

EIGHTY-FIFTH REPORT
PUBLIC ACCOUNTS COMMITTEE
(1986-87)

(EIGHTH LOK SABHA)

**SUPPLY OF DRINKING WATER
TO PROBLEM VILLAGES**

**MINISTRY OF AGRICULTURE AND
RURAL DEVELOPMENT**



Presented in Lok Sabha on 24 April, 1987
Laid in Rajya Sabha on 24 April, 1987

LOK SABHA SECRETARIAT
NEW DELHI

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PART II

*Minutes of the Sitting of Public Accounts Committee held on
4.4.1984, 28.5.1985 and 18.4.1987.

11/10/1984
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(1986-87)

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2. Shri S.M. Mehta —*Senior Financial Committee Officer.*

INTRODUCTION

1, the Chairman of the Public Accounts Committee, as authorised by the Committee, do present on their behalf this Eighty-Fifth Report on Paragraph 29 of the Report of the Comptroller and Auditor General of India for the year 1983-84—Union Government (Civil) relating to Supply of Drinking Water to Problem Villages.

2. The Report of the Comptroller and Auditor General of India for the year 1983-84, Union Government (Civil) was laid on the table of the House on 16 May, 1985.

3. In this Report, the Committee have pointed out that against the target to cover 2.31 lakhs problem villages during the Sixth Plan, the achievement has been 1.92 lakh villages on the basis of criteria then prescribed. Looking at the achievements made so far, the Committee are apprehensive that target for the Seventh Plan period may not be achieved unless the Department of Rural Development and the State Governments intensify their efforts. The Committee have hoped that the Government would be able to mobilise adequate financial and physical resources to achieve the revised target with liberalised norms. The Committee have also observed that number of problem villages identified has been on the increase with passage of time. While an estimated 1.53 lakhs villages were identified as problem villages in 1972, the number rose to 2.34 lakh problem villages in 1978. However, a total identification of 2.31 lakh villages was done as on 1.4.80. The States are now carrying out surveys based on the old criteria as the surveys carried out earlier were not realistic and comprehensive. The Committee have observed in this Report that a matter, so vital to the national interest, is being treated lightly and have urged the Government to take steps to ensure that such surveys are carried out realistically.

4. Because of drought for the three consecutive years in the States of Rajasthan, Gujarat, parts of Maharashtra, parts of Andhra Pradesh and parts of Karnataka, even the well established sources became scanty in supply of water or became dry. While some of the areas are hit by drought due to scanty rainfall, the drought-prone areas can be easily identified as those which are chronically affected by drought. The Committee have urged the Government to identify these areas. In view of the unpredictability of rainfall this topic should be the subject-matter of consideration by the Government with a view to finding a permanent solution to the problem. The Committee have suggested that chronologically drought prone areas should be identified and permanent solution for the problem.

The Committee have suggested that chronologically drought prone areas should be identified and permanent solution for the problem found out. Supply of drinking water must take precedence over everything else even over irrigation and industrial use of water. The Committee have suggested that the present system of founding a solution, keeping a village as unit is too costly besides being unreliable.

5. Ecological degradation leading to depletion of the water resources should be stemmed so that water shortage problem is not further aggravated. Since this problem is being dealt with by a different department the Committee have urged the Government to ensure inter-departmental coordination of the activities and to take steps to stop the ecological deterioration. The Government of India should formulate schemes in consultation with the State Governments to take aforesaid on a wider scale. The Committee have recommended that water shed management and conservation schemes under the Drought Prone Area Programme and the schemes for supply of drinking water to problem villages should be coordinated and integrated right from the formulation stage to its maintenance to conserve resources and to make the scheme effective and purposive.

6. The Public Accounts Committee examined the Audit Paragraph at their sittings held on 4 April, and 20 June 1986.

7. The Committee considered and finalised this Report at their sitting held on 10 April, 1987. The Minutes of the Sittings from Part II* of the Report.

8. For reference, facility and convenience, the observations and recommendations of the Committee have been printed in thick type in the body of the Report and have been reproduced in a consolidated form in Appendix IV to the Report.

9. The Committee place on record their appreciation of the commendable work done by the Public Accounts Committee (1985-86) in taking evidence and obtaining information for the Report.

10. The Committee also express their thanks to the officers of the Department of Rural Development, Ministry of Urban Development, and representatives of State Governments of Andhra Pradesh, Bihar, Haryana, Himachal Pradesh, Jammu & Kashmir, Orissa, Panjab, Rajasthan, Madhya Pradesh, Maharashtra, Karnataka, Kerala, Uttar

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Pradesh, West Bengal and Tamil Nadu for cooperation extended by them.

12. The Committee also place on record their appreciation of the assistance rendered to them in the matter by the Office of the Comptroller and Auditor General of India.

NEW DELHI;
April 20, 1987
Chaitra 30, 1909 (Saka)

E. AYYAPU REDDY,
Chairman,
Public Accounts Committee.

SUPPLY OF DRINKING WATER TO PROBLEM VILLAGES

(This report is based on paragraph 29 of the Report of the C & AG of India for the year 1983-84 (Civil) which is reproduced as Appendix III.)

(i) *Introductory*

1. Provision of drinking water supply is the responsibility of the States and Funds have been provided in the State budget right from the time the planning are started in the country with the commencement of the First Five Year Plan in 1951. Though initially schemes for rural water supply were implemented under Community Development Works or Local Development works, with the introduction of the National Water Supply and Sanitation Programme in the Social Welfare Sector under the Ministry of Health in 1954, the State Governments started entrusting the work to separate departments set up to deal with the water supply and sanitation problems. The States gradually built up the Public Health Engineering Departments to tackle the problem of water supply and sanitation. In spite of this it was found by midsixties that rural water supply schemes were being implemented in villages which were easily accessible and could be tackled without much technological skill, neglecting rural areas which had problems in getting the much needed water for domestic purposes. The Government of India, therefore requested the States to identify such villages, called 'problem villages' so that the efforts could be oriented towards tackling such villages. The criteria laid down for identification were:

1. Villages where no water source existed within a distance of 1.6 km. or where water was available at a depth of more than 15 metres. (In hilly areas, villages where water sources were available at an elevation difference of more than 100 metres from the habitation).
2. Villages where the water sources were having excessive salinity, iron, fluorides and other toxic elements hazardous to health ;
3. Villages which were exposed to the risk of waterborne diseases, such as cholera, guinea-worm, etc. due to the available water.
4. No information is available regarding any specific schemes which were implemented in the various States/UTs during the first four Five-Year Plans since the subject matter was the responsibility of

the State Governments. Expenditure incurred in the various plans under the Water Supply and Sanitation Sector is given below :—

First Plan (1951-56)—	11.00 crores
Second Plan (1956-61)—	74.00 crores
Third Plan (1961-66)—	222.00 crores &
Annual Plan (1966-69)—	
Fourth Plan (1969-74)—	548.00 crores.

No data at National level are available regarding actual physical achievement made in the Sector during the above period of plants.

The Government of India even assisted the States to establish Special Investigation Divisions in the 4th Plan to carry out the identification and by 1972 various States and UTs had come out with a figure of about 1.52 lakh villages falling under the categories mentioned above.

2. Taking into account the magnitude of the problem and in order to speedily cover these villages with safe water supply facilities, the Central Government introduced the Accelerated Rural Water Supply Programme (ARP) in 1972-73 and assisted the States with 100% financial grants-in-aid to implement schemes in such villages. This programme continued in 1973-74 also, but with the introduction of MNP in the V Plan ARP was withdrawn in 1974. However, the programme was re-introduced in 1977-78 by when it was observed that the progress in the provision of drinking water to the identified villages was rather poor. When the concept of rolling plan was introduced in 1978 the States came out with the plea that the identification of problem villages had not been completed by 1972 and that due to various reasons like drought and change in quality of water, more villages had become problem villages. Various States and UTs had come up with the total identification of about 2.34 lakhs problem villages in 1978. When the VI Plan (1980-85) was being finalised the States reported more problem villages on the basis of the resurvey carried out by them till the beginning of the VI Plan i.e. 1.4.80 and reported a total identification of about 3.25 lakhs villages. At the same time they also reported that about 94000 of these villages had already been provided with safe water supply facilities leaving behind about 2.31 lakhs problem villages which were yet to be tackled on 1.4.1980. The United Nations Conference on Human Settlements held in June, 1976 at Vancouver, recommended that safe Water Supply and Hygiene waste disposal should receive high priority from Government and International Agencies to achieve the target of serving all the population by 1990 and these objectives were reiterated in the United Nations Water Conference at Mar Del Plata, Argentina and it was declared

that the ten year period 1981-90 be designated as the 'International Drinking Water Supply & Sanitation Decade.' India is a participant in the International Decade Programme the goal of which is provision of safe drinking water to the entire rural population by the end of the decade.

(ii) *Sixth Plan performance*

3. At the commencement of the 6th Plan period, 2.31 lakh villages were identified as problem villages on the basis of the prescribed criteria. During the Sixth Plan period provision of drinking water supply to problem villages was given high priority and the aim was to provide atleast one spot-source of water in identified problem villages. The provision of safe drinking water supply to the rural population also form part of the 20 point programme. For creating water supply facilities in the identified problem villages, the Sixth Plan provided an outlay of Rs. 1407.11 crores under the State Sector MNP and Rs. 600 crores in the Centrally Sponsored Accelerated Rural Water Supply Programme. However, due to great emphasis during the course of Sixth Plan implementation, a total amount of Rs. 803.60 crores were made available under ARWSP, during Sixth Plan. To give further boost to this programme, an additional amount of Rs. 116.11 crores were provided as grants-in-aid to States/UTs during 1983-84 under the Incentive Scheme. In addition to this an amount of Rs. 919.71 crores provided under the Central Sector, an amount of Rs. 1511.81 crores were utilised by the States/UTs under the State Sector MNP. The year-wise position is as follows :-

(Rs. in lakhs)

Year	Funds released under ARP		Funds released under incentive scheme	Funds utilised under MNP.
	Works	M & I		
1980-81	8391.33	33.05	—	21176.93
1981-82	10902.49	91.08	—	25956.38
1982-83	15079.14	66.34	—	30778.63
1983-84	19771.44	82.01	6611.00	36051.76
1984-85	23782.32	113.68	5000.00	39934.47*
Total	77926.72	386.16	11611.00	153898.17

* : Figures provisional,

4. As a result of the intensive efforts and heavy investments 1.92 lakhs out of 2.31 lakhs of identified problem villages were covered and provided with atleast one source of drinking water during the Sixth Plan. The year-wise coverage under ARP and MNP is as follows :—

Year	Coverage under		Total
	ARP	MNP	
1980-81	5757	20221	25978
1981-82	8728	21109	29837
1982-83	19574	26270	45844
1983-84	*	*	50239
1984-85	*	*	40126
			192,024

*Detailed breakage of MNP & ARP coverage not available.

5. In terms of population coverage, about 1277.44 lakhs population (1971 Census) were covered out of which 205.36 lakhs belong to Scheduled Castes (16.07%) and 115.00 lakhs belong to Scheduled Tribes categories (9.07%). During the 7th Plan, in line with the objective of International Drinking Water Supply and Sanitation Decade (1981-91) the aim would be to provide adequate safe drinking water facilities to the entire rural population. The strategy in the 7th Plan thus aims at :—

- (a) Coverage of remaining problem villages based on the original survey at the commencement of the 6th Plan ;
- (b) Coverage of problem villages identified since the commencement of the 6th Plan ;
- (c) full coverage of partially covered villages/habitations.

6. The norm is the provision of 40 litres per capita per day (lpcd) and this requires the availability of a spot source for about 250 persons. For States which are able to complete coverage under the above guidelines, the programme could be extended for providing coverage under the more liberal norm of providing a source of water within a distance of 0.5 km. and an elevation of 15 mts. in the hilly areas. Further the enhancement of

the norm from 40 to 70 lpcd could also be considered. Flexibility has now been provided to take coverage of both partially covered villages/habitations as well as villages which have been identified as problem villages after the Sixth Plan.

7. Due care is being taken to ensure adequate attention to the needs of the Scheduled Castes and Scheduled Tribes in implementing the rural water supply programme. In 1981, the States were advised that in so far as it was technically feasible every new source of drinking water in a village should be located in a Scheduled Castes Habitation open to all communities. This view has been endorsed in the subsequent meeting of the State Ministers. States have now been asked to earmark a percentage of the Central Assistance under ARP exclusively for Scheduled Castes and Scheduled Tribes equivalent to the percentage being allocated by them under the MNP for the special component Plan for the Scheduled Castes and the Tribal sub-plan for the Scheduled Tribes. As a result, the targets for coverage of SC/ST get segregated and would be monitored separately. For successful implementation of the programme involvement of the community at all stages like formulation, execution and maintenance is being envisaged. A systematic effort is thus being made to involve the voluntary agencies in the implementation of the Programme. While the programme received major thrust during the Sixth Plan, the maintenance of these created facilities particularly the hand-pumps has not been adequate. Efforts at getting the Panchayats to maintain the assets out of their own resources have not achieved significant success and it has by and large not been possible for the States to make adequate non-plan provision for maintenance. As a very special case, the States have been given the flexibility to use upto 10% of the Plan outlays for this sector for operation and maintenance with the specific approval of the Planning Commission. The Seventh Plan has an increased outlays of Rs. 3454.47 crores for rural water supply sector (Rs. 2253.25 crores in the State Sector MNP and Rs. 1201.22 crores under the Central Sector ARWSP). For the year 1985-86 a provision of Rs. 298 crores has been made in the central budget for the Centrally Sponsored Accelerated Rural Water Supply Programme. Out of this amount an amount of Rs. 224.34 crores has already been released to the States/UTs. It is expected to cover about 30,000 number of villages during 1985-86.

(iii) Identification of Problem Villages

8. The Committee desired to know if any norms have been laid down for supply of drinking water in problem villages such as quantum and quality of water per capital and as to what mechanism has been evolved to ensure that these norms are observed by all the State Governments

invariably. In a note furnished to the Committee, the Department of Rural Development stated :

“According to the existing norms, in the case of Piped Water Supply Scheme a minimum quantity of 40 litres per capita per day of potable water supply is to be made. In the case of handpumps, guidelines provide for one handpump for every 250-300 population. In so far as the requirements of cattle are concerned, no specific quantity is earmarked for consumption by animals. In case of Accelerated Rural Water Supply Programme, the schemes to be taken up are approved by the Centre. Detailed guidelines have been laid down for formulation of schemes under ARP and at the time of approval it is seen that the schemes have been formulated in accordance with the prescribed norms. In the case of schemes taken up under Minimum Needs Programme, the implementation of the schemes is the responsibility of the State Govts. and they are expected to ensure that the schemes conform to the prescribed norms.”

9. When enquired about the present per capita availability of drinking water in rural and urban areas State-wise and as to when was the minimum per capita expected to be available, the Department of Rural Development in a post-evidence note stated :

“The details of per capita availability of drinking water in rural areas at present State-wise is not available. However, it is pointed out that for rural communities where house service connections are not contemplated and the supply is through central stand post, the rate should not be less than 40 litres per capita per day. In case of handpumps, they are provided at the rate of one for 250-300 users.

Therefore, in order to have the widest coverage with the limited resources available, per capita rate of 40 litres is being adopted for schemes implemented under Accelerated Rural Water Supply Programme. The States have also been urged to adopt the same rate for the schemes implemented under Minimum Needs Programme.

In line with the objectives of the International Decade on Water Supply and Sanitation (1981-1991), the aim of the Seventh Plan is to provide adequate drinking water facilities to the entire rural population during the Plan period.”

10. The Secretary, Department of Rural Development during evidence before the Committee stated :

“The basic issue that is coming up is that in the Sixth Plan the main thrust was the provide at least one protected source of drinking water

to the problem villages as identified in the beginning of the Sixth Plan on the basis of certain criteria, the criteria being 1.6 kilometre distance and there is some criteria in the vertical height and depth. We test chemical contamination of the water, freshness of the water, pathological contamination of the water like Guinea-worm etc. These are the areas being identified. Roughly 3.2 lakh villages have been declared as problem villages. The requirement of safe and adequate water is 40 LPCD, 40 litres per capita per day. The Estimates Committee suggested that it should be 70 LPCD. Taking the resources available into account, the minimum that was sought to be achieved was to provide at least one source of drinking water to the problem villages. At the end of the Sixth Plan, we should cover altogether 1.92 lakh problems as spill over villages in the 7th Plan."

11. When asked about the reasons the steep escalation in the number of problem villages, the Department of Rural Development stated in a note:

"The number of problem villages cannot have a character of permanence and it is likely to change when the water table goes down on account of drought conditions or when new villages are affected by water born diseases or existing water sources subsequently get polluted by toxic matters. There have been demands from different States for adding more villages to the list of problem villages. States have, therefore, been requested to conduct a fresh survey of problem villages according to the criteria already prescribed. The details of the problem villages at the end of March, 1985, on the basis of the survey to be conducted is still awaited from most of the States."

12. Asked to indicate latest thinking of Government on redefining the criteria for identification of problem villages and the number of problem villages in the country at the end of 1985 and estimated at the end of 1986 and steps taken to eradicate cholera and guineaworm diseases in the villages endemic to them, the Department of Rural Development in a post-evidence note stated.:

"(a) During the 7th plan, in linewith the objective of International Drinking Water Supply and Sanitation Decade (1981-91), the aim would be to provide adequate safe drinking water facilities to the entire rural population. The strategy in the 7th Plan thus aims at (1) the coverage of the remaining problem villages based on the survey at the commencement of the 6th Plan, (2) the coverage of problem villages identified since the commencement of the 6th Plan, (3) full coverage of partially covered villages/habitations.

For States which are able to complete coverage of the problem villages under the above guidelines, the programme could be extended for providing coverage under the more liberal norm of providing a source of water within the distance of 0.5 km and an elevation of 15 metres in hilly areas. Enhancement of the per capita norm from 40 p.c.d. to 70 p.c.d. could also be considered once the complete coverage as per norms mentioned has been achieved.

Flexibility has now been provided to cover both partially covered villages/habitations as well as villages which have been identified as problem villages after the 6th Plan.

(b) The number of problem villages in the country at the end of 1984-85 was 38748. The target for 1985-86 was 28077.

(c) Villages endemic to cholera and guineaworm diseases have also been termed as problem village and they have been included in the list of problem villages identified at the commencement of the 6th Plan. They are being covered both under Accelerated Rural Water Supply Programme and Minimum Needs Programme. The technology Mission, which has been launched recently, will also look into these problems and evolve low cost technological options to solve the special problem of water supply in these areas."

13. The Seventh Plan promises that attempts would be made to cover all those villages which do not have an assured source of water supply within a distance of 0.5 km. (as against the present norm of 1.6 km.) and also to enhance per capita per day (lpcd) to 70 lpcd during the Seventh Plan, as recommended by the Estimates Committee. In that context the Committee enquired whether the Government of India had decided to re-examine the above aspect with reference to availability of financial resources. The Committee also enquired the position regarding availability of financial resources, number of problem villages based on these criteria, the commitment of the Government to supply adequate drinking water to the entire population and the frequency of surveys to ascertain problem villages during the last 10 years.

14. In a post evidence note the Department of Rural Development mentioned :

"(a) The resources available for the 7th Plan for the implementation of the Rural Water Supply Programme are :

(i) Rural Water Supply (Sanitation) under MNP under the State Sector	Rs. 2253.25 crores
(ii) Centrally Accelerated Rural Water Supply Programme (ARP)	Rs. 1201.22 crores
	<u>Rs. 3454.47 crores</u>

(b) The revised survey for the identification of new problem villages as per the old criteria is still in progress and a clear picture would emerge after the survey is completed in all States and U.Ts.

(c) The 7th Plan aims at providing drinking water supply facilities to the entire rural population on the basis of the existing norms of availability of 40 litres per capita per day of potable water. The 7th Plan provision in rural water supply is of the order of Rs. 3454 crores as against the estimated requirement of Rs. 7700 crores. On the face of it, there is a large resource gap in the light of which the attainment of objective of 100% coverage of rural population appears difficult. Therefore there is need to develop low cost options for the provision of safe drinking water in the rural areas as an alternative to the capital intensive original piped water supply scheme.

It is with this objective in view that a Technology Mission has been launched on "drinking water in every village and related water management" with the approval of the Prime Minister. The Technology Mission will aim at finding low cost solutions to meet very difficult problems relating to provision of drinking water to rural areas.

(d) The identification of problem villages was first undertaken in the early 70's and a list was prepared in 1972. An estimated 1.53 lakhs villages were identified as problem villages. Later on in 1978 the States reported that the identification of the problem villages had not been completed by 1972 and due to various reasons like drought demographic and ecological changes and change in quality of water, more villages had become problem villages. Various States/UTs had come up with the total identification of 2.34 lakhs problem villages.

While the 6th Plan (1980-85) was being finalised, States reported problem villages on the basis of re-survey carried out by them till the beginning of the 7th Plan i.e. 1.4.1980 and a total identification of about 3.25 lakhs villages was reported. They also reported at the same time that about 94,000 of these villages had already been provided with safe water facilities leaving about 2.31 lakhs problem villages which were yet to be tackled on 1.4.1980.

Due to failure of monsoon in different parts of the country and changes in other relevant conditions the States have reported that villages which were not earlier identified as problem villages have now become problem villages and stated that these villages are also being taken on priority basis towards coverage as problem villages. The States are now carrying out surveys based on the old norms and have been asked to indicate their revised figures. The surveys in various stages of completion in States/U.Ts. Reports received from some States show a figure of 1,00,009 villages identified in the fresh survey."

(iv) Financial outlay

15. The Committee desired to know the precise physical targets laid down for the Sixth Plan and the achievements made during this period. In reply the Department of Rural Development in a note have stated :

"The Sixth Plan (1980-85) envisaged coverage of 1.90 lakhs problem villages with at least one source of drinking water. But with the announcement of the new 20-Point Programme in Jan. 1982, it was decided to provide at least one source of drinking water in all problem villages identified as on 1.4.1980. The number of problem villages so identified was 2.31 lakhs and it was expected that a majority of the problem villages will be covered during the Sixth Plan. As against this target, the achievement has been 1.92 lakhs. Though the original Sixth Plan target was duly achieved there was some shortfall in achieving the revised target set after launching the new 20-Point Programme.

16. According to Sixth Five year Plan document all the problem villages were to be covered with safe drinking water supply by 1985 excepting in some difficult areas like hilly and desert regions. However, out of 2.31 lakh villages identified as problem villages, 1.92 lakhs have been provided with water supply facilities. The Committee wanted to know the difficulties and constraints experienced in achieving the target during the Sixth Five Year Plan. The Department of Rural Development stated :

"Apart from financial constraint, several difficulties and constraints have been experienced in achieving the complete coverage during the 6th Five Year Plan. The main reasons could be classified broadly as :

- (i) Non-availability of reliable permanent source of water.
- (ii) In-accessibility of the villages.
- (iii) Lack of communication facilities to transport rigs, materials etc.
- (iv) Shortage of materials like cement etc.
- (v) In certain States/UTs. there are shortage of technical personnel for the implementation."

17. Asked about the position in regard to the left-over villages, the Department have stated :

"States have been asked to complete the remaining problem villages, the spill-over of the 6th Plan by the year 1987-88."

18. The Committee enquired from the representatives of State Governments whether all the problem villages would be covered with drinking

water facilities during the Seventh Plan period. In reply representative of West Bengal Government stated in evidence :

"I do not think the problem will be completely solved because there are two aspects, one is that water table in general is falling down in my State. In areas where we previously used ordinary handpumps, now we have to use tube-wells. It is giving us a clear indication that the water table is going down and in some cases the water table is going down to such an extent that we have to go in for sinking new tube-wells and we had to do hundred of tubewells like this. Another point is that these tubewells are such that it has a life. If you sink tubewell today, after 10 to 15 years the tubewell goes derelict and the village again become a problem village."

19. To this, the Secretary, Rural Development added in evidence :

"The allocation is far too meagre in MNP. They have lost about Rs. 30 crores—Rs. 15 crores from our side and Rs. 15 crores from their side. We will not give anything more than what the State Government itself is paying. This is the general pattern."

20. Committee desired to know whether all the villages as per the new criteria will be supplied with drinking water i.e. 70 lpcd and within a distance of 0.5 km. during the Seventh Five Year Plan. The Department replied as under :

"Under the 7th Plan, first priority will be to complete the spill over problem villages from the 6th Five Year Plan and also to cover new problem villages identified subsequently based on the old criteria. States have also been allowed to take on coverage of both partially covered villages/habitations as well as villages which have been identified as problem villages after the 6th Plan. For States which are able to complete the coverage under the above guidelines, the programme could be extended for providing coverage under a more liberal norm of providing a source of water within the distance of 0.5 km. and an elevation of 15 metres in the hilly areas. Further the enhancement of the norm from 40 to 70 litres per capita per day could also be considered at an appropriate stage depending upon the availability of additional financial resources during the Plan period for the sector.

In rural areas it is the women who are burdened with the task of carrying and fetching water. In order to alleviate their drudgery and to give them time to follow other occupations to increase their family income it has been thought necessary to reduce the distance of the Water source/supply point. For this reason, it is desirable to include the distance criteria."

