

CHAPTER - 22

WATER SUPPLY & SANITATION

22.1 The state is poorly placed in terms of availability of water resources. It has only 1.16% of surface water and 1.70% of the ground water of the country. Average rainfall is 531 mm against national average of 1200 mm. Gross annual draft of ground water in the state is 13 BCM against recharge of 10.4 BCM.

22.2 Due to these conditions, Rajasthan is severely affected with drinking water supply problems. In south-eastern hilly region, ground water is available only in selected valley part and water table fluctuates rapidly due to rocky geographical formation of the area. In years of continuous drought reservoirs of the area dry up and create severe critical water crisis. The west Aravali area is desert having scanty and erratic rainfall and often faces drought conditions. There are only a few reservoirs in the area, soil strata is basically alluvial with limestone and allied sedimentary rocks, which are good aquifers. The available water has high TDS, salinity fluoride and nitrate contents. The Gang Bhakhra Canal system, Indira Gandhi Canal System in the north western part and now Narmada canal system in southern part are the only reliable drinking water sources in the region.

22.3 In addition to above geographical problems, high population growth rate, its sparse distribution has aggravated the task of providing safe drinking water. On account of these problems, about 70% habitations of the state are problematic from the point of view of potable drinking water.

Rural Water Supply

22.4 As per latest survey, there are 39617 main habitations and 82633 other habitations in the state, details of which is follows:

S.No.	Particulars	Total Number
1.	N.C. Habitations due to quality	34183
2.	N.C. Habitations due to Source being more than 1.6 km away	31030
3.	Slipped Back Habitations (to PC status)	17159
4.	FC Habitations	39878
	Total	122250

22.5 Objective & priorities for the Eleventh Five Year Plan with special reference to the Millennium Development Goals are as follows:

- Providing safe water supply to 34183 quality affected habitations.
- Providing safe water supply to 31030 habitations having safe water source at more than 1.6 km away.

- Providing safe water supply to slipped back habitations as per norms i.e. up to 40 LPCD.

22.6 Although Bharat Nirman Programme envisage completion of above by 2008-09, but same appears not feasible on account of

- Likely availability of funds and gap between requirement and availability.
- Fiscal absorption capacity of the department.

22.7 For improvement in fiscal absorption capacity, following measures appear fruitful.

- Reinforcing the existing administrative set-up by creating project units.
- Out sourcing of various activities.
- Taking up project on single responsibility turn key basis
- Streamlining and outsourcing O&M works
- Training the engineers in areas like project management and stress management

Urban Water Supply

22.8 Supply of safe hygienic and potable drinking water to urban population is undoubtedly the top priority of the state government. All the 222 towns have been benefited with drinking water supply system. But the service level in different urban water supply systems and the quality of supplied drinking water still needs a lot of efforts in terms of improvement and consumer satisfaction. The main thrust in the XI Five Year Plan will be on providing reliable, self-sustaining drinking water supply with adequate service levels to the urban areas and as per prescribed norms. The breakup of service level in different towns is as under:

No. of Towns	16	74	79	30	23
Service level in LPCD	20-40	40-60	60-80	80-100	above 100

22.9 The status of frequency of water supply in different towns is as follows:

No. of Towns	161	49	12
Frequency of Water Supply in hours	24	48	72

22.10 The objectives of Eleventh Five Year Plan are as follows:

- Benchmarking of all Urban Water Supply Systems

- 24x7 Drinking Water Supply System in all Towns
- Providing adequate service levels as per prescribed norms.
- Ensuring the reliability of water supply systems
- Ensuring consumer satisfaction from water supply system

22.11 An outlay of Rs. 1300.40 crores was proposed for the sewerage & water supply sector for the Tenth Five Year Plan against which likely expenditure is Rs. 1917.97 crores. Details of major schemes are as follows:

(Rs. in crores)

S. No.	Scheme	Tenth Plan Outlay (at current prices)	Likely Exp.
1.	Urban Water Supply	632.00	911.39
2.	Rural Water Supply	660.40	1004.07
3.	Low Cost Sanitation	5.50	1.00
4.	Training Institute for Engineering Subordinates	2.50	1.51
	Total	1300.40	1917.97

