

Self Perceived Well-Being and Quality of life of People in a Water Scarce Village in India

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Abstract

Water is the elixir of life and forms an indispensable part of all natural and societal systems. It has been widely acknowledged that the health and socio economic development of a community depends on the availability, quality and management of its water resources. Water scarcity not only has a direct debilitating effect on health through a host of associated diseases; it also has an indirect but significant bearing on the perceived well-being of individuals. The foregoing study is steered towards the effect of water scarcity on the perceived health status and quality of life of a group of people in a rural village in Mewat. This study is based on an inductive approach, focus group discussions, participatory exercises and dialogue with key informants as primary modes of data collection. The data was sorted and analyzed through latent and manifest content analysis. This methodology resulted in appreciative inquiry and situated knowledge based on residents' subjective viewpoints. All the participants in the study setting, are perceived to have a poor quality of life due to financial constraints resulting from precarious livelihoods and poor health status, both being primarily attributed to water scarcity. It was revealed that the studied village had no freshwater source. The farming households practised rain fed agriculture, keeping them in debt and penury. The water for everyday requirements was obtained primarily by women and children from far off villages, taking a toll on their effort and productive time. In lieu of less water, open air defecation was practised, compromising on sanitation and personal hygiene. This resulted in drudgery, with serious repercussions like bouts of infectious diseases in women and children, fatigue, school absenteeism, physical abuse, domestic violence and migration. The respondents, mainly Meo Muslims, perceived that water paucity also hindered the performance of daily cleansing religious rituals. They reported water scarcity as the main reason for their physical, mental and social health problems and a major obstacle in their well-being and socio economic development. The secondary data also yielded information on a plethora of problems in terms of inadequacy of physical infrastructure and amenities, inaccessible health care facilities and meagre natural capital in the entire Mewat district,

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Haryana. The study concludes that water is an explicit component of health with clear implications on both the people's quality of life and psychosocial well-being.

Keywords

water, well-being, quality of life, Haryana

Introduction

The term 'well-being' is widely contested with distinct meanings to different people. In its broadest sense, well-being refers to "everything important to peoples' lives," ranging from basic elements required for human survival (food, water and shelter) to the highest level of achievement of personal goals and spiritual fulfilment (Maslow, 1954). Conventionally, it has been viewed as a physical need deprivation due to private consumption shortfalls (Schaffer, 1996). The contemporary participatory and qualitative approaches focus on a much broader conception of ill-being/ deprivation including, "physical, social, economic, political and psychological/ spiritual elements" (Chambers, 1995: vi). The holistic concept of the well-being of a person has been the core of the main work of some authors like Amartya Sen (1999:70) who argues that even though it is common to "use incomes and commodities as the material basis of our well-being... what use we can make respectively of a given level of income, depends crucially on a number of contingent circumstances, both personal and social." Hence, the concept of 'well-being' is firmly anchored in a particular social and personal context. In this sense, well-being should increasingly be understood as a multidimensional phenomenon ranging from income to the public provision of goods and services, access to common property resources and other intangible dimensions such as clean air, water, dignity, self-respect and autonomy (Razavi, 1999).

Shin and Johnson (1978) contend that well-being is an assessment of a person's quality of life according to his or her own chosen criteria. The World Health Organization (WHO, 1999:3) defines quality of life as:

"an individual's perception of their position in life in the context of the culture and value systems in which they live in relation to their goals, expectations, standards and concerns. It is a broad concept affected in a complex way by a person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment."

According to Felce and Perry (1995), well-being and quality of life stem from the degree of fitness between an individual's perception of their objective situation and their needs or aspirations. In the current development rhetoric and practice, virtually every realm of public policymaking and service delivery across nations is influenced by notions of well-being and quality of life.

Water, encompassing every aspect of our daily lives, forms an indispensable part of all natural and societal systems. History is replete with examples of how water is vital for human development. In view of its great versatility as a substance, it is unquestionably linked to sustenance of health, well-being and quality of life. The health and socio economic development of a community depend on the availability, quality and management of its water resources. Since water is the elixir of life and because safe water is a crucial component of health, the issue of water availability and access is a matter of survival for humanity. The UN estimates that by 2025, as many as 5.5 billion people, the two-thirds of the world's population, will face water shortage. The degradation of water quality may further worsen the imbalance

between water supply and demand, threatening the sustainability of life in an increasing number of regions (UNDP, 2001).