21. Clarifying the point further during evidence, the Secretary, Department of Rural Development stated as under :

"In the Seventh Plan the approach has been a three pronged one. One is to eliminate the spill-over of the Sixth Five Year Plan. Meanwhile we have got a list of 1,33,000 problem villages of the old criteria. Now in the Seventh Plan the allocation is Rs. 3454 crores of which Rs. 1201 crores is in the central sector and Rs. 2253 crores in the State Sector. Now a Working Group of the Planning Commission which went into this matter say that by 1984-85 prices, for full coverage the cost will be Rs. 7700 crores. The allocation of Rs. 3400 crores is only half of the estimate. Now roughly nearly 44% of the populations remains to be covered and if you go strictly by the present methodology we will be able to cover 26 or 27% of the population by the end of the Seventh Plan. To cover the maximum extent possible there is a thinking going on as to whether we cannot do it in a better way and capture the ancient wisdom of our forefathers to arrange for potable water supply. Wherever it is available, large-scale ecological disturbances is leading to depletion of the water for the last 2-3 decades. One cannot immediately put back the clock. Long-term measures are necessary. Social forestry and other works relating to moisture retention etc. are going on. Then there are areas of arid zones."

22. In another note to the Committee the Department have stated that during the 7th Plan, in line with the objective of International Drinking Water Supply and Sanitation Decade (1981-91), the aim would be to provide adequate safe drinking water facilities to the entire rural population. The strategy in the 7th Plan is stated to be aims at :

- (a) Coverage remaining problem villages based on the original survey at the commencement of the 6th Plan;
- (b) Coverage of problem villages identified since the commencement of the 6th Plan;
- (c) full coverage of partially covered villages/habitations.

The norm is the provision of 40 litres per capita per day (lpcd) and this requires the availability of a spot source for about 250 persons.

For States which are able to complete coverage under the above guidelines, the programme could be extended for providing coverage under the more liberal norm of providing a source of water within a distance of 0.5 km. and an elevation of 15 mts. in the hilly areas. Further the enhancement of the norm from 40 to 70 lpcd could also be considered.

Flexibility has now been provided to take up coverage of both partially covered villages/habitations as well as villages which have been identified as problem villages after the Sixth Plan.

23. Asked to intimate the amount of grant released by Central Government in 1984 and actual expenditure incurred during 1983-84 and 1984-85, the Department in their reply gave the information which is incorporated as Appendix I.

24. When asked as to why no targets were fixed from 1978-79 to 1981-82 eventhough ARP was re-introduced in 1977-78, the Department stated in a written note :

“When the ARP Scheme was introduced in the year 1977-78 the concept of rolling plan was prevailing. During the initial periods of the ARP Scheme Central funds were made available to the State Govts. as supplementary efforts for completion of the on going Rural Water Supply Schemes undertaking under State Sector MNP Programme to cover the problem villages. It was, therefore, not possible to fix the physical targets.”

(v) *Partially covered Villages*

25. The Committee learnt that in various States in sizable number of cases where problem villages have been covered only one source of drinking water has been provided and the minimum requirement of 2-3 borewells laid down for a village has not been adhered to. This resulted in only partial coverage of these villages. Depositing before the Committee the representative of Kerala State in reply to a query from the Committee in this regard, has stated :

“Till March 1986, we could cover all the problem villages except one. Out of 1158 villages, 1147 were covered partially. Six villages were fully covered and these six are not included in the 1158 villages.”

26. The Secretary, Rural Development and Panchayati Raj, Government of Karnataka also expressed the similar views while replying a query from the Committee in evidence :

“On 1.4. 1980, when the problem villages were identified, we identified 15456 problem villages. Out of these 15456 villages identified, we have covered 15443 villages, leaving only 13 problem villages yet to be tackled.....Tackled village would only mean that each such village has one source of drinking water in the village. The problem is not tackled in its entirety because even where only one bore well is provided or only one hand pump is there in a village with a population of

1,000, that village has been removed from the list of problem villages. The needs of the village are not completely met. Therefore, the problem of drinking water supply is still there though partially it has been solved."

27. Similar views were expressed by the representatives of other States who appeared before the Committee. In view of it, the Committee desired to know the number of such partially covered villages in whole of the country. The Department of Rural Development in a note have stated as under:

"As per the 6th Five Year Plan document, atleast one dependable source of water supply throughout the year should be provided in the identified problem villages. The States have been implementing the schemes during the 6th Plan period according to this norm. The percentage of partially covered villages is very high during the 7th Plan period. States have been advised to cover the spill over problem villages first on priority basis and also been given the flexibility to take on the coverage of both partially covered villages/habitations as well as villages which have been identified as problem villages after the 6th Plan."

28. The Committee desired to know if any norms have been laid for supply of drinking water in problem villages such as quantum and quality of water per capita (considering human and animal populations). The Department of Rural Development in a note have stated that "according to the existing norms, in the case of Piped Water Supply Scheme a minimum quantity of 40 litres per capita per day of potable water supply is to be made. In the case of handpumps, guidelines provide for one handpump for every 250-300 population. In so far as the requirements of cattle are concerned, no specific quantity is earmarked for consumption by animals."

29. The Committee visited Hyderabad, Madras, Udaipur and Aurangabad and held discussions with the State Government representatives of Andhra Pradesh, Tamil Nadu, Rajasthan and Maharashtra States. The State Government representatives told the Committee that it had not been possible for them to provide drinking water to all the identified problem villages. In Maharashtra, there were 17 thousand problem villages requiring supply of drinking water. Out of these, only one-fourth villages could be covered. However, during summer months of May-June these villages again become problem villages as the wells go out of water. The Committee gained the impression that problem of drinking water is acute in the entire Deccan Plateau because of rocky strata. Water is available under rocks at a considerable depth. It is very difficult to bore wells. The incidence of failure in boring wells was stated to be about fifty per cent. It was stated that in Maharashtra out of 80 thousand wells drilled, only 50 thousand could fructify. The Committee were also given to understand that water supply is not adequate. A borewell generally gives 200 gallons of water an hour

which is not sufficient even for a population of 200. As the maintenance had not been upto the desired standard, about 15-20 per cent of borewells generally remain out of order. When no other source of water was available, tankers were arranged to supply water. The maintenance cost was stated to be quite prohibitive. Because of inadequate underground water, more wells also could not be dug out.

30. Asked how far the Ministry of Works and Housing are satisfied with the per capita quantum of safe drinking water available in problem villages where water supply schemes have been implemented. The Department have replied as follows:

"The per capita quantity of safe drinking water supply provided in problem villages is still not considered satisfactory. A working group was constituted under the Chairmanship of Adviser (Planning Commission) to examine this aspect in detail. The working group recommended water supply of 70 ltrs. per capita per day (lpcd) considering the various household demands of water including the demand for the domestic animals. In places where tube-wells with handpumps are technically feasible, the working group recommended one tubewell with handpump for every 150 persons. The Government of India decided that this aspect will be re-examined at the appropriate stage depending upon the financial resources available during the Seventh Five Year Plan period for Rural Water Supply Sector."

31. The Seventh Plan promises that "attempts would be made to cover all those villages which do not have an assured source of water supply within a distance of 0.5 km. (as against the present norm of 1.6 km) and also to enhance per capita per day (lpcd) to 70 lpcd during the Seventh Plan, as recommended by the Estimates Committee. In this context, the Committee desired to know the position regarding availability of resources during the plan. The Department of Water Resources in a note have stated as under:

"The resources available for the 7th Plan, for the implementation of the Rural Water Supply Programme are:

(i) Rural Water Supply (Sanitation) under MNP under the State Sector	Rs. 2253.25 crores
(ii) Centrally Accelerated Rural Water Supply Programme (ARP)	Rs. 1201.22 crores
	<hr style="width: 100%; border: 0.5px solid black;"/> Rs. 3454.47 crores.

32. The Prime Minister had announced in a public meeting some time ago that Government aimed at providing drinking water to all the problem villages by the end of the VII Five Year Plan. In this context, the Commit-

tee asked whether the Government is not committed to adequate drinking water to the entire population. In reply the Department have stated:

"The 7th Plan aims at providing drinking water supply facilities to the entire rural population on the basis of the existing norms of availability of 40 litres per capita per day of potable water. The 7th Plan provision in rural water supply is of the order of Rs. 3454 crores as against the estimated requirement of Rs. 7700 crores. On the face of it, there is a large resource gap in the light of which the attainment of objective of 100% coverage of rural population appears difficult. Therefore there is need to develop low cost options for the provision of safe drinking water in the rural areas as an alternative to the capital intensive original piped water supply scheme,

It is with this objective in view that a Technology Mission has been launched on "drinking water in every village and related water management" with the approval of the Prime Minister. The Technology mission will aim at finding low cost solutions to meet very difficult problems relating to provision of drinking water to rural areas."

33. It has been stated in the Seventh Plan document that "a new policy is also being evolved in the Seventh Plan to tackle special problems of water supply which are peculiar to certain States like Rajasthan, Haryana, Madhya Pradesh and to hilly areas. The problems of such States and hilly areas will receive special attention in the Seventh Plan. The Committee were also given to understand during their study tour that in a number of States like Rajasthan, Andhra Pradesh and coastal belt of Gujarat large areas have only saline water and potable water is available only in small pockets. In this context, the Committee asked if the magnitude of the hydrological problems such as low or scarcity water table, drought prone areas, saline belt areas been studied in their entirety. In reply the Department of Rural Development have stated as under:

"Even though the 7th Plan aims at providing potable drinking water to the entire rural population, the actual availability of resources during the Plan period would be much less than the actual requirement. It is, therefore, necessary to bridge the resource gap to the extent possible through adoption of low cost Science and Technology solutions available within the country. At present 70% of the cost is required for 30% coverage due to taking up of capital intensive regional piped water scheme in different areas either due to non-availability of ground water or its brackishness or contamination with salinity, fluorides, iron etc. A low cost alternative to capital intensive regional piped water scheme is, therefore, essential for attaining our objectives of providing potable drinking water to the entire population. The experience of Indja Mark-

II handpump which forms the backbone of drinking water supply programme in the rural areas confirms this. The wide variety of climatic conditions and location of the source, of surface and ground water also requires adoption of different type of solutions which are economical and in keeping with local needs and conditions. It is, with this objective in view, a technology mission on "Drinking Water in villages and Related Water Management" has been launched with the approval of the Prime Minister. The Technology Mission would aim at identification of the different problem areas, develop appropriate low cost technology to overcome these problems through application in the field. The broad thrust of the technology development would be cost effective water treatment for fluoride, salinity and brackishness, iron and bacteriological contamination, improving the ground water condition through proper re-charging as well as retention of run off, and developing traditional water retention and collection structures. The strategy of the Technology Mission would be to deal with the total problem of the drinking water supply in the project area by an integrated and interdisciplinary project. Educating the Public in conservation of the quantity and quality of water is an important aspect of the Mission. Under the Technology Mission on "Drinking Water in Villages and Related Water Management", in consultation with the State Governments, 10 districts in 10 States (one district in each State) have been selected for undertaking pilot projects based on predominant problems in each pilot project area during 1986-87. In respect of Rajasthan, District Barmer (Problem of desert area, scarcity and Brackishness and Guinea worm problems) in respect of Andhra Pradesh, district Karnool (Scarcity of Water due to fluoride, Guinea worm and Salinity), in respect of Gujarat, district Kutch (prolonged drought and salinity problems) in Haryana, district Gurgaon (brackishness and fluoride), in M.P., district Jabhua (Guinea worm and hilly terrain problems)."

(vi) Faulty Planning

34. During test check in audit, it was noticed that in 11 States namely Andhra Pradesh, Assam, Himachal Pradesh, Karnataka, Orissa, Punjab, Tamil Nadu, Uttar Pradesh, Maharashtra, Meghalaya and West Bengal, 106 water supply schemes involving an expenditure of Rs. 838 lakhs failed to provide the intended benefits to the problem villages due to inadequate source of water, low yield, non-finalisation of dependable source of water, non-construction of wells upto the prescribed depth and dispute over the water sources. Another expenditure of Rs. 2749 lakhs incurred in 6 States namely Rajasthan, Madhya Pradesh, Haryana, Karnataka, Orissa and Maharashtra was rendered infructuous as the Schemes failed due to wrong selection of sites. The Committee desired to know the remedial action taken

in this regard. The Department of Rural Development explained the position as under:

“At the time of according technical approval to the rural water supply schemes formulated and submitted by the States, the adequacy of the source of water is always looked into. The States are also advised to conduct necessary hydrogeological surveys before undertaking boring/construction of well. They are also required to drill upto the prescribed depth and not to stop immediately on striking water. However, borewell schemes fail sometimes due to various hydrogeological factors with more emphasis on conduct of necessary hydrogeological survey the percentage of such failure is expected to come down. However, in the case of failure of any scheme due to sources drying up or turning brackish, the States do take action for providing alternate sources to the already covered population.”

35. The Committee were informed in evidence by the representatives of Andhra Pradesh, Rajasthan, Karnataka, Tamil Nadu and Maharashtra State Governments that in many villages borewells have dried up because of lowering of water level due to scanty rains, droughts and excessive exploitation of ground water. In Karnataka alone, out of 15,443 villages covered, the number of such villages where source of water has dried up was stated to be ranging between 5000-6000. In many states a large number of problem villages are stated to have been provided with only one or two borewells and have been stated to be covered with drinking water supply. A borewell generally gives only 200 gallons of water an hour which is evidently not sufficient even for a population of 200. In this context, the Committee desired to know the steps that have been taken by the Centre/State Governments to ensure that at least covered villages are ensured safe drinking water during summer months. In reply, the Department of Rural Development have stated as under :

“Water Supply is a State subject. As a supplementary effort Government of India provides assistance under Centrally sponsored Accelerated Rural Water Supply Programme to the State Governments. While approving schemes under ARWSP, those schemes are approved which ensure supply of drinking water available throughout the year. However, preparation, implementation and maintenance of the schemes are the responsibility of the concerned State Government. It is also proposed to take up micro-ecological measures to ensure that the quantity and quality of water is sustained.”

36. In reply to another query, the Department listed the following reasons identified for scarcity (where source of water has dried up) of water :

- (i) Absence of and inadequate rainfall,

- (ii) Depletion of ground water level due to shortfall re-charge of ground water.
- (iii) Over exploitation of ground water.
- (iv) Absence of appropriate legislation for exploitation of ground water by various agencies namely: Irrigation Industry, Drinking Water etc.
- (v) Large scale deforestation.
- (vi) Absence of conjunctive use of ground and surface water for irrigation, industry, drinking water supply, power etc.
- (vii) Absence of appropriate management of water shed.
- (viii) Population explosion resulting in increase in demand of water for irrigation, drinking water supply, industry etc.

37. The Committee desired to know the remedial steps taken or contemplated to check depletion of ground water. In reply, the Secretary, Rural Development stated in evidence :

"The permanent solution lies in the catchment area management which is much more important than having a borewell here and there. We are mining water at a much more higher rate than the water is getting recharged."

38. Continuing, he further stated :

"Today we have a law on minor and major mining. But we have no regulation on water. But we have to have certain regulations on the local bodies on the use of water. When the water table is going down so fast, there is no regulatory measure. A time has come to have a law for regulation of water, wherever water is available for conservation of it so that we do not draw more water than what is replenished. I am not saying that we are doing something very big. But we are at it. We are getting the legacy for the action of somebody else. Things will become much more difficult in another five years. There will be no discharge of water because all the rain water will be drained out of the rain-fed wells. Even in the snow bound rivers in the entire North, the rivers get water during summer because the forests hold water and roots discharge water during that period. In the upstream catchment areas the streams have gone dry. We are tackling this problem to the extent possible. We have given direction that in every drought prone area all the work that should be taken up will be in the nature of water harvesting, water retention

and soil conservation. If we can do that, in five to ten years we will get some benefits.

Today as from the drinking water point of view there are two options open. One is engineering solution. This solution is that wherever you get water, get the water, pump it out and make it available and live happily. But you cannot live happily thereafter because the source is getting dried. We are trying to do two things. There are cases where the per capita cost is going upto Rs. 2200 in a very difficult area. No country having our type of economy can bear that sort of cost. Therefore, two major things we are trying to do. We should try to capture the wisdom of our forefathers and put some scientific wisdom to that. It is possible in the hills, even in the desert and arid areas. It is possible to do that. It is possible to get water because our forefathers lived there. We must capture the old wisdom and put it in a scientific method. It will be cheap. We will try to have it in such a way that we can provide water at cheap rates. The other thing is to conserve water in the catchment area. These are the two major lines on which we are thinking. Our technology machinery is almost ready and we will launch it shortly. We will take up ten districts this year and we will try to saturate and see what are the alternative costs."

39. The representatives of Maharashtra, Gujarat, Rajasthan and Uttar Pradesh, Orissa, West Bengal and some other states informed the Committee in evidence that they had been supplying water through tankers to the villages where borewells had dried up due to lowering of water table. The Audit has also pointed out that funds were diverted to supply water through tankers which is a short time measure and the expenditure incurred had become infructuous. In this connection, the Committee enquired about the measures the Government is contemplating to solve the problem on long-term basis. The Secretary, Rural Development stated in evidence :

"When drought hits an area, I must confess that there is an immediate compulsion of giving some water. Some tanker measures are to be taken. It cannot be avoided though we know that most of the expenditure would be infructuous. For example, Rajkot went without water. We have to arrange railway water tankers from Gandhinagar to Rajkot, a distance of about 200 kms. 8 lakh gallons of water was transported every day by rail. It would be infructuous as soon as the rain comes. There is an element of compulsion to meet the demand when a particular area goes dry. We are more bothered about that rather than long-term solution. As soon as the rain comes, water tankers become useless. Everybody forgets that till the next drought comes."

40. The Committee pointed out that ecological denudation has been happening over a period of time, and asked why no notice of this fact has been taken because of which water problem will become so acute and it will defy any solution. The witness in reply stated as under :

"It is not correct to say that it was not noticed. It may be correct to say that a total integrated view was perhaps not taken. Today we are much more conscious of our environment and ecological degradation than we were ten years ago. The attempt in D.P.A.P. is to have convergence of all activities in the Plan. We are trying to develop it in chronically drought prone areas. This scheme is in 650 blocks. We are trying to develop plan to retain water by various methods including drilleries, sub-soil water ducts, tanks contour bunding etc. We try to retain water as much as we can by various methods. But it is a long process. Before August last we were not conscious. The people who suffer from drought are becoming very conscious of it. Now there is people's participation. We are taking steps to meet their requirements."

41. Pointing out that some measures should be taken to preserve rain water by preventing it from going down to the sea and to percolate it into the soil, the Committee enquired if there is any plan to do the same in an intensive way, the witness replied :

"In DPA blocks we are trying to have coordination. There are agencies to co-ordinate. I will not say, it is fully, but it is partial. The other areas which are not in DPAP-10 districts are there. They are very difficult districts from ecological point of view. We will try to set right those districts. But what are the options available and at what cost. It is a question of technological option for different types of things. If we subsidise 10 projects or districts that we have been talking of for the last two years, we can develop it. This will be a sort of representation of the various areas of the country so as to make develop agro-climatic areas zone-wise for conservation of water for drinking purposes."

(vi) Coverage of S/Cs and S/Ts population

42. Under the programme high priority was to be given to the needs of SCs and STs. Every new source of drinking water in a village was to be located in a scheduled caste habitation open to all communities. A text-check in audit revealed that in the States of Assam, Gujarat and West Bengal proper coverage was not given to villages dominantly inhabited by SC/ST. The Committee enquired about the reasons for not

following the instructions in this regard, the Secretary, Rural Development stated in evidence :

"Here we faulted in spite of our instructions for a long time that if one water source is to be given in a village, it should be given in the area where Scheduled Castes and Scheduled Tribes are living. But unfortunately, many cases have come to our notice where we have found that it has been set up at a place which is equidistance from the hamlet of the Harijans and the Sarpanch's house. So, availability is there but access is not there. We are now pressurising that we must ensure that it should be at a major point so that easy access is there and the people who are not getting it today, should get it."

43. In a separate note furnished to the Committee the Department of Rural Development have further stated that "due care is being taken to ensure adequate attention to the needs of the Scheduled Castes and Scheduled Tribes in implementing the rural water supply programme. In 1981, the States were advised that in so far as it was technically feasible every new source of drinking water in a village should be located in a Scheduled Castes habitation open to all communities. This view has been endorsed in the subsequent meetings of the State Ministers. States have now been asked to earmark a percentage of the Central Assistance under ARP exclusively for Scheduled Castes and Scheduled Tribes equivalent to the percentage being allocated by them under the MNP for the special component Plan for the Scheduled Castes and the Tribal sub-plan. As a result, the targets for coverage of SC/ST get segregated and would be monitored separately.

44. Asked to intimate the steps taken to improve the coverage of SC/ST villages, the Department stated in reply:

"In accordance with high priority being given to coverage of SC/ST population with drinking water supply the States have now been asked to earmark that percentage of funds under ARP exclusively for Scheduled Castes and Scheduled Tribes which is the percentage earmarked for the special component plan for scheduled castes and for the Tribal sub-plan for scheduled Tribes by the states under the MNP. However, as the objective of the International Drinking Water Supply and Sanitation Decade is to cover 100% of the population by 1991, the entire rural population including those belonging to SCs/STs will stand covered."

(viii) Diversion of funds

45. The Audit Para points out that a test-check in Audit has revealed that funds to the extent of Rs. 575.19 lakhs out of Central assistance

were diverted by some States viz. Punjab, Orissa, Bihar, Tamil Nadu, Uttar Pradesh, Meghalaya etc. for other purposes such as operation and maintenance of schemes, purchase of building materials, furniture, stationery, rotary compressors, jeeps ambassador cars, mini trucks, mini-tractors, maintenance of staff, supply of water through tankers and other activities. In this context, the Committee desired to know the checks exercised by the Central Government in this regard. In reply, the Secretary, Rural Development stated in evidence:

"As I have submitted that on the test check of the Audit which has been brought out by them, we have not got any feedback of the State Government. If we had got the feed-back, we would have got much more information and the test check would have been done. Now we would cover all the districts and the selection of the blocks and the villages will be on random basis and if it is done, we would be able to check to a very large extent."

46. Asked to enumerate whether cases of diversion of funds were investigated and if so, with what results, the Department stated in reply :

"The position in respect of different instances of diversion of funds pointed out by Audit in sub-para 29.3.2A.2 is indicated at Appendix II. Under Accelerated Rural Water Supply Programme, release of funds are made on the basis of utilisation certificates issued by Accountant General of the State. Such diversions wherever reported by Accountant General are not allowed as expenditure under ARP. However, the attention of the States is being drawn to ensure that such diversions are avoided in future."

(ix) *Unfruitful expenditure*

47. During test-check in audit it was noticed that an expenditure of Rs. 583.28 lakhs became unfruitful due to non-repair of defects, for want of power supply, non-removal of casing pipes from failed wells, non-completion of rising mains and distribution system and non-salvaging of buried assembly in a number of States. In Bihar, 31 schemes completed at a cost of Rs. 218.26 lakhs during 1981-82 and 1983-84 could not be operated due to non-energisation. The Chief Engineer informed the Audit in May 1984 that the cases were being pursued with the Electricity Board. In Karnataka, 7 schemes could not be commissioned for want of power supply. Seven of these schemes were taken up in villages which had no electricity. Further, no action was taken by the department to remove the casing pipes inserted in 6987 failed borewells during 1980-81 to 1983-84. Subsequently, the Committee have been informed by the Department that the State Government have issued instructions for extricating the casing pipes from failed bore wells wherever possible and economical. In 4 districts of Madhya

Pradesh piped water supply schemes completed upto March 1982 could not be commissioned till July 1984 for want of electricity connections and non-completion of work of laying pipe-lines. When asked about, if the State Government expressed its ignorance about it.