22.12 An outlay of Rs. 5143.05 crores has been proposed for the sewerage & water supply sector for the Eleventh Five Year Plan, out of which Rs. 720.24 crores is envisaged for the Annual Plan 2007-08. Details of major schemes are as follows:

(Rs. in crores)

S.No.	Scheme	Proposed Outlay	
		XI Plan	Annual Plan 2007-08
1.	Urban Water Supply	2402.40	379.88
2.	Rural Water Supply	2670.58	325.00
3.	Low Cost Sanitation	9.50	0.50
4.	Training Institute for Engineering Subordinates	3.45	0.58
	Total	5085.93	705.96

22.13 The details of major projects are as follows:

Mansiwakal Water Supply Project for Udaipur

22.14 The project envisaged to supply water to Udaipur city and Hindustan Zinc Ltd. The project consists two phases. In the first phase, dam is to be constructed at Mansi Wakal River and water is to be conveyed from this dam to Devas dam through pipeline. In the second phase, water will be supplied to Udaipur City and HZL through existing tunnel. Total cost of the project is Rs. 60.00 cr. to be shared by the State government and HZL in the ratio of 70:30, accordingly water is also to be

shared in the same ratio. Execution of the project is being done by the HZL. The work on the project is almost complete.

Bisalpur Jaipur Water Supply Project

22.15 The project has been prepared for water supply for Jaipur city from the Bisalpur dam. The project consists two parts. First part of the project for transmission of water from Bisalpur to Balawala is being executed by RUIDP with loan assistance from ADB. Second phase of the project for transfer of water from Balawala to Jaipur city is being executed by the PHED from JBIC loan assistance. Total cost of the transfer system is Rs. 463.00 crores, out of which Rs. 343.00 crores is JBIC loan. An outlay of Rs. 55.00 crores was kept for the project for the Tenth Five Year Plan against which likely expenditure is Rs. 244.05 crores.

22.16 A provision of Rs. 200.00 crores has been proposed for the Eleventh Five Year Plan, which is for the year 2007-08.

Fluoride Control Project for Bhinay-Masooda

22.17 The project envisaged to develop the infrastructure for providing drinking water to 232 villages of Bhinay & Masooda Tehsils and Vijaynagar & Gulabpura towns from Bisalpur Dam. Total cost of the project is Rs. 43.99 crores 90% work of laying the pipeline has been completed. Likely expenditure on the project during the Tenth Five Year Plan is Rs. 4.56 crores. A provision of Rs. 21.00 crores has been proposed for the Eleventh Five Year Plan, out of which Rs. 4.00 crores is for the year 2007-08.

Jawai-Pali Pipeline Project

22.18 The project has been sanctioned to provide drinking water to 531 villages and 10 towns of Pali district by converting existing canal system into pipeline from Jawai dam. This will be achieved by conservation of water being lost in open canal flow through seepage, evaporation & pilferage. Estimated cost of the project is Rs. 395.83 crores and is being implemented under NABARD assisted RIDF Project, loan amount is Rs. 86.75 crores.

22.19 A provision of Rs. 105.00 crores has been proposed for the project, which includes Rs. 5.00 crores for the Annual Plan 2007-08.

Jodhpur (RGLC) Phase II

22.20 The project envisaged to supply drinking water to Jodhpur city, 729 villages of Jodhpur, Barmer, Jaisalmer districts and 3 towns namely Bilara, Samdari and Phalodi from Rajeev Gandhi Lift Canal. Estimated cost of the project is Rs. 119.12 crores. Likely expenditure during the Tenth Five Year Plan is Rs. 52.74 crores. A provision of Rs. 65.00 crores has been proposed for the Eleventh Five Year Plan, out of which Rs. 5.00 crore is for the Annual Plan 2007-08.

Barmer Lift Canal Water Supply Project

22.21 The project has been taken up to provide drinking water to Barmer city 412 villages, 1684 Dhanis of Barmer and 161 villages of Jaisalmer district. Total cost of the project is Rs. 652.68 crores. Source of water for the project is Indira Gandhi Main Canal. Work on the project is yet to start. A provision of Rs. 28.00 crores has been proposed for the Eleventh Five Year Plan which includes Rs. 1.00 cr. for the Annual Plan 2007-08.