India is also facing a looming water crisis. The rural population in the country comprises more than 700 million people residing in about 1.42 million habitations spread over 15 diverse ecological regions (Khurana and Sen, n. d). It is true that providing drinking water to such a large population is an enormous challenge. The health burden of poor water quality is enormous. It is estimated that around 37.7 million Indians are affected by waterborne diseases annually, 1.5 million children are estimated to die of diarrhoea alone and 73 million working days are lost due to waterborne disease each year (Khurana and Sen, n. d). The resulting economic burden is estimated at \$600 million a year. It is expected that by around 2020, India will be a 'water stressed' state with per capita availability declining to 1600 cu m/person/year (Gupta et al., 2006).

Disparities in the availability of safe water constitute one of the primary underlying determinants of global health inequalities, recognition of which has inspired one of the Millennium Development Goals to halve the number of people without sustainable access to improved drinking water. Water scarcity has a direct debilitating effect on health through resultant food insecurity, a host of associated diseases and compromised hygiene and sanitation. According to the World Health Organisation, approximately 250 million individuals were diagnosed with a water-borne disease at the dawn of the twenty-first century. Of the 250 million, 75 per cent of these individuals lived in tropical rural or slum-like areas (UNICEF/WHO, 2000).

Scarcity of potable water has an implicit bearing on the perceived psychosocial well-being and quality of life of individuals. The foregoing study is steered towards exploring the multidimensional nexus between water and its varied manifestations on livelihood options, health, socio-cultural identity, religious rituals, daily routine and social relations, as perceived by the people in a water scarce rural community.

Study Locale and Methods

The study presents the case of Lafuri, a village in Mewat district of Haryana. Mewat is a district in the southern part of Haryana, contiguous to the National Capital Region of Delhi. The district has five Blocks (Tauru, Nuh, Punhana, Firozpur Jhirka and Nagina) spanning over 1,499.46 sq. km and accommodating a total population of over one million (MDA, 2009). The Meo Muslims, account for 70.9 per cent of the total population and are numerically strong. They are listed under the OBC (Other Backward Classes) category being recognized as part of the backward class communities. The district is predominantly rural in its demography, having 88.6 per cent rural population, with just six towns and around 491 inhabited villages. The literacy rate recorded in district is 56.1 per cent, which is much below the national average and the female literacy rate is further low at 37.6 per cent. It also has a low sex ratio of 906 as against the national average of 927 (Census 2011).

The region also has very low geographical endowments as it falls under sub-tropical, semi arid zone with extreme climatic conditions, characterized by low and erratic rainfall as well as violent squalls and sporadic droughts (MDA, 2009). The land area in Mewat has uneven topography of plain and undulating patches dotted with hillocks and sandwiched between two parallel ranges of Aravalli hills. The lack of water resources, prevalence of sodic lands, sandy soil and brackish underground water have been widely reported in Mewat. The surface water is scarce and the groundwater recharge is also difficult due to topography (Gandhi and Kumar,

2009). The average level of ground water development in the district is 75 per cent and falls in critical category (Chauhan et al. 2007). The natural resource limitations are a major reason for economic uncertainty and distressed livelihood situation across the entire district.

This study is based on an inductive approach and utilized focus group discussions, participatory exercises and dialogue with key informants as primary modes of data collection. The field data was sorted and analyzed through latent and manifest content analysis. This methodology is based on an appreciative inquiry and situated knowledge based on residents' subjective viewpoints. It was assumed that this local grounded research would reflect on local idioms of stress and suffering associated with water scarcity along with the physical access constraints. Its chief goal was to identify expressions or elements that related water to important domains of health and psychosocial well-being. In order to encourage candour, participants were asked to deliberate on issues such as time required to collect water, queuing time at its source, quantity collected, seasonal variations, community assets, division of labour, obstacles to water access, opportunity costs of water collection, and measures taken to economize on water use not in terms of their own personal feelings but in relation to the feelings of the community in general. Secondary data was also used for a rigorous factual analysis.

