



Social Implications of Water Scarcity in Local Community of District Rawalpindi

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Abstract: Water scarcity is the lack of fresh water resources to meet the standard water demand. For human needs the amount of fresh water on earth is very low. The quality and quantity of water are important for human survival. Water is one of the most valuable natural resource on earth. The present study has been made to explore social implications of water scarcity on local community of tehsil Murree district Rawalpindi. Sample size of 100 respondents were selected through simple random sampling technique. Data was collected through interview guide, case study method and Focus Group Discussions. The study showed that poor and marginalized groups are on the frontline of water scarcity crisis, impacting their ability to maintain good health, protect their families and earn a living. For many women and girls, water scarcity means more laborious, time-consuming water collection, putting them at increased risk of attack and often precluding them from education or work. It was found that women had to cover long distances on foot carrying heavy pitchers on their heads to fetch water from locally available water resources in the region. Due to this heavy pitchers' pregnant women face many difficulties and, in some cases, even had to lose their babies. It was also found that water fetching activity provided a platform for women to share all types of informal, formal and personal gossips. It was also observed that the lack of access to water can create social disparities in communities and it also affect the education of children because children must fetch water instead of going to school.

Key Words: social implications, water scarcity, diseases, problems.

1. Introduction

Globally the problem is getting worse as cities and populations expand due to various development activities and more water is needed for agricultural, industrial and domestic sectors. This fact highlights the many effects on people's health facing such scarce water conditions and how it could ultimately impede various international development projects around the world. Thus, there is a need for everyone to be made part of effort to conserve and protect this finite natural resource (Besada and Werner, 2015). Water is vital for sustainable agriculture because agriculture is the back bone of Pakistan. For instance, vast quantity of water resources is needed in the production of the silicon chips that helps power our computer as well as cell phones. Electrical power generation plants also depend heavily on water and account for a staggering thirty-nine percent of fresh water resources consumed and utilized for these plants in the U.S.A. Almost every industry such as electrical power, tourism and industrial work are ultimately dependent on water for their maintenance and survival (Morrison, 2009).

The indicators of water scarcity which are already visible in few regions around India will likely assume a national proportion and may become an enduring feature of the water sector problems in the country. The demand of water

is increasing rapidly because of the population density but according to the demand sources of water are not growing (Saleth, 2011). It is estimated that one billion populations are facing problem of lack clean, adequate and safe domestic water supply sources and 2.4 billion people lack adequate water even for sanitation, hygiene and other daily use purposes. This statistic, no doubt, holds true mostly in the developing economies of Asia, Africa and Latin America where poverty has assumed endemic proportions. The lack of an effective system of governance to regulate practices to protect the eco system and to minimize uncertainties and risks related to water use (Emmanuel, 2009).

This definition of water scarcity, developed by the international Water Management institute is being utilized by EIRIS to identify the 48'countries worldwide requiring immediate help, which have a high percentage of their territory identified as having scarce water resources (EIRIS, 2011). Water resources should not only be adequate in quantity but must also meet certain standards of quality. Pollution and contamination of water resources create problems of aquatic life, wild life and humans. Addition of sediments, fertilizers, pesticides and manure are the major causes of the of polluted materials present in drinking water resources, rain water storage for harvesting purposes as a source of supply of water has very little impact in *Samntogo* (Majinyawa, 2008). Water is essential to all aspects of human welfare and development activities such as security, energy, food and health. Limited water resources are one of the main issues and the conflict over this issue is the centre of attention for many times. The literature provides bits and pieces of the answer on how resource scarcity and conflict relate, there is no evidence of the relationship between resource scarcity and the evidence of the tendency for conflicting behaviour. It is therefore particularly relevant to look for behavioural evidence of the relation between water scarcity and conflict and to access who is more likely to engage in water scarcity conflicts (Lecoutere, 2010).

Water management "occurs through the interplay of a complex network of formal and informal institutions acting at multiple levels" that requires a balance of power among diverse interest groups. The focus on people's interaction with their water supply and its physical aspects as well as farmers' ability to sustain their business and remain viable in the present-day echoes, the focus in past and current water studies (Wagner, 2010). If one turns to the water scarcity issues the situation is extremely bad. If no efforts are undertaken to remedy this severe water scarcity problem, it is likely to occur more rapidly than even climate changes. Such risks will be compounded if climate will change drastically in future as had been forecasted. Despite these risks, there is no sign indicating the recognition of this water issue at the world level. No international discussions have been conducted to point out the various aspects of this water issue. Even worse, many countries are routinely implementing policies of subsidizing the use of water thus accelerating its scarcity, as best illustrated by the recent drought in France and a few other EU members States (Messerlin, 2010). Fry has discussed women's "water stress". Describing the very difficult choices women have to make in some jurisdictions where cost and management issues force women to assess their basic water needs in the context of additional concerns about waste removal and keeping water reservoir standards high (Fry, 2008).

1.1 Objectives

To explore social implications of water scarcity on local community.