Bisalpur Dudu Phulera Project (Phase-I)

22.22 The project envisages to supply drinking water to 1488 villages of Jaipur, Tonk & Nagaur districts and 7 towns namely Chaksu, Sambhar Lake, Phulera, Narena, Malpura, Niwai and Todaraisingh. Total cost of the project is Rs. 283.77 crores. Source of this project is Bisalpur dam. The project is to be completed in two phases covering 694 and 794 villages respectively. Likely expenditure on the project during the Tenth Five Year Plan is Rs. 5 crores. A provision of Rs. 83.98 crores has been proposed for the Eleventh Five Year Plan, which includes Rs. 7.00 crores for the Annual Plan 2007-08.

Chambal-S. Madhopur -Baler Water Supply Project

22.23 The project envisages to provide drinking water to S. Madhopur town and 636 villages. The source of water for the project is Chambal river at Pali Ghat. Estimated cost of the project is Rs. 478.91 crores. Likely expenditure on the project during the Tenth Five Year Plan is Rs. 7 crore. A provision of Rs. 137.00 crores has been proposed for the Eleventh Five Year Plan, which includes Rs. 9.00 crores for the Annual Plan 2007-08.

Churu-Jhunjhunu Water Supply Project Phase-II (Aapni Yojana)

22.24 The project is aimed to supply drinking water to 428 villages of Sujangarh, Ratangarh, Rajgarh and Jhunjhunu tehsils and Chhaper, Bidasar, Rajaldesar, Sujangarh, Ratangarh and Rajgarh towns of Churu districts. Total cost of the project is Rs. 405.08 cr. The project was sanctioned in June, 2002. Source of water for the project is Sahwa Lift Canal near Samsisar village. The project is yet to start. A provision of Rs. 405.00 crores has been proposed for the Eleventh Five Year Plan including Rs. 60 crores for the Annual Plan 2007-08.

Sarwar-Nasirabad Pipeline Project

22.25 The project has been prepared to meet the ultimate demand of Ajmer Project Phase II and 342 villages of Ajmer district. The project requires laying of pipeline for pumping water from Sarwar to Nasirabad. Total cost of the project is Rs. 149.41 crores and work on the project is in progress. Likely expenditure on the project during the Tenth Five Year Plan is Rs. 5.50 cr. A provision of Rs. 18.00 cr. has been proposed for the

Eleventh Five Year Plan, out of which Rs. 5.00 crores is for the Annual Plan 2007-08.

Ramganjmandi-Pachpahar Water Supply Project

22.26 The project is envisaged to provide drinking water to 220 villages of Ramganjmandi, Pachpahar and Bhainsgarh road tehsils and 4 towns. Estimated cost of the project is Rs. 149.41 crores and is funded by NABARD under RIDF. Likely expenditure on the project during the Tenth Five Year Plan is Rs. 25.34 crores. A provision of Rs. 40.36 crores has been proposed for the Eleventh Five Year Plan, which includes Rs. 13.00 crores for the Annual Plan 2007-08.

Ajmer Bisalpur Water Supply Project Phase-II

22.27 A project has been prepared and posed for JBIC loan for augmentation of water supply for Ajmer for the year 2031. Total cost of the project is Rs. 834.36 cr. The project is yet to be sanctioned by JBIC. A provision of Rs. 764.32 crores has been proposed for the Eleventh Five Year Plan, which includes Rs. 0.36 crores for the Annual Plan 2007-08.

Nagaur Lift Water Supply Project

22.28 The project has been proposed in three phases to provide water to 11 towns and 1229 villages of Nagaur district. Total cost of the project is Rs. 28.30 cr. At present I phase of the project costing Rs. 7.30 crores has been sanctioned which shall provide drinking water to Nagaur and Mundawa alongwith 63 enroute villages. The source of water for the project is IGNP near Nokha Dahiya. Proposal for funding this project under umbrella projects has been posed to Government of India, during Tenth Five Year Plan, likely expenditure on the Phase-I of the project is Rs. 10 crores. A provision of Rs. 85 crores has been proposed for the Eleventh Five Year Plan, which includes Rs. 10.00 crores for the Annual Plan 2007-08.

