

CHAPTER 8.0: FINDINGS OF SURVEY REPORT

The survey has been emphasized on the need for involving panchayati raj institutions in management of ground water in rural areas. Since bulk of the ground water, over 80 percent, is used for irrigation, which is mainly in the rural areas, any system which results in better management of ground water in rural areas would have a salutary effect on the overall ground water scenario in the country.

Two types of questionnaire have been framed. The first type of questionnaire has been asked from the government officials, NGOs and institutions implementing programs. The second type of questionnaire has been asked from the beneficiary i.e. the farmers and the gram pradhan.

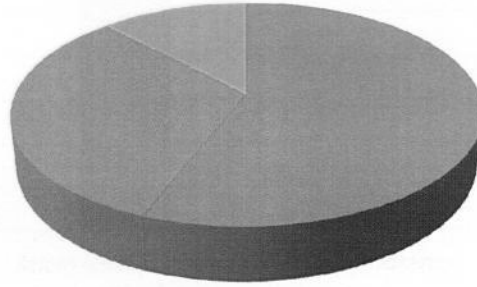
The opinions on the questions received by the government officials of Maharashtra, Andhra Pradesh and Delhi, NGOs and program implementers like Vidharbha Nature and Human Studies, Project officer Chetana-Vikas, Yusuf Meherally Centre, Vasundhara Nature Conservation Movement, Indian Institute of Youth Welfare and Shri M. Madhukar Reddy, NGO Chief for implementation of programmes of Food and Agriculture Organization of United Nation, Andhra Pradesh through the first type of questionnaire have been summarized and analysed.

The main problems related to groundwater quality reported by the government officials and NGO's were: Arsenic and Fluoride and inefficient water management

The next question was if additional institutions should be involved in the governance of ground water, to which 72% of the people said yes. It has been represented in the form of a pie chart.

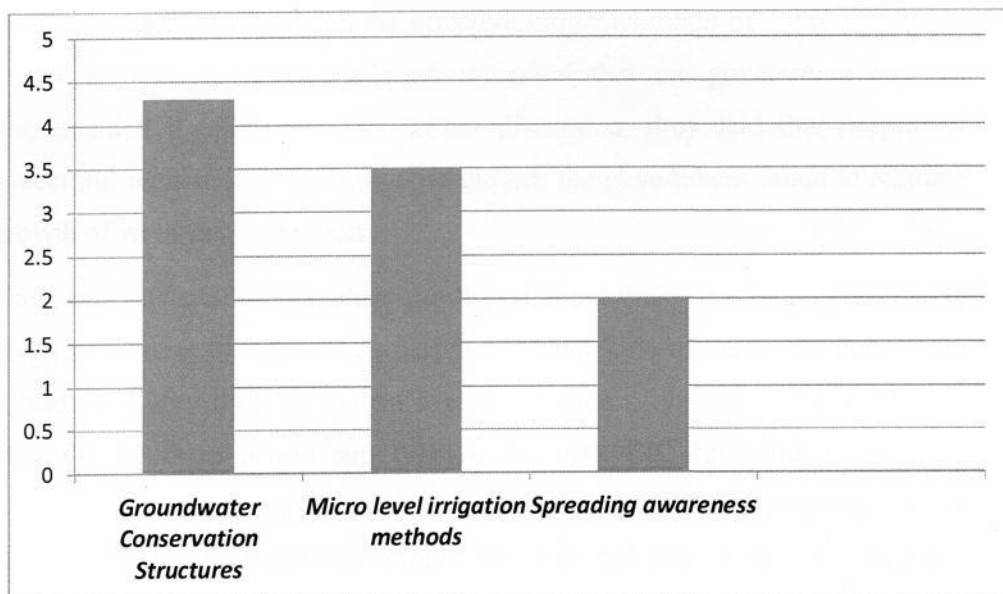
Should additional institution be involved in governance of ground water?

■ Yes ■ No ■ Can't say



Central Ground Water Authority (CGWA) was created with the statutory power of Environment Protection Act to regulate and control ground water development in the country. The response received during the survey indicated that most of the people are unaware of the powers vested with Central Ground Water Authority therefore responded for creation of additional institution for governance of ground water in the country. The institution of CGWA in the present form, though created by Supreme Court is not able to perform to the extent required. There is a need for institutional strengthening of CGWA in terms of manpower and infrastructures. The role of CGWA should be properly communicated to the stakeholders and proper strategies for ground water governance are required from CGWA.

Priorities of activities in groundwater governance and the approach of their implementation were asked in the questionnaire. Their answers have been represented in the form of a bar chart.



