

KNOWLEDGE AND PRACTICES OF WATER CONSERVATION AND WATER MANAGEMENT AMONGST TRIBAL MEN AND WOMEN OF SELECTED FOUR TRIBAL VILLAGES OF JAMBUGHODA BLOCK, PANCHMAHAL DISTRICT, GUJARAT.

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Abstract: There is a growing scarcity of water across the country. Due to over exploitation of groundwater and poor land and water management practices the tribal and rural areas are suffering from severe water scarcity problem. The present study was undertaken to understand the Overall Knowledge and Practices regarding Water Conservation and Water Management amongst selected Tribal men and Women of selected four Tribal Villages of Jambughoda Block, Panchmahal District, Gujarat. The study had Descriptive survey design and it was conducted in four selected tribal villages, namely Dhanpuri, Sadada, Katkoi and Kharedivav of Jambughoda Block, Panchmahal District, Gujarat. 120 tribal men and women were selected by using purposive sampling technique. Data was collected by structured Interview Scheduled. Percentages and t-test was applied for data analysis. Major findings of the Study were that majority of the respondents had low level of Knowledge regarding Water Conservation and Management however half of the respondents had good Practices of Water Conservation.

Keywords: Knowledge, Practices, Tribes, Water Conservation and Management

Introduction: A substantial population of tribes are present in southern and northern belt of Gujarat. Particularly in South Gujarat, districts like Valsad, Navsari, Surat are having tribal population- Naik, Kokani, Leuva, Kadva, Kanvi etc. Gujarat accounts for 8.1% of the Scheduled Tribe population of the country. The tribal population of Gujarat, numbering 89.17 lakh, constitute 14.8% of the state's population. There are 11 major tribes in Gujarat; the largest Bhil, constituting 47.89% of the state's tribal population. The 5 Particularly Vulnerable Tribal Groups number about 1,44,593 (as per Census 2011). There is a growing scarcity of water across the country. Due to over exploitation of groundwater and poor land and water management practices the tribal and rural areas are suffering from the water scarcity problem which results in deterioration of water quality and soil salinity. Conserving water is important because water is a finite and vulnerable resource that sustains life, economic development and the environment. Water management is the activity of planning, developing, distributing and managing the optimum use of water resources. The main source of water for Gujarat tribes is surface water. Gujarat, Saurashtra and Kutch have water resources of 89%, 9% and 2% respectively, against this, the total geographical area of these regions is 45%, 31% and 24% respectively. Due to the increase in the tribal population residing in Gujarat, water resources are becoming scarce and there are no practices of Water Conservation and the available water is inefficiently managed. The main reason of it is illiteracy and poverty in the tribes.

Rationale of the Study: A need is felt to undertake such a study because the available literature reviewed for the study reveals that in the Indian context there are few studies conducted so far which focuses on the

water management as well as water conservation awareness and practices. The present study may highlight the importance of Water Conservation and give an idea about how to manage the existing water and the water resources. This study may throw light upon the acute need of conserving water and on the other hand managing water and water resources that is already available that can further help to save water for the generations to come. The tribal people are directly or indirectly dependent on water for farming and irrigation to earn their livelihood Tribal men are selected as a sample of this study as they are the ultimate source of earning livelihood for their families. Tribal women were also chosen as the Sample of the study as it is expected that they realise the importance of water management at the household and can disseminate the need of saving water to family members. Hence, contribution of both men and women in conserving and managing water can be studied through this research.

Objectives of the Study: To prepare the Profile of the selected four Tribal Villages and selected Tribal men and women of Jambughoda Block, Panchmahal District, Gujarat. To study the Overall Knowledge and Practices regarding Water conservation and Water Management of the selected Tribal Men and Women of selected four Tribal Villages of Jambughoda Block, Panchmahal District, Gujarat. To study the Overall Knowledge and Practices level regarding Water Conservation and Water Management of selected Tribal Men and Women of selected four Tribal Villages of Jambughoda Block, Panchmahal District, Gujarat in relation to the variables namely; Age, Gender, Educational Qualification, Income of the Family, Type of Family. To study the Knowledge and Practice level regarding Water Conservation of

selected Tribal Men and Women of selected four Tribal Villages of Jambughoda Block, Panchmahal District, Gujarat, in relation to the Aspects namely; Water Harvesting, Rainwater Harvesting, Grey Water Recycling and Reuse, Rational use of Groundwater. To study the knowledge and Practice level regarding Water Management of selected Tribal Men and Women of selected four Tribal Villages of Jambughoda Block, Panchmahal District, Gujarat, in relation to the Aspects namely; Protecting Water from Livestock, Cesspits and Holding Tanks Leakage, Composting Facilities, Protecting from Waste Water. To study the differences in the Knowledge and Practice level regarding selected Aspects of Water Conservation and Water Management of the selected Tribal Men and Women of selected four Tribal Villages of Jambughoda Block, Panchmahal District, Gujarat, in relation to the Variables namely; Age, Gender, Educational Qualification, Income of the Family, Type of Family.

