Print ISSN: 2348 – 4101

EPRA International Journal of
Socio-Economic and Environmental Outlook

SJIF Impact Factor(2019): 6.124 Volume: 6 August - July 2019-2020

WOMEN AND WATER: CO-RELATING HEALTH ISSUES AND DEVELOPMENT

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ABSTRACT

Women and water both are sources of lives. The connection between water and women is an integral part of health and development. Water scarcity due to environmental problems and various other factors has both direct and indirect impact upon women's health and social development. Needless to say, women and children are the worst sufferer. In Indian family structure patriarchal discourse is prevalent, collecting and carrying water is women's responsibility especially in rural India. Women are the key participants in domestic activities and farming. Indian women have to exhaust ample time and health to supply their needs. Apart from health problems, such time consuming duties like fetching water unable them to have a better education as it increases the dropouts amongst the girls, unable them to have a better income and take better care of their children and themselves. The objective of the paper is to explore how water relates to women's health and sustainable development at large with a field study of 100 women respondents from the villages of Marathwada region in Maharashtra. It also sheds light over the relationship between water from an eco-feminist point of view. Findings unfold that Indian women are at higher risk of infections due to their frequent contact with unsanitary water. Women and girls collecting water are also prone to developmental and other health issues. Rain water harvesting is a solution to water crisis, but apart from that in rural areas what other ways can be applied is a part of discussion too. Women and water relationship explores a path towards holistic development.

KEY WORDS: ***Women : Water ; Health; sustainable development; fetching water; water crisis; patriarchal discourse***

INTRODUCTION

'Water for Health … Fundamental source of life and health is water…Human right to water is indispensable for a healthy life with human dignity .'

WHO, 4th December, 2002

Women and water both are sources of lives. The connection between water and women is an integral part of health and development. Water scarcity due to environmental problems and various other factors has both direct and indirect impact upon women's health and social development. Needless to say, women and children are the worst sufferer. In Indian family structure patriarchal discourse is prevalent, collecting and carrying water is women's responsibility especially in rural India. Women are the key participants in domestic activities and farming. Indian women have to exhaust ample time and health to supply their needs. Apart from health problems, such time consuming duties like fetching water unable them to have a better education as it increases the dropouts amongst the girls, unable them to have a better income and take better care of their children and themselves. The objective of the paper is to explore the relationship between women and water from an eco-feminist point of view and o understand how water relates to women's health and sustainable development at large with brief field studies of some villages of Marathwada region in Maharashtra.

METHODOLOGY

This research paper is based on the sample study of 100 respondents randomly selected from more than 20 villages of Marathwada region under the district of Aurangabad and Jalna. It is important note that variation in the annual rainfall in the different regions of Maharashtra state is practically negligible. In terms of the natural rainfall there are 3 broad zones in the state i.e. Konkan Region, Vidarbha Region and Marathwada Region. Nearly 40% of the land territory of Maharashtra gets less than 800 mm rainfall in a year which lies in the western Maharashtra and Marathwada (EPW, 1992). Marathwada region faces the problem of water scarcity every year. The area of study includes the villages of Marathwada Region like Limejalgaon, Khedi, Pimperkhed, Sayyadpur, Nanegaon etc which basically falls under the Ambad, Paithan, Sillod taluka in the district of Aurangabad and Jalna.(See Table 1)

Methods of Data collection and Analysis: Two research techniques were used to collect the field data for the research: Interview and Random Sampling.

A structured and partly open ended schedule was used as the major tool to collect the required study data. Interview schedule was constructed consisting of 20 questions and the data was collected with the help of trained students. From the data collected through interview schedule, randomly 100 respondents were selected from about 20 villages of Marathwada for study as random selection would make the research oriented findings more objective and bias free.

In order to collect required data each respondent was individually interviewed. Sufficient care was taken to conduct the individual interview at a place where the respondent could answer freely and satisfactorily. Respondent's co-operation and willingness to participate in the interview was satisfactory. The data collectors were well informed about the problem area of research and trend before conducting the field study; besides their rural background helped me to understand and grab the meaning of the rural local Marathi language and dialect while data collection.

Information collected through interviews was quantitatively tabulated by classifying it according to the nature of answers given by the respondents to each question. Responses were codified and presented in tables accordingly. The data has been analyzed within the framework of the women and water interrelation and its co-relation with health issues and development.

The 100 respondent profiles related to the villages of Marathwada region brings to light their marital status, educational status and the major water related issues and health problems. Out of the 100 respondents 59% are literate and 41% are illiterate (See Table 1.2a) the level of literacy in case of higher education is also very low. Only 4% out of 100 respondents had completed their graduation whereas 18% of them have studied only up to 6th and 7th standard. Even the rate of passing SSC is also quite low. Out of 59% literate only 11% have completed their SSC (See Table 1.2b). Therefore this data reveals that as the education level is quite low among the rural women even today it has a negative impact upon the development and the status of women in rural India. Needless to say based on different secondary sources it has been recognized that there is a co-relation between the women's low educational status and water scarcity. Basically women of rural India spend their half of the day in fetching water, that's why the dropout rates of girls in the school is quite high after 6th standard. Apart from that women are the informal managers in collecting, using and planning the water storage in rural areas, that's why if females are provided proper formal education they can play a very major role in water management and long term planning in preservation of water i.e. play a vital role in the sustainable development.