(x) *Supply of unsafe water*

48. The main objective of the scheme (ARP) is to provide safe drinking water to identified problem villages throughout the country with at least one source of safe potable water available throughout the year. The Audit para points out that in test check, it was noticed that in a number of villages in Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal etc. unsafe water was supplied to villages covered under the Scheme defeating the main objective of the Programme. In 4 villages of Rangareddy and Guntur districts of Andhra Pradesh piped water samples on analysis indicated fluorides in excess of the permissible limits. However, it was continued to be supplied in 3 of these villages. In another 4 villages un-treated water was being supplied from canals and rivers which were subject to seasonal pollutions. In Himachal Pradesh, 122 water supply schemes, designed to supply drinking water to 835 villages supplied raw/unfiltered water from a Khuda nallah or a spring to a population of 1.60 lakhs. 11 other schemes commissioned between 1962 and February 1984 supplied drinking water containing suspended impurities, acidic elements and turbidity and was bacteriologically not fit for human consumption while for 258 schemes taken for execution during 1980-81 to 1983-84, chemical and bacteriological analysis of water at source was not conducted. In Midnapur district of West Bengal, saline water with high percentage of chloride was supplied to people. Similarly, unsuitable water was in some areas of Rajasthan, Assam, Bihar, Uttar Pradesh etc. Asked about reasons for providing unpotable water, the Department of Rural Development in a note have stated that 'there may be some cases of delay in commissioning of water treatment plants but normally it is constructed'. Subsequently, the representatives of various States while appearing before the Committee highlighted inadequacy of water testing facility. They informed the Committee that the problem of drinking water supply has been aggravated because of the fact that in many regions underground water when bored are found to be saline. The gravity of this can be judged from the fact that in a States like Punjab and Haryana in almost 50 percent of the area water dug out through borewells have been found to be saline. Emphasising the point, the representative of Punjab State stated in evidence :

"There were 3712 villages identified as problem villages as on 1st April 1980 at the commencement of the Sixth Five Year Plan. This was out of a total of 12188 revenue villages in the State. Now

the position is, out of the original problem, villages that were identified, upto the end of the Sixth Plan, we had covered a total of 2482 villages leaving a balance of 1200 problem villages. Last year, after receiving some guidelines from the Government of India and as part of the mid-term review of the international Decade for Water Supply and Sanitation it was decided that Government should take a second look to identify other villages which might have been left out in the earlier survey but which needed to be covered by the criteria laid down. As a part of that survey which was more intensive, testing of quality of water in each revenue village was taken up. Almost 7600 more villages now come under the revised definition of problem villages.. Sir, there are about 6000 villages where the water quality is between permissible limit and rejection limit i.e. beyond permissible but below rejection. We have decided that during the rest of the Seventh Plan period, we should try to cover the spill-over of the original problems villages of 1230 plus the 1507 villages having serious problems. The bigger mischief is on account of high fluorides plus the salinity which is very high."

49. The Secretary, Department of Rural Development also subscribed to this view while stating in evidence :

"There are many cases where the wells have been dug and the pumps have been put but the water is totally brackish and not drinkable. We are trying to stop all these things. Recently, in Rajasthan in the district of Jaipur, a large number of aquifers have been dug and pumps set up though the water was brackish. We have taken it up very strongly with the Rajasthan Government."

He further added :

"Then there are areas where water is available but it is contaminated by iron ore. In Haryana people become ill because of the continuous exposure to drinking fluoride water. Then there are areas where clean water is not available but water with worms is there. There are areas where from science and technology side we have to see if we can find a solution to these problems locally. In a recent crash programme for water supply in one particular State we have to carry water by pipeline for 100 km. to a cluster of villages where the water is brackish. But this is a costly method of supply of drinking water. So we have to think of certain other types of activity. This is what we are trying to do. There is a technology mission in water supply shortly to be set up. Their main charge will be to find out, as best as possible, the problems that could be solved through the local resources—collection of local waters. We have forgotten about the ancient wisdom in this regard. Hon. Members from Rajasthan would

be knowing about the very good system of 'taka' where everybody is concerned with his or her own water sources. But now everything has been forgotten. We are going in for regional plans. As a result of this, we are unable to achieve this task... We are thinking of reviving the old system. The most important thing is to provide potable drinking water. They require 40 LPCD of water, out of which 3 to 5 LPCD is required for drinking purpose and the rest can go for washing, toilet purpose, for washing utensils and clothes. For other than drinking purpose, less treated water can be used. We are giving 40 LPCD of water which is very high. Wherever good sources are available, that could be made available to everybody. They are provided with Grade-I water first and the rest is Grade-II water. The area is brackish. This is the type of situation that we are facing. We have identified 5 different types of problem areas. We are having 10 districts and 10 projects. There are a lot of technology available to us. But none of them have been proved at a bigger scale. Everything is possible, at the laboratory level. Our main aim is to use this technology to make the local sources of water available and see whether this technology is proven good. If it is proven good, then we will go in for that provided it is more cost-effective compared to more traditional systems."

51. The Committee enquired if it would be possible for the States to undertake schemes of conversion of brackish water into potable drinking water, the witness replied :

"We do not know what technology is available with them. As far as we are concerned, whatever technology we formulate, it has to be implemented by the States Govts. with their own machinery, with the support of our 12 to 13 organisations belonging to Defence Laboratories and the CSIR.... There are about 14 to 15 scientific organisations under the control of the Union Government like the CSIR and the Defence Laboratories. They have developed various types of technologies functioning particularly at a very small scale. We have to see how best it can be done. Everywhere, we are taking one scientific organisation work with the State Government organisation. Together with the support that we can give to develop this skill, we have to see what technology is beneficial and how best it can be done."

52. Drawing attention of the witness to the Audit observations that saline and brackish water has been supplied in a number of cases and that testing of water was also not done, the Committee enquired whether any State Government has set up laboratories to carry out periodical testing of drinking water in rural areas, the witness replied :

"...for the urban supply, there are testing laboratories, but for the rural supply, I don't think there are testing laboratories. They have not done because of lack of facilities."

53. Clarifying the point further, he added :

"I am saying that the facilities are available for the water supply system, whenever they require testing. But there is no regular system as it is built in the rural water supply."

54. The Committee asked why the Department of Rural Development has not thought of providing drinking water testing facilities, the witness replied :

"Our thinking is, today a large number of testing kits have been developed particularly by the Defence laboratories at Jodhpur and Gwalior. They test water for Jawans in different outposts. The testing is very cheap and quick. They have found out almost a litmus sort of thing wherein within 24 hours of 30 hours, we know whether the water is potable or not. We will give these kits to the schools having class XII and having Chemistry laboratory or colleges having intermediate B.Sc., so that the students can be trained to test these things by litmus procedure. This may be available at least at the block level. We are thinking on these lines though we have not formulated a scheme on the subject... We can pay them honorarium and will pay the entire cost of equipment."

(xi) *Maintenance of Water Supply Schemes*

55. While the Programme received a major thrust during the Sixth Plan, the maintenance of created facilities particularly the hand-pumps has not been adequate. Efforts at getting the Panchayats to maintain the assets out of their own resources have not achieved significant success and it has by and large not been possible for the states to make adequate non-plan provision for maintenance. The responsibility for the maintenance of completed water supply schemes rested with gram panchayats once the schemes were handed over to them. It was noticed in test-check that the gram panchayats were not able to maintain properly the completed water supply schemes handed over to them with the result that the schemes had become defunct and additional expenditure had to be incurred on their revival. It has also been stated that the drinking water supply schemes implemented in various problem villages do not ensure regular and uninterrupted water supply to the people. Hand pumps/water tapes installed there remain out of order for considerable period of time for one reason or the other and no timely steps are taken to repair them.

56. The Committee itself also learnt during study tour that in Karnataka State about 2000 pumps in each taluk remained out of order for a week or so due to mechanical defects. In the case of deep-wells interruptions are reported to be 6-7 per cent. In this context, the Committee

desired to know the mechanism that has been evolved by the Centre/States ensure regular flow of drinking water in these villages. In reply the Ministry have stated :

“Water supply is a State subject and it is for the states to evolve their own mechanism for proper operation and maintenance of the water supply systems. The States/UTs have been requested to conduct a census of the hand pumps installed and also maintain records about them. The cost of operation and maintenance are met normally out of the “Non-Plan” budget. The importance of fixing norms for maintenance and ensuring that adequate provisions are made according to the norms has been emphasised to the State Governments. They have also been urged to ensure the highest possible degree of availability through effective maintenance. Recognising the importance of maintenance, the Seventh Plan, as a special case, permits the utilisation of 10% of Plan funds under the MNP for maintenance. The involvement of the community using their own knowledge, skills for maintaining their own water supply is not only desirable but indeed crucial. Popular participation and involvement of the community in the maintenance endeavour would be of critical importance because without the support of the users of water supply and their active cooperation it would be difficult to achieve success. Training of village-level mechanics for maintenance under TRYSEM already being implemented in Rajasthan has been recommended to all States. The professional and technical expertise available in the voluntary sector needs to be identified and mobilised in the states where it exists. This would not only supplement Government effort but also ensure the participation of the community of users.

At the central level, the status of the availability of drinking water in rural areas is being brought within the ambit of the concurrent evaluation being organised by the Department of Rural Development.”

57. When asked as to what action has been taken by the Ministry to remove the difficulties in regard to the maintenance of water supply scheme, the Department stated :

“Water Supply is a State subject and the responsibility for maintenance of the created assets rests with the States who are required to provide necessary funds for this purpose. But in most cases the States could not provide adequate funds out of their own resources for this purpose. Recognizing this problem, the Seventh Plan permits the State to allocate upto a maximum of 10 per cent of the plan funds under Minimum Needs Programme for the maintenance of the Water Supply Systems in rural areas. The State Govts. have also been advised to create a suitable machinery for regular maintenance of water supply schemes by actively encouraging community participation in this programme.”

58. Asked about the arrangements made by the State Government to maintain sources of water supply the Secretary (PHED), Bihar State explained the position during evidence as under :

"Actually, before 1986-87, there were two problems regarding maintenance. One was the inadequacy of funds on the non-Plan side. There was no adequate fund for maintenance. In the year, 1985-86, the State Government had sanctioned a total amount of Rs. 8 crores for maintenance work. Now we also felt that our arrangements for maintenance were not adequate and I admit that I am not fully satisfied with the state of maintenance of tubewells or other sources of water supply... I accept the position that there is a considerable scope for improvement in the maintenance of water supply."

59. The representative of Madhya Pradesh Government explained the position as under :

"Out of more than a lakh pumpsets we have 28000 pumpsets which are called mahasagar pumps. They go out of order frequently."

(xii) Purchase of sub-standard materials and shortage of material

60. The Audit para contains a number of instances of purchase of sub-standard materials in Andhra Pradesh and Tamil Nadu. The Committee wanted to know the action taken against the officials responsible for the purchase of sub-standard materials. The Department of Rural Development in a note have stated :

"Instances of purchase of sub-standard materials has been pointed out by audit in respect of Andhra Pradesh and Tamil Nadu. The State Government of Andhra Pradesh has informed that an enquiry has been ordered against the concerned officers and the result of the enquiry is awaited. The replacement of the sub-standard material is in progress. Government of Tamil Nadu has informed that in the two instances of failure of structures during construction or at the time of testing of overhead tanks, charges were framed against the officers responsible. In one case punishment has been imposed and in the other case final orders are only to be issued."

61. The Audit has also reported shortage of material, worth Rs. 93.25 lakhs in Himachal Pradesh, Punjab, Arunachal Pradesh, Manipur, Mizoram and Meghalaya. In Himachal Pradesh shortage of stores valued at Rs. 29.49 lakhs was noticed during physical verification. Asked whether responsibility for the loss has been fixed, The State Government has stated that "in respect of shortage worth Rs. 14.45 lakhs in Rampur division and Rs. 7.72 lakhs in Jubbal division, the concerned Superin-

tending Engineers are taking actions to get the shortages reconciled, adjusted or recovered. Details regarding shortages worth Rs. 7.82 lakhs as well as short receipt of material are still awaited and will be furnished as soon as the same is received."

(xiii) *Monitoring*

62. The Audit has pointed out that no evaluation of the scheme was done by the States of Andhra Pradesh, Assam, Bihar, Haryana, Madhya Pradesh, Manipur, Orissa, Punjab, Meghalaya, Arunachal Pradesh and Mizoram while the information about other States was not available. In reply to a specific query that whether any evaluation in regard to timely execution of the schemes taken up during the Sixth Plan has been carried out, the Department have stated that "no evaluation has been done..."

63. The Committee asked if any evaluation study has been conducted of the implementation of the programme of supply of drinking water to problem villages in various States and if so, what are the findings. The Department of Rural Development in a note have stated :

"The National Environmental Engineering Institute, Nagpur conducted an evaluation of Rural Water Supply Schemes in 11 States of the country in 1982. Its main findings/recommendations were (i) the water supply sector should be treated as a core sector and allocations to it should match the magnitude of the problem (ii) water supply and sanitation should form a part of integrated rural development programme and be coordinated with related sectors like health, irrigation, education etc. (iii) it was necessary to have norms indicated for classification of villages and allocation of funds at the national level (iv) water supply schemes should be entrusted to Public Health Engineering Departments for operation and maintenance (v) there should be an improvement in the monitoring and evaluation systems (vi) training arrangements for operations of rural water supply schemes should be strengthened (vii) Community participation and effective health education should be ensured.

The status of the availability of drinking water in rural areas is being brought within the ambit of concurrent evaluation being organised by the Rural Development Department. This would give a feedback on a continuous basis on the position regarding availability of safe drinking water, maintenance and access of SC and ST to drinking water facilities."

64. The Committee desired to know the agencies at Central and State levels to perform the functions and responsibilities of supply of

drinking water to problem villages and asked whether all the States have set up the desired level of agencies to look after implementation and monitoring of the Programme. In reply, the Department of Rural Development have stated as under :

“Under the Minimum Needs Programme the schemes for providing drinking water in rural areas are formulated/implemented by the respective States. Under the Accelerated Rural Water Supply Programme, the State Govts. formulate the schemes and submit the same to the centre for scrutiny and approval before they are taken up for execution. At the centre the technical expertise is provided by the Central Public Health Environment Engg. Organisation (RWS) which is the technical wing of the Department of Rural Development. At the State Level the Public Health Engg. Deptt. exist in most of the States and in some cases this responsibility is of the Deptt. of Irrigation and Flood Control or the PWD. Most of these Organisations are headed by the Chief Engineer with their supporting staff right down to the division or circle level. The centre has funded the setting up of Monitoring and Investigation Unit in States and UTs for ensuring better implementation and monitoring of the schemes taken up under the programme. There may be some deficiencies in monitoring arrangements in some States but all the State Govts. have been impressed upon at different times for strengthening the monitoring arrangements.”

65. In view of the direct financial involvement of the Central Government the Committee desired to know the machinery that exists at the Central level to monitor execution of the various schemes under this programme. The Department of Rural Development in a note have stated as under :

“Since the programme is a gigantic one and spread over the entire country, it would be very difficult for the Government of India to directly monitor the execution of the various schemes under the programme. However, the States are given financial assistance for the establishment of Monitoring and investigation Divisions to do the monitoring at the State level and furnish the information to the Central Govt. A programme of concurrent evaluation of the schemes that have been implemented has been finalised. The evaluation would be conducted by independent agencies like Technical and Research Institutions, I.T.T's Polytechnics etc. and data would be monitored at the Central level. Monthly, Quarterly and Annual reports regarding the progress of the implementation of the Rural Water Supply received from State/UTs forms a basis for monitoring the programme by the Department's Monitoring Cell. Field visits by officers of the

Deptt. are conducted periodically. These provide useful and detailed inputs for monitoring the execution of schemes taken up under the programme. It is now proposed to computerize the monitoring arrangements at the Central level which would continue to be based primarily on reports furnished by States/UTs. The Monitoring Cell is proposed to be strengthened."

66. In Para 2.28A of their 48th Report the Estimates Committee had observed as under :

"The Committee would like to emphasise that more collection of statistics about number of villages covered under the Drinking Water Supply Scheme is not enough. There should be a system of regular inspections and at least testcheck by a joint team of officers of the Ministry of Works & Housing and of the State Governments to see whether the people in the problem villages reported to have been covered, are actually receiving the drinking water and assess the problems. In this context the Committee would like the Ministry to verify and report to the Committee whether the benefit of the following regional rural water supply schemes has actually reached the population of the villages covered by these schemes :

- (i) Palari Siddhan Regional Rural Water Supply Scheme, Dist. Jodhpur (Raj.).
- (ii) Gandhi Vidya Mandir Sardar Sahar Regional Rural Water Supply Scheme, Dist. Churu (Raj.).
- (iii) Chandigarh Regional Rural Water Supply Scheme, Dist. Churu (Raj.).
- (iv) Shambhugarh Regional Rural Water Supply Scheme, Dist. Bhilwara (Raj.)."

67. When asked as to what action has been taken by the Ministry to devise an adequate system of verification of progress through local inspection and in regard to the above recommendations, the Ministry stated :

"The necessity for proper monitoring of the implementation of water supply scheme in different States has always been felt and monitoring is done on regular basis through monthly and quarterly progress reports obtained from the States/UTs. Besides this, field visits are carried out by officers of the Deptt. for on the spot study of the implementation process and to see that the schemes are being

executed in accordance with the standards and specification laid down for the purpose. Though monitoring is normally done by the State Governments, monitoring through field visit by officers from the Deptt. will be given more and more emphasis. The subject has been transferred to this Department only recently without full complement of officers. However, this will be given due priority."

68. Elaborating this point further in evidence in reply to a query by the Committee in this regard, the Secretary, Rural Development stated :

"Now we have development concurrent evaluation programme. We have finalised the questionnaire and most probably from August or September '86 we would launch a programme covering 36 districts—72 blocks with cluster of villages in which randomly selected—for the entire aspects such as supply of water, sources of water, the type of things that have been done whether their are access to the poor, Scheduled Castes and Scheduled Tribes, there engineering aspect as to whether water is available at 200 ft. or 300 ft. below the surface would also be taken care of. We are trying to do exactly in the same manner as IRDP. We thought we would give money to the State Governments and their district agencies so that they can do this work. Now, most of the complaints that are coming from various sources including the audit by way of test check, could have been found out much earlier by us. In fact this is the duty of the executing agency to find this out. We did not go into the voluntary aspect of these things which the Audit has brought out. So that is the reason why we are going exactly the same way of IRDP. We are encouraging such agencies like the Research Technical Institutions and we are trying to get it as soon as possible and I am sure I will be able to submit to this Committee after 3 or 4 months the same type of document for the monthly submission as for the IRDP. The point is correct that we have not pursued it very vigorously after we have given money to the State Governments."

69. The Committee desired to know whether any evaluation in regard to timely execution of the schemes taken up during the Sixth Plan was carried out and if so, what were the findings and what measures have been taken to ensure timely completion of schemes. The Government stated in a post evidence note :

"No evaluation has been done in regard to timely execution of the schemes taken up during the 6th Plan. However, while giving approval to the schemes under the Accelerated Rural Water Supply Programme, it has been made clear to States/UTs that any additional funds

required for the completion of the scheme in-excess of the approved cost of estimates should be met from the funds provided under the States Minimum Needs Programme. This condition in the sanction is expected to motivate the State Governments to complete the schemes in time as otherwise escalation would have to be met from their own funds."

(xiv) *Involvement of Voluntary Organisations*

70. The Committee desired to know if voluntary organisation and business houses were entrusted to supplement Governmental efforts of providing drinking and safe water to problem villages and if so, to what extent. The Department of Rural Development in a note have stated as under :

"So far there has not been adequate involvement of voluntary organisation in implementation of the rural water supply schemes. During the 7th Five Year Plan period, greater involvement of the community as well as voluntary organisation in Planning, Execution and maintenance of the rural water supply schemes is envisaged. The involvement of the voluntary organisation is proposed to be made through the People's Action for Development India (PADI) which is an autonomous apex organisation for voluntary organisations under the Department of Rural Development. During the year 1985-86 an amount of Rs. 50 lakhs is proposed to be utilised through voluntary organisation. PADI has already identified schemes to be implemented through different voluntary organisation. So far there have been no direct involvement of business houses in implementation of drinking water supply schemes."

(xv) *Recommendations/Observations*

71. Drinking water supply is a problem of great importance for Rural India. Drinking water supply is a State subject, schemes are drawn up, implemented and monitored by the State Governments. In the case of Accelerated Water Supply Programme the schemes to be taken up are approved by the Government of India. Detailed guidelines have been laid down for the formulation of schemes under ARP and at the time of approval it is seen that the schemes have been formulated in accordance with the prescribed norms. In the case of schemes under Minimum Needs Programme the implementation of the scheme is the responsibility of the State Governments who are expected to ensure that the schemes conform to the prescribed norms. The States have over the years gradually built-up their Public Health Engineering Departments to tackle the problem of water supply and sanitation. In mid-sixties it was observed by the Centre that rural water supply

schemes were being implemented in villages which were easily accessible and rural areas which had problems in getting the much needed water for drinking and domestic purposes were neglected. The Central Government, therefore, requested the States to identify such villages, called 'problem villages' so that efforts could be directed towards tackling their problem. The criteria laid down for identification were :—

- (a) Villages where no water sources existed within a distance of 1.6 km. or where water was available at a depth of more than 15 metres. (In hilly areas, villages where water sources were available at an elevation difference of more than 100 metres from the habitation);
- (b) Villages where the water sources were having excessive salinity, iron, fluorides and other toxic elements hazardous to health; and
- (c) Villages which were exposed to the risk of water-borne diseases, such as cholera guinea worm, etc. due to available water.

72. The norm of 1.6 km. distance was fixed. During the Seventh Five Year Plan period which aims at providing adequate safe drinking water facilities to the entire rural population, a more liberal norm of providing a source of water within a distance of 0.5 km. and at an elevation of 15 metres in the hilly areas was adopted for States which are able to have a complete coverage under the above guidelines. The Committee appreciate the new liberalised norm. Against the target of 2.31 lakh problem villages proposed to be covered during the Sixth Plan the achievement has been 1.92 lakh villages. Looking at achievement so far the Committee fear that the target laid down for the Seventh Plan period may not be achieved unless the Department of Rural Development and the State Governments intensify their efforts. The Committee hope that the Department of Rural Development and State Governments would be able to mobilise adequate financial and physical resources to achieve the revised target with liberalised norms

73. The Committee also note that number of problem villages identified has been on the increase with passage of time. While an estimated 1.52 lakh villages were identified as problem villages in 1972, according to the survey, the figure came to 2.34 lakh problem villages in 1978. However, a total identification of 2.31 lakh villages was done as on 1.4.1980. It has also been reported by the Government that the States are now carrying out surveys based on the old criteria as the surveys carried out earlier were not realistic and comprehensive. The Committee deprecate that a matter, so vital to the national interest, is being treated lightly and would urge the Government to take steps to ensure that such surveys are carried out realistically so that Government may be well aware of the quantum of target to be achieved.

74. The Committee note that because of drought for the three consecutive years in the States of Rajasthan, Gujarat, parts of Maharashtra, parts of Andhra Pradesh and parts of Karnataka even the well established sources became scanty in supply of water or became dry. While some of the areas are hit by drought due to scanty rainfall the drought-prone areas can be easily identified as those which are chronically affected by drought. The Committee urge the Government to identify these areas and find a permanent solution and envisage a method whereby drinking water will not become a problem on account of drought. In view of the unpredictability of rainfall this topic should be the subject-matter of consideration by the Government with a view to finding a permanent solution to the problem. Desert villages should be identified in consultation with the State Governments but under the overall control of the Government of India so that equipment and services of specialists are optimally utilised. The Committee would also like to point out that in villages which are situated near rivers in the industrial areas effluents are let in and these become problem villages as such river water becomes highly contaminated and becomes unfit for human consumption. The Committee would urge the Government to take care of this aspect to eliminate this problem which is fraught with serious consequences for human health.

75. The Committee during their visit to Aurangabad in October 1985 noticed that the problem of drinking water was more acute in Deccan Plateau because limited quantity of underground water is available only under the rocks. Because of the impervious strata of soil, 50% of the borewells were failure in this area. It was brought to the notice of the Committee that 80,000 borewells were drilled and only 50,000 were successful. Borewells yield 200 gallons of water per hour which is not enough even for a population of 200. Further, the break-down in the case of tubewells is 15 to 20 percent. The water table recedes during summer which leads to drying of tube-wells. It was also brought to the notice of the Committee that more wells could not be dug because of the non-availability of the underground water. Similar situation exists in certain areas of Andhra Pradesh, Madhya Pradesh, Karnataka, Rajasthan also. The Committee are of the firm opinion that these chronically drought prone areas with meagre underground water resources should be identified and a permanent solution for the drinking water problem should be found. Supply of drinking water must take precedence over everything else even over irrigation and industrial use of water. Such drinking water projects envisaging supply of drinking water by pipes for group of villages in drought prone hard-core areas where saline and polluted water exists alone can provide a permanent solution. The present system of finding a solution on village unit basis is proving itself to be too costly and also infructuous on account of scanty underground water resources.

76. Sixth Plan targets could not be achieved for a variety of reasons. Besides financial constraints, these were non-availability of reliable perma-

ment source of water inaccessibility of villages; lack of communication facilities to transport rigs, materials etc; shortage of materials like cement and technical personnel in some cases. While the Committee appreciate these difficulties, they do not consider them to be insurmountable and incapable of solution. These impediments could have been well thought of while laying the physical targets. With greater enthusiasm, proper planning, adequate care and efficient monitoring, pitfalls could have been avoided and better results would have been achieved.

77. The Committee trust that spill-over 39,000 problem villages would be provided with potable water by the year 1987-88. The Committee would like to be apprised of the progress in this regard in due course.