The first priority chosen by maximum number of officers/NGOs was Groundwater Conservation Structures followed by Micro level irrigation methods and spreading awareness. Though due priority has been accorded in National Water Policy to water conservation, enhancing water use efficiency and awareness generation, still there is a need to implement dedicated programs focused to address these priority areas. An approach of participatory management by involving the users and stakeholders in such programs is to be incorporated.

During the survey many of them have suggested ways through which better management of water can be achieved:

- a. Community participation
- b. Involvement of Panchayat

Synergy between Government of India, state and district organizations and agencies involved in implementation groundwater programs.

One of my questions was based on the APWALTA which implemented in Andhra Pradesh in 2002 to promote water conservation and tree cover and regulate exploitation of ground water and surface water. NGO's of Andhra

Pradesh, when questioned on the effective implementation of APWALTA Act in the state, were dissatisfied and remarked that the government has not implemented it efficiently. On further discussion, they said that despite of successful registration of wells under the act, the government failed to regulate growth of wells and extraction.

Govt. officials and NGOs, when questioned about their view on power subsidy given to farmers for agriculture purpose, around 75% of them said that power subsidy has very little impact on overexploitation of ground water as there is only 6-8 hours of power supply in a day. Mr. Ch. Rambabu, Director of APFAMGS project, suggested that instead the water units consumed by the farmers for irrigation purpose should be measured and charged for overuse. The monitoring of the use of ground water should be done by water user association, Panchayat or through community participation and also it should be legalized.

The Indian Easement Act 1882 states that the resource beneath the occupier of the certain land is the property of land owner but this absolute ownership concept has allowed unlimited withdrawals of ground water beneath the land by the owners. There is no limitation on how much ground water a particular land owner may draw. Even where groundwater is formally a public good, the perceptions of it being "private" often linger on. The legal notion or the perception of groundwater being private property is a strong driver for overexploitation. The Easement Act does not permit land owners ownership of ground water if it is passing in a defined channel. As much of ground water is a dynamic resource which flows through defined channels, owners of land cannot claim absolute ownership over water under their land. A proper implementation of this Act would require authorities to provide information whether ground water in an area is passing through a defined channel. This is not done presumably because most parts of ground water pass through defined channels with the result that the more one person withdraws ground water from his/her land, the less ground water becomes available to the person owning the

neighbouring land. In order to ensure socially more equitable access to groundwater and sustainable management the link between land ownership and control over groundwater should be severed. In AP where water is managed through community participation, believe that groundwater is a public asset and a not private asset.

The role of Panchayat in the ground water management was further probed at the village level. This was done while interacting with the farmers in the village to ascertain the extent of their involvement in the water sector. According to 60 percent of farmers/household, the role of Panchayat in ground water management is limited. The association of Panchayat with ground water management as reported by village heads was also found to be voluntary without any legal backup.

However, in Delhi apart from municipalities being involved in upkeep and maintenance of water works particularly those used for domestic purposes, Resident Welfare Associations (RWA) consisting of a group of households in a few pockets were found involved in the process. The services being offered by these associations are also voluntary in nature and lack legal backing.

During the discussions with the planners and concern departments of State and Central Government it has been emerged that good governance in ground water sector is required to address the issues of ground water management in the country. But an important factor which is primarily required is the Integrated Water Resources Management as ground water and surface water are complementary of each other. The source of water is mainly rainfall. Part of it is intercepted by surface water bodies becomes surface water and part that seeps into ground becomes ground water. Any skewed development of any one of the resources may further lead to imbalance of water resources system. This is apparent in most of the canal command areas or areas where no surface water irrigation is available. Therefore, there is a need to strengthen institutional and legal system for Integrated Water Resources Management.

It has been apprehended by the several quarters of water resources management that free or subsidized power supply is also one of the reasons of indiscriminate ground water abstraction and leading to ground water depletion. During the survey in most of the responses, free or subsidized power is not attributed to decline of water levels. In the areas of free or subsidized power, availability of power supply is limited to 6 to 8 hours only which is in general technically recommended limit of pumping of ground water per day from abstraction structures in any area.

Suggestions to involve PRIs in Ground Water Management

Suggestions	Andhra Pradesh	Delhi	Maharashtra
PRIs should be involved in creating awareness	8	6	3
PRIs should call a meeting of households to form water users associations	7	2	5
Legislation be enacted to empower PRIs to deal with ground water problem	17	4	3

During the survey, very few farmers took interest in answering the questionnaire despite of my constant effort to convince them to participate, but they refused saying that many such surveys have already been conducted in the past but no action is taken. Hence, they responded verbally to our questions during our conversation.