2. Methodology

Simple random sampling technique was used to select a representative sample. A sample size of one hundred respondents were randomly selected. The nature of the research is qualitative. The tools used for the data collection is interview guide, Focus Group discussions and case studies are also taken to reach the objective of the study. After collected data it was analysed through Qualitative analysis technique of thematic analysis.

3. Results

Results and findings based on data collected and analysed through qualitative techniques are as under.

3.1 Effects of Fetching Water from few Distant Resources

The naturally occurring water resources were located at a great distance from village. Usually people had to cover a distance of at least 1 km to 2 km to have access to those resources of water. For instance, local villagers faced many

difficulties in tapping those naturally occurring resources and fetching water for their daily needs. Almost all of those natural resources were located in hilly terrains and local villagers had to cover long distances on uneven and rough hilly tracks on foot carrying heavy utensils for bringing back water from those distant water resources.

3.2 Means Utilized for Fetching Water

Mostly local villagers used to fetch water for their day to day needs themselves but some local villagers also used to pay labourers for fetching water for their daily needs. It was found that those locals paid and utilized labourers for bringing water for their daily needs, whose females were either indisposed or suffering from any physical or physiological ailments. Because it was found that the task of bringing water was primarily performed by women in that region. It was found that females usually fetch water through pitchers on their head, so pitchers are mostly used for fetching water. Females and children also fetch water through gallons and plastic tanks are also used for water storage.

3.3 Problems Faced by Women

Because of water scarcity local population especially women and children faced many difficulties.

3.3.1 Fetching of Water from Few Distant Resources

Water usage is common in household activities so women role cannot be ruled out in bringing and fetching and usage of water (Romas, 2003). Women in the local village were facing many difficulties and problems due to pre-existing water scarcity in the local region. Women had to cover long distances on foot carrying heavy pitchers on their head to fetch water from locally and human available water resources in the region. The water fetched was required for such essential household needs of their own and their families as for their drinking needs, for cooking and for cleaning of utensils, for their personal and their family members' hygiene and sanitation, need for keeping their various equipment and household items clean and for cleaning and drinking needs of their pet animals, poultry, livestock and other domestic animals.

Fetching water and making sure there is enough of it in the household in of the main duties of women (Dursin, 2006). The burden of having to fetch water daily is also a factor in women's health, including worrisome rates of maternal mortality that are worsened by distance of hospitals. Pregnant women work so hard in fetching water and when it's time for them to give birth, they have no more energy. Most of the time, Women lose their babies because of carrying heavy pots of water.

3.3.2 Difficulties Faced by Young Girls Due to Pre-Existing Water Scarcity

Several problems and difficulties were also encountered by young girls in fetching water from distant water resources; they not only had to cover long distances on foot on uneven, bumpy and rocky hilly terrains but sometimes young boys tease them while they were on their way to fetch water for their families. As a consequence, they sometimes felt very lonely, insecure, depressed and frustrated. Their parents and other family members did not have willingly permitted such young girls to go out of their homes to fetch water but because of water scarcity in the local region they had no other option. The task of carrying heavy loads over long distances requires a great deal of energy, which comes metabolized food (Humnnah, 1996). Women carrying water are frequently exposed to malnutrition, anemia and water related diseases. Women and children suffering from malnutrition are also more susceptible to other diseases.

3.3.3 Water Fetching by Women as a Means of Social Gathering and Interaction

When women in the local village went for fetching water for meeting their various household needs, they usually go in groups of various sizes and members of composed of their close friends. And as they covered long distances on foot accompanied by other village women for fetching water those women shared all types of informal, formal, personal, family, baradri and village level as well as exchange all type of gossips and rumours regarding information's what was going on in the village as a whole. Thus this water fetching activity provided for those women to share all sorts and all types of gossips, share and float rumours thus engaging in various socially interactive activities and an opportunity for them to share and exchange with other village women that would not

have possible in the presence of other male and female members of their households or other members of families or baradaris. Thus, this water fetching activity provide them outlet to talk freely and in a personal, intimate and frank manner and share information on different topics.

3.3.4 Effects of Water Scarcity on Children of Local Population

A large majority of local population belongs to lower income strata and was living under poverty conditions lacking even basic amenities of life. They had to work hard to meet even their day to day subsistence needs. As a consequence of their impoverished socio-economic conditions and the pre-existing water scarcity their children were facing many kinds of difficulties and problems. They used to put extra financial burden on their already limited household budgets and particularly their children were neglected and were deprived of their mother's nurturing and care and their essential nutrition and dietary, needs, healthy education and clothing and other basic needs suffered. For instance, they were deprived of going to school, not getting proper time when falling sick, deprived of essential clothing and nutritional needs, falling to bad company, were victims of depression, neglect frustration. It was found that it was particularly the case with female children being discriminated in all these areas whenever their families had to make a choice between male and female children.

4. Conclusion

In the light of above research, it was concluded that the lack of access to freshwater implies more than poor water quality and diseases. It also directs to gender inequality and fewer educational opportunities. The lack of access to water can create conflicts between communities and within society. Vulnerable communities specially women and children affected a lot due to consequences of water scarcity it affects the health of female because fetching water is usually performed by females it has also impacts on their health. Children must fetch water instead of going to school.

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