78. The Seventh Five Year Plan aims at providing adequate safe drinking water facilities to the entire population. The priority would be first to cover remaining problem villages based on the original survey at the commencement of the Sixth Plan and also to cover new problem villages identified subsequently based on the old criteria. States have also been allowed to take up coverage of both partially covered villages/habitations as well as villages which have been identified as problem villages after the Sixth Plan. For States which would be able to complete coverage under the above guidelines, the programme could be extended for providing coverage under more liberal norm of providing a source of water within the distance of 0.5 km. and at elevation of 15 metres in hilly areas. The Department of Rural Development have also stated that enhancement of the norm from 40 to 70 litres per capita per day could also be considered at an appropriate stage depending upon the availability of additional financial resources during the plan period for the sector. However, the number of problem villages identified on the basis of old criteria is 1,33,000 and to cover all of them the cost has been estimated at Rs. 7700 crores at 1984-85 prices. The allocation made during the plan is less than half of this at Rs. 3434 crores—Rs 1201 crores in the Central sector and Rs. 2253 crores in the State sector. The Secretary, Rural Development admitted during evidence that roughly 44% of the population remains to be covered at present and going by the present methodology it would be possible to cover 26 or 27 per cent of the population by the end of the Seventh Plan. The Committee would in this context refer to the statement by the Minister of State in the Ministry of Agriculture in Lok Sabha on 2.3.1987 in which he stated that 38,748 spill-over villages besides 1,89,680 freshly identified problem villages remained as problem villages at the end of Sixth Plan and stated that all the villages in the country will be provided with safe drinking water by the end of the Seventh Plan. In view of the financial constraints the Committee are inclined to believe that enhancement of the norm from 40 lpcd to 70 lpcd and provision of safe drinking water facilities to the entire rural population in line with the objective of International Drinking Water Supply and Sanitation Decade (1981-91) would remain

a distant dream. Unless the Government of India releases larger funds commensurate with the promises made in the Seventh Five Year Plan document it would not be possible to cover all the problem villages.

79. The Sixth Five Year Plan document states that at least one dependable source of water supply throughout the year should be provided in the identified problem villages. The States have implemented the schemes during the Sixth Plan according to this objective. Therefore, the percentage of partially covered villages has gone very high during the Seventh Plan period. In Kerala—the State which has attained hundred per cent coverage of problem villages till March 1986, out of 1158 problem villages covered, as many as 1147 villages were covered partially. Similarly, in Karnataka State also which has also covered almost all the problem villages identified as on 1 April 1980 except 13 village each villages has been provided with only one source of potable water. The same is the case with problem villages in other States. Thus, the problem has not been fully solved because in sizeable number of cases only one hand pump or borewell has been provided even in big villages having large population. Such villages have been removed from the list of problem villages. Obviously, the needs of the village have not been met completely and the problem of drinking water is still there though it has been solved partially as a single borewell or a handpump is not capable of sufficient discharge of water to satisfy the needs of entire village. The Committee are not satisfied with this approach and would like that at least for the time being the minimum laid down norms of water supply should be strictly adhered to. The problem villages should not be delisted unless there has been substantial improvement in the supply of drinking water for at least a period of 5 years.

80. According to the existing norms, in the case of a piped water supply scheme a minimum quantity of 40 litres per capita per day of potable water is to be made available. In the case of handpumps guidelines provide for one handpump for every 250-300 population. No specific quantity is earmarked for consumption by animals. The Committee do not consider this as a satisfactory position. A Working Group set up in this connection had recommended water supply of 70 litres per capita per day (lpcd) including water for cattle. In places where tubewells with handpumps are technically feasible, the Working Group has recommended one tubewell with handpump for every 150 persons. The Government of India has decided that this aspect will be re-examined at the appropriate stage depending upon the financial resources available during the Seventh Plan for the implementation of Rural Water Supply Programme. Since the resources provided in the Seventh Plan are not adequate enough the Committee would like the Government to examine as to how to find additional funds to revise the norms of drinking water supply in accordance with the aforesaid recommendations of the Working Group.

81. Even though the Seventh Plan aims at providing potable water to the entire rural population, the actual availability of resources during Plan period would be much less than the actual requirement. The Government intend to bridge the resource gap to the possible extent through adoption of low cost Science and Technology solutions available in the country. 70 per cent of the cost is required for 30 per cent coverage due to taking up of capital intensive piped water scheme in different areas. It has been necessitated by non-availability of ground water or its brackishness or contamination with salinity fluorides iron etc. The wide variation in climatic conditions and location of the source of surface and ground water also require adoption of different types of solutions which are economical and suit local needs. With this objective in view the Government has launched with the approval of the Prime Minister, a technology mission on 'Drinking Water in villages and Related Water Management'. The strategy of the Technology Mission Would be to deal with the total problem of drinking water supply in the project area by an integrated and inter disciplinary project. Educating the public in conservation of quality and quantity of water is an important aspect of Technology Mission. Under Technology Mission pilot projects in 10 districts of 10 different States have already been started. The Committee welcome the new initiative and would also like to be apprised of the progress made and results achieved in this regard.

82. In 11 States, namely, Andhra Pradesh, Assam, Himachal Pradesh, Karnataka, Orissa, Punjab, Tamil Nadu, Uttar Pradesh, Maharashtra, Meghalaya and West Bengal, 2096 water supply schemes involving an expenditure of Rs. 838 lakhs failed to provide intended benefits to the problem villages due to inadequate source of water, low yield non-finalisation of dependable source of water, non-construction wells upto the prescribed depth and dispute over sources. Another expenditure of Rs. 2749 lakhs in six States of Rajasthan, Madhya Pradesh, Haryana, Karnataka, Orissa and Maharashtra was rendered infructuous as the schemes failed due to wrong selection of sites. The Committee deplore that schemes have been taken up without hydro-geological survey. The scarce resources have been frittered away due to faulty planning. No doubt, water supply is a State subject and preparation, implementation and maintenance of the schemes are their responsibility, yet the Committee feel that the Department of Rural Development cannot absolve itself from the responsibility. As the ARP schemes are implemented after approval by the Department, it must ensure that requisite hydro geological surveys are invariably conducted and other relevant aspects taken note of before taking up water supply schemes for execution. It is also disquieting to note that in many State viz. Andhra Pradesh, Rajasthan, Karnataka, Tamil Nadu and Maharashtra borewells installed in rural areas particularly problem villages dried up because of lowering of water level due to scanty rains, drought and excessive exploitation of ground water. In Karnataka alone, out of 15,443 villages covered, in about 5000-6000 villages water

sources have dried up. The water supply position becomes quite alarming in those problem villages which have been provided with only one borewell and that too goes dry. The reasons for lowering of water table are stated to be inter-alia inadequate rainfall, depletion of ground water due to shortfall in its recharge, over exploitation of ground water, large-scale deforestation and absence of appropriate water management shed etc. At present, there is no regulatory measures on exploitation of ground water by various agencies. The Secretary, Rural Development conceded during evidence that things will become much more difficult in the next five years because of deforestation. Underground water would not be recharged and water table will recede further.

83. Ecological degradation leading to depletion of the water resources should be stemmed so that water shortage problem is not further aggravated. Since this problem is being dealt with by a different department the Committee would urge the Government to take steps to coordinate the activities of the two departments and to take steps to stop the ecological deterioration. It is observed from Audit review on Land Management by the C & AG of India in his Audit Report— Railways 1982-83 that by proper afforestation of surplus railways lands, income of Rs. 111 crores per annum could be generated. This vast economic potentiality remains un-exploited. The Government of India should formulate schemes in consultation with the State Governments to take afforestation on a wider scale and plough back the resources so generated in water management schemes.

84. The economy can hardly afford costly solution of piped water supply which in some difficult areas cost upto Rs. 2200 per capita. The supply of water through tankers is also a costly affair though it has to be resorted to as a compulsive measure during droughts. In this context, the Committee appreciate the current thinking of conserving rain water in catchment areas through construction of low cost bunds etc. on seasonal streams and rivulets and to percolate it into soil. These measures are, however, being taken up in a few selected areas. The Committee would like them to be taken up on a wider scale. Unless this problem is tackled urgently and on a wider scale, the massive investment made in installation of borewells and tubewells etc. would become futile as they would not be capable of pumping out underground water due to lowering of water.

85. The Programme of Supply of Drinking Water to Problem Villages has accorded high priority to the needs of Scheduled castes and Scheduled tribes. In 1981, the Central Government had advised the States that as far as possible every new source of drinking water in a village should be located in a scheduled caste habitation and should be open to all communities. In many cases these instructions have not been adhered to. The Secretary, Rural Development also stated during evidence that contrary to their instructions

new sources of drinking water have been set up in many cases at a place which are not accessible to scheduled castes/scheduled tribes. The States have been asked to earmark a part of Central assistance granted to them under ARP scheme exclusively for scheduled castes and scheduled tribes equivalent to the percentage being allocated by them under the MNP for the special component plan for the S/C and S/T sub-plan. During the Sixth Plan period the percentage of SC/ST population covered under drinking water supply scheme were 16.07 and 9.07 of the total population covered. Consequent to the issue of these instructions the targets for coverage of SC/ST would get segregated and would be monitored separately. The Committee would like the Rural Development Department to keep a strict watch on this aspect so that the weaker sections of the society are ensured minimum supply of drinking water.

86. Funds to the extent of Rs. 575.19 lakhs out of Central assistance were diverted by some States, namely, Punjab, Orissa, Bihar, Tamil Nadu, Uttar Pradesh and Meghalaya etc. for other purposes such as operation and maintenance of schemes, purchase of building materials, furniture, stationery, rotary portable compressors, jeeps, ambassador cars, mini-trucks, maintenance of staff, supply of water through tankers and other activities not permissible under the norms for grant of Central assistance. As the Audit findings are based only on test-check the Committee are inclined to believe that actual diversion of Central assistance could have been on much more wider scale than reported by Audit. The Secretary, Rural Development has observed during evidence that they have not received any feedback from the States. The Committee would like the procedure to be streamlined in this regard to check recurrence of such diversion of funds in future. They would also like the Department of Rural Development to examine possibility of deducting the amount equal to funds diverted by the concerned States from their share of Central assistance earmarked for next year with a view to curbing the tendency on the part of the States to misuse funds sanctioned for this purpose.

87. It is also disquieting to note that an expenditure of Rs. 583.28 lakhs became unfruitful due to non-repair of defects, for want of power supply, non-removal of casing pipes from failed wells, non-completion of rising mains and distribution system and non-salvaging of buried assembly in a number of States. In Bihar, 31 schemes completed at a cost of Rs. 218.26 lakhs during 1981-82 and 1983-84 could not be operated due to non-energisation. Even in May 1984, the cases were being pursued with the State Electricity Board. In Karnataka, 37 schemes could not be commissioned for want of power supply. Seven of these schemes were taken up in villages which had no electricity. The State had also not removed the casing pipes inserted in 6987 failed bore-wells during 1980-81 to 1983-84. In 4 districts of Madhya Pradesh piped water supply schemes completed upto March 1982 could not be commi-

tioned till July 1984 for want of electricity connections and non-completion of work of laying pipelines. As the Audit findings are based on test-check, there could be many more cases of such unfruitful expenditure. The Committee deprecate this and would like the Department of Rural Development to ensure that schemes completed are commissioned at once so that their benefits are made available to people.

88. The main objective of the Centrally sponsored Accelerated Rural Water Supply Scheme is to provide safe drinking water to identified problem villages throughout the country with at least one source of safe potable water available throughout the year. However, the Committee note that in a number of villages in Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal unsafe water was supplied to villages covered under the scheme defeating the main objective of the programme. In 4 villages of Rangareddy and Guntur districts of Andhra Pradesh samples of piped water indicated fluorides in excess of the permissible limits. However, it was continued to be supplied in 3 villages. In another 4 villages, untreated water was being supplied from canals and rivers which were subject to seasonal pollutions. In Himachal Pradesh, 835 villages with population of 1.60 lakhs were supplied raw/unfiltered water from a khud or nallah or a spring which were not free from pollution. 11 other schemes supplied drinking water containing suspending impurities, acidic elements and turbidity and was bacteriologically not fit for human consumption. Chemical and bacteriological analysis of water at source was not conducted in case of another 258 water supply schemes executed during 1980 to 1984 under the Programme. In Midnapur district of West Bengal, saline water with high percentage of chloride was supplied to people.

89. Similarly, unsuitable water was supplied in some areas of Rajasthan, Assam, Bihar and Uttar Pradesh. The reasons are stated to be delay in commissioning of water treatment plants and inadequacy of water testing facilities. It was also noticed during evidence that drinking water is contaminated by iron ore or is unsafe otherwise. It was brought to the notice of the Committee that in Haryana people become ill because of continuous exposure to drinking fluoride water and that in certain areas where clean water is not available; it had worms. The Committee in this connection would like to refer to the statement made by the Minister of State in the Ministry of Agriculture in the Lok Sabha on 9.3.87 who reported as under :

90. Higher concentration of nitrates have been observed in water from dugwells in localized areas in the country. The tolerable limit for nitrates in water for domestic use is 45 mg/litre. Limited field investigations undertaken by Central Ground Water Board and other organisations have indicated the presence of nitrates beyond tolerable limits in certain localized areas in fourteen States and Union Territory. Continued use of water having nitrates

concentration of 45 mg/litres or higher may result in blue baby disease, effects on central nervous system, cancer and effect on cardia-vascular systems.

91. The Committee also deplore that a large number of pumps have been installed particularly in Rajasthan, Andhra Pradesh, Bihar, Gujarat, Haryana, Himachal Pradesh, J & K, Madhya Pradesh, Orissa, Punjab, Tamil Nadu, Uttar Pradesh, West Bengal and Union Territory of Delhi after digging aquifers though the water was brackish and not potable at all. The Department of Rural Development should initiate appropriate steps in this regard. People should be provided with potable water free from ill effects and water which can endanger health of the population should in no case be supplied for drinking purposes. The Committee cannot but take a very serious view of this highly unsatisfactory state of affairs indicating that water supplied to human being should have serious health hazards and would urge the Government to give serious consideration to this problem, so that there is no sickness and death from water borne disease. The Government should issue instructions calling for strict action against officials found negligent and guilty. The Committee would like to be apprised of the remedial steps taken by the Government in this regard.

92. In view of the serious shortage of water testing laboratories particularly in rural areas the Department of Rural Development has been toying with the idea of providing water testing kits to some educational institutions in rural areas which are equipped with chemistry laboratories so that water samples drawn from nearby areas could be tested there. The Committee appreciate this approach and would like to be informed of further progress made in this regard.

93. In some areas available water is contaminated by iron ore while in some others it contain fluoride. Still in some other areas water contains worms. To counter this menace, in some difficult areas drinking water has to be carried over a long distance in some cases upto 100 kms. through pipelines. Laying and maintenance of pipelines over long distances entails heavy cost. The Central Government, to tackle problems of such difficult areas, of late, have been thinking in terms of technology missions to make contaminated and brackish water potable in those areas where drinking water sources are not available in the vicinity. It is also formulating some other alternative plans like storing of rain water in difficult areas. The Committee would urge the Government to accelerate implementation of the programme by employing the available technology to make available drinking water to people who needed it the most. In this connection the Committee would refer to the statement made by the Minister for Water Resources in Lok Sabha on 19.3.87 in which it was stated that Andhra Pradesh, Tamil Nadu, Karnataka, Maharashtra, Gujarat, Rajasthan and Uttar Pradesh have made use of the

reports of Remote Sensing Agency to utilise the surveys on locations of water reserve for drinking water/irrigation schemes as conducted by Remote Sensing Satellite Agency team. The Committee would like the Government of India to urge other States also to take advantage of this specialised agency with a view to achieve better results.

94. It is disquieting to note that maintenance of drinking water supply schemes had not been satisfactory. It is unfortunate that maintenance of the assets created has not received any attention at the time of creation of assets, with the result that many water sources have become defunct for want of maintenance. Machinery for maintenance of the assets is a prime need for continued effective implementation of the scheme. Appropriate procedures and measures should be instituted in this regard. The cost of operation and maintenance are met normally out of the 'Non-Plan' budget. The responsibility for the maintenance of completed water supply schemes generally rests with gram panchayats and they had not been able to maintain them properly. As a result many schemes became defunct and additional expenditure had to be incurred on their revival. In Karnataka about 2,000 pumps in each taluk are reported to have remained out of order for a week or so due to mechanical defects. In the case of deep-wells, interruptions were reported to be 6-7 per cent. In Madhya Pradesh, out of more than one lakh pumpsets installed, 28000 are 'Mahasagar' pumps which go out of order frequently. The position is not satisfactory in other States also. In this context, the Committee appreciate the provisions made in the Seventh Plan document to permit as a special case utilisation of ten per cent of Plan funds under the Minimum Needs Programme for maintenance of schemes. However, popular involvement of the community using their own knowledge and skill to maintain their own water supply is *singuo-non*. In Rajasthan, training has been imparting to rural youths under TRYSEM to train them as village level mechanics. This scheme should be extended to other States as well. The Committee hope that with the introduction of concurrent evaluation on the status of availability of drinking water in rural areas the Department of Rural Development would be able to monitor more effectively maintenances of drinking water supply schemes to rural areas.

95. It is distressing to note that sub-standard material had been procured in a number of cases in Andhra Pradesh and Tamil Nadu. The Audit has also reported shortage of material worth Rs. 93.25 lakhs in Himachal Pradesh, Manipur, Punjab, Arunachal Pradesh, Mizoram and Meghalaya. In some of the cases action has been initiated to make good the shortages. The Committee would like to know the action taken against the erring officials for dereliction of duty. They would also like to know if there had been any other case than those pointed out by Audit of purchase of sub-standard material and shortages.

96. The Committee deprecate that no evaluation of 'Supply of drinking water to problem villages' has been conducted by the States in regard to timely execution of the schemes under the programme. On implementation of the Programme, the National Environmental Engineering Institute, Nagpur had conducted evaluation studies in 11 States in 1982. Its main findings were *inter-alia* to treat water supply sector as a core section and allocations to it should match the magnitude of the problem; water supply and sanitation should form a part of integrated rural development programme and be coordinated with related sectors like health, irrigation, education etc., to have norms indicated for classification of villages and allocation of funds at the national level; water supply schemes should be entrusted to Public Health Engineering Departments for operation and maintenance; to bring improvement in the monitoring and evaluation systems; to strengthen training arrangements for operations of rural water supply schemes and to ensure community participation and effective health education. The Committee would like to know the action taken on these recommendations to bring the much desired improvements on the implementation of the programme.

97. The Committee find it disquieting that so far no efforts have been made to adequately involve voluntary agencies in implementation of the rural water supply schemes. During Seventh Five Year Plan period, greater involvement of community and voluntary organisation in planning, execution and maintenance of rural water supply schemes is envisaged. This aspect was also considered at the Conference of the State Ministers, Secretaries and Chief Engineers in-charge of Rural Water Supply and Sanitation held in February, 1986. The Conference was of the view that there was urgent need for integrating drinking water supply programme with health education and promotion of health consciousness among the rural population. Health education pertaining to drinking water supply and sanitation should be made an integral part of formulating primary education for children and in all Adult Education Programmes. The Conference also stressed the importance of involving women in the selection of sites of water sources. Since the women are the principal beneficiaries of the drinking water supply programme, their involvement in site selection would result in full utilisation of the created sources. In view of the importance of maintenance, it was felt that the involvement of community using their own knowledge, skill for maintaining their own water supply is both desirable and crucial. Popular participation and involvement of the community in the maintenance endeavour could be of critical importance because without their support as users of water supply and their active cooperation, it will be difficult to achieve success.

98. Training of village level mechanics for maintenance under TRYSEM, as being implemented in Rajasthan, has been recommended. Voluntary agencies engaged in Rural Water Supply Schemes are also ensuring community participation at various stages. The Government should take due condi-

deration of the above recommendations and would take steps to implement them expeditiously. The Committee would like to be apprised of further progress in this regard.

99. The Committee note that under the Accelerated Rural Water Supply Programme, the State Governments formulate the schemes and submit the same to the Centre for scrutiny and approval before they are taken up for execution. Under the Minimum Needs Programme the schemes for providing drinking water in rural areas are formulated and implemented by the respective States. The Centre has funded setting up of Monitoring and Investigation Units in States and Union Territories for ensuring better implementation and monitoring of the schemes taken up for implementation. However, the facts gathered by the Committee and the points made by Audit amply bring out that monitoring system has not been functioning satisfactorily. The Secretary, Rural Development during evidence admitted that "most of the complaints that are coming from various sources including audit by way of test check could have been found out much earlier by us. In fact this is the duty of the executing agency to find this out. We did not go into the voluntary aspect of these things. The point is correct that we have not pursued it very vigorously after we have given money to the State Governments". The Committee disapprove this casual approach and are of the view that successful implementation of such a gigantic programme, effective monitoring mechanism must be evolved both at the Central and grass-root levels. The Committee urge the Government to have separate agencies to deal with the problem, to monitor and implement the programme both at State level and at the Central level. The Committee would like to reiterate the earlier recommendations of the Estimates Committee contained in paragraph 2.28A of their Forty-Eighth Report (7th Lok Sabha) that there should be a system of regular inspections and test check by a joint team of the officers of the Ministry of Works and Housing and of the State Government to see whether the people in the problem villages reported to have been covered are actually receiving the drinking water and assess the problem. Since the Government has decided to provide all the villages in the country with safe drinking water by the end of the Seventh Plan the Committee feel it is all the more desirable to evolve a suitable monitoring system to ensure the successful implementation of the scheme by means of suitable control device so that there is no abnormal delay in the completion of the schemes.

100. The issues relating to drinking water and other allied matters were discussed in the Conference of Ministers incharge of Rural Water held on 12 February 1987 and it was decided to adopt Technology Mission in a number of areas to fill the resources and technology gap. The Conference has also decided to give special emphasis to conservation of water recharging of aquifer and purification of water with the involvement of community and voluntary agencies. The Committee hope that the Government

of India would suitably monitor the implementation of these decisions so that the targets provided in the Seventh Plan are fully achieved.

101. Water shed management and conservation schemes under the Drought Prone Area Programme and the schemes for supply of drinking water to problem villages should be coordinated and integrated right from the formulation stage to its maintenance to conserve resources and to make the scheme effective and purposive.

NEW DELHI ;
April 20, 1987
Chaitra 30, 1909 (Saka)

E. AYYAPU REDDY,
Chairman,
Public Accounts Committee.

APPENDIX I

Statement showing State-wise position of funds released during 1984-85 and expenditure incurred during 1983-84 and 1984-85 under the Accelerated Rural Water Supply Scheme

Sl. States/UTs	Funds Released under normal & incentive scheme 1984-85										Expenditure Incurred 1984-85			
	3	4	5	6	7	8	9	10	11	12	13	Works		M & I Total
												Bonus	M & I Total	
1. Andhra Pradesh	793.23	300.00	6.00	1099.23	553.24	400.00	7.01	960.25	743.53	NR	743538			
2. Assam	981.03	100.00	5.20	1086.23	764.76	18.44	4.16	787.36	13.74	NR	13.74			
3. Bihar	911.73	140.00	5.73	1057.46	627.18	277.07	7.00	911.25	658.67	3.60	662.27			
4. Gujarat	471.64	300.00	6.00	777.64	334.51	294.84	8.93	638.28	845.95	NR	845.95			
5. Haryana	414.70	235.00	3.00	652.70	285.85	175.67	3.22	464.74	456.31	3.26	459.57			
6. Himachal Pradesh	428.90	200.00	8.65	637.55	246.53	63.40	5.90	315.83	532.84	NR	532.84			
7. J & K	1801.56	100.00	5.00	1906.56	1418.26	—	4.91	1423.17	1920.26	3.48	1923.74			
8. Karnataka	824.33	255.00	—	1079.33	740.87	51.41	1.67	793.95	722.66	NR	722.66			

9. Kerala	1171.30	300.00	6.00	1477.30	1335.75	403.22	6.27	1745.24	1502.00	NR	1502.00
10. Madhya Pradesh	1719.56	300.00	—	2019.56	1547.95	463.86	NIL	2011.81	2131.68	NR	2131.68
11. Maharashtra	1025.40	250.00	6.00	1281.40	1231.43	33.77	10.31	1275.51	983.37	NR	983.37
12. Manipur	158.36	150.00	6.00	314.36	164.72	74.24	6.57	245.53	390.83	2.13	392.96
13. Meghalaya	420.00	NIL	—	420.00	NR	—	NR	NR	158.52	4.10	163.62
14. Nagaland	307.18	115.00	6.00	428.18	248.43	57.06	4.88	310.37	376.54	NR	376.54
15. Orissa	1037.34	400.00	6.00	1443.34	807.78	450.01	6.72	1264.51	1537.24	6.11	1543.35
16. Punjab	276.00	200.00	3.00	479.00	262.07	NIL	3.51	265.38	496.54	3.32	499.86
17. Rajasthan	3463.83	400.00	3.13	3866.96	3390.80	750.96	4.86	4146.62	3909.57	5.83	3915.40
18. Sikkim	272.39	100.00	2.00	374.39	224.49	80.50	1.27	306.26	252.80	2.13	254.93
19. Tamil Nadu	998.53	318.00	6.00	1347.53	876.10	202.31	6.00	1084.41	574.24	MR	574.24
20. Tripura	192.75	150.00	6.74	356.49	120.27	32.50	4.94	157.71	349.09	6.05	355.14
21. Uttar Pradesh	4081.16	300.00	11.98	4403.14	1787.92	228.51	5.58	2022.01	2049.66	4.18	2053.84
22. W. Bengal	1918.40	300.00	6.00	2224.40	908.72	71.55	6.07	986.34	1089.26	7.30	1096.56
U.Ts.											
1. A & N Islands	38.00	NIL	—	38.00	12.80	—	0.70	13.50	30.39	0.37	30.76

1	2	3	4	5	6	7	8	9	10	11	12	13
2. Arunachal Pradesh	NIL	NIL	1.50	1.50	48.66	—	NR	48.66	37.12	0.01	37.13	
3. Delhi	—	NIL	2.00	2.00	—	—	2.00	2.00	—	—	—	
4. Goa, D & Diu	35.00	NIL	—	35.00	30.40	NIL	1.90	32.30	40.45	NR	40.45	
5. Mizoram	11.00	57.00	—	68.00	NR	—	NR	NR	16.97	3.76	20.73	
6. Pondicherry	17.00	NIL	1.75	18.75	10.01	—	1.18	11.19	17.45	1.38	18.83	
Total	23782.32	5000.00	113.68	28896.00	17996.50	4129.32	115.36	22224.18	2183.7.68	58.01	21895.69	

APPENDIX II

Position in respect of instances pointed out by Audit in Sub-Para 29.3.2A.2

Punjab

The State Govt. has stated that an amount of Rs. 459.75 lakhs was actually diverted from Plan side to non-plan side during the first four years of the 6th Plan since essential expenditure on operation and maintenance of rural water supply schemes was necessary in order to avoid public inconvenience. Steps are now being taken to regularise the excess expenditure incurred over the non-plan allocation on operation and maintenance.