Results and Discussion

Demographic Characteristics of the Selected Village and Saliency of Water

The village Lafuri is situated in the Punhana block of Mewat district. As per Census 2011, the village comprised of 468 households with predominantly Muslim population (97%). This is in line with the fact that in the state of Haryana, Mewat also has the largest concentration of Muslim population (IIHD, 2008). Since, religion and caste have an important bearing on the socio economic status of households, the high concentration of Meo-Muslims, minorities classified as OBCs, also indicates a higher level of denied opportunities for socio economic development. The Hindu households reportedly belonged to Scheduled Caste (SC) category and addressed their clan as *Valmiki* or *Harijan*. The Census 2011 data further revealed 33 per cent BPL households in Lafuri. Several families living in one room hutments in a dire state of penury were also observed during a transect walk through the village.

It was articulated in one of the discussions with the village elders and from the opinion of the leaders, that Islam as a religion ascribes the most sacred quality to water as a life-giving, sustaining, and purifying resource. Fazlun (2002) has also mentioned that the Qur'an and the *hadiths* contain a remarkable number of specific statements about water such as "water is the origin of all life on earth, the substance from which God created man" (Qur'an 25:54). He further stated that the Qur'an emphasizes water's centrality as: "We made from water every living thing"(Qur'an 21:30). Moreover, water has a specific religious significance for Muslims through *wudu* (ablution) and *ghusl* (bathing). The Muslims are expected to clean up with water through ablution at least five times a day. And, as the prophetic tradition prescribes, they are also expected to perform a ritual bath on Fridays in preparation for *SalatulJum'ah* (prayers). An old man affirmed:

"Without water, it is difficult to observe *Salat* or to fast in Ramadan, we are helpless, there is no water to drink, how can we wash regularly. "

Thus, unavailability of water hindered the performance of religious rituals in most Meo Muslim families across the village. Even in the *Masjid*, a small bucket of water was placed every morning as a service by neighbouring households in rotation.

The village also had around three per cent women-as the head of the families. These households reportedly belonged to widows who received a paltry monthly pension (Rs. 750) as maintenance by the State Government and were found to be surviving within finer margins, having low levels of education, fewer assets—less land, less livestock and fewer personal possessions. It was put forth in the discussions that labour opportunities within the village were much sought after by these women; however, water collection grabbed a significant portion of their productive time and effort, which could have possibly increased their finances through some other gainful employment.

Another three per cent households had disabled members with a pronounced physical deformity of limbs. Ignorance and lack of healthcare infrastructure were cited as the primary reasons that led to their health disability. In the absence of any freshwater source in the village, the water scarcity exacerbated the vulnerability of such households since water had to be procured from other villages, 3-5 kms away, making it extremely tedious for the family members.

Livelihood Patterns in Context of Water Scarcity

The livelihood profile of the community was ascertained from the *Sarpanch* during discussions. It was found that a great majority of households (96%) were engaged in farming and 85 per cent households also had members working as casual labourers. Although, land is a vital indicator of the economic status of people, these were primarily small and marginal farmers owning land ranging from 0.5 to 2 acres and practise drained agriculture. Most farmers were engaged in mono cropping of wheat. The coarse grains bajra and jowar were grown in kharif season as these crops required negligent to nil irrigation. Very few farmers diversified into vegetable crops like brinjals, tomatoes, onions and chillies due to lack of irrigation facilities. A considerable number of these peasants also worked as casual labourers for a major part of the year. There were two main reasons for this. One, their land was just enough to meet subsistence needs and not much yield was produced to be marketed to fetch income. Secondly, the rising cost of farm inputs, particularly water for irrigation, being not readily available (erratic rainfall and all underground water in Lafuri being brackish), pushed the farmers to look for alternate livelihoods.

To cope with freshwater deficit, saline water was used by some marginal farmers for irrigation. A farmer asserted,

“We are irrigating our fields with brackish water, I won’t lie, since I know it will make the land saline, but I don’t have money to invest in laying a pipeline, I can’t even think about it.”

