

CHAPTER 22

WATER SUPPLY AND SANITATION

22.1 Rajasthan with an area of 3.42 lac sq. km. is the largest State in the country, which accounts for nearly 10 percent of the country's area. About 1.88 lac sq.km. of area, having one third of the State's population, is the Great Indian Desert. The area to the west and north of Aravalli is dry, with low annual rainfall varying from 5mm to 20mm. The fluctuation in water table is very high because of recurring droughts in the State.

22.2 The State has 37889 habitated villages and 222 towns. In the rural areas, the population resides mostly in settlements, outside villages, known as "dhanies" and "majras" or "hamlets", therefore, even where the villages are covered by water supply schemes the entire population is not covered.

Urban Sector

22.3 All the 222 urban towns have been covered with drinking water supply schemes. However, due to increase in population, urbanization, expansion in urban limits, changing living standards and migration of rural population to urban towns, the water demand is increasing, while on the other hand due to recurring droughts and depletion of ground water, the service level has reduced to a great extent. This has necessitated augmentation of various urban water supply schemes, from time to time. About 99 percent of water supply schemes in Rajasthan are based on ground water. The only perennial river in Rajasthan is the Chambal in the eastern part of the State. There is no surface source in arid or semi arid region. Ground water availability ranges, in quality and quantity, from satisfactory to very poor. The latter prevails, in particular in the desert areas where ground water is generally brackish, contains high fluorides and water table is extremely deep, in some cases as low as 200 meters or more.

22.4 Five major projects in the Urban Sector are in hand. These are Bisalpur Project Phase-II for Ajmer, Beawar and Kishangarh towns, Bisalpur Project for Jaipur and Indira Gandhi Nahar Project-Lift Water Supply Scheme for Jodhpur town, Mansi-Wakal Project for Udaipur and Chambal Project for Bharatpur. Two new Badmer Lift Canal and Kankroli Ghati Jal Yojana for Bhilwara are proposed to be taken up in Tenth Five Year Plan period. A provision of Rs. 15403.01 lacs and Rs. 59100.05 lacs has been kept for urban water supply schemes in Annual Plan 2002-03 and Tenth Plan (2002-07) out of which Rs. 1000.00 lacs and Rs. 5500.00 lacs has been proposed respectively for Bisalpur Water Supply Project of Jaipur.

Rural Sector

22.5 There are 37889 populated villages in the State. Upto March 2001, 37594 villages have been covered with drinking water supply partially or fully. There is a balance of 295 villages to be covered as on 1.4.2001.

22.6 During Ninth Five Year Plan strategy was evolved to cover N-category habitations, Low service level habitations, Problematic villages/ habitations, P & T/piped schemes, plugging of wastage of water through water supply system and

effective O&M of rural schemes.

22.7 A provision of Rs. 14528.01 lacs and Rs. 66290.05 lacs has been proposed for various Rural Water Supply Scheme in Annual Plan 2002-03 and Tenth Plan respectively, out of which Rs. 6720.00 lacs has been kept for Integrated Project for RWSS in Saline Belt (EAP) in both Annual Plan (2002-03) and Tenth Five Year Plan (2002-07).

Urban Water Supply

22.8 During the past five year plans, the attention has been mainly on providing proper and adequate water supply system to those towns which either had inadequate drinking water supply or had no potable water supply schemes at all. Still a large number of towns had either inadequate or no distribution system or the per capita supply rate was much lower than the specified norms because of depleting water table and inadequate rains. The allocations through earlier plans were, therefore, earmarked for covering the urban population with safe drinking water supply schemes.

22.9 The situation at the end of the Ninth Plan has some what changed. Water supply schemes in most of the urban towns stand on a firmer base now. But considerable attention is required to bring about qualitative and quantitative improvements in many of these schemes. It is also emphasized on long term solution with dependable source of water for major towns with loan assistance under LIC, NABARD, HUDCO and EAP. A large number of schemes have a high percentage of system losses. This deprives the users of their due share of water. At the same time, the machines run with lower efficiencies; sources are being over exploited or under exploited and there are high losses in the pumping and distribution networks causing pressure problems. With the objective of tackling these problems, two broad categories are to be followed:

- Problem oriented steps: Due attention is required to be paid to towns suffering from much lower service levels of supply or requiring reorganization.
- Revenue yielding steps: Adequate attention is also paid to higher revenue yielding steps including reducing losses in the system and bringing about higher efficiency in production.

22.10 The details of the ongoing schemes and the main items, which are to be taken up during the Tenth Plan period, are as follows:

Major Urban Projects

Water Supply Project for Jaipur from Bisalpur through loan assistance from LIC and HUDCO.

22.11 To meet the long-term needs of drinking water of Jaipur, project costing Rs. 1100.00 crores, with source as Bisalpur Dam has been sanctioned. The project would be funded by HUDCO, LIC and State Government to the tune of Rs. 380.00 crores, 287.00 crores and 433.00 crores respectively. Against State Share a provision of Rs. 10.00 crores and Rs. 55.00 crores has been kept during Annual Plan (2002-03) and Tenth Five Year Plan (2002-07) respectively.

Water Supply Project for Ajmer & other towns from Bisalpur

22.12 Phase-I of the major project for augmenting water supply to towns of

Ajmer, Kishangarh, Beawar, Kekri, Sarwar and Nasirabad is expected to be completed by 31st March, 2002 with source as Bisalpur dam. Water supply from this dam has been commenced from February 1995. Phase-II of Bisalpur Water Supply project will be taken up in Tenth Plan for which a provision of Rs. 4100.00 lacs in Annual Plan 2002-03.