Uttar Pradesh

The State Govt. has stated that the expenditure incurred on purchase of vehicles was essential to provide adequate mobility to the field staff and transportation of material so as to ensure speedy execution of schemes that are normally scattered. Due approval was obtained prior to purchase of the vehicle.

Meghalaya

The State Govt. has stated that the purchase of the jeep was essential for carrying material as well as for ensuring effective supervision of Seinduly Water Supply Scheme as well as other such schemes. The provision for jeep was included in the Seinduly water supply scheme which was got technically cleared prior to its execution.

Tamil Nadu

The State Government has stated that there was no diversion of funds in Dharmapuri, Madurai and Krishnagiri divisions as pointed out by audit. In Dharmapuri division the expenditure of Rs. 4.13 lakhs has actually been booked under Drought relief works and ITDP programme and not under Rural water supply. In the case of Madurai division the estimates for 86 schemes taken up under drought relief works were omitted to be sanctioned during 1976-77 and were approved in 1980-81. But no amount of expenditure on works sanctioned in 1976-77 was transferred to ARP during 1980-81. In Krishnagiri division the expenditure of Rs. 8.28 lakhs

representing the cost of 100 pumps and other materials and debited to unrelated items of works was only a case of misclassification. This has since rectified. However the expenditure were not charged to ARP.

Comments from the State of Bihar is still awaited and will be furnished as soon as they are received.

CHAND

APPENDIX III

Audit Paragraph 29 of the Report of the C & AG of India for the year 1983-84 (Civil) regarding Supply of Drinking Water to Problem Villages

29.1 *Introduction.*—Upto the 3rd Five Year Plan (1961-66) drinking water supply in the rural areas was a competent of the amenities schemes of the Community Development Programme. It was estimated that by the end of 1968-69 about 1.2 million sanitary wells and hand pumps had been constructed and piped water supply provided to some 17,000 villages. In the IV Plan (1969-74) the bulk of the provision for rural water scarcity and allocated to the areas of acute water scarcity and areas endemic to water-borne diseases. A Centrally Sponsored Scheme was launched in 1972-73 to accelerate the efforts of the State Government in meeting the needs of such areas. The Central Scheme was, however, discontinued from 1974-75 on the introduction of the Minimum Needs Programme (MNP) in the Fifth Plan. The Central sector programme of Accelerated Rural Water Supply (ARP) was reintroduced during 1977-78 aiming at supplementing the resources of the State Governments in providing safe drinking water facilities to the identified problem villages giving priority to the needs of Scheduled Castes (SC) and Scheduled Tribes (ST). The programme was given high priority during 6th Five Year Plan (1980-85) and was also included as one of the items in the "20 Point Programme". The Programme is administered Centrally through the Ministry of Work and Housing.

29.2 *Problem villages—Identification.*—With a view to identifying problem villages from the point of view of quality and accessibility to drinking water, the following criteria were adopted :

- (a) those which do not have an assured source of drinking water within a reasonable distance of say 1.6 km. or within a depth of 15 metres;
- (b) those where the available water has excessive salinity, iron fluorides or other toxic elements; and
- (c) those which are endemic to diseases like cholera, guinea worms, etc.

The first category was defined as scarcity and difficult villages and other two as health problem villages.

According to a survey conducted upto 1971-72, a total of about 1.52 lakh villages in the country were identified as being without safe and assured sources of drinking water. The latest data received from the State Governments/Union Territories showed that as on 1st April 1980 there were about 2.31 lakh villages in the country which needed provision of water supply facilities on a priority basis.

During test-check in audit (1984) it was noticed that even the number of 2.31 lakh problem villages as on 1st April 1980 was not final and more villages were subsequently added to the list by the States.

29.3 *Financial Outlay*.—Grants released under the ARP to the State and expenditure against the grants and also the expenditure under the MNP of the various State Governments during the years 1977-78 to 1979-80 were as under :

Year	Grants released under ARP	Expenditure of Central grants	Expenditure under MNP
(Rupees in crores)			
1977-78	38.20	39.35	88.50
1978-79	59.98	59.24	133.07
1979-80	58.99	59.04	187.40

During the Sixth Plan, the outlay in the State sector MNP was Rs. 1407.11 crores, subsequently increased to Rs. 1444.11 crores. The provision under the Central sector ARP was Rs. 600 crores.

Grants released by the Central Government from 1980-81 onwards and the actual expenditure by the State Governments out of these grants are as under :

(Rs. in crores)		
Year	Central released	Actual expenditure
1980-81	84.24	87.22
1981-82	109.94	121.70
1982-83	151.45	180.34
1983-84	198.54	N.A.

During 1983-84 the Central Government also provided Rs. 75 crores under the new Centrally Sponsored Rural Water Supply Programme based on performance. Under this scheme, State/Union Territories, which performed well during the year, were given additional funds to arrange water supply to specific villages, schemes for which were technically cleared by the Government of India.

29.3.1 Pattern of Central assistance.—During August 1979, it was decided by Planning Commission that 75 per cent of ARP funds should be distributed to the States on the basis of the number of priority villages identified in 1971-72 survey and their population which remained to be covered on 1st April 1978 giving 50 per cent weightage for growth. The balance was to be utilised to meet any special problems of States (i.e. resources gap).

In the first two years of VI Plan, i.e. 1980-81 and 1981-82 the same formula had been applied and funds were released to the States on that basis. In March 1982, revised formulae for release of grants to State Government were approved to be effective from 1st April 1980. The grants released prior to that date were to be adjusted against the over-all provision during the VI Plan period. The revised formulae for allocation of funds for Central sector ARP envisaged that from the outlay of Rs. 600 crores a sum of Rs. 15 crores was to be deducted in respect of the rigs already purchased, Rs. 10 crores to be reserved for the monitoring staff in the State and at the Centre and Rs. 25 crores to be kept un-allocated to meet the resources gap of special category of States to the extent possible.

The release of grants under the Central sector ARP was subject to the following conditions :

- (a) The ARP allocation was subject to State Governments utilising in full the MNP outlays during the Plan period.
- (b) Non-problem villages were not to be covered from the funds.
- (c) Actual release of funds to State/Union Territories was to be made only after receipt of utilisation certificates for the previous years.

Deficiencies noticed in the observance of the above three conditions are discussed in the succeeding paragraphs.

29.3.2 A-I MNP funds not fully utilised/wrong reporting of expenditure/unused balances.

It was noticed that during the first 4 years of the Sixth Plan period :

- (a) MNP funds were not fully utilised in Andhra Pradesh, Bihar, Gujarat, Karnataka and Punjab;

- (b) expenditure to the extent of Rs. 2669.60 lakhs was reported in excess of the expenditure actually incurred in the States of Andhra Pradesh (Rs. 1222.70 lakhs), Assam (Rs. 376.83 lakhs), Tamil Nadu (Rs. 823.30 lakhs), Madhya Pradesh (Rs. 215.00 lakhs) and Haryana (Rs. 31.87 lakhs); and
- (c) unspent balances amounting to Rs. 6379.60 lakhs out of Central assistance released were kept lying as on 31st March 1984 with the States of Uttar Pradesh (Rs. 5286.63 lakhs), Karnataka (Rs. 147.22 lakhs), Punjab (Rs. 112.65 lakhs), West Bengal (Rs. 797.39 lakhs) and Arunachal Pradesh (Rs. 35.71 lakhs).

The details are discussed below :

- (i) In Andhra Pradesh during first four years of Sixth Plan the expenditure under MNP was Rs. 5765.66 lakhs against the budget allotment of Rs. 6961.53 lakhs. The expenditure figures reported by the State Government represented the grants-in-aid given to Panchayati Raj Bodies and not actual expenditure incurred on the schemes. According to the information furnished by the Chief Engineer at the end of 1983-84, the Panchayati Raj Bodies were having unutilised balances amounting to Rs. 1222.70 lakhs out of MNP funds.

Unutilised balances with the Panchayati Raj Bodies were not taken into account by the State Government while sanctioning further grants-in-aid

- (ii) In Assam, Rs. 376.83 lakhs were shown to have been spent in 10 divisions against 141 schemes during 1980-83 by contra credit to Assam Government Construction Corporation as deposit although in none of these schemes the work had been allotted to the corporation.
- (iii) In Bihar, MNP funds were not fully utilised. During the first 4 years of Sixth Plan period against the allotment of Rs. 5537 lakhs the actual expenditure under MNP was Rs. 4625.58 lakhs. However, under Central sector ARP, funds in excess of the allocation were spent to the extent of Rs. 326.97 lakhs (allocation Rs. 3268.16 lakhs, expenditure Rs. 3595.13 lakhs). During 1977-78 no time was taken up under ARP and funds to the extent of Rs. 200.00 lakhs out of Central assistance of Rs. 240.00 lakhs were diverted to MNP in the State sector for completion of 70 continuing schemes.
- (iv) In Gujarat, during the first 4 years of Sixth Plan period the expenditure under MNP was Rs. 4012.64 lakhs against the provi-

sion of Rs. 4669.00 lakhs whereas under ARP the expenditure was Rs. 1835.61 lakhs against release of Rs. 1468.00 lakhs.

- (v) In Uttar Pradesh, out of Central assistance of Rs. 10107.95 lakhs released during the period 1977-78 to 1983-84, the actual expenditure upto February 1984 was only Rs. 4821.32 lakhs leaving an unspent balance of Rs. 5216.63 lakhs.
- (vi) In Karnataka, during the first 4 years of Sixth Plan the actual expenditure under MNP was Rs. 5083.31 lakhs against the provision of Rs. 5446.50 lakhs and under Central sector ARP the actual expenditure was Rs. 2242.78 lakhs against release of Rs. 2390 lakhs. The provision made in annual budget for 1981-82 to 1983-84 under MNP was not fully utilised and also under ARP the shortfall was 26.2 per cent of the provisions made in annual budgets during this period. The shortfall was attributed mainly to long delay in finalisation of plans and getting Central Government's approval for the scheme, non-finalisation of dependable source of water and delay in execution of civil works.
- (vii) In Punjab, during the first 4 years of Sixth Plan period against the budget provision of Rs. 2150 lakhs (MNP and ARP) the actual expenditure was only Rs. 1791.97 lakhs. The total outlay for the Sixth Plan period (MNP) was Rs. 6800 lakhs. An expenditure of Rs. 563.47 lakhs was incurred during the first four years of the Sixth Plan under ARP out of total releases of Rs. 676.12 lakhs.
- (viii) The Central assistance of Rs. 1932.00 lakhs was released to the Government of Tamil Nadu during the period 1980-81 to 1982-83 against which actual expenditure of Rs. 990.22 lakhs was incurred as per accounts of Tamil Nadu Water Supply and Drainage Board. The Board/State Government, however, furnished utilisation certificates for Rs. 1813.42 lakhs.
- (ix) In Madhya Pradesh, irregular debits of Rs. 215 lakhs were afforded to the Central sector ARP in March 1978 (Rs. 65 lakhs) and March 1983 (Rs. 150 lakhs). The records showed that no such expenditure was incurred (July 1984).
- (x) In Mandi P. H. Division of Haryana, stores worth Rs. 0.98 lakh were issued to a work (December 1983) for which tenders had not been invited. Further stores worth Rs. 30.89 lakhs were shown in the stock account of the P.H. Division, Naraingarh as issued to works whereas the material was still lying in Central stores of the division. Thus, inflated figures of expenditure were reported.

- (xi) In Arunachal Pradesh, the actual expenditure was Rs. 162.49 lakhs against the Central release of Rs. 198.20 lakhs upto March 1984 leaving an unspent balance of Rs. 35.71 lakhs.
- (xii) In Maharashtra popular contribution of Rs. 24.44 lakhs received by the divisions of Maharashtra Water Supply and Sewerage Board in three districts for execution of 147 piped water supply schemes under ARP was credited to deposit account of the Board instead of crediting to Government of India or adjusting it by corresponding reduction of Central assistance.
- (xiii) In West Bengal, out of Central assistance of Rs. 5225.44 lakhs released during the period 1977-78 to 1983-84, the actual expenditure upto 1983-84 was only Rs. 4428.05 lakhs, leaving an unspent balance of Rs. 797.39 lakhs.

29.3.2A.2 Diversion of funds.—A test-check in audit revealed that funds to the extent of Rs. 575.19 lakhs out of Central assistance were diverted for other purposes in the States as detailed below :

- (i) In Punjab an amount of Rs. 485.21 lakhs (MNP) was diverted for expenditure on operations and maintenance during the period April 1980 to March 1984, as adequate provision was not being made by the State Government.
- (ii) In Orissa, funds to the extent of Rs. 43.96 lakhs (ARP : Rs. 32.97 lakhs and MNP : Rs. 10.99 lakhs) were utilised for purposes not connected with the scheme such as water supply through tankers, repairs and restoration of water supply schemes, augmentation of urban water supply schemes, construction of office compound walls, purchase of building materials, furniture, stationery, payment of telephone and electricity bills, salaries of maintenance staff purchase of rotary portable compressors and sinking of tube-wells in urban areas. Further grants during 1979-80 to 1980-81 amounting to Rs. 4.44 lakhs paid to Panchayat Samitis for constructions of sanitary wells were diverted to other works/schemes.
- (iii) In Bihar, Rs. 42.29 lakhs (Central sector ARP funds : Rs. 32.91 lakhs and State sector MNP : Rs. 9.38 lakhs) were not utilised on piped water supply schemes in villages, but were diverted to works in 3 developed towns/semi-towns upto March 1984.
- (iv) In Dharampuri Division of Tamil Nadu, an expenditure of Rs. 4.13 lakhs incurred on 22 schemes under other programmes was included in the expenditure on rural water supply scheme.

In Madurai Division, an expenditure of Rs. 4.11 lakhs incurred in 1976-77 on 86 works under Drought Relief Programme was transferred to ARP in 1980-81. In Krishangiri Division, an expenditure of Rs. 8.28 lakhs representing cost of 110 hand pumps and other materials not related to the scheme or procured for other scheme was included in the total expenditure of the scheme.

- (v) In Uttar Pradesh, 6 divisions of U.P. Jal Nigam spent Rs. 6.87 lakhs between August 1982 and March 1984 for purchase of Ambassador cars, diesel jeeps, mini tractor, mini trucks and motor-cycles out of funds provided under ARP and MNP for providing drinking water to problem villages without sanction of competent authority.
- (vi) In Meghalaya, a jeep was purchased at a cost of Rs. 0.71 lakh out of funds provided under ARP.

29.3.2.A-3 *Unfruitful expenditure.* During test check in Audit, it was noticed that an expenditure of Rs. 583.28 lakhs became unfruitful due to non-repair of defects, for want of power supply, non-removal of casting pipes from failed wells, non-completion of rising mains and distribution system and non-salvaging of buried assembly, etc. Details are discussed below :

- (i) In Bihar, 31 schemes completed at a cost of Rs. 218.26 lakhs during 1981-82 and 1983-84 could not be operated due to non-energisation. The Chief Engineer reported (May 1984) that the cases were being pursued with the Electricity Board.
- (ii) In Uttar Pradesh, 27 hand pumps (23 in Jhansi district and 4 in Lalitpur district) costing Rs. 4.05 lakhs were reported to be defective due to filling bore and rupture of assembly. The buried assembly could not be salvaged despite efforts made by the Jhansi Division. Further, for providing drinking water to 51 villages of Mizapur district, the schemes sanctioned during 1973-74 and 1974-75 at a cost of Rs. 11.22 lakhs remained incomplete even after incurring an expenditure of Rs. 213.41 lakhs (June 1984), due to non-availability of power, non-completion of rising mains and distribution system.
- (iii) In Karnataka, 37 schemes (cost : Rs. 16.65 lakhs under ARP and Rs. 26.26 lakhs under MNP) could not be commissioned for want of power supply. Seven of these schemes were taken up in villages which had no electricity.

Further, no action was taken by the department to remove the casing pipes inserted in 6987 failed borewells during 1980-81 to 1983-84. The cost of casing pipe (14,888 running metres) in respect of 2677 failed wells worked out to Rs. 17.72 lakhs.

- (iv) In Andhra Pradesh, six schemes (cost : Rs. 15.07 lakhs) completed during 1980-83 continued to be with the department for removing the defects pointed out by gram panchayats. The delay in undertaking repairs in respect of otherwise completed works was found to range from 10 months to 3 years.
- (v) In Manipur, a water supply scheme completed during 1979-80 at a cost of Rs. 7.70 lakhs out of ARP funds to provide water supply to a town was abandoned due to inadequacy of water at source and other local disturbances.
- (vi) In 4 districts of Madhya Pradesh, piped water supply schemes completed upto March 1982 (cost : Rs. 7.33 lakhs) could not be commissioned (July 1984) for want of electric connections and non-completion of work of laying pipe-lines.
- (vii) In Gujarat, a scheme completed in May 1980 (cost : 2.13 lakhs) could not be put to use due to paucity of funds with village panchayat (July 1984).
- (viii) In 80 villages of 3 districts of Orissa, 104 sanitary wells were constructed during 1975-76 to 1982-83 (cost : Rs. 4.60 lakhs) of which 5 wells collapsed and 99 wells completely dried up rendering the entire expenditure infructuous. The department attributed (May 1984) the collapse and dryness to defective construction, non-observance of required specifications for want of funds and bad soil.
- (ix) In Pondicherry, one scheme completed in October 1983 at a cost of Rs. 1.46 lakhs could not be commissioned for want of supply of power (February 1984). Another scheme completed in May 1983 at a cost of Rs. 2.27 lakhs could not be put to use for want of permission of Railway authorities to lay distribution system across a railway line (April 1984). A third scheme completed in October 1982 at a cost of Rs. 2.01 lakhs could not be commissioned as bore-well sunk in June 1981 dried up and again two bore-wells sunk in February 1983 had to be given up due to sinking of bedrock.
- (x) In Jammu & Kashmir, a scheme for supply of water to a reservoir for distribution of water to 9 villages was completed in

1983-84 at a cost of Rs. 30.04 lakhs. However, in October 1983 another scheme for augmenting water supply for the reservoir by tapping an existing dug well had to be taken up at an estimated cost of Rs. 4.20 lakhs because due to flood in river Chenab, shortage of power and number of lifts involved, water could not reach the reservoir. As the supply from the dug well was sufficient, the multi-lift supply line was unnecessary. In another scheme, the work for construction of an overhead tank (estimated cost : Rs. 2.25 lakhs) awarded to a contractor in October 1980 was suspended (January 1983) after incurring expenditure of Rs. 4.43 lakhs as the land had not been acquired. Another improvement work on a scheme started in March 1980 at an estimated cost of Rs. 2.94 lakhs was abandoned (April 1981) after incurring expenditure of Rs. 0.39 lakhs due to objections from the villagers.

- (xi) In Arunachal Pradesh, 16 villages, in respect of which expenditure of Rs. 3.45 lakhs was incurred for providing drinking water, were shifted to other places. Further, 4 water supply schemes were abandoned after incurring expenditure of Rs. 0.69 lakh.
- (xii) In Maharashtra, work on seven piped water supply schemes in four districts was not started even after incurring an expenditure of Rs. 4.70 lakhs on purchase of material due to non-receipt of popular contribution and non-acceptance of responsibility for the maintenance of the schemes on their completion by the village Panchayats.

Further, in Satara district a piped water supply scheme completed in 1982-83 at a cost of Rs. 0.26 lakh remained inoperative for want of electricity connection.

29.3.2 B. Coverage of Non-problem villages—In 11 States and 2 Union Territories, 10190 non-problem villages were also covered under the programme upto March 1984 at an expenditure of Rs. 457.22 lakhs (the expenditure on 8105 villages not being available).

Details are discussed below :

- (i) In Andhra Pradesh, during 1980-81 and 1981-82, funds were utilised to cover 2426 non-problem villages (expenditure not furnished : June 1984) although 4225 problem villages were still to be covered.
- (ii) Out of 1111 villages covered in Nowgong district of Assam upto the end of March 1983, only 556 villages were problem villages

and the remaining 555 were non-problem villages covered on public demand as reported by the Nowgong division.

- (iii) In Himachal Pradesh, 1186 non-problem villages were covered during the first 4 years of the Sixth Plan period (cost : Rs. 99.89 lakhs) while 3119 problem villages had been left to be covered.
- (iv) In 19 districts of Karnataka, 2809 non-problem villages were covered under the MNP during 1983-84 (cost not known) while 4937 problem villages were still to be covered. In Belgaum division alone, 375 non-problem villages were provided with protected water supply upto March 1984 at a total cost of Rs. 253 lakhs.
- (v) In Manipur, 37 non-problem villages were covered during the first four years of Sixth Plan period although 595 problem villages in the State were still to be covered.
- (vi) In Orissa, 448 tube-wells were set up during 1979-80 to 1981-82 in non-problem villages of six districts (expenditure : Rs. 71.68 lakhs). Further 65 tube-wells were set up in two districts during 1982-83 in uninhabited villages involving an expenditure of Rs. 8.80 lakhs. Similarly, 406 sanitary wells (cost not known) were constructed during 1981-82 to 1982-83 in 406 non-problem villages of 4 districts, although 6759 problem villages were without any source of water supply at the end of March 1984.
- (vii) An expenditure of Rs. 14.04 lakhs was incurred on three water supply schemes in 5 non-problem villages in Punjab upto November 1983, although 1395 problem villages were still to be covered.
- (viii) In Rajasthan, 1769 non-problem villages were covered out of MNP/ARP funds upto February 1984 though 7129 problem villages were still to be covered.
- (ix) In Uttar Pradesh, 11 water supply schemes covering 306 villages (estimated cost : Rs. 512.72 lakhs) included 181 non-problem villages, although 9550 problem villages were still to be covered.
- (x) In Goa, Daman & Diu, 3 non-problem villages were covered (expenditure : Rs. 5.90 lakhs) out of Central assistance, although 14 problem villages were still to be covered.
- (xi) In Pondicherry, an amount of Rs. 3.91 lakhs was utilised for providing water supply to 3 non-problem villages out of ARP

funds during February 1980 to July 1983 while 16 problem villages were yet to be covered.

- (xii) In Meghalaya, 71 non-problem villages were covered (cost not known) during 1981-82 and 1982-83 although 616 problem villages remained to be covered upto the end of March 1984 (target : 1130 covered : 514).
- (xiii) In West Bengal, expenditure of Rs. 4428.05 lakhs was incurred during 1977-78 to 1983-84 to cover 326 villages, which included 226 non-problem villages, although 722 problem villages in the State were still to be covered.

29.4 Objectives of the Programme—The main objective of the scheme (ARP) is to provide safe drinking water to identified problem villages throughout the country with at least one source of safe potable water available throughout the year.

29.4.1 Non-fulfilment of the objectives—supply of unsafe water—During test check in audit it was noticed that in various States unsafe water was being supplied to villages covered under the scheme as detailed below, defeating the main objective of the programme :

(i) In 4 villages of Rangareddy and Guntur districts of Andhra Pradesh, piped water samples on analysis indicated fluorides in excess of the permissible limits. However, it was continued to be supplied in 3 of these 4 villages. In 4 other villages, un-treated water was being supplied from canals and rivers which were subject to seasonal pollutions.

(ii) In Nowgong Division of Assam, out of 17 schemes, 14 schemes (cost: Rs. 112.83 lakhs) commissioned during the first three years of the Sixth Plan were supplying only raw water as the water treatment plants could not be put to use due to non-availability of pumping sets (March 1984).

(iii) In Bihar, samples of water supplied to villages were not got tested by the Public Health Research Unit to ensure that water was safe and fit for drinking.

(iv) In 8 divisions of Himachal Pradesh, 122 water supply schemes designed to provide drinking water to 835 villages having a population of 1.60 lakhs were commissioned upto March 1984 (expenditure : Rs. 677.74 lakhs—State Sector : Rs. 394.21 lakhs and Central sector Rs. 283.53 lakhs) without construction of treatment works. The source of water being a khud, nallah or a spring, raw/unfiltered water was being supplied to the villages.