As evident from this piece of narrative, the poor farmers admitted not having enough cash to lay pipelines for availing fresh water for irrigation from other locations. Thus, they expressed helplessness and resorted to using brackish water for irrigation. This could have a negative effect on the soil health since use of saline water enhances salinity and renders marginal soil as wasteland. Subsequently, this will deteriorate the land parcels and have a deleterious effect on the farm's livelihood for all the households in the near future.

The village also had 10 per cent households with migrant family members. These were mostly the cases of temporary migration in the absence of secured livelihoods and inability to farm due to lack of water. Some migrants apparently worked as rickshaw pullers in the urban centres at nearby Gurgaon, Faridabad and Palwal districts. It was also found that some families migrated to Punjab for a few months during the cotton harvesting season. The young boys

unanimously asserted discontent with farming and expressed the desire to abandon lands for right opportunities elsewhere. A commonly echoed sentiment by these youngsters was,

“Investing in land and agriculture is futile, demands more investment and there are fewer returns, it is of no benefit to us.”

The crisis situation due to water scarcity created deep-rooted desperation and pessimism among farming households. Although the previous generations could to some extent, combat the hostile environment and established themselves as cultivators due to their sheer will power. However, instead of farming, the youth preferred migration and seeking of work outside the village. Some have already begun learning to drive heavy commercial and construction vehicles like trucks, and earthmovers for mining activities, which are purportedly rampant in the Aravallis across Mewat. Although acquiring a skill enhances livelihood options and employability, but abandoning lands altogether may hamper food security in the long run.

Almost 75 per cent households in Lafuri also kept livestock. Sale of milk to private milk vendors was referred to as an important means of livelihood for these families. The lack of fodder and feed as well as potable water delimited their livestock holdings. The only pond in the village was initially used for bathing cattle but in view of its high salinity, it was gradually rendered unuseable /into disuse. The two handpumps in the village were also defunct since groundwater was also excessively saline. The upkeep of animals, being a primary responsibility of Meo women, apart from managing other household chores, to fetch water for animals further increased their drudgery. An old Meo woman highlighted the plight,

“There is not a drop of drinking water in the village, people and animals are all frustrated, how much can we fetch from the other village, they often object, we are dying of thirst.”

Her words signified the suffering and routine drudgery because of lack of potable water in the village. Dependence on their neighbouring villages was also not looked upon in good light and this reportedly resulted in bickering and conflicts on a daily basis.

Effect of Water Scarcity on People's Perceived Health and Well-Being

The study found a stark picture of water scarcity as a major source of stress in people's lives and more particularly for women. It was determined through community level discussions and informal observations that the main responsibility for water collection was held largely by women, although children, especially girls, also contributed as per the study community. The women were observed carrying water along their backs or over their veiled heads in earthenware pots whereas children more often carried water in plastic buckets or cans. They asserted that use of heavy vessels for carrying water together with the rugged terrain that characterizes the region makes water collection extremely tedious, physically demanding and an exhausting task. Along with bodily aches and pains, the negative feelings of anxiety and stress were widely reported by women across all groups. Most of the women asserted that they had no choice in this regard for water is needed for all household chores from washing to cooking and for the livestock, in fact for all tasks that they were responsible for at the home front.

The men folk also claimed that they helped ferry water on bicycles and motorcycles in their free time. Many laughed off at not having taken a bath for days together, this was done to save water for other important things. Some also admitted having to curb their thirst many times or drinking from contaminated sources, which perpetuated gastric problems and affected their physical health adversely. A few men admitted that they used saline water from the village hand pumps for ablutions and bathing, but it reportedly led to skin problems and eruptions.

It was further revealed that young children, particularly girls are also engaged in hauling water. For this, children often dropped out from school to help their mothers with this daily chore, so that fewer trips are made to other villages. The formal education of girls is already a culturally neglected domain in Mewat, and precarious water availability further fuelled it. The village had a functioning primary school (albeit, with only two teachers), where children were sent mostly for the lure of mid day meals. Girls were reportedly withdrawn as they attained puberty and were not allowed to pursue further studies. Almost all the women who took part in the discussions across the village, had never been to a formal school. Some claimed to have received '*Deenitaaleem*' though, at the *madarasas*. Frequent school absenteeism of young girls adversely affected their educational performance and achievements. Lack of access to water thus turned out to be an obstacle to their right to have access to formal education.

