

Women in Water Management: A Case Study of a Tribal Village in Visakhapatnam District, Andhra Pradesh

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ABSTRACT Fetching water for the needs of the family has been one of the important domestic chores associated with women world over. The availability/scarcity of potable water resource determines the amount of time, energy and care to be taken by the women. The relationship of women with the fetching and consumption of water can be examined in several socio-cultural aspects of the society. The present study deals with the availability and potability of water resources in Araku Valley Mandal of Visakhapatnam district and the cultural practices of fetching water for domestic purposes, seasonal variation of the amount of water drawn, native attitudes towards the water management. Women belonging to the tribes that inhabit Araku Valley like Bagata, Konda Dora, Nuka Dora, Porja and Konda Kapu are covered in this study.

INTRODUCTION

Water is one of the natural resources which is essential to sustain life. Women play a crucial role in collecting and managing water for drinking and other household purposes. Goel and Patel (2002) observed that the availability of sufficient water is bound to improve sanitation, safe hygiene practices and better health standards to make India a safer place for all its citizens. Availability and access to clean water is among the most important determinants of the health and well being of any individual human being. As population grows, the average amount of renewable fresh water available to each person declines. Agarwal and Goel (2002) have considered water as the primary contributor to the control of infectious diseases through its use for personal and domestic hygiene. The large portion of tribal population is still deprived of the facility of clean drinking water. Raj Pramukh et al. (2004) emphasized that safe drinking water could make a tremendous impact on the quality of life in our villages, because availability of safe drinking water has direct impact on the working conditions and health of the people and their productive capacity.

MATERIAL AND METHOD

A random sample of 120 women respondents was interviewed to collect data from tribal settlements of Araku Valley mandal in Visakhapatnam district of Andhra Pradesh during 2003.

The predominant tribes in the study area are the Bagata, Konda Dora, Nuka Dora, Porja and Konda Kapu. They are endogamous and share the same eco-system, and each of these tribes has their own distinct culture. Questionnaire, observation, interviews and informal discussion techniques were followed in data collection.

RESULTS AND DISCUSSION

Table 1 reveals that majority (76.67 per cent) of the respondents are illiterates, a few (15 per cent) completed primary education, and a small proportion (8.33 per cent) have education upto secondary school. All the respondents are engaged in agriculture (20.83 per cent), agricultural labour (79.17 per cent). Traditionally they participate in non-timber forest produce (NTFP) collection for their sustenance.

Table 1: Profile of the respondents

Characteristics	Number	Percent
<i>Level of Education (N=120):</i>		
Illiterate	92	76.67
Primary	18	15.00
Secondary	10	8.33
<i>Occupation (N = 120):</i>		
Agriculture	25	20.83
Agriculture & Labour	95	79.17

Table 2 shows that there is association between the quantity of water required per day for both drinking and other domestic chores, and the size of the family (54.17 per cent). At the same time, the time spent in a day for Water Collection

reveal that 70.83 per cent respondents take 3-4 hours and the remaining 29.17 per cent respondents spent 1-2 hours for collection of water to meet their daily requirements. The source of collecting water reveals that most of the respondents (58.33 per cent) fetch it from spring, bore wells (32.5 per cent), and from open wells (9.17 per cent).

Table 2: Daily water collection and consumption (N=120)

	Water Consumption (in litres)	Number	Percent
<i>a) Size of the Family (in number)</i>			
4	60	9	7.5
5	70	11	9.17
6	80	65	54.17
7	90	30	25.00
8	100	5	4.16
<i>b) Daily Time Spent for Water Cion (N=120):</i>			
1 - 2 hours		35	29.17
3 - 4 hours		85	70.83
<i>c) Source of Water (N=120) :</i>			
Open Well		11	9.17
Bore Well		39	32.5
Spring		70	58.33

Table 3 shows the seasonal scarcity of water, Nearly 63 per cent of the respondents face insufficient water during summer and the rest (37.5 per cent) feel that the water available is sufficient. Tribal women are traditionally loaded with the responsibility of fulfilling the water needs of the family. It is evident from the field observation that the water collection is entirely a woman's job..

All the respondents (100.0) felt that their economic status will be greatly affected if they quit their present occupation of agriculture, agricultural labour and NTFP collection. Hence, the beneficiaries have to wake-up at odd hours i.e. very early in the morning and work till late at nights. Most of the respondents (71.67 per cent) reduce their needs in accordance with the availability of water during summer season and the rest (18.33 per cent) do not reduce their needs. They also forego their personal needs only to adjust with the amount of water available. In interior tribal settlements, spring water is the only source for drinking purpose. Majority of the respondents (85 per cent) compromise their personal needs (hygiene) to domestic needs because of water scarcity. Only 15 per cent of the respondents do not compromise their personal needs.