In 2 divisions, 11 schemes costing Rs. 33.69 lakhs were commissioned between 1962 and February 1984. Test of water supplied under these schemes revealed that the water contained suspended impurities, acidic elements and turbidity and was bacteriologically not fit for human consumption.

In 5 divisions, chemical and bacteriological analysis of water at source was not conducted for 258 schemes taken up for execution during 1980-81 to 1983-84.

(v) In 7 divisions of Rajasthan, water obtained through bore holes by means of 1278 hand pumps, of which chemical analysis reports were made available to Audit, out of 13692 installed during the period 1980-81 to September 1983, was chemically examined and in 675 cases it was found unsuitable for drinking purposes. In Udaipur district, the chemical analysis was carried out only in doubtful cases.

(vi) In Ramanathapuram district of Tamil Nadu, water obtained through 27 hand pumps became unfit for drinking purposes being brackish.

(vii) Out of 931 hand pumps constructed in Jaunpur district of Uttar Pradesh at a cost of Rs. 75.28 lakhs, chemical and bacteriological tests were conducted only in 60 cases. In 25 per cent of the tested cases, the water was found not safe for human consumption.

In respect of 772 hand pumps installed during 1981 to 1983-84 in Mirzapur district at a cost of Rs. 143.70 lakhs, the quality of water was not tested even in a single case.

(viii) In Karaikal region of Pondicherry, there was no arrangement for chemical testing of samples of water made available for distribution.

(ix) In Mizoram, a water testing laboratory was set up at Aizwal in January 1979 on which expenditure of Rs. 1.30 lakhs on purchase of equipment and chemicals and Rs. 1.61 lakhs on establishment (February 1979 to April 1984) was incurred. However not a single testing of potability of water supplied was done.

(x) In Midnapore district of West Bengal, the tube wells commissioned in Zone II in November 1980 (expenditure : 30.84 lakhs out of ARP funds) were discharging saline water with high percentage of chloride. The department was supplying this saline water to the consumers in view of acute scarcity of water in the area till alternative sources of water were found out.

29.5 Non-observance of priority/faulty planning/wrong selection of sites etc.—High priority was to be given to the needs of the SCs and STs particularly where it was logistically and technically not impossible to do. Every new source of drinking water in a village was to be located in a scheduled caste habitation open to all communities. In the case of piped water supply a fair proportion of water stands and hand pumps were to be located in scheduled caste habitations.

The piped water supply was not to exceed 40 litres per capita per day and the State Governments were informed that home service connections should be avoided for the time being and that distribution of water should only be through public stand posts. In the case of borewells with handpumps, the number of wells was to be limited to one for every 250 to 300 persons.

29.5.1 Coverage of SC/ST villages—The scheme provided for giving high priority to the needs of SC/ST population. A test check in audit revealed that in the States of Assam, Bihar, Gujarat and West Bengal proper coverage was not given to villages dominantly inhabited by SC/ST as discussed below :

(i) In Assam, during the first three years of the Sixth Plan the coverage of SC/ST areas was only 10 per cent and 8 per cent respectively.

(ii) In Giridih district of Bihar, which is predominantly a tribal district, no water source was provided in SC/ST villages during 1981-82 and 1982-83. Details for 1980-81 and 1983-84 were not available.

(iii) In Gujarat, during first 4 years of the Sixth Plan, only 113 SC/ST villages were covered against the target of 281 villages (expenditure : Rs. 128.21 lakhs and outlay : Rs. 391.00 lakhs).

(iv) In West Bengal, during the first four years of Sixth Plan period, the coverage of SC and ST population out of ARP funds was 0.36 lakh and 0.05 lakh respectively.

29.5.2 Faulty Planning—During test-check in audit it was noticed that in 11 States, 2096 water supply schemes involving an expenditure of Rs. 838.06 lakhs failed to provide the intended benefits to the problem villages due to inadequate source of water, low yield, non-finalisation of dependable source of water, non-construction of wells upto the prescribed depth or disputes over the water sources.

An expenditure of Rs. 2748.99 lakhs incurred in 6 States was rendered infructuous as the schemes failed due to wrong selection of sites. Details are given below :

29.5.2.(a) Inadequate source of water/non-finalisation of source of water :

- (i) In Andhra Pradesh 7 village schemes were completed at a cost of Rs. 13.80 lakhs with inadequate source of water with the result that two schemes became defunct within 5 to 6 years of completion. While in 4 schemes estimates of Rs. 3.50 lakhs had been sanctioned for augmentation of water sources; one case was yet to be sanctioned.
- (ii) In Assam, the villages shown as covered under the programme were provided with only a single point of supply irrespective of total population. Standard norm of 40 litres per day (lpd.) was not maintained in most of the villages.
- (iii) In Himachal Pradesh, 8 schemes taken up to provide drinking water to 14 villages between October 1981 to March 1984 were held up due to disputes over their source of water (expenditure upto March 1984 Rs. 3.49 lakhs). Further, 10 schemes covering 177 villages commissioned upto 1983 at a cost of Rs. 126.71 lakhs were not functioning properly due to decrease in the discharge of water at source. Another 5 schemes covering 107 villages commission between March 1978 and March 1982 at a cost of Rs. 104.95 lakhs were also not functioning properly due to low power voltage, failure of tube-wells and non-lifting of water by pumps.
- (iv) In Karnataka, 73 works on which Rs. 106.61 lakhs had been spent upto March 1984 (Central sector ARP Rs. 62.79 lakhs and State sector MNP Rs. 43.82 lakhs) on laying rising mains, distribution lines, service reservoirs, etc. still remained incomplete for period ranging from 1 to 15 years due to non-finalisation of dependable source of water.
- (v) In Cuttack district of Orissa, 50 tube wells set up between 1980-81 and 1983-84 failed (cost : Rs. 2.00 lakhs) due to presence of excessive chloride contents. The failure was attributed to absence of water-logging equipment and trained geophysicists to identify fresh water bearings sand horizons, although geophysical equipment supplied by UNICEF (March 1982) were available with the department. Further, out of 1850 sanitary wells constructed in 29 blocks of Koraput district of Orissa, 884 wells (48 per cent)

dried up in summer of each year by March 1982. Similarly, in 2 blocks of Mayrbhank district, all the 86 sanitary wells constructed in 68 villages had less than 6 feet of water during summer, the drying up of wells and insufficient water were attributed (June 1984) by the BDO to no construction of wells to the prescribed depth of 10.5 metres, dearth of skilled labour and hilly areas unsuitable for sanitary wells.

- (vi) In Punjab, 8 water supply schemes (estimated cost : Rs. 58.80 lakhs) were suspended after incurring an expenditure of Rs. 7.80 lakhs upto March 1984 due to non-finalisation of suitable site for water works, change in lay-out plan of pipe lines and non-finalisation of source of water.
- (vii) In Madurai district of Tamil Nadu, power pumps installed in 13 cases (cost : Rs. 16.13 lakhs) had yield varying from 0.5 to 5 gallons per minute (gpm) against the minimum required yield of 10 gpm. Further, in five districts of Tamil Nadu as on March 1984, 799 hand pumps (cost : Rs. 160.00 lakhs) and 137 power pumps (cost not known) had either dried or silted. Alternate source of supply had not been provided in majority of the cases.
- (viii) In Uttar Pradesh, a scheme of water supply to cover 155 villages was sanctioned in December 1980 at an estimated cost of Rs. 214.34 lakhs and expenditure of Rs. 74.70 lakhs was incurred without finalisation of proper source of water. The scheme was held up for want of Government decision (May 1984). Similarly a water supply scheme to cover 111 villages of Almora district completed in 1977-78 at a cost of Rs. 87.12 lakhs was found insufficient to meet the requirement of water. Another scheme with estimated cost of Rs. 111.98 lakhs was prepared in September 1981 to supplement deficiencies of original scheme. The estimate has not yet been sanctioned, although an expenditure of Rs. 4.80 lakhs had been incurred (March 1984). Further, a water supply scheme in Pauri district of Uttar Pradesh was completed in March 1984 at a cost of Rs. 4.80 lakhs when the source of water on which the scheme was based had dried up and no water was available.
- (ix) In four districts of Maharashtra, 4 piped water supply scheme taken up for execution at an estimated cost of Rs. 48.96 lakhs were either not started or kept suspended after incurring an expenditure of Rs. 70.30 lakhs due to non-finalisation of the site, non-acquisition of land and submergence of percolation well and switch house. Another six schemes taken up in four districts

(expenditure Rs. 24.39 lakhs) could not be completed due to non-finalisation of source of water.

- (x) In Meghalaya, a water supply scheme on which Rs. 1.73 lakhs had been spent upto March 1984 could not be complete due to a dispute about the site between two departments of the State Government.
- (xi) In Midnapore district of West Bengal, a scheme to cover 8 problem villages (estimated cost : Rs. 42.36 lakhs) sanctioned in 1979 was suspended after incurring an expenditure of Rs. 28.73 lakhs upto March 1984 due to non-availability of land for head work site. The work of distribution system was started even before acquisition of land.

29.5.2 (b) Wrong selection of site/failed Schemes :

- (i) In Rajasthan, out of 16495 bore-holes drilled during 1980-81 to 1982-83, as many as 2815 bore-holes (17 per cent) failed due to non-availability of water, mechanical break-up in the process of drilling, strata not suitable for DTH rigs and quality of water found nonpotable resulting in finfructuous expenditure of Rs. 197.05 lakhs. Further, in Udaipur district, a scheme to provide drinking water to 3 villages was sanctioned in January 1980 (cost : Rs. 7 lakhs) on the basis of chemical analysis report of the water of Kaladwas village. The wells were, however, dug at a distance of more than 1 km. near river Ayod, the water of which was polluted due to flowing of waste water from Udaipur distillery. The chemical analysis report obtained in April 1983 revealed that the water from the wells was nonpotable. Selection of site on the bank of polluted river resulted in wasteful expenditure of Rs. 1.50 lakhs.
- (ii) In 329 villages of 10 districts of Karnataka, provision of potable water was considered not feasible as all the bore-wells drilled in most of these villages failed due to either dry bores or non-potable brackish water. In 85 villages of Dharwar and Gulbarga districts, all the 230 bore-wells, drilled (cost : Rs. 34.50 lakhs) failed due to water being saline. Detailed examination of the availability of adequate quantity and potability of water by geophysical methods in consultation with Geological Department was not conducted before taking up drilling work in these villages located in brackish/endemic zone.
- (iii) In Madhya Pradesh, 7450 (14 per cent) out of 53306 bores drilled by the department during 1980-84 were unsuccessful as approval

of sites by the Hydrogeologists was not obtained. Further, out of 24319 bores drilled by the fast drilling rigs of the department during 1980-84, 5233 bores (22 per cent) were unsuccessful due to non-conducting of surveys and non-determination of types of rigs to be used. Further, 15 piped water supply schemes completed in 8 districts at a cost of Rs. 17.35 lakhs (upto 1982-83) were not providing any benefit to the population as the water sources had dried up.

- (iv) In Gurgaon district of Haryana, an expenditure of Rs. 11.38 lakhs was incurred for installation of tube-well for providing drinking water to 3 villages (November 1980). The water samples tested (June 1981) revealed that water was extremely hard. Construction of a new tube-well at an estimated cost of Rs. 8.29 lakhs was sanctioned by the State Government in February 1983. The work has, however, not been started so far (March 1984).
- (v) In 33 villages of Orissa, 33 sanitary wells constructed during 1975-76 to 1982-83 (cost : Rs. 0.87 lakhs) were abandoned due to appearance of shet granite rock in excavation or non-striking of water.
- (vi) In Maharashtra, out of 44,920 bore-wells and 19 tube wells drilled during the first four years of the Sixth Plan period (expenditure : Rs. 8646.00 lakhs), 12,571 bore-wells and 1 tube well (expenditure : Rs. 2463.30 lakhs) were unsuccessful. In ten districts, 1498 bore-wells were beyond repairs and 2651 bore-wells had become dry.

Further in Satara district, the source of water in three piped water supply schemes completed at a cost of Rs. 2.72 lakhs was found dry while in respect of 11 schemes in seven districts on which expenditure of Rs. 11.51 lakhs was incurred, the source of water supply failed. Similarly, two piped water supply schemes (expenditure : Rs. 20.37 lakhs) remained inoperative as the water was brackish. Alternate source of water supply was under investigation (June 1984).

29.5.3 Incorrect projection of population

According to the instructions contained in the Manual of Water Supply and Treatment (published by the Government of India) protected water supply schemes were to be designed to meet the requirements of population expected after 30 years.

In Andhra Pradesh, the Chief Engineer concerned evolved and adopted varying formulae for the purpose of estimating the population after 30 years. As a result of incorrect formulae and arithmetical errors, population

was excessively projected in respect of 30 schemes; consequently, works at higher magnitude than justified were undertaken involving an extra expenditure of Rs. 29.41 lakhs. Further, over-head service reservoirs of higher capacity were provided due to adoption of excessive requirements or higher per capital rate of water supply than that suggested in the guidelines resulting in extra expenditure of Rs. 3.68 lakhs.

29.5.4 Schemes outside the purview of the programme—It was noticed that in four States and one Union Territory, extra expenditure of Rs. 323.66 lakhs was incurred during 1980-81 to 1983-84 in 855 villages due to provision of wells in excess of the prescribed number and provision of piped water supply instead of sanitary wells and hand pumps as detailed below :

- (i) 745 villages in 8 districts of Karnataka were provided with bore-wells in excess of the maximum number prescribed as per adequacy criteria. As against 1375 wells required to be drilled, 2430 successful wells were actually drilled involving extra expenditure of Rs. 158.25 lakhs. Further, 43 villages in five districts with population ranging from 294 to 982 were provided with piped water supply at a cost of Rs. 48.08 lakhs. In respect of 16 villages, covered under ARP, provision of bore-wells with hand pumps etc. would have resulted in a saving of Rs. 10.95 lakhs.
- (ii) In Andhra Pradesh, schemes with bore-wells or open wells were sanctioned at cost of Rs. 87.45 lakhs in 19 villages even though these villages were already provided with adequate number of bore-wells and open wells (one bore-well for population of 250). In eight villages with a population of less than 2,000 schemes with distribution system involving an extra expenditure of Rs. 4.23 lakhs were sanctioned instead of single point distribution as per guidelines issued by the Government of India.
- (iii) At Itarhi village of Bihar (population 6,900), one high yielding tube-well having a capacity of 10,000 gallons per hour was provided during 1967 at a cost of Rs. 4.25 lakhs. In September 1980, a fresh scheme for providing a pump house was started (estimated cost : Rs. 8.36 lakhs, expenditure upto March 1983 : Rs. 3.38 lakhs) while the existing tube-well was in working condition and was also catering to the needs of the village population.
- (iv) In Punjab, a water supply scheme for a group of villages was sanctioned in March 1977 (cost : Rs. 4.96 lakhs) under ARP which provided for construction of overhead service reservoir of 15,000 gallons capacity on the basis of prescribed design of 10 gallons per head per day. The Chief Engineer, Public Health, however, in March 1980 awarded the contract to another firm for construction

of service reservoir of 30,000 gallons capacity after rescinding the original contract for 15000 gallons capacity entered in August 1977 resulting in extra expenditure of Rs. 0.67 lakh.

- (v) In Orissa, in 2091 identified problem villages, 3395 tube wells were set up in excess of the prescribed norms upto the end of the March 1983.
- (vi) In Pondicherry, in 20 cases the rate of per capita water supply was adopted as 70 lpd. instead of 40 lpd and the overhead tanks of much larger capacity than required under the scheme were constructed resulting in extra expenditure of Rs. 9.72 lakhs. Further, in 3 cases GI/RCC pipes were used instead of PVC pipes involving extra expenditure of Rs. 0.93 lakh.

29.5.5 Delayed Schemes—

During test-check in audit, it was noticed that in the States of Himachal Pradesh and Karnataka, 135 schemes sanctioned during February 1979 to March 1983 were not taken up for execution. In Assam, Bihar, Gujarat, Kerala, Orissa, Rajasthan, Uttar Pradesh, Pondicherry, Maharashtra and West Bengal schemes taken up 3 to 10 years back were still incomplete resulting in escalation of cost. The details are given below :

- (i) In Himachal Pradesh, 16 schemes approved between February 1979 and March 1983 to provide drinking water to 107 villages (estimated cost : Rs. 122.16 lakhs) had not been taken up for execution so far (May 1984).
- (ii) In 8 districts of Karnataka, 119 schemes sanctioned by the State Government in September 1981 under Central sector ARP had not been taken up for execution so far (March 1984).
- (iii) In Assam out of 93 piped water supply schemes sanctioned during the VI Plan period, only 17 schemes were completed upto the end of March 1983 and 238 piped water schemes sanctioned since 1980-81 were either not taken up or were incomplete even after incurring an expenditure of Rs. 1337.73 lakhs due to delay in acquisition of land, lack of technically sound estimates and non-procurement of material in time.
- (iv) In Bihar, 166 schemes (estimated cost : Rs. 1248.10 lakhs and expenditure upto March 1984 : Rs. 1177.78 lakhs) for piped water supply undertaken during V Plan were lying incomplete (March 1984). The reasons for non-completion were non-acquisition of land, non-construction of water towers, non-installation of pumps and non-lying of pipes, etc. But to non-completion within the time

schedule, the cost went up, considerably on account of rise in cost of labour and materials.

- (v) A scheme to provide water supply to 38 villages of Kutch district of Gujrat (estimated cost : Rs. 64.18 lakhs) was approved in April 1973 and completed in 1983-84 (cost : Rs. 309.22 lakhs) due to delay in locating successful source of water.
- (vi) In Kerala, out of 277 schemes to cover 291 problem villages approved by the Central Government (estimated cost : Rs. 3730.66 lakhs) during 1977-78 to 1983-84, only 127 schemes were commissioned upto March 1984.
- (vii) In Orissa, all the sanitary wells constructed upto surface level by March 1984 were not provided with hand pumps and cover. Due to deferment of sanitary arrangements, supply of water, safe from health point of view, was not ensured. The State Government observed (May 1984) that due to escalation in cost of labour and materials, such sanitary fittings were not installed.
- (viii) In 5 divisions of Rajasthan, 173 schemes were completed after delay of 3 to 7 years. 63 more schemes which were taken up 3 to 7 years ago were still in progress. A scrutiny of 5 schemes in Jodhpur district, which took 4 to 6 years for completion, revealed that the expenditure incurred was Rs. 211.62 lakhs against the estimated cost of Rs. 134.15 lakhs due to delay in completion of the schemes and also four tube-wells constructed during 1980-81 to September 1983 at a cost of 0.87 lakh were not put to use for want of pump sets (June 1984). Besides, 25 ground level reservoirs completed during February 1976 to September 1982 at a cost of Rs. 4.61 lakhs were unutilised (May 1984) as pipe lines had not been laid (24 cases) and floor was leaking (1 case) of Udaipur district. 259 bore-wells drilled through private contractors and departmental rigs from April 1980 to November 1983 at a cost of Rs. 21.02 lakhs in 3 districts were not covered by installation of hand pumps (February 1984) resulting in blocking up of funds.
- (ix) In Uttar Pradesh, 15 water supply schemes (estimated cost : Rs. 371.26 lakhs) were delayed ranging from 9 to 16 years resulting in upward revision of the cost estimates to Rs. 667.83 lakhs. Further, 17 water supply schemes in Pauri and Almora districts on which an expenditure of Rs. 24.67 lakhs had been incurred could not be completed as the source of water of these schemes was under dispute (March 1984).
- (x) In Pondicherry, a scheme completed in May 1983 (cost : Rs. 1.18 lakhs) was yet to be commissioned pending assessment of water and energisation of pump (February 1984).

- (xi) In Maharashtra, out of 1379 piped water supply schemes sanctioned in State sector in 16 districts at an estimated cost of Rs. 10417.97 lakhs during April 1980 to December 1983, only 208 schemes were completed upto January 1984 (expenditure : Rs. 1169.82 lakhs) while 957 schemes (estimated cost : Rs. 7290.68 lakhs) were still to be completed (January 1984) and 214 schemes (estimated cost : Rs. 1513.98 lakhs) had not been taken up for execution.
- (xii) In West Bengal, out of 91 schemes taken up since 1977-78 out of ARP funds at an estimated cost of Rs. 2353.04 lakhs in six districts, only 8 schemes (estimated cost : Rs. 133.06 lakhs) were completed at a cost of Rs. 276.05 lakhs after 4 to 9 years from the date of their commencement. The remaining 83 schemes (estimated cost : Rs. 2219.98 lakhs) were incomplete (March 1984) after incurring expenditure of Rs. 1410.84 lakhs due to delay acquisition of land, inadequate survey and investigation, change of specification during execution and delay in procurement of materials.

29.6 Physical targets and achievements.

Although ARP was re-introduced from 1977-78, no targets were fixed upto 1981-82. The number of villages covered under the schemes MNP and ARP from 1977-78 onwards and the targets fixed from 1982-83 onwards are as under :—

Year	Targets	Achievements
		(In number)
1977-78	Nil	14704
1978-79	Nil	20920
1979-80	Nil	22822
1980-81	Nil	25978
1981-82	Nil	29837
1982-83	43767	45844
1983-84	48924	49748

29.6.1 The figures reported to the Ministry of the number of problem villages covered in various States during first four years of Sixth Plan included partially covered villages also, which will have to continue to be categorised as problem villages.

It was noticed that in 9 States, the actual coverage during first four years of Sixth Plan was only 42220 villages against the Sixth Plan target of 87102 villages as detailed below :—

- (i) In Bihar, during the first 4 years of the Sixth Plan, 9433 villages were covered against the Sixth Plan target of 24136 villages. The reasons for shortfall were fixing of low annual targets, non-acquisition of land, delay in construction of water towers, installation of pumps and pipe lines, etc.
- (ii) In Gujarat, against the target of 5318 villages to be covered during the Sixth Plan, 3120 villages were covered during first 4 years of the Plan. However, another 1243 villages categorised as problem villages after 1st April 1980 were also covered. Thus, the villages identified earlier were not given priority in selection. Further, in Rajkot district, against the target of 73 villages to be covered under simple wells programme during first 4 years of Sixth Plan, only one village was covered. According to the District Panchayat (executing agency) non-achievement of the targets was due to non-receipt of geologists feasibility report.
- (iii) In Himachal Pradesh, against the target of 7815 problem villages during the Sixth Five Year Plan, only 4196 villages were covered upto March 1984. Against the balance of 3619 problem villages left to be covered, only 500 of such villages were targeted to be covered during 1984-85. The shortfall in coverage was attributed (February 1984) to paucity of funds due to escalation in cost and low per capita cost kept for hilly terrain.
- (iv) In Kerala, out of 1158 problem villages as on 1st April 1980, 544 villages were covered during the first 4 years of Sixth Plan period. The reason given for low coverage was fixation of lower targets.
- (v) In Madhya Pradesh, during the first 4 years of Sixth Five Year Plan, 12713 problem villages were covered against the target of 20950 villages. The shortfall was attributed to constraints in providing required finance, poor means of communications and hard understrata of granite.
- (vi) In Manipur, against the target of 1212 problem villages to be covered during the Sixth Plan period, only 617 villages were covered upto March 1984, of which, 107 villages were covered only partially.
- (vii) In Orissa, against the target of 23616 problem villages only 10818 villages were fully covered during the first 4 years of Sixth Five Year Plan.

- (viii) In Punjab, out of 1767 identified problem villages as on 1st April 1980, only 372 problem villages were covered during the first 4 years of Sixth Plan.
- (ix) In Rajasthan, in 383 villages which were reported as covered during April 1980 to February 1984, against 1515 sanctioned hand pumps for these villages only 869 hand pumps were installed. The reasons for non-installation of remaining hand pumps of Udaipur district were stated to be site dispute by villagers, failure of bore-holes and site not approachable for rigs.
- (x) In Meghalaya, against the target of 1130 villages to be covered during 1980-81 to 1983-84, only 514 villages were covered upto March 1984. The reasons for low coverage were paucity of funds, shortage of technical staff, shortage of labour and materials and transport difficulties.

29.7 Maintenance of water supply schemes.

The responsibility for the maintenance of completed water supply schemes rested with the gram panchayats once the schemes were handed over to them. It was noticed during test-check that the gram panchayats were not able to maintain properly the completed water supply schemes handed over to them in the States of Andhra Pradesh, Assam, Madhya Pradesh, Manipur, Rajasthan, Maharashtra and Meghalaya with the result that the schemes had become defunct and additional expenditure had to be incurred on their revival, as detailed below :

- (i) In 27 villages of Andhra Pradesh, the gram panchayats could not maintain the schemes as their net income was less than the annual maintenance expenditure of the scheme and as a result, many of them became defunct. In June 1982, the State Government sanctioned Rs. 170.00 lakhs for revival of 406 defunct schemes including 210 schemes in problem villages. The Chief Engineer reported to the State Government in April 1983 that another 2020 schemes were also defunct, revival of which would cost another Rs. 101.00 lakhs. Further, due to inadequate man-power 7928 hand pumps were in a state of disrepair (February 1984) and on an average 9 to 10 per cent of the total hand pumps were not in working condition.
- (ii) In Assam, during the first three years of the Sixth Plan, expenditure of Rs. 311.69 lakhs was incurred on maintenance of water supply schemes which also included expenditure on maintenance of urban schemes still to be handed over to local bodies, as also

10 to 15 per cent of tube wells remained out of order throughout the year for lack of proper maintenance.