Assumptions of the Study: Tribal Men and Women will have Knowledge and Practices related to Water Conservation and Water Management. The Knowledge and Practices related to Water Conservation and Water Management amongst Tribal Men and Women will vary according to the Variables namely; Age, Gender, Educational Qualification, Income of the Family, Type of Family.

Null Hypotheses of the Study: There will be no significant differences regarding the Knowledge of the various selected Aspects of Water Conservation and Water Management of the Tribal Men and Women in relation to the Variables namely; Age, Gender, Educational Qualification, Income of the Family, Type of Family. There will be no significant differences regarding the Practices of the various selected Aspects of Water Conservation and Water Management of the Tribal Men and Women in relation to the Variables namely; Age, Gender, Educational Qualification, Income of the Family, Type of Family.

Delimitations of the Study: The study will be delimited to the Tribal Population of four Tribal Villages i.e. Dhanpuri, Katkoi, Kharedivav and Sadada of Jambughoda Block, Panchmahal District, Gujarat. The study will be limited to study the Knowledge and Practices related to selected Aspects of Water Conservation and Water Management of Tribal Men and Women.

Review of Literature: Nerkar (2013), Mumbai conducted a qualitative study on "Improvement in health and empowerment of families as a result of watershed management in a tribal area in India". The aim of this study was to increase our understanding of perceptions of tribal populations on the public health implications of watershed management. The sample of the study was 100 tribal women of the tribal

area of Thane District, located north of Mumbai in Maharashtra through Purposive Sampling Method. The major findings of the study revealed that Tribal people perceived that water scarcity is the main reason for their physical, mental and social health problems and a major obstacle for their overall development. The perceptions of tribal participants indicate that infectious diseases, migration, alcoholism, intimate partner violence and drudgery of women are end results of water scarcity and efforts to increase water availability through watershed management may help them to achieve their right to health which is embedded in their right to access to water.

Royster (2006) in an article on "Indian Tribal Rights to Groundwater" mentioned that few tribes regulate groundwater use and allocation, so tribal groundwater institutions are generally still in the developmental stages. Surface water supplies would be considered inadequate not only if there is insufficient surface water, or insufficient quality of surface water, but also if obtaining surface water would be less economical or feasible than obtaining groundwater. In either case, tribes should have access to and use of whichever water source or sources best meet tribal needs. Indian tribes are free to perfect or assert state law water rights for additional water. Groundwater is vital to Indian tribes. In some cases, groundwater is the primary or even the sole source of water supply for a reservation.

Methodology: Before undertaking the present study, a Preliminary Survey was conducted. The sample of the study consisted of total one hundred and twenty tribal men and women selected by Convenient Simple Random Sampling. A structured interview schedule was prepared as a tool for data collection. The appropriateness of the research tool in terms of content validity, appropriateness of response system and clarity of the language were checked by the experts. Percentages and statistical tests were applied for data analysis.

Major findings of the Study: Nearly majority of the respondents had low level of Knowledge regarding Water Conservation and Water Management whereas half of the respondents had good Practices of Water Conservation whereas little more than half of the respondents had bad Practices of Water Management. Majority of the young-aged, uneducated female respondents living in nuclear family had low knowledge regarding Water Conservation and Water Management whereas a high majority of the respondents who were living in joint family had low knowledge regarding Water Management. More than half of the young-aged, educated respondents with monthly family income less than five thousand followed good practices of Water Conservation. More than half of the

respondents living in nuclear family had good practices of Water Conservation. On the other hand, more than half of the young aged, female, uneducated respondents living in extended family had bad practices of Water Management. Half of the respondents had high knowledge but false practices of Water Conservation with respect to Water Harvesting. On the other hand, half of the respondents had low knowledge and false practices of Rainwater Harvesting. The knowledge of Grey water Recycling and Reuse and Rational use of Groundwater as the aspects of Water Conservation was low and practices were bad among more than half of the respondents. Little more than half of the respondents had high knowledge with false practices of Water Management with respect to Protecting Water from Livestock. Also, a high majority of the respondents had high knowledge but bad practices of Cesspits and Holding tanks leakage and low

knowledge of Protecting from Waste Water respectively as the aspects of Water Management. More than half old-aged, female respondents had low knowledge regarding Water Harvesting whereas majority of the uneducated respondents and with monthly family income less than five thousand and lived in nuclear family had high knowledge regarding Water Harvesting as one of the aspects of Water Conservation.

Conclusion: Based on the data of the present study, it can be concluded that the tribal people had very low knowledge of Water Conservation and Water Management whereas the tribal people had good practices as compared to their knowledge. The present study could be effective for further implementation of projects as well as to create awareness regarding Water Conservation and Management for the tribal people.

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