

A Study of Problems Related to Supply of Water in Rural Parts of Panvel

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Abstract

To fulfil the sustainable development goals, we have to reduce poverty, but poverty is associated with availability of water. Availability of pure drinking and clean water with ease is a key to development in any society. By considering the importance of water, the present study is done in the villages near to the Panvel city. Objectives of the study are; to study the problems of availability of water in rural parts of Panvel, to study the availability of water as per needs of the rural population in rural parts of Panvel, to study the health problems associated with the water supply in rural parts of Panvel, to study the efforts of Grampanchayat for the proper availability of water in rural parts of Panvel and to study the effects of water scarcity on women. The study is done in five selected villages near Panvel city. The conclusions of the study are; there is no problem of availability of water in these villages but supply of water is not adequate compare to the population in these villages. Naturally, there are lots of disputes due to scarcity of water in these villages. Water problem and disputes create more difficulties to the women and it affects their health.

Key Words: - Water Supply, Women, Scarcity, Water quality

1. Introduction:

Water is becoming the most precious commodity on the planet now. It is said that the third world war will be fought for water only. Not only the water is becoming scarce but its uses are also increasing leading to crisis from scarcity. We can experience, in India, states, different regions of the state or districts are having number of disputes related to water. There are number of cases pending in the court arising out of entitlement over water, water bodies, water sources or division of water. In this backdrop, we want to find out what is the situation in Panvel or Mumbai. But, the Mumbai, Panvel, Thane gets the water from numerous dams. The problem is in the

villages near to these cities. So, we have selected some villages near Panvel for the present study. In Panvel of Raged there is a heavy rainfall during monsoon season. But, the water is flown to sea. Some water which is percolated is not useful for drinking, since it is salty water. If there is no supply of water from dams to the villages near Panvel then question arises how the rural population meeting its water needs? To find the answer to this question we have undertaken this study.

2. Objectives of Study:

The study is having the following objectives;

- a. To study the problems of availability of water in rural parts of Panvel.

- b. To study the availability of water as per needs of the rural population in rural parts of Panvel.
- c. To study the health problems associated with the water supply in rural parts of Panvel.
- d. To study the efforts of Grampanchayat for the proper availability of water in rural parts of Panvel.
- e. To study the effects of water scarcity on women.

3. Hypothesis of study:

The following hypotheses are set for the present study;

1. H0: There are no problems of availability of water in rural parts of Panvel.
H1: There are problems of availability of water in rural parts of Panvel.
2. H0: There is adequate supply of water as per population in rural parts of Panvel.
H1: There is no adequate supply of water as per population in rural parts of Panvel.
3. H0: There are no health problems associated with supply of water in rural parts of Panvel.
H1: There are health problems associated with supply of water in rural parts of Panvel.
4. H0: There is no adverse effect of scarcity of water on health of the women in rural parts of Panvel.
H1: There is adverse effect of scarcity of water on health of the women in rural parts of Panvel.

4. Scope and limitations of study:

The study is restricted to the rural parts of the Panvel. Only five villages are taken for this study. They are Bonshet, Chiple,

Bhokarpada, Vihigar, Koproli. From these villages 20 respondents are selected on random basis for collection of information related to the water issues in their village.

5. Methodology of study:

Data collection: - The study uses primary and secondary sources of information, but main focus will be on primary data. For the collection of primary data we have used a questionnaire and schedule. Wherever, respondents are able to read and write, we told them to fill up the questionnaire. Where respondents are illiterate we use schedule to take information. Secondary data is taken from different research papers, data from government websites. We have checked and edited the questionnaire and if any question is missed then we have visited personally to these respondents to complete the answers of all questions.

Sample size: The study is restricted to Panvel rural area only. From rural area of Panvel we are taking only five villages like Bonshet, Chiple, Bhokarpada, Vihigar, Koproli. From every village we have selected 20 respondents on random basis. So, we have sample size of about hundred samples.

5. Review of the literature:

According to the water project¹ for one billion people safe water is scarce. This is an alarming situation throughout the world. According to Shannyn Snyder² (2020), "Rapid growth in India's urban areas has stretched government solutions, which have been compromised by over-privatization. Regardless of improvements to drinking water, many other water sources are contaminated with both bio and chemical

pollutants, and over 21% of the country's diseases are water-related. Furthermore, only 33% of the country has access to traditional sanitation. Many rural communities in India who are situated on the outskirts of urban sprawl also have little choice but to drill wells to access groundwater sources.” According to this study, India’s overall water availability is running dry because of over privatisation and lack of government planning.

In one more study we have horrible estimates about the scarcity of water throughout the world. According to World vision³, globally, 785 million people are lacking to clean drinking water. According to their estimates, everyday, more than 800 children die from dirty water. Dirty water, lack of proper sanitation and hygiene and scarce or unreliable water leads to diarrhoea. According to this study, women and children are most affected due to water scarcity and water quality.