- (iii) In Madhya Pradesh, 8425 out of 60021 hand pumps installed upto March 1984 were not in working order due to shortage of hand-pump mechanics and out of 2095 piped water supply schemes, 618 schemes were not working as on March 1984 mainly due to poor economic conditions of gram panchayats, non-payment of electricity charges and damages to equipment.
- (iv) In Manipur, an expenditure of Rs. 67.66 lakhs was incurred upto 1983-84 on the maintenance of 38 schemes completed upto 1979-80 due to non-handing over of the completed schemes to the panchayats for maintenance.
- (v) In Rajasthan, out of 37852 hand pumps installed in the State, 13977 (37 per cent) were found out of order (February 1984) inspite of the fact that payment for maintenance of hand pumps was made to the panchayat samitis and a sum of Rs. 21.71 lakhs was paid as grants in-aid to the samitis during 1983-84 for maintenance. The actual maintenance was being carried out by PHE Division. Further, due to improper maintenance of hand pumps, 294 pumps were abandoned on account of collapsing of bore-wells or falling down of assembly etc. and fresh bores would have to be drilled in place of abandoned pumps at an extra cost of Rs. 30.20 lakhs.
- (vi) In respect of 9 schemes in four districts of Maharashtra completed between March 1982 and April 1983 (expenditure : Rs. 63.87 lakhs) water supply was stopped due to non-payment of maintenance charges by gram panchayats, non-payment of water charges by beneficiaries, reluctance of zila parishad/village panchayats to take over the schemes, periodical break down of pumping machinery and failure to carry out repairs to pumping machinery.
 Further, 26 schemes in 3 districts were not handed over to zila parishad/villages panchayats for operation and maintenance, but were being maintained (expenditure : Rs. 52.98 lakhs) by the divisions of Maharashtra Water Supply and Sewerage Board (June 1984).
- (vii) In Meghalaya, expenditure of Rs. 230.75 lakhs was incurred during 1979-80 to 1983-84 on the maintenance of completed schemes as these were not taken over by the village/local committees.

29.8 Irregular purchases

During test-check it was noticed that in 7 States, stores valued at Rs. 368.05 lakhs were purchased during the period 1979-80 to 1983-84 which

were not actually required for use on work under the scheme. Besides, sub-standard materials/idle machinery or stores had been noticed in various States.

The details are given in the succeeding paragraphs.

29.8.1 Excessive purchases—(i) Stores valued at Rs. 181.06 lakhs purchased by 16 divisions of Himachal Pradesh during February 1979 to March 1983 were declared surplus to their requirements (February 1983 to May 1984).

(ii) In Madhya Pradesh, high density polythene (HDP) pipes of various diameter valued at Rs. 31.83 lakhs procured during 1979-80 to 1981-82 in three districts were declared surplus during 1982-83. HDP pipes (value : Rs. 12.12 lakhs) and PVC pipes (value : Rs. 10.47 lakhs) procured by other two divisions during the period August 1979 to August 1982 were lying unused so far (June 1984).

(iii) In Bihar, the Chief Engineer, PHE purchased un-conventional varieties of pipes (PVC and HDP) during 1981 at a cost of Rs. 42.82 lakhs without any requisition from the divisions or provision in the original estimates. Pipes valued at Rs. 33.31 lakhs were lying unutilised in 4 divisions (February 1983).

(iv) In 12 divisions of Tamil Nadu, expenditure of Rs. 23.03 lakhs was incurred during the period September 1979 to March 1984 for the purchase of centering materials, which were hired to the contractors although the contract for RCC work did not provide for any such assistance.

(v) In Karnataka, 1649 hand pumps were purchased by Hassan Division during February-March 1984 (cost : Rs. 27.90 lakhs) against the actual requirement of 653 pumps for the year 1984-85 both under State and Central sector schemes resulting in blocking up of funds to the tune of Rs. 16.92 lakhs.

(vi) 3 Pump sets (cost : Rs. 4.42 lakhs) were procured in May 1982 for Sanapat Scheme in Bishenpur district of Manipur although no provision for these pumps existed in the estimates of the work.

(vii) In West Bengal, material costing Rs. 95.98 lakhs were procured in March 1979 for 8 water supply schemes out of ARP funds. Out of this, materials costing Rs. 45.38 lakhs were lying unutilised (March 1984) which included materials costing Rs. 13.53 lakhs declared surplus in respect of 2 schemes.

29.8.2 Purchase of sub-standard materials—(i) (a) HDP pipes costing Rs. 36.80 lakhs were purchased during 1980-81 and 1981-82 in some of the

districts of Andhra Pradesh by the Panchayati Raj Engineering Department for laying the distribution system. Following failure of these pipes in some divisions, test of the samples of HDP pipes purchased in districts of East Godavari, Prakasam and Guntur (cost : Rs. 24.97 lakhs) was conducted which revealed that either the 90 mm or 110 mm pipes or both supplied by the firms were sub-standard. No action to get the sub-standard pipes replaced by the supplier had been initiated so far (June 1984).

- (b) HDP pipe worth Rs. 5.26 lakhs were lying unused following the Chief Engineer's instructions. Samples of these pipes were not sent for testing.
- (c) In one village of Guntur district, the HDP pipes costing Rs. 108 lakhs purchased in October 1980 were not utilised since AC pipes were substituted.
- (d) In 15 villages, the entire distribution system with sub-standard pipes was practically completed in 1981-82 (cost : Rs. 20.62 lakhs), but commissioning of the water supply schemes had been held up since then.
- (e) In 10 villages, leaks had developed in distribution system due to use of sub standard pipes.

Information about the total value of HDP pipes purchased in the State and value of the pipes found sub-standard was awaited from the State Government (June 1984). No claims had been preferred by the Government against the firms which supplied the sub-standard pipes (June 1984).

- (ii) In the districts of South Arcot and Ramanathapuram of Tamil Nadu, over-head tanks constructed at a cost of Rs. 1.62 lakhs had collapsed in May 1981 and June 1982 respectively due to use of sub-standard material.

29.9.3 Idle machinery/stores—(i) in two divisions of Assam, material worth Rs. 93.96 lakhs was booked against various schemes during 1981-83 without actual requirement and was lying unutilised (March 1984).

- (ii) In Haryana, the Public Health Division, Sirsa, purchased 5,000 metres of 90 mm dia HDP pipes (cost : Rs. 1.84 lakhs) in July-September 1981 and 3,000 metres of 100 mm dia pipes (cost : Rs. 1.65 lakhs) in May 1982. The stores were still lying in stock (January 1984) as neither the execution of these works for which these pipes were purchased had been taken up nor was there any provision for such pipes in the detailed estimates.

Further materials worth Rs. 6.07 lakhs received by P.H. Division, Panchkula in July 1982 to March 1983 were lying unused

(February 1984) as the work for which these were purchased had not been started.

- (iii) In Karnataka, departmental rigs remained idle for 29771 rig days during the first four years of the Sixth Plan which worked out to 158 idle days per rig per year for want of programme, non-selection of site, repairs to compressors and supporting vehicles, and other material resulting in infructuous expenditure on idle staff (Rs. 32.75 lakhs).

Further, large quantity of 5" dia casing pipes were purchased during June-September 1980 by several PHE divisions for drilling 4½" dia bore-wells. Subsequently, it was decided not to drill bore-wells with 4½" dia rigs. Consequently 47240 metres of 5" dia casing pipes, collars etc., (cost Rs. 55.58 lakhs) had been lying idle in 12 divisions (June 1984).

- (iv) Bhanjanagar P.H. Division of Orissa purchased (January to August 1980) HDP pipes (cost : Rs. 0.99 lakhs) which were lying unutilised so far (June 1984). According to the Executive Engineer, there was no scope for utilisation of these pipes in the near future. Further RCC rigs (value : Rs. 0.30 lakh) purchased in January 1982 by BDO, Tangi Chowdwar and sanitary fittings (cost : Rs. 0.20 lakh) purchased in August 1977 by the BDO, Boudh also remained unutilised so far (June 1984). Further 10 departmental rigs and 6 rigs supplied by UNICEF free of cost remained idle for periods varying from 1 to 32 months during June 1979 to March 1984.
- (v) In Rajasthan, stores worth Rs. 32.09 lakhs were shown as issued to various water supply schemes during the period March 1973 to July 1983, which remained unutilised upto March 1984. In many cases either there was no provision in the estimates of the works for such materials and were not required for the schemes or were issued in excess of the requirements resulting in increased expenditure on the schemes. Similarly, polythene pipes purchased by Ajmer and Chittorgarh Divisions in May 1980 and June 1980 respectively at a cost of Rs. 0.49 lakh were lying idle (March 1984).
- (vi) In Coimbatore Division of Tamil Nadu, seventeen heavy pump sets purchased in July 1981 (cost Rs. 1.28 lakhs) remained idle (March 1984).
- (vii) In Midnapore district of West Bengal, the department purchased (July 1983) four generating sets and four voltage stabilisers at a cost of Rs. 6.88 lakhs out of ARP funds to avoid power failure and low voltage. The generating sets could not be installed (March 1984)

for want of suitable site and the voltage stabilizers were not useful as they could not stand the wide voltage fluctuations of power.

- (viii) In Arunachal Pradesh, 6 water treatment plants purchased during March 1980 to May 1981 (cost : Rs. 0.55 lakhs) were not installed (June 1984).

29.9 Other topics of interest

- (a) Shortage of materials worth Rs. 93.25 lakhs.

(i) In 3 divisions of Himachal Pradesh, shortages of stores, valued at Rs. 29.49 lakhs were noticed during physical verification in October 1983 and February 1984. In 3 other divisions, stores valued at Rs. 0.60 lakh were stolen during the period April 1979 to December 1981. Twenty eight consignments of GI pipes valued at Rs. 2.26 lakhs despatched by suppliers by rail were received short by three divisions during the period June 1979 to January 1981. The railways had not yet accepted the claim (March 1984) for the shortage.

(ii) In Manipur, loss of stores worth Rs. 0.55 lakh was reported due to theft in two district during January 1984.

(iii) In 5 divisions of Punjab, 7 cases of shortage of materials valued at Rs. 5.83 lakhs were noticed during physical verification conducted between April 1980 and March 1984.

(iv) In Arunachal Pradesh, cases of short accountal of stores of Rs. 23.35 lakhs in Likabali transit godown were noticed during October 1981 to June 1983.

Further, materials worth Rs. 24.06 lakhs were lost in transit in case of 5 divisions. The claims for which were yet to be settled.

(v) In one division of Mizoram, shortage of stores costing Rs. 1.33 lakhs were noticed in December, 1983.

(vi) In Meghalaya, 8847 metres of pipes costing Rs. 5.30 lakhs were stolen from the site of 2 water supply schemes between November 1982 and May 1984. Further materials worth Rs. 0.48 lakh issued in excess to a contractor in respect of one scheme had not been returned (June 1984). In another scheme, 1400 kg. of MS rods issued in excess to a contractor (value not known) were not returned (June 1984).

- (b) over-payments of Rs. 5.62 lakhs to contractors.

(i) In Goa, payments amounting to Rs. 21.66 lakhs were made to contractors in respect of 6 schemes against the sum of Rs. 16.73 lakhs

- actually payable to them. Recording of excess measurements had resulted in the excess payment of Rs. 4.93 lakhs. Only Rs. 0.68 lakh were recovered upto June 1984.
- (ii) In Manipur, an amount of Rs. 0.69 lakh was still recoverable from two contractors whose contracts had been rescinded in 1981. The work was got completed through other agencies.
- (c) Avoidable extra expenditure of Rs. 79.37 lakhs.
- (i) In Assam, avoidable extra expenditure of Rs. 30.23 lakhs was incurred on the purchase of AC pressure pipes due to non-observance of proper purchase procedure.
- (ii) In Karnataka, non-acceptance of the lowest tenders for civil works within the validity period due to procedural delays, frequent changes in the scope of works including the source of water and change in design, after commencement of work resulted in avoidable extra expenditure of Rs. 18.22 lakhs in 5 cases (Central Sector : Rs. 14.81 lakhs and State Sector: Rs. 3.41 lakhs).
- (iii) The scheme provided for the use of PVC and AC pressure pipes in place of GI and CI pipes. In Haryana, the Superintending Engineer, Amabla placed orders for the supply of MS pipes instead of PVC/AC pipes valued at Rs. 40.91 lakhs resulting in avoidable extra expenditure of Rs. 27 lakhs.
- (iv) In Rajasthan depth of water column for tube-wells approved by the Chief Engineer was 20 metres. However, in Ajmer Division, in the case of boreholes drilled in 97 cases through private contractors, depth of water columns was kept between 25.50 and 64.10 metres resulting in avoidable expenditure of Rs. 3.11 lakhs.
- (v) In Jammu Kashmir, work of laying and fitting of pipes in respect of Chakla Jambazpora scheme awarded to two contractors in October 1979 at a cost of Rs. 0.60 lakhs could not be started as the department failed to supply 6" dia pipes. The work was subsequently allotted to the same contractors in April 1981 at a negotiated cost of Rs. 1.41 lakhs resulting in avoidable extra expenditure of Rs. 0.81 lakh.

29.10 Monitoring

Drinking water supply is a state subject and schemes are drawn, implemented and monitored by the State Governments. However, to hasten provision of safe drinking water to identified problem villages, the Central Government provided funds under the Central sector ARP to States/UTs. The projects under the Central sector ARP though drawn and implemented by the State Governments, required technical approval of the Central

Government. The Central Government required the progress of the programme to be monitored by the technical wing of the Ministry of works and Housing. Periodical progress reports were to be called from the State Governments and progress was to be test-checked through field visits by the officials of the Ministry.

However, it had been observed that the monitoring of the coverage of villages under the scheme was done by the Ministry only through the progress reports received from the States. There was no adequate system of verification of the progress through local inspections although the Estimates Committee (Seventh Lok Sabha) in para 2.28 of their 48th Report (1982-83) emphasised the system of regular inspection and at least test-check by a Joint Team of officers of the Ministry of Works and Housing and the State Governments to see whether the people in the problem villages, reported to have been covered, were actually receiving the drinking water and assess the problems.

The Committee in para 1.6 of their 55th Report (1983-84) further observed :—

“The result of verification in respect of water supply schemes mentioned in para 2.28-A of the original report intimated to the Committee, confirms the doubts of the Committee that the coverage of village and population under the drinking water supply schemes is not in accordance with what is claimed.”

The ARP relates to item 8 of the 20 Point Programme which is avowed policy of the Government of India. A large provision of Rs. 600 crores had not been made under the VI Plan. Yet, the evaluation and monitoring of the programme had been given low priority by the Central Ministry and confined to merely getting reports from the States.

29.10.1 Monitoring/Evaluation by State Governments—There was no proper evaluation of the scheme eve in the States as detailed below :—

- (i) In Andhra Pradesh, no action had been taken for evaluating the Rural Water Supply Programme so far (June 1984) although a sum of Rs. 2.00 lakhs, was provided in the Plan budget of the State specifically for this purpose.
- (ii) In Assam, no proper system had been devised for keeping watch on physical and financial progress of the scheme. No evaluation or critical examination of implementation of the programme was being made at any level. Out of Central grant of Rs. 10.15 lakhs received by the State Government during 1980-81 to 1982-83, only Rs. 1.60 lakhs were spent on monitoring and investigation and 63 per cent of the grant was spent on staffing of different PHE Division of the State.

- (iii) In Bihar, no proper system was devised for monitoring the physical and financial progress of works. The monitoring cell at the State Head quarters only compiled the reports received from the field units. No monitoring arrangements were made at the district and circle level and no evaluation was done by the State Government.
- (iv) In Haryana Monitoring and Investigating Cell of the State did not collect and consolidate any information in regard to performance/maintenance of the completed Schemes.
- (v) In Madhya Pradesh, an expenditure of Rs. 2055.94 lakhs was incurred on construction of open wells and repairs and deepening of existing wells between 1978-79 and 1982-83, but the progress of works done was not monitored to assess their usefulness in meeting the needs of problem villages. A sample survey of one district (June 1983) showed that the works executed at a cost of Rs. 31.42 lakhs did not contribute towards meeting the minimum needs fully and all the villages continued to be problem villages for the purpose of future implementation of drinking water schemes.
- (vi) In Manipur, no evaluation and critical examination of implementation of the programme was done for taking corrective measures.
- (vii) In Orissa, the State Government did not evaluate the schemes to ascertain the achievements of the programme. Two posts meant for monitoring cell of the Chief Engineer were diverted to Housing and Urban Development Department. The salaries of the staff (Rs. 3.03 lakhs) for the period January 1978 to March 1984 were met out of Central sector ARP funds.
- (viii) In Punjab, no evaluation of the programme had been done by the State Government after 1976. The Public Health Department intimated that there was no separate organisation set up for monitoring the Programme.
- (ix) In Karnataka, the report on the evaluation of the scheme disclosed (March 1983) considerable delay in obtaining sanctions of estimates, non-provision of distribution lines in extension areas and Harijan colonies in some projects and creation of unhygienic conditions in some villages by waste water from community water taps.
- (x) Central assistance of Rs. 4 lakhs released to Arunachal Pradesh during 1978-79 and 1979-80 for establishing monitoring and investigation unit remained unutilised (June 1984).
- (xi) In Meghalaya, no evaluation of the schemes after completion was done to see that the schemes achieved the desired results.

(xii) In Mizoram no critical examination of progress reports received by the monitoring cell from the executing divisions was conducted.

Summing up.

- The Central schemes for providing safe drinking water to problem villages was launched in 1972-73 to supplement the resources of the State Government. The scheme was discontinued from 1974-75 on introduction of the MNP, but was re-introduced during 1977-78, and upto 1979-80 Central assistance amounting to Rs. 157.17 crores was released to the States. For the Sixth Five Year Plan period Rs. 600 crore were provided under Central sector and Rs. 1444.11 crores under State sector for implementing the scheme. Against the provision of Rs. 600 crores, the amount released by the Central Government during first four years of Sixth Plan was Rs. 544.17 crores.
- According to the survey conducted by Special Investigation Divisions in various States, 2.31 lakhs villages were identified as problem villages as on 1st April 1980. However, more and more villages were subsequently added to the list by the State.
- The release of Central assistance was subject to State Government utilising in full the MNP outlays during the Plan period. During first four years of the Sixth Plan period, MNP funds were not fully utilised in the States of Andhra Pradesh, Bihar, Gujarat, Karnataka and Punjab.
- Expenditure to the extent of Rs. 2669.60 lakhs was reported in excess of the actual expenditure incurred in 5 States.
- Unspent balances out of the Central assistance amounting to Rs. 6379.60 lakhs were lying at the end of March 1984 with the State of Uttar Pradesh, Karnataka, Punjab, West Bengal and Arunachal Pradesh.
- Funds to the extent of Rs. 575.19 lakhs out of Central assistance were diverted for other purposes in the States of Punjab, Orissa, Bihar, Tamil Nadu, Uttar Pradesh and Meghalaya.
- Expenditure of Rs. 583.28 lakhs proved unfruitful due to non-repair of defects, non-supply of power, non-removal of casing pipes from failed wells, non-completion of rising mains and distribution system and non-salvaging of buried assembly.
- The release of Central assistance was subject to the conditions that non-problem villages were not to be covered from the funds under Central sector as well as State sector. However, in 11 States and 2

Union Territories (out of 19 States and 5 Union Territories test checked) 10190 non-problem villages were covered under the programme upto March 1984.

- The main objective of the programme was to provide at least one source of safe potable water to be available throughout the year. However, in many States unsafe and untested water was being supplied to the villages covered under the scheme.
- In 11 States, 2096 water supply schemes involving an expenditure of Rs. 838.06 lakhs failed to provide the intended benefits to the problem villages due to in-adequate source of water, non-construction of wells upto the prescribed depth and dispute over water sources.
- In 6 States, expenditure of Rs. 2748.99 lakhs was rendered infructuous as the schemes failed due to wrong selection of sites.
- In four States and one Union Territory, extra expenditure of Rs. 323.66 lakhs was incurred due to provision of wells in excess of prescribed number and piped water supply instead of sanitary wells and hand pumps in 855 villages.
- Although the scheme provided for giving high priority to the needs of SC/ST villages, proper coverage was not given to such villages in the States of Assam, Bihar, Gujarat and West Bengal.
- In Himachal Pradesh and Karnataka, 135 schemes sanctioned during February 1979 to March 1983 were not taken up for execution (March 1984) while in Assam, Bihar, Gujarat, Kerala, Orissa, Rajasthan, Uttar Pradesh, Pondicherry, Maharashtra and West Bengal schemes taken up 3 to 10 years back were still incomplete resulting in escalation of cost.
- In 9 States, the actual coverage during the first 4 years of the Sixth Plan was only 42,220 problem villages against the Sixth Plan target of 87102 villages for these States.
- The responsibility of maintenance of completed water supply schemes rested with the gram panchayats once the schemes were handed over to them. In the States of Andhra Pradesh, Assam, Madhya Pradesh, Manipur, Rajasthan, Maharashtra and Meghalaya, the gram panchayats were not able to maintain the schemes properly with the result that many of the schemes became defunct and additional expenditure had to be incurred for their revival/maintenance.
- Stores valued at Rs. 368.05 lakhs were purchased in 7 States during 1979-80 to 1983-84 which were not actually required for works under the scheme.

- In 4 States and 2 Union Territories, shortages of stores worth Rs. 93.25 lakhs were noticed during physical verification. In Manipur and Union Territory of Goa, Daman & Diu, over payment of Rs. 5.62 lakhs was made to contractors in respect of 8 schemes.
- In 5 States, avoidable extra expenditure of Rs. 79.37 lakhs was incurred due to procedural delays, frequent changes in designs and source of water, purchases of costly pipes and extra payment to contractors.
- The monitoring of coverage of villagers under the scheme was done by the Ministry only through progress reports received from the State Governments. There was no adequate system of verification of the progress through local inspections.
- No monitoring/evaluation of the programme was done by the States of Andhra Pradesh, Assam, Bihar, Haryana, Madhya Pradesh, Manipur, Orissa, Punjab, Meghalaya, Arunachal Pradesh and Mizoram. Information about other States was not available.

APPENDIX IV

Statement of Conclusions and Recommendations

Sl. No.	Para No.	Ministry/Deptt. concerned	Recommendations/Observations
1	2	3	4
1	71 & 72	Rural Development	<p>Drinking water supply is a problem of great importance for Rural India. Drinking water supply is a State subject—schemes are drawn up, implemented and monitored by the State Governments. In the case of Accelerated Water Supply Programme the schemes to be taken up are approved by the Government of India. Detailed guidelines have been laid down for the formulation of schemes under ARP and at the time of approval it is seen that the schemes have been formulated in accordance with the prescribed norms. In the case of schemes under Minimum Needs Programme the implementation of the scheme is the responsibility of the State Governments who are expected to ensure that the schemes conform to the prescribed norms. The States have over the years gradually built-up their Public Health Engineering Departments to tackle the problem of water supply and sanitation. In mid-sixties it was observed by the Centre that rural water supply</p>

schemes were being implemented in villages which were easily accessible and rural areas which had problems in getting the much needed water for drinking and domestic purposes were neglected. The Central Government, therefore, requested the States to identify such villages, called 'problem villages' so that efforts could be directed towards tackling their problem. The criteria laid down for identification were :

- (a) Villages where no water sources existed within a distance of 1.6 km. or where water was available at a depth of more than 15 metres. (In hilly areas, villages where water sources were available at an elevation difference of more than 100 metres from the habitation) ;
- (b) Villages where the water sources were having excessive salinity, iron, fluorides and other toxic elements hazardous to health ; and
- (c) Villages which were exposed to the risk of water-borne diseases, such as cholera, guinea-worm, etc. due to available water.

The norm of 1.6 km. distance was fixed. During the Seventh Five Year Plan period which aims at providing adequate safe drinking water facilities to the entire rural population, a more liberal norm of providing a source of water within a distance of 0.5 km. and at an elevation of 15 metres in the hilly areas was adopted for States which are able to have a complete coverage under the above guidelines. The Committee appreciate the new liberalised norm. Against the target of 2.31 lakh problem villages proposed to be

covered during the Sixth Plan the achievement has been 1.92 lakh villages. Looking at achievement so far the Committee fear that the target laid down for the Seventh Plan period may not be achieved unless the Department of Rural Development and the State Governments intensify their efforts. The Committee hope that the Department of Rural Development and State Governments would be able to mobilise adequate financial and physical resources to achieve the revised target with liberalised norms.

2 33 Rural Development

The Committee also note that number of problem villages identified has been on the increase with passage of time. While an estimated 1.52 lakh villages were identified as problem villages in 1972, according to the survey, the figure came to 2.34 lakh problem villages in 1978. However, a total identification of 2.31 lakh villages was done as on 1.4.80. It has also been reported by the Government that the States are now carrying out surveys based on the old criteria and the surveys carried out earlier were not realistic and comprehensive. The Committee deprecate that a matter, so vital to the national interest, is being treated lightly and would urge the Government to take steps to ensure that such surveys are carried out realistically so that Government may be well aware of the quantum of target to be achieved.

