayat
ZP.....	Zilla Parishad
PRED.....	Panchayat Raj Engineering Department
WMF.....	Water Monitoring Format
/.....	Yes
X.....	No

Annex II

COMMUNICATION METHODS/TOOLS USED BY MARI AND	
SN	COMMUNICATION METHOD/TOOL
1	Individual Interaction
2	Family Interaction
3	Group Interaction
4	Group Meeting
5	Mass Meeting
6	Tamki/Tappeta
7	Audio-visual Aids
8	Folk art
9	Role-play/ Skit
10	Mass ralli
11	Demonstration
12	Pamphlets/Charts
13	Wall writing/painting
14	Competitions
15	Public Address System
16	Information boards
17	PSPs/Wells numbering/display of members names

**ANNEXURE 3**

**QUARTERLY  
PROJECT MONITORING FRAMEWORK**

## Quarterly Project Monitoring Framework (QPMF)

**Implementing Agency:**

**Updated on:**

<b>Development Objective :</b> <b>Communities in _____ villages under NAP responsible for upkeep and monitoring of water supply, by December 1997</b>	
--	--

OBJECTIVE VERIFIABLE INDICATOR	BASE NO.	TARGET	CUM. PROG.
1. Functional taps			
2. Proper platforms			
3. Proper drains/soak pits			
4. Clean storage tanks			
5. Clean platforms			
6. Clean (water point) surroundings			
7. Taps where Que is observed			
8. Taps where NAP water is used for washing clothes/utensils/cattle			
9. Illegal taps			
10. % breakdowns reported to PRED			
11. Chlorination tests done			
12. Times Water points chlorinated			
13. Filled in WMFs sent			

<b>Assumption:</b> <b>Villages getting water</b>			
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**Project Purpose:**  
**Functional Water Committees established in \_\_\_\_\_ village**

OBJECTIVE VERIFIABLE INDICATOR	BASE NO.	TARGET	CUM. PROG
1. VCs met on their own			
2. Times VCs met			
3. VCs met with quorum			
4. VCs update minutes book			
5. VCs update account book			
6. VCs keep correspondence file			
7. VCs raise community contribution			
8. VCs tap GP funds			
9. VCs mobilize PRED support			
10. % of VC decisions implemented			
11. SCs met on their own			
12. Times SCs met			
13. Times SCs met with quorum			
14. SCs update minutes book			
15. SCs update account book			
16. SCs keep correspondence file			
17. SCs raise community contribution			
18. SCs tap GP/ZP funds			
19. SCs mobilize PRED support			
20. % of SC decisions implemented			
21. VCs conduct Chlorine test			
22. VCs fill WMF			
23. VCs clean Tanks regularly			
24. VCs clean Platforms regularly			
25. Women on VCs			
26. Women on SCs			

**Assumption:**  
 Factional villages



OUTPUT INDICATOR	BASE NO.	TARGET	CUM. PROG.
1. Villages with Baseline data			
2. % of population attending AV/Cul. show 1			
3. % of population knowing functions of VC			
4. % of population attending AV/Cul. show 2			
5. Trained VC members			
6. % of population attending AV/Cul. show 3			
7. % of population knowing functions of SC			
8. Trained SC members			
9. % of population attending AV/Cul. show 4			
10. Amount tapped by VC/SCs			

<b>Assumption:</b> VC/SC members translate skills into action			
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ACTIVITIES	TARGET	CUT DATE	CUM. PROG.
1. Baseline survey villages			
2. AV/Cultural shows 1			
3. Community Meeting villages			
4. AV/Cultural shows 2			
5. Training camps for VCs			
6. AV/Cultural shows 3			
7. Scheme Body meetings			
8. Training camps for SCs			
9. AV/Cultural shows 4			
10. Linkage meetings held			

INPUTS (in Rupees)	TOTAL BUDGET	CUM. PROG.
1. Salaries:		
a) Project Director		
b) Project Co-ordinator		
c) Assistant Co-ordinator (3)		
d) Community Organisor		
e) Office Assistant		
f) Office Secretary		
g) Accountant - part		
Total (Salaries)		
2. Travel & Administration		
3. Training/Meeting/AV/Cul. Shows		
4. Vehicles		
TOTAL		
CONTINGENCY		
GRAND TOTAL		

<b>Assumption:</b> Staff remain with project		
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**ANNEXURE 4**

**CHECKLIST FOR STATUS REPORT**

## CHECKLIST FOR THE STATUS REPORT

1. Name of the village :
2. Name of the Mandal :
3. Total population of the village : *Male | Female*  
(from GP)
4. Main source of drinking water : NAP scheme/Others(specify)
5. Type of scheme : Individual/CPWSS
6. Name of the Headworks :
7. Filterbeds  
Present :  
Functional :
8. Storage/delivery facilities :

	Number	Volume	No. of taps	Functional
Cisterns				
GLSR				
OHSR				
PSP				

- |  |  |        |             |
|--|--|--------|-------------|
|  |  | Number | Functioning |
|--|--|--------|-------------|
9. Pumping Motors : | |
  10. Water supply timings :  
days :
  11. Usage of NAP water : Drinking /others(list out)
  12. Chlorine test done :
  13. Responsibility of water supply : GP / VC /Individual
  14. Any other information :
  15. Issues that need attention :