Sustainable development goals⁴ also stress the need for clean drinking water and sanitation facility for the sustainable development on the planet. To achieve most of the goals, we need to work around the water crisis. In the light of the above studies related to water crisis and water related problems, we are trying to find out the situation related to water problem in villages near to Panvel city in Maharashtra state. Panvel city is considered to be the gateway to the cosmopolitan city of Mumbai.

Water problem is affecting more to the women than men. This is underlined in the article of Dalia Saad⁵. This article gives that women’s role is not limited domestic work

only but they also have notable roles into the productive use of water, in agriculture, fisheries, and livestock. They are responsible for half of the world’s food production and, in Africa, women make up 43 per cent of the agricultural labour and produce up to 80 per cent of the food.

Now, we will see the solutions to this problem which is given in blog by Down To Earth⁶ Staff. “Over the last around 100 years, the world has witnessed two major shifts in water management: one, individuals and communities steadily handed over their role to the State despite the fact that more than 150 years ago no government anywhere in the world provided water. Second, the use of simple technologies of harvesting and using rainwater declined. And, exploitation of rivers and groundwater through dams and tube wells became the key source of water”. According to this blog the solution to the problem of water rests with people not with the state. People must come forward and do the management and not the government.

From these discussions, we get the idea of how to go ahead in the present study.

6. Analysis of Data: In the present study we have asked number of questions related to the problem of water faced by the villagers in the vicinity of Panvel city.

The first question which was asked to the respondents was what is the source of water to them? Then 80% respondents told that borewell is the source of water to them, whereas 20% told that they take the water from well in their villages, so there is no problem of availability of water to the rural population of Panvel.

Table no.1 Sources of Water

Type of Water availability	Number of respondents	Percentage
Well	20	20
Tab Water	0	0
Bore well	80	80

In table no. 2 we have clubbed the questions which are asked to villagers.

Table no.2- List of Questions asked and the response from the villagers

Questions Asked to Villagers	Yes (%)	No (%)
1. Supply of water in the village	94	06
2. Is there adequate supply of water in villages	03	97
3. Purity of water	95	05
4. Possibility of quarrels and disputes due to water	100	00
5. Whether the Grampanchayat takes the cognizance of disputes or not?	90	10
6. Women face more difficulties due to problem of water	98	02
7. Adverse effect on the health of the women	92	08
8. Water supply through village authorities, in case of scarcity	91	09
9. Hospital in the village to take treatment due to diseases arising from water?	09	91
10. Increasing intensity of water problem	70	30

As regards to the supply of water, 94% villagers told that there is a supply of water to the village but from the village itself. As far as adequacy of water supply to the individual needs is concerned, the respondents told that water availability is not as per the needs of the people. 97% respondents told that water supply is not adequate to their needs and demand.

When we ask the villagers about the purity of water supply, then all 95% respondents said that water is pure. Since it is extracted from mother earth and we have not tested the quality of this water from laboratory, then we have to accept outcome of survey where all villagers feel that water is pure.

After this we have asked the villagers about the disputes or quarrels that takes place due to inadequacy of water, then all villagers told that there are frequent quarrels and disputes on well and bore-well. When we ask them, how they are solving these disputes then 88% villagers told that they are solving these disputes by interaction. 12% says that disputes are solved with the help of other members of the town. But according to respondents, no dispute reaches to the police. If the disputes arises then what is the role of Grampanchayat, whether Grampanchayat takes the cognizance or not? Here 90% villagers are saying that Grampanchayat takes the cognizance of disputes.

Our next set of question was related with difficulties faced by women. We have asked respondents whether the women have to face more difficulties due to the problem of water. Here also 98% respondents said that women face more difficulties. When we asked them whether this problem affects their health or not? Here also 92% villages told that water problem has an adverse effect on the health of the women.

When the respondents are asked the supply of water by rural authorities in case of inadequate supply of water or scarcity of water, then 96% respondents told that rural authorities are supplying water through tanker so it means rural authorities are paying attention to the problem of villagers.

8. References:

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One question was asked about the hospital availability to take treatment from the diseases arises from the poor quality of water supply. Then 91% respondents told that there is no hospital facility in their village.

The last question which was asked about the increasing intensity of water problem, then 70% respondents told that water problem is increasing day by day whereas 30% population says that water problem is not increasing in their village.

7. Conclusion: In sum and substance we can conclude the study as;

Our first hypothesis was, there are no problems of availability of water in rural parts of Panvel is accepted since 94% respondents told that there is availability of water in their villages. Second hypothesis was about adequacy of supply of water as per population is rejected since 97% respondents told that water supply is inadequate. With regard to effect of water scarcity on health of women, our hypothesis is rejected since 98% respondents told that the problem of water supply increasing the difficulties of women and getting health problems to them. 96% villagers are satisfied with the timely help given by authorities when there is severity of the water problem in village. Water disputes are frequent but are solved by the interactions and mediation by other fellow villagers. 70% villagers are aware about the worsening of the problem in future.

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