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The Committee note that because of drought for the three consecutive years in the States of Rajasthan, Gujarat, parts of Maharashtra, parts of Andhra Pradesh and parts of Karnataka even the well established sources became scanty in supply of water or become dry. While some of the areas are hit by drought due to scanty rainfall the drought-prone areas can be easily identified as these which are chronically affected by drought. The Committee urge the Government to identify these areas and find a perma-

nent solution and envisage a method whereby drinking water will not become a problem on account of drought. In view of the unpredictability of rainfall this topic should be the subject-matter of consideration by the Government with a view to finding a permanent solution to the problem. Desert villages should be identified in consultation with the State Governments but under the overall control of the Government of India so that equipment and services of specialists are optimally utilised. The Committee would also like to point out that in villages which are situated near rivers in the industrial areas effluents are let in and these become problem villages as such river water becomes highly contaminated and becomes unfit for human consumption. The Committee would urge the Government to take care of this aspect to eliminate this problem which is fraught with serious consequences for human health.

4 75 Rural Development

The Committee during their visit to Aurangabad in October 1985 noticed that the problem of drinking water was more acute in Deccan Plateau because limited quantity of underground water is available only under the rocks. Because of the impervious strata of soil, 50% of the bore-wells were failure in this area. It was brought to the notice of the Committee that 80,000 borewells were drilled and only 50,000 were successful. Borewells yield 200 gallons of water per hour which is not enough even for a population of 200. Further, the break-down in the case of tubewells is 15 to 20 percent. The water table recedes during summer which leads to drying of tube-wells. It was also brought to the notice of the Committee that more

wells could not be dug because of the non-availability of the underground water. Similar situation exists in certain areas of Andhra Pradesh, Madhya Pradesh, Karnataka, Rajasthan also. The Committee are of the firm opinion that these chronically drought prone areas with meagre underground water resources should be identified and a permanent solution for the drinking water problem should be found. Supply of drinking water must take precedence over everything else even over irrigation and industrial use of water. Such drinking water projects envisaging supply of drinking water by pipes for group of villages in drought prone hard-core areas where saline and polluted water exists alone can provide a permanent solution. The present system of finding a solution on village unit basis is proving itself to be too costly and also infructuous on account of scanty underground water resources.

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Sixth Plan targets could not be achieved for a variety of reasons. Besides financial constraints, these were non-availability of reliable permanent source of water inaccessibility of villages; lack of communication facilities to transport rigs, materials etc; shortage of materials like cement and technical personnel in some cases. While the Committee appreciate these difficulties, they do not consider them to be insurmountable and incapable of solution. These impediments could have been well thought of while laying the physical targets. With greater enthusiasm, proper planning, adequate care and efficient monitoring, pitfalls could have been avoided and better results would have been achieved.

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The Committee trust that spill-over 39,000 problem villages would be provided with potable water by the year 1987-88. The Committee would like to be apprised of the progress in this regard in due courses.

7 78 Rural Development

The Seventh Five Year Plan aims at providing adequate safe drinking water facilities to the entire population. The priority would be first to cover remaining problem villages based on the original survey at the commencement of the Sixth Plan and also to cover new problem villages identified subsequently based on the old criteria. States have also been allowed to take up coverage of both partially covered villages/habitations as well as villages which have been identified as problem villages after the Sixth Plan. For States which would be able to complete coverage under the above guidelines, the programme could be extended for providing coverage under a more liberal norm of providing a source of water within the distance of 0.5 km. and at elevation of 15 metres in hilly areas. The Department of Rural Development have also stated that enhancement of the norm from 40 to 70 litres per capita per day could also be considered at an appropriate stage depending upon the availability of additional financial resources during the plan period for the sector. However, the number of problem villages identified on the basis of old-criteria is 1,33,000 and to cover all of them the cost has been estimated at Rs. 7700 crores at 1984-85 prices. The allocation made during the plan is less than half of this at Rs. 3454 crores Rs. 1201 crores in the Central sector and Rs. 2253 crores in the State sector. The Secretary, Rural Development admitted during evidence that roughly 44% of the population remains to be covered at present and going by the present methodology it would be possible to cover 26 or 27 per cent of the population by the end of the Seventh Plan. The Committee would in this context refer to the statement by the Minister of State in the Ministry of

Agriculture in Lok Sabha on 2.3. 1987 in which he stated that 38,748 spillover villages besides 1,89,680 freshly identified problem villages remained as problem villages at the end of Sixth Plan and stated that all the villages in the country will be provided with safe drinking water by the end of the Seventh Plan. In view of the financial constraints the Committee are inclined to believe that enhancement of the norm from 40 lpcd to 70 lpcd and provision of safe drinking water facilities to the entire rural population in line with the objective of International Drinking Water Supply and Sanitation Decade (1981-91) would remain a distant dream. Unless the Government of India releases larger funds commensurate with the promises made in the Seventh Five Year Plan document it would not be possible to cover all the problem villages.

The Sixth Five Year Plan document states that at least one dependable source of water supply throughout the year should be provided in the identified problem villages. The States have implemented the schemes during the Sixth Plan according to this objective. Therefore, the percentage of partially covered villages has gone very high during the Seventh Plan period. In Kerala—the state which has attained hundred per cent coverage of problem villages till March 1986, out of 1158 problem villages covered, as many as 1147 villages were covered partially. Similarly, in Karnataka State also which has also covered almost all the problem villages identified as on 1 April, 1980 except 13 villages each village has been provided with only one source of potable water. The same is the case with problem villages in other States. Thus, the problem has not been fully solved because in sizeable number of cases only one hand pump or borewell has been provided even in big villages having large population. Such villages have been

removed from the list of problem villages. Obviously, the needs of the village have not been met completely and the problem of drinking water is still there though it has been solved partially as a single borewell or a hand-pump is not capable of sufficient discharge of water to satisfy the needs of entire village. The Committee are not satisfied with this approach and would like that at least for the time being the minimum laid down norms of water supply should be strictly adhered to. The problem villages should not be delisted unless there has been substantial improvement in the supply of drinking water for at least a period of 5 years.

9 80 Rural Development

According to the existing norms, in the case of a piped water supply scheme a minimum quantity of 40 litres per capita per day of potable water is to be made available. In the case of handpumps guidelines provide for one handpump for every 250-300 population. No specific quantity is earmarked for consumption by animals. The Committee do not consider this as a satisfactory position. A Working Group set up in this connection had recommended water supply of 70 litres per capita per day (lpcd) including water for cattle. In places where tubewells with handpumps are technically feasible, the Working Group has recommended one tubewell with hand-pump for every 150 persons. The Government of India has decided that this aspect will be re-examined at the appropriate stage depending upon the financial resources available during the Seven Plan for the implementation of Rural Water Supply Programme. Since the resources provided in the Seventh Plan are not adequate enough the Committee would like the

Government to examine as to how to find additional funds to revise the norms of drinking water supply in accordance with the aforesaid recommendations of the Working Group.

Even though the Seventh Plan aims at providing potable water to the entire rural population, the actual availability of resources during Plan period would be much less than the actual requirement. The Government intend to bridge the resource gap to the possible extent through adoption of low cost Science and Technology solutions available in the country. 70 per cent of the cost is required for 30 per cent coverage due to taking up of capital intensive regional piped water scheme in different areas. It has been necessitated by non-availability of ground water or brackishness or contamination with salinity, iron etc. The wide variation in climatic condition and location of the source of surface and ground water also require adoption of different types of solutions which are economical and suit local needs. With this objective in view the Government has launched with the approval of the Prime Minister, a technology mission on 'Drinking Water in villages and Related Water Management'. The strategy of the Technology Mission would be to deal with the total problem of drinking water supply in the project area by an integrated and inter-disciplinary project. Educating the public in conservation of quality and quantity of water is an important aspect of Technology Mission. Under the Technology Mission pilot projects in 10 districts of 10 different States have already been started. The Committee welcome the new initiative and would also like to be apprised of the progress made and results achieved in this regard.

In 11 States, namely, Andhra Pradesh, Assam, Himachal Pradesh, Karnataka, Orissa, Punjab, Tamil Nadu, Uttar Pradesh, Maharashtra,

Meghalaya and West Bengal, 2096 water supply schemes involving an expenditure of Rs. 838 lakhs failed to provide intended benefits to the problem villages due to inadequate source of water, low yield, non-finalisation of dependable source of water, non-construction of wells upto the prescribed depth and dispute over the water sources. Another expenditure of Rs. 2749 lakhs inculding in six States of Rajasthan, Madhya Pradesh, Haryana, Orissa and Maharashtra was rendered infructuous as the schemes failed due to wrong selection of sites. The Committee deplore that schemes have been taken up without hydro-geological survey. The scarce resources have been frittered away due to faulty planning. No doubt, water supply is a State subject and preparation, implementation and maintenance of the schemes are their responsibility, yet the Committee feel that the Department of Rural Development cannot absolve itself from the responsibility. As the ARP schemes are implemented after approval by the Department, it must ensure that requisite hydro-geological surveys are invariably conducted and other relevant aspects are well taken note of before taking up water supply schemes for execution. It is also disquieting to note that in many States viz. Andhra Pradesh, Rajasthan, Karnataka, Tamil Nadu and Maharashtra borewells installed in rural areas particularly problem villages dried up because of lowering of water level due to scanty rains, drought and excessive exploitation of ground water. In Karnataka alone, out of 15,443 villages covered, in about 5000-6000 villages water sources have dried up. The water supply position becomes quite alarming in those problem villages which have been provided with only one borewell and that too goes

dry. The reasons for lowering of water table are stated to be *inter-alia* inadequate rainfall, depletion of ground water due to shortfall in its recharge, over exploitation of ground water, large-scale deforestation and absence of appropriate water management shed etc. At present there is no regulatory measures on exploitation of ground water by various agencies. The Secretary, Rural Development conceded during evidence that things will become much more difficult in the next five years because of deforestation. Underground water would not be recharged and water table will recede further.

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Ecological degradation leading to depletion of the water resources should be stemmed so that water shortage problem is not further aggravated. Since this problem is being dealt with by a different department the Committee would urge the Government to take steps to coordinate the activities of the two departments and to take steps to stop the ecological deterioration. It is observed from Audit review on Land Management by the C & AG of India in his Audit Report—Railways 1982-1983 that by proper afforestation of surplus railways lands, income of Rs. 111 crores per annum could be generated. This vast economic potentiality remains unexploited. The Government of India should formulate schemes in consultation with the State Governments to take afforestation on a wider scale and plough back the resources so generated in water management schemes.

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The economy can hardly afford costly solution of piped water supply which in some difficult areas cost upto Rs. 2200 per capita. The supply of water through tankers is also a costly affair though it has to be resorted to as a compulsive measure during droughts. In this context, the Committee

appreciate the current thinking of conserving rain water in catchment areas through construction of low cost bunds etc. on seasonal streams and rivulets and to percolate it into soil. These measures are, however, being taken up in a few selected areas. The Committee would like them to be taken up on a wider scale. Unless this problem is tackled urgently and on a wider scale, the massive investment made in installation of borewells and tubewells etc. would become futile as they would not be capable of pumping out underground water due to lowering of water supply.

14 85 Rural Development

The Programme of Supply of Drinking Water to Problem Villages has accorded high priority to the needs of Scheduled castes and Scheduled tribes. In 1981, the Central Government had advised the States that as far as possible every new source of drinking water in a village should be located in a scheduled caste habitation and should be open to all communities. In many cases these instructions have not been adhered to. The Secretary, Rural Development also stated during evidence that contrary to their instructions new sources of drinking water have been set up in many cases at a place which are not accessible to scheduled castes/scheduled tribes. The States have been asked to earmark a part of Central assistance granted to them under ARP scheme exclusively for scheduled castes and scheduled tribes equivalent to the percentage being allocated by them under the MNP for the special component plan for the S/C and S/T sub-plan. During the Sixth Plan period the percentage of SC/ST population covered under drinking water supply scheme were 16.07 and 9.07 of the total population covered.

Consequent to the issue of these instructions the targets for coverage of SC/ST would get segregated and would be monitored separately. The Committee would like the Rural Development Department to keep a strict watch on this aspect so that the weaker sections of the society are ensured minimum supply of drinking water.

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Funds to the extent of Rs. 575.19 lakhs out of Central assistance were diverted by some States, namely, Punjab, Orissa, Bihar, Tamil Nadu, Uttar Pradesh and Meghalaya etc. for other purposes such as operation and maintenance of schemes, purchase of building materials, furniture, stationery, rotary portable compressors, jeeps, ambassador cars, mini-trucks, maintenance of staff, supply of water through tankers and other activities not permissible under the norms for grant of Central assistance. As the Audit findings are based only on test-check the Committee are inclined to believe that actual diversion of Central assistance could have been on much more wider scale than reported by Audit. The Secretary, Rural Development has observed during evidence that they have not received any feedback from the States. The Committee would like the procedure to be streamlined in this regard to check recurrence of such diversion of funds in future. They would also like the Department of Rural Development to examine possibility of deducting the amount equal to funds diverted by the concerned States from their share of Central assistance earmarked for next year with a view to curbing the tendency on the part of the States to misutilise funds sanctioned for this purpose.

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It is also disquieting to note that an expenditure of Rs. 583.28 lakhs became unfruitful due to non-repair of defects, for want of power supply, non-removal of casing pipes from failed wells, non-completion of rising

mains and distribution system and non-salvaging of burised assembly in a number of States. In Bihar, 31 schemes completed at a cost of Rs. 218.26 lakhs during 1981-82 and 1983-84 could not be operated due to non-energisation. Even in May 1984, the cases were being pursued with the State Electricity Board. In Karnataka, 37 schemes could not be commissioned for want of power supply. Seven of these schemes were taken up in villages which had no electricity. The State had also not removed the casing pipes inserted in 6987 failed bore-wells during 1980-81 to 1983-84. In 4 districts of Madhya Pradesh piped water supply schemes completed upto March 1982 could not be commissioned till July 1984 for want of electricity connections and non-completion of work of laying pipelines. As the Audit findings are based on test-check, there could be many more cases of such unfruitful expenditure. The Committee deprecate this and would like the Department of Rural Development to ensure that schemes completed are commissioned at once so that their benefits are made available to people.

17 88 Rural Development

The main objective of the Centrally sponsored Accelerated Rural Water Supply Scheme is to provide safe drinking water to identified problem villages throughout the country with at least one source of safe potable water available throughout the year. However, the Committee note that in a number of villages in Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal unsafe water was supplied to villages covered under the scheme defeating the main objective of the programme. In 4 villages of Ranga-

reddy and Guntur districts of Andhra Pradesh samples of piped water indicated flourides in excess of the permissible limits. However, it was continued to be supplied in 3 villages. In another 4 villages, untreated water was being supplied from canals and rivers which were subject to seasonal pollutions. In Himachal Pradesh, 835 villages with population of 1.60 lakhs were supplied raw/unfiltered water from a khud or nallah or a spring which were not free from pollution. 11 other schemes supplied drinking water containing suspending impurities, acidic elements and turbidity and was bacteriologically not fit for human consumption. Chemical and bacteriological analysis of water at source was not conducted in case of another 258 water supply schemes executed during 1980 to 1984 under the Programme. In Midnapur district of West Bengal, saline water with high percentage of chloride was supplied to people.

Similarly, unsuitable water was supplied in some areas of Rajasthan, Assam, Bihar and Uttar Pradesh. The reasons are stated to be delay in commissioning of water treatment plants and inadequacy of water testing facilities. It was also noticed during evidence that drinking water is contaminated by iron or is unsafe otherwise. It was brought to the notice of the Committee that in Haryana people, become ill because of continuous exposure to drinking flouride water and that in certain areas where clean water is not available; it had worms. The Committee in this connection would like to refer to the statement made by the Minister of State in the Ministry of Agriculture in the Lok Sabha on 9.3.87 who reported as under :

Higher concentration of nitrates have been observed in water from dugwells in localized areas in the country. The tolerable limit for nitrates in

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water for domestic use in 45 mg/litre. Limited field investigations undertaken by Central Ground Water Board and other organisations have indicated the presence of nitrates beyond tolerable limits in certain localized areas in fourteen States and Union Territory. Continued use of water having nitrates concentration of 45 mg/litres or higher may result in blue baby disease, effects on central nervous system, cancer and effect on cardiovascular systems.

20 91 Rural Development

The Committee also deplore that a large number of pumps have been installed particularly in Rajasthan, Andhra Pradesh, Bihar, Gujarat, Haryana, Himachal Pradesh, J & K, Madhya Pradesh, Orissa, Punjab, Tamil Nadu, Uttar Pradesh, West Bengal and Union Territory of Delhi after digging aquifers though the water was brackish and not potable at all. The Department of Rural Development should initiate appropriate steps in this regard. People should be provided with potable water free from ill effects and water which can endanger health of the population should in no case be supplied for drinking purposes. The Committee cannot but take a very serious view of this highly unsatisfactory state of affairs indicating that water supplied to human being should have serious health hazards and would urge the Government to give serious consideration to this problem, so that there is no sickness and death from water borne disease. The Government should issue instructions calling for strict action against officials found negligent and guilty. The Committee would like to be apprised of the remedial steps taken by the Government in this regard.

In view of the serious shortage of water testing laboratories particularly in rural areas the Department of Rural Development has been toying with the idea of providing water testing kits to some educational institutions in rural areas which are equipped with chemistry laboratories so that water samples drawn from nearby areas could be tested there. The Committee appreciate this approach and would like to be informed of further progress made in this regard.

In some areas available water is contaminated by iron ore while in some others it contain fluoride. Still in some other areas water contains worms. To counter this menace, in some difficult areas drinking water has to be carried over a long distance in some cases upto 100 kms. through pipelines. Laying and maintenance of pipelines over long distances entails heavy cost. The Central Government, to tackle problems of such difficult areas, of late, have been thinking in terms of technology missions to make contaminated and brackish water potable in those areas where drinking water sources are not available in the vicinity. It is also formulating some other alternative plans like storing of rain water in difficult areas. The Committee would urge the Government to accelerate implementation of the programme by employing the available technology to make available drinking water to people who needed it the most. In this connection the Committee would refer to the statement made by the Minister for Water Resources in Lok Sabha on 19.3.87 in which it was stated that Andhra Pradesh, Tamil Nadu, Karnataka, Maharashtra, Gujarat, Rajasthan and Uttar Pradesh have made use of the reports of Remote Sensing Agency to utilise the surveys on locations of water reserve for drinking water/irrigation scheme as conducted by Remote Sensing Satellite Agency team. The Committee would like the Government of India to urge other States also to take advantage of this specialised agency with a view to achieve better results.

23 94 Rural Development

It is disquieting to note that maintenance of drinking water supply schemes had not been satisfactory. It is unfortunate that maintenance of the assets created has not received any attention at the time of creation of assets, with the result that many water sources have become defunct for want of maintenance. Machinery for maintenance of the assets is a prime need for continued effective implementation of the scheme. Appropriate procedures and measures should be instituted in this regard. The cost of operation and maintenance are met normally out of the 'Non-Plan' budget. The responsibility for the maintenance of completed water supply schemes generally rests with gram panchayats and they had not been able to maintain them properly. As a result many schemes became defunct and additional expenditure had to be incurred on their revival. In Karnataka about 2,000 pumps in each taluk are reported to have remained out of order for a weak or so due to mechanical defects. In the case of deep-wells, interruptions were reported to be 6-7 per cent. In Madhya Pradesh, out of more than one lakh pumpsets installed, 20,000 are 'Mahasagar' pumps which go out of order frequently. The position is not satisfactory in other States also. In this context, the Committee appreciate the provisions made in the Seventh Plan document to permit as a special case utilisation of ten per cent of Plan funds under the Minimum Needs Programme for maintenance of schemes. However, popular, involvement of the community using their own knowledge and skill to maintain their own water supply is sinquo-non. In Rajasthan, training has been imparting to rural youths under TRYSEM to train them as village level mechanics. This scheme should be extended to

other States as well. The Committee hope that with the introduction of concurrent evaluation on the status of availability of drinking water in rural areas the Department of Rural Development would be able to monitor more effectively maintenance of drinking water supply schemes to rural areas.

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It is distressing to note that sub-standard material had been procured in a number of cases in Andhra Pradesh and Tamil Nadu. The Audit has also reported shortage of material worth Rs. 93.25 lakhs in Himachal Pradesh, Manipur, Punjab, Arunachal Pradesh, Mizoram and Meghalaya. In some of the cases action has been initiated to make good the shortages. The Committee would like to know the action taken against the erring officials for dereliction of duty. They would also like to know if there had been any other case than those pointed out by Audit of purchase of sub-standard material and shortages.

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The Committee deprecate that no evaluation of 'Supply of drinking water to problem villages' has been conducted by the States in regard to timely execution of the schemes under the Programme. On implementation of the Programme, the National Environmental Engineering Institute, Nagpur had conducted evaluation studies in 11 States in 1982. Its main findings were *inter-alia* to treat water supply sector as a core section and allocations to it should match the magnitude of the problem; water supply and sanitation should form a part of integrated rural development programme and be coordinated with related sectors like health, irrigation, education etc., to have norms indicated for classification of villages and allocation of funds at the national level; water supply schemes should be

entrusted to Public Health Engineering Departments for operation and maintenance; to bring improvement in the monitoring and evaluation systems; to strengthen training arrangements for operations of rural water supply schemes and to ensure community participation and effective health education. The Committee would like to know the action taken on these recommendations to bring the much desired improvements on the implementation of the programme.

The Committee find it disquieting that so far no efforts have been made to adequately involve voluntary agencies in implementation of the rural water supply schemes. During Seventh Five Year Plan period, greater involvement of community and voluntary organisation in planning, execution and maintenance of rural water supply schemes is envisaged. This aspect was also considered at the Conference of the State Ministers, Secretaries and Chief Engineers in-charge of Rural Water Supply and Sanitation held in February, 1986. The Conference was of the view that there was urgent need for integrating drinking water supply programme with health education and promotion of health consciousness among the rural population. Health education pertaining to drinking water supply and sanitation should be made an integral part of formulating primary education for children and in all Adult Education Programmes. The Conference also stressed the importance of involving women in the selection of sites of water sources. Since the women are the principal beneficiaries of the drinking water supply programme, their involvement in site selection would result in

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full utilisation of the created sources. In view of the importance of maintenance, it was felt that the involvement of community using their own knowledge, skill for maintaining their own water supply is both desirable and crucial. Popular participation and involvement of the community in the maintenance endeavour could be of critical importance because without their support as users of water supply and their active cooperation, it will be difficult to achieve success.

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Training of village level mechanics for maintenance under TRYSEM, as being implemented in Rajasthan, has been recommended. Voluntary agencies engaged in Rural Water Supply Schemes are also ensuring community participation at various stages. The Government should take due consideration of the above recommendations and would take steps to implement them expeditiously. The Committee would like to be apprised of further progress in this regard.

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The Committee note that under the Accelerated Rural Water Supply Programme, the State Governments formulate the schemes and submit the same to the Centre for scrutiny and approval before they are taken up for execution. Under the Minimum Needs Programme the schemes for providing drinking water in rural areas are formulated and implemented by the respective States. The Centre has funded setting up of Monitoring and Investigation Units in States and Union Territories for ensuring better implementation and monitoring of the schemes taken up for implementation. However, the facts gathered by the Committee and the points made by Audit amply bring out that monitoring system has not been functioning satisfactorily. The Secretary, Rural Development during evidence admitted that

‘most of the complaints that are coming from various sources including audit by way of test check could have been found out much earlier by us. In fact this is the duty of the executing agency to find this out. We did not go into the voluntary aspect of these things. The point is correct that we have not pursued it very vigorously after we have given money to the State Governments’. The Committee disapprove this casual approach and are of the view that successful implementation of such a gigantic programme, effective monitoring mechanism must be evolved both at the Central and grass-root levels. The Committee urge the Government to have separate agencies to deal with the problem, to monitor and implement the programme both at State level and at the Central level. The Committee would like to reiterate the earlier recommendations of the Estimates Committee contained in paragraph 2.28A of their Forty-Eighth Report (7th Lok Sabha) that there should be a system of regular inspections and test check by a joint team of the officers of the Ministry of Works and Housing and of the State Government to see whether the people in the problem villages reported to have been covered are actually receiving the drinking water and assess the problem. Since the Government has decided to provide all the villages in the country with safe drinking water by the end of the Seventh Plan the Committee feel it is all the more desirable to evolve a suitable monitoring system to ensure the successful implementation of the scheme by means of suitable control device so that there is no abnormal delay in the completion of the schemes.

The issues relating to drinking water and other allied matters were discussed in the Conference of Ministers incharge of Rural Water held on 12 February 1987 and it was decided to adopt Technology Mission in a number of areas to fill the resources and technology gap. The Conference has also decided to give special emphasis to conservation of water recharging of aquifer and purification of water with the involvement of community and voluntary agencies. The Committee hope that the Government of India would suitably monitor the implementation of these decisions so that the targets provided in the Seventh Plan are fully achieved.

Water shed management and conservation schemes under the Drought Prone Area Programme and the schemes for supply of drinking water to problem villages should be coordinated and integrated right from the formulation stage to its maintenance to conserve resources and to make the scheme effective and purposive.