Pokran Phalsoond Balotra Lift Water Supply Project

22.29 This project has been framed to provide drinking water to Pokran, Balotra and Siwana towns and 580 villages of Barmer & Jaisalmer districts. Total cost of the project is Rs. 1084.83 crores. 84.32 cusec water from Pokran Lift Canal has been reserved for this project. The project has been posed to Government of India for funding. Survey and preparation of Technical sanctions are under progress. A provision of Rs. 96 crores has been proposed for the Eleventh Five Year Plan, which includes Rs. 1.00 crore for the Annual Plan 2007-08.

Dewas Water Supply Scheme

22.30 The project consists construction of 2 dams near Akodra and Madri villages of Jhadol & Girwa tehsils respectively of Udaipur district. Total cost of the project is Rs. 139.26 crores to be shared by PHED, Urban Development & Tourism Departments in the ratio of 40:30:30

respectively. Execution of the work is in progress and it is being executed by the Water Resources Department. A provision of Rs. 38.08 crores has been proposed for the Eleventh Five Year Plan, which includes Rs. 9.52 crore for the Annual Plan 2007-08.

Chhapi Jhalawar-Jhalrapatan Water Supply Project

22.31 The project has been prepared to provide drinking water to 2 towns & 164 villages of Jhalawar district from Chhapi dam. Total cost of the project is Rs. 108.44 crores. Survey work has been completed and geo-technical investigation is in progress. A provision of Rs. 55 crores has been proposed for the Eleventh Five Year Plan, which includes Rs. 5.00 crores for the Annual Plan 2007-08.

Tonk-Uniyara-Deoli Water Supply Project

22.32 The project has been framed to provide drinking water supply to Tonk and Uniyara towns and 427 villages of Deoli, Tonk and Uniyara tehsils from Bisalpur dam. Total cost of the project is Rs. 85 crores. Survey work has been completed. Only token provision is proposed for the Eleventh Five Year Plan & the Annual Plan 2007-08.

Fluoride Control Project for Arain-Kishangarh

22.33 This project has been prepared for supplying drinking water to 164 vilages of Arain-Kishangarh sector from the three main pumping stations-Arain, Kishangarh and Roopangarh. Estimated cost of the project is Rs. 114.96 crores. A provision of Rs. 31.17 crores has been proposed for the Eleventh Five Year Plan, which includes Rs. 6.00 crores for the Annual Plan 2007-08.

Churu-Bissau Project

22.34 This project has been prepared to provide drinking water to 164 villages of Churu & Jhujhunu districts and three towns namely Churu, Ratangarh and Bissau. Total cost of the project is Rs. 119.04 crores and it is under progress. Likely expenditure on the project during the Tenth Five Year Plan is Rs. 17.53 crores. A provision of Rs. 4.50 cr. has been proposed for the Eleventh Five Year Plan, which includes Rs. 0.50 crores for the Annual Plan 2007-08. Source of water for the project is distributary of Indira Gandhi Canal.

Bageri Ka Naka Project

22.35 This project envisages drinking water supply to 206 villages of Rajasamand district. Source of water for the project is Nand Samand Dam on river Banas. Total cost of the project is Rs. 128.40 crores. It was sanctioned in 2002. A provision of Rs. 21.03 crores has been proposed for the project, for the Eleventh Five Year Plan, which includes Rs. 4.00 crores for the Annual Plan 2006-07.

Deeg Water Suuply Project Phase- I & II

22.36 The project has been framed to extend the main transmission system from Mallah to Deeg. Total cost of the project is Rs. 47.34 crores. A provision of Rs. 8.76 crores has been proposed for the Eleventh Five Year Plan, which includes Rs. 0.50 crores for the Annual Plan 2007-08.

Narmada Water Supply Project Phase I & II

22.37 This project has been prepared to provide safe drinking water to 441 villages & two towns of Jalore district. Total cost of the project is Rs. 321.18 crores consisting three phases for Sillu-Jaisala-Bhakti part costing Rs. 1.61 cr., Sanchore-Raniwara Kalan-Jaswantpura part costing Rs. 75.69 crores and Bagora-Jalore-Ahore part costing Rs. 243.88 crores. Source of water for the project is Narmada canal. A provision of Rs. 79.00 crores has been proposed for the project for the Eleventh Five Year Plan, which includes Rs. 11 crores for the Annual Plan 2007-08.