



सत्यमेव जयते
GOVERNMENT OF RAJASTHAN

STATE WATER POLICY



FEBRUARY, 2010

STATE WATER RESOURCE PLANNING DEPARTMENT
RAJASTHAN, JAIPUR

CONTENTS

	Page
Introduction to Rajasthan Water Scenario	1
Approach to the formulation of the policy	3
1. Water Supply and Development	4
1.1 Water Allocation Priorities	4
1.2 Drinking Water Supply	4
1.3 Optimizing Water Availability	5
1.4 Project Planning and Implementation	6
1.5 Inter-Basin and Inter-Sub-Basin Water Transfer	6
1.6 Command area development (CAD) works to be part of Project	7
2. Integrated Water Resources Management (IWRM)	7
2.1 Organization and Participation of Water Users	7
2.2 Resourcing of Water User Groups	8
2.3 Technical Backup and Assistance at Community Level	8
3. Irrigation Water	8
3.1 Irrigation Practices	8
4. Water Resources Infrastructure	9
4.1 Data Collection and Dissemination	9
4.2 Management Information System	9
4.3 Efficacy, Maintenance and Safety of Structures	10
4.4 Drainage and Salinity	10
4.5 Urban Water Supply and Sewerage	11
5. Water Conservation	11
5.1 General Water Conservation	11
5.2 Urban Water Conservation	11
5.3 Municipal and Industrial Water Conservation	11
5.4 Rural and Agricultural Water Conservation	12
5.5 Groundwater	12
6. Water Quality	12
6.1 Water Quality and Pollution	12
6.2 Sewage	13
7. Environmental	13
7.1 Environmental Management	13
7.2 Drought Management	13
7.3 Flood Control and Water Storage	13
8. Water Pricing	13
9. Legal Enablement	14
10. Capacity Building	14
11. Intuitional Restructuring	16
12. Research	16
13. Monitoring & Evaluation of Water Policy and Action Plan	16
Acronyms	16

Acronyms used within this document

		O&M	Operation and Maintenance
GIS	Geographic Information System	PHED	Public Health and Engineering Department
IMS	Information Management System	PRI	Panchayat Raj Institutions
IWRM	Integrated Water Resources Management	STP	Sewage Treatment Plant
		SWRPD	State Water Resources Planning Department
Lpcd	Litre per Capita per Day	WHO	World Health Organization
NGO	Non-Government Organization	WUA	Water Users Association
		WUG	Water User Groups

INTRODUCTION TO RAJASTHAN WATER SCENARIO

- Rajasthan is the largest State of the country. The status of water in the State is most critical. Rajasthan with more than 10.4 % of the country's geographical area, supporting more than 5.5% of the human population & 18.70 % of the livestock has only 1.16 % of the total surface water available in the country. 2/3rd part of the State is a part of the Great Thar Desert which is bigger than most of the states except MP, UP, AP and Maharashtra. Out of the total 142 desert blocks in the country, 85 blocks are in the State of Rajasthan. This further aggravates the water crisis.
 - The ground water condition is quite alarming. The condition has deteriorated very fast in the last two decades. The stage of ground water exploitation, which was just 35 % in the year 1984, has reached a level of 138 % in 2008. Out of 237 blocks in the state, only 30 blocks are in safe category. This calls for immediate remedial measures to address the critical water resources situation in the State.
 - Rajasthan, has always been a water deficit area. The rainfall is erratic and there is a large variation in the rainfall pattern in the State. The average annual rainfall ranges from 100 mm in Jaisalmer to 800 mm in Jhalawar. Average annual rainfall of the State is 531 mm. For the 22 eastern districts, it is 688 mm whereas for the remaining western districts, the rainfall is only 318 mm. The State has witnessed frequent drought and famine conditions in the past fifty years. Ground water is not available in many parts even for drinking purpose. Sometimes water is being transported by trains, trucks and other means.
 - With increase in population and water demand for various purposes, the State is heading towards absolute water scarcity. The per capita annual water availability in the State is about 780 cubic meter (Cum) on the basis of projected population July, 2009 against minimum requirement of 1000 Cum. It is feared that the availability would fall below 450 cum by the year 2050. As per the international accepted norms, availability of water below 500 cum is considered as absolute water scarcity. There is a sharp increase in drinking water demand with increase in population and greater consciousness about sanitary facilities. Correspondingly, non-agricultural water demand, which was 3.28 BCM in 1995, is expected to reach 8.07 BCM in 2045.
 - Total surface water available in the State is 21.71 BCM, out of which 16.05 BCM is economically utilizable. State has so far harnessed 11.84 BCM which is 72% of economically utilizable portion. In addition to it 17.89 BCM is allocated through Inter-State agreements.
 - Increasing the irrigation potential 2.47 lac ha. to 34.96 lac ha. (including IGNP) and leading thereby to increase agricultural productivity.
-

- The available water is not enough to cater to the needs of the drinking, agriculture and non- agriculture demands.

Critical Issues in Water Sector

❑ **Growing imbalance between demand and supply of water**

The availability of water in the State does not commensurate with the requirement of water. The deficit between demand and supply is 8 BCM at present and likely to increase to 9 BCM by 2015. Thus the availability of water in Rajasthan is about 780 cubic meter per person per year as against the internationally accepted standards of 1000 cubic meter per person per year and is likely to reduce to 450 cubic meter per person per year by 2045.

❑ **Uncertainty in availability of water**

Rainfall in large parts of the State is not only inadequate but also varies sharply from year to year and place to place. The rainfall occurs only during two months of monsoon and the actual rainy days are numbered. The state has also to depend largely on the water allocated through Inter State Water Sharing Agreements, which depends upon inflows in the rivers.

❑ **Inequity in access of water**

With vast variation in rainfall pattern and ground water availability, some difference in access to water is inevitable. Therefore stress is being laid on water management to remove inequalities in access to water amongst various water user sectors (drinking, agriculture, industry etc); head and tail reaches; urban and rural population and between rich and poor sections of the society.

❑ **Low operational efficiency of water resources systems**

The problem of limited water availability is further aggravated by low operational efficiency. Two major users of water

namely, drinking and irrigation both show avoidable losses. This situation calls for immediate remedial measures, which are being taken.

❑ **Depleting ground water resources and deteriorating quality of water**

With increasing dependence on ground water, the ground water resources are depleting at an alarming rate. Nearly 90% of the drinking water and 60% of the water required in the agriculture sector is extracted from ground water reservoirs. Thus not only the ground water has depleted to alarming levels but the quality of ground water has progressively deteriorated leading to serious health problems. Around 80% area of the State is now witnessing ground water depletion. Many areas experience severe drinking water shortage in summer due to heavy withdrawal of groundwater for Rabi crops.

❑ **High cost of service, low cost recovery and low level of expenditure on O&M.**

The water rates do not convey a sense of scarcity among the stakeholders as such there is a need to rationalize the O&M charges to move towards full recovery of O&M charges for sustainable development of water resources.

❑ **Lack of ownership amongst the stakeholders:**

The construction and management in the water resources sector is the responsibility of the Government but with the inadequate resources, it has become increasingly difficult to manage the water resources by the Government on its own, as such the involvement of the stakeholders in construction, maintenance and revenue collection is a must for sustainable development of the water resources.