Jodhpur Lift Canal Project

22.13 Augmentation of water supply to Jodhpur, the second largest towns of the state, along with 158 villages, is under implementation. Water will be conveyed through Jodhpur Lift Canal from Indira Gandhi Nahar Project at an estimated cost of Rs. 256.80 crores. Phase II of the project has been sanctioned for Rs. 135.05 crores, out of which urban share is Rs. 19.73 crores only. A provision of Rs. 20.00 lacs and Rs. 100.00 lacs has been kept in Annual Plan 2002-03 the Tenth Five Year Plan respectively for this scheme.

Mansi Wakal Project

22.14 To meet the long-term needs of drinking water of Udaipur city, a scheme has been prepared with source as dam on Mansi and Wakal rivers. This project shall be executed in to two phases. In the first phase, a dam will be constructed at village Gorana from where water shall be pumped in two stages for transfer into Dewas dam. From Dewas dam water shall be transferred through a tunnel to existing PHED headworks on Pichhola lake for further distribution. A Memorandum of Understanding has been signed between Government of Rajasthan and Hindustan Zink Limited (HZL) on 11.2.97 to share cost of this project and available water in the proportion of 70:30. Construction of the Wakel I dam will be taken up by HZL at an estimated cost of Rs. 70 crores based on December 1996 price level and for this project there is a provision of Rs. 15.00 crores and Rs. 40.00 crore in Annual Plan 2002-03 and Tenth Five Year Plan (2002-07) respectively.

Schemes financed through Life Insurance Corporation (LIC)

22.15 Reorganization and augmentation of 24 urban water supply schemes at an estimated cost of Rs. 91.06 crores are under implementation with financial assistance from Life Insurance Corporation of India. The Corporation has sanctioned a loan amount of Rs. 39.65 crores for these schemes and balance amount is to be provided from State funds. For the financial year 2002-03, it is likely to receive a loan of Rs. 10.00 crores for these schemes.

Schemes financed through HUDCO

22.16 Reorganization/augmentation projects for 37 towns in state have been sanctioned by HUDCO for loan assistance. The estimated cost of these projects is Rs. 184.09 crores for which HUDCO has sanctioned loan amount of Rs. 104.20 crores and the balance amount shall be provided from State Funds. A provision of Rs. 10.00 crores and Rs. 50.00 crores has been made during Annual Plan 2002-03 and Tenth Five Year Plan (2002-07) respectively for these schemes.

Sewerage Schemes

22.17 Very little investment has been made in the sewerage sector up to the Eighth Plan period in the urban sector. Due to paucity of funds in Tenth Five Year

Plan, only a provision of Rs. 10.00 crores has been made for ongoing and the new sewerage schemes and Rs. 1.00 crore has been made for these scheme in Annual Plan 2002-03..

Rural Water Supply

FRG Project

22.18 The Integrated project for RWSS in saline belt, amounting to Rs. 25300.00 lacs was sanctioned and the sanction has been revised to Rs. 399.27 crores. This project covers 325 villages and two towns of Hanumangarh and Churu districts. This project is expected to be completed by 31 March, 2003, for which a provision of Rs. 67.20 crores has been kept in both Annual Plan 2002-03 and Tenth Plan (2002-07).

PMGY - Drinking Water Component

22.19 This scheme is launched by Government of India as fully funded from 2000-01. A provision of Rs. 1187.00 lacs and Rs. 6528.00 lacs has been kept in Annual Plan (2002-03) and Tenth Five Year Plan (2002-07) respectively.

Fluoride/Salinity Projects

22.20 Rajasthan State is one of the states suffering from presence of high fluoride contents in the ground water. Efforts have been made in the past to solve this problem through various types of schemes. However, due to increasing drawl from ground water sources, poorer recharges due to lesser rainfall, fluoride contents have been reported to be increasing continuously. In hand pump schemes in some districts executed several years ago, quality of water is deteriorating. Fluoride contents, which were well below prescribed norms, have increased considerably.

20.21 As per policy and directions of Government of India, projects about Rs. 53335.33 lacs was approved, out of which Rs. 37488.71 lacs are to be spent out of ARWSP funds available (with in limit of 20%) and 15846.54 lacs by State Government i.e. in the ratio of 75:25. A provision of Rs. 9.25 crores and 81.50 crores has been kept in Annual Plan 2002-03 and Tenth Plan 2002-07 respectively.

Training Institute

22.22 A Training Institute for training of the members of the Engineering Subordinate services of the various Engineering Departments such as Public works Department, Public Health Engineering Department Irrigation Department is functioning in the State. A provision of Rs. 45.20 lacs has been made in Annual Plan 2002-03 and Rs. 260.00 lakhs for Tenth Plan 2002-07.

Churu - Bissau Project

22.23 This project has been sanctioned for Rs. 11904.00 crores, out of which Government of India share will be Rs. 7371.75 lacs and remaining Rs. 2457.25 lacs and Rs. 2075 lacs are as State Share and Urban Share respectively. Government of India has released Rs. 2250.00 lacs vide its sanction of Rs. 250 lacs dated 24.2.98 and Rs. 2000.00 lacs dated 14.11.2001, out of which Rs. 250.50 lacs was utilised upto March,2001.

22.24 A provision of Rs. 500.00 lacs and 2300.00 lacs has been kept in Annual

Plan 2002-03 and Tenth Plan (2002-07) respectively for this project as State Matching Share.