Lack of sanitary facilities and toilets was also observed in the studied village. When probed, people opined that they preferred open defecation since it saved water. Women found it as a source of extreme tension and shame. They revealed that they were forced to relieve themselves at dawn or late at night. Despite being aware of the government's Total Sanitation Campaign and provision for subsidized construction of toilets through Employment Guarantee Scheme, the Sarpanch remarked that the people did not show any sign of affirmation towards getting the household latrines constructed.

Apparently, the young girls and women also had to compromise on menstrual hygiene. Lack of hygiene and exposure to fecal contents on daily basis multiplied their risk to infections and consequent sickness. The health worker in the village revealed that diarrhea cases as well as vector borne diseases, particularly malaria and dengue, were widespread among children and adults alike. In the absence of effective health care infrastructure and lack of preventive measures, these diseases increased morbidity and mortality manifold.

The older women also were wary that young adolescent girls, while travelling without adult male accompaniment to other villages, located far away, run the risk of being abducted, molested, assaulted or raped. One of the women, during focus group discussions, commented on the helplessness of the women folk and young girls:

"Girls are in danger when they go to fetch water, if some thing wrong happens on the way, we won't be able to do anything for them, as no one will help."

Some young girls also shared being teased by boys of other villages, when they go for fetching water. Thus, they expressed living and working in constant fear. It is pertinent to mention that these girls and young women come from patriarchal families with little or no education and are not exposed to the world outside their village periphery. This is also evident from the fact that there was just one household with television in the entire village and media penetration was absolutely absent. In such a context, the negative and stressful social experiences instilled lack of self esteem and immense anxiety in them.

Impact on Social Relations

Focus on the group discussions showed that the lack of access to water sources strained the community ties often. Disputes with neighbours and within family were commonplace on account of water collection, ferrying, sharing and usage. One lady asserted, while indicating the double drudgery of work and domestic violence associated with water, that most women routinely faced:

"How can I work at home when I'm going to fetch water, only when I get water I'll be able to cook and serve, my husband doesn't understand this and hits me when I serve food late."

Some other reasons mentioned for conflicts with neighbours over the issue of water were disrupting queues at the source, giving preference to friends to fetch water at the expense of others, fetching water in more containers at a particular time, and stealing or hoarding water. Some households, with better affordability, also reported purchasing water from private tankers and stored it in an underground or overground structures, built in the homestead. This water, although not always was found of acceptable quality, nevertheless, was scantily used for cooking and drinking purposes. It was observed that people had put locks on the water storage tanks for the fear of their purchased water getting stolen. This adversely affected both mutual trust and cohesion among community members and created an atmosphere of mistrust, stigma and conflict in the village. Some families even sold or traded this stored water with others in lieu of cash or kind, as and when needed.

The discussions also illuminated feelings of shame at the idea of appearing dirty in the eyes of others, failure to perform customary acts of hospitality and restraining from taking part in certain religious or communal events due to paucity of water.

Conclusion

The studied village located in the semi arid Mewat region, faced extreme temperatures, erratic rainfall and an acute water deficit. The village was also beset with low natural endowments, particularly, saline soils and brackish groundwater. It was further characterized by lack of food security and negligent economic opportunity for the inhabitants. Small landholdings, due to the lack of water resulted in low productivity which led to disguised unemployment. People were found relying on a combination of rain-fed agriculture, livestock rearing and other casual labour activities to sustain themselves. Sporadic droughts and dry spells were widely reported which further increased their vulnerability. The problems associated with water resources were paramount and significantly affected their individual and collective health and well-being. This was the key concern explored in the present study.

The study reiterates the importance of understanding community concerns and subjective well-being to be informed to concerned authorities for development interventions. Access to potable water having been recognized as a high priority need in the studied village community, strengthening water infrastructure, desalination of existent sources, revival of traditional harnessing structures, rainwater harvesting and adequate conservation and management practices in tandem with the socio cultural context, could be some of the measures to improve the water situation. The key message to emerge from this study is that water scarcity has both, direct and indirect implications on physical, psychological and social well-being. It is important to take into cognizance that the struggle for water is not only for access to a resource, but also for the quality of life and well-being of all human beings on which they have an indisputable right.

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