Table 3: Scarcity of water

	Number	Percent
<i>1. Water Sufficiency (N=120)</i>		
Sufficient	45	37.50
Not sufficient	75	62.50
<i>2. Effect on Economic Status due to Water Scarcity (N=120)</i>		
Yes	120	100.00
<i>3. Nexus between Water Availability and Need Satisfaction During Summer (N=120)</i>		
Reduced needs	98	71.67
Do not reduce needs	22	18.33
<i>4. Water Consumption for Personal Hygiene During Summer (N=120):</i>		
Compromise on Personal hygiene		
Yes	102	85.00
No	18	15.00

Table 4 shows the quality of water and most of the respondents (47.5 per cent) felt that the water they are using is not very clean. Nearly 36 per cent of the respondents are satisfied with the quality of water, while 16.67 per cent of the respondents gave no response.

The data reveal that though most of the respondents feel that the water is not clean and potable. Only 52.63 per cent of the respondents prefer to go to a further source to get better quality water and the remaining (47.37 per cent) do not prefer to go to a further source to get quality of water. Regarding reasons for their compromise with poor quality water, the respondents feel that it is not only time consuming (27.91 per cent) but also affects their various others domestic works (72.09 per cent).

Almost all the respondents felt that they are very tired as they loose a lot of energy for water collection as and they are not able to attend to their other domestic works immediately after finishing the task of water collection. Interestingly, there has been no agitation regarding water

Table 4: Quality of water

	Number	Percent
<i>1. Quality of Water Collected (N=120)</i>		
Not clean	57	47.50
Clean	43	35.83
No response	20	16.67
<i>2. Preference for Farthest Source for Better Quality (N=57)</i>		
Yes	30	52.63
No	27	47.37
<i>3. Reasons for Compromise with Poor Quality of Water (N=43)</i>		
Time consuming	12	27.91
Affect other domestic work	31	72.09

scarcity or water conservation programmes being conducted in these tribal areas.

Table 5 clearly shows that majority of the respondents (69.17 per cent) do not participate in any kind of community driven programmes. Out of the meager per cent (30.83 per cent) of the respondents involved in community driven programmes, 62.16 per cent are involved in construction works under *Janmabhoomi* (Participatory) Programme which was launched by the Government of Andhra Pradesh and the remaining 37.84 per cent are involved in plantation works under *Vana Samrakshana Samiti* (VSS) which is the afforestation programme in the tribal areas, under the Ministry of Environment and Forests, Government of Andhra Pradesh.

Table 5: Participation in community driven programmes

	Number	Percent
<i>Participation in Programmes (N=120)</i>		
Yes	37	30.83
No	83	69.17
<i>Name of the Programme (N=37)</i>		
Construction	23	62.16
Plantation	14	37.84

Table 6 shows that the suggestions to improve the water situation in tribal areas both in terms of quantity and quality 35.83 per cent of the respondents asked the government to construct the *Kundi* (water tank type) at *Oota* (spring), while 25 per cent of the respondents reported that they want open well. 27.5 per cent of the respondents asked for bore wells. And the remaining 11.67 per cent of the respondents asked for spring water through taps.

Table 6: Suggestions to more and quality of water supply

Suggestions	Number	Percentage
1. Construct <i>Kundi</i> at Spring	43	35.83
2. Provide Open Wells	30	25.00
3. Provide Bore wells	33	27.50
4. Spring water through taps	14	11.67

CONCLUSION

The data reveal that there is acute water shortage in the tribal areas particularly in summer season. But there is no agitation regarding water scarcity. Traditionally women shoulder the

responsibility of managing the household and look after the drinking water needs of the family. Lack of sufficient and safe resources for drinking water within the vicinity of their place of residence has resulted in tribal women to loose their other sources of income because they have to walk miles together and spend lot of hours to fetch water for their daily needs. As Sanita et al. (2002) put it, the most time consuming activities of women in rural areas is fetching water and wood. Women somehow got adjusted to compromise with the poor quality of the available water, their personal hygiene which deprives their right to health. To improve the conditions, the present study suggests proper planning of water management through tribal development schemes provide assured drinking water, and create awareness by educating the women for a better understanding of health care and sanitation other than various water conservation methods. The women should be involved in Water Policy and the Non Governmental Organizations (NGOs) should support the women in giving necessary technical training needed to plan and manage the water facilities in the hilly areas.

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