WATER- WOMEN: HEALTH AND DEVELOPMENT – THE WAY OUT

From the data collected 54% respondents claimed of a seasonal water problem while 46% answered as they are facing permanent water scarcity (See table 2). Water is collected from well which is quite high that is why women had to cover a long distance even today. Tap and hand pump does not work in most of the cases. On an average the rural women covers the distance of about 1.5 Km for one trip of fetching water. Women had to make such 3 to 4 rounds daily i.e. they cover almost about 6 Km walking distance for fetching water (See table 2.2). When asked who are the main collectors of water? 95% of the respondents answered its women while 3% replied it's both and only 2% answered its male. (See table 2.3) the average time taken by the women to fetch water for one trip is about 1 hour 45 minutes (See table 2.4). Needless to say such time consuming and tiring work of fetching water not only arises health problems but also takes away the productive time form women which they could have utilized in formal education, other productive work and self-actualization.

When asked about whether they face water related health problems or not 75% of them replied yes while 23% replied - No(See table 3). From the collected data, I have tried to categorize the water related health problems or issues into two sections. The first section is based on the health issues due to water fetching (See table 3.1) whereas the second section sheds light on the health problems due to unclean water (See table 3.2). Due to fetching water 33% reported backache and knee pain, 18% complained about body pain and 8%, 4%, 9% complained about headache, breathlessness and fatigue respectively. 28% were unable to specify any one particular problem. They reported of a combination of body pain, back pain, fatigue at different times. Water containers usually 20 liters of water which is 20 KG, constantly carrying such a heavy weight commonly on head, back or hip, has severe health implication. Backache and joint pains are common, in extreme cases curved spines and pelvic deformities can result, creating complication in child birth (www.wateraid.org). On the other hand due to the usage and drinking of unclean water from the data collected 20% reported Dysentery or Diarrhea, 18% reported of Malaria or Dengue, 11% ,12%, 9% and 8% complained about typhoid, jaundice, Gastro problem and Cholera respectively. Apart from this 13% reported other infections which also includes Gynecological problem. 7% were unable to specify any of these particularly. It is the ill health of women from the state of unsafe water and lack of sanitation that causes millions of death every year. Women are particularly vulnerable to these diseases as they are more in contact with water for different domestic and household purpose. Providing clean safe water supplies and effective sanitation can help to maintain good hygiene and therefore these deaths can be prevented (UNESCO 2004, Social Welfare 2004, www.wateraid.org). Because of the burden of collecting water and the fact that few schools have toilets in rural area, which prevents girls attending schools particularly when they are menstruating, very few women in developing countries today have a proper

formal education of a decision maker in the community (www.wateraid.org). Needless to say, enabling women's voices to be heard in the decision making process related to water management can ensure holistic development of both women and environment. As women are the informal managers of managing water scarcity so when asked how they manage scarcity of water, 32% replied by preserving or storing water, 23% answered about planned usage of water whereas 15% and 17% answered about managing somehow and less wastage respectively (See table 2.1). However in a multi-faceted approach is needed to solve water problems. Vandana Shiva, claims,that the water crisis is an ecological crisis with commercial causes but no market solutions. The solution to an ecological crisis is ecological (Shiva, 2002). A traditional water conservation technology was demonstrated in the Alwar district of Rajasthan, India, where rural people with the help of local NGOs revived a traditional water shed technology of 'Johads' (water reservoirs made of mud and rubble barriers built across the contour of a slope to collect rain water) in order to fetch the looming crisis of fresh water (Parmar, 2003).

However active community participation has shown significant results in Niphad block: there is more water in the villages and the area under cultivation has almost doubled (Sule, 2004). In Pimpalnare village (Nasik District) about 200 farmers got together to form a Water Users Association (WUA). The village had water tank that government failed to revive. WUA members rebuilt the tank in another place and installed a pipeline from a nearby percolation tank to their irrigation tank. Today 80% of the tank is always full (Sule, 2004).experts working on the water issue feel that control over water sources and its management actually empowers women. In 2003, at a Pani Panchayat in Rajasthan, Women recounted how control over water management helped them improve their lives. They had more time to take care of themselves and children and also educate themselves (ibid). In WUA women provide the knowledge and wisdom to revive traditional water conservation system. So women are now becoming an integral part of these sustainable initiatives (ibid).

WOMEN AND WATER ECO-FEMINIST PICTURE

Eco-Feminism includes several different angels of argument and strands of discourse. With certain understanding the following picture of the eco-feminist arguments are important connections between the domination and oppression of women and the domination and exploitation of nature. In the patriarchal discourse, there is a binary of nature and culture. Women are identified as being close to Nature whereas men as being closer to culture. Nature and Woman both are seen as inferior to men and culture. As the domination of nature and of women are holding the same chord of understanding , women have a special role in ending the domination of Nature. Both , feminist and environmental movement stand for a system that is egalitarian and non – hierarchical. Therefore , holding a lot of commonalities in perspective, theory and practice. (Bina Agarwal ,1992)

Vandana Shiva's work on India takes us a step forward. Like the eco-feminists, she sees violence against nature and against women. Shiva argues that "Third World women" have both a special dependence on nature and a special knowledge of nature. This knowledge has been systematically marginalized under the impact of modem science: "Modern reductionist science, like development, turns out to be a patriarch- al project, which has excluded women as experts, and has simultaneously excluded ecology and holistic ways of knowing which understand and respect nature's processes and interconnectedness as science. According to, Bina Agarwal, "women's and men's relationship with nature needs to be understood as rooted in their material reality, in their specific forms of interaction with the environment. Hence, insofar as there is a gender and class (/caste/race)-based division of labor and distribution of property and power, gender and class (/caste/race) structure people's interactions with nature and so structure the effects of environmental change on people and their responses to it. And where knowledge about nature is experiential in its basis, the divisions of labor, property, and power which shape experience also shape the knowledge based on that experience" (Bina Agarwal, 1992) .

WOMEN AND WATER: DISCUSSION AT LARGE

"Of all the social and natural crisis we human face, the water crisis is the one that lies at the heart of our survival and that of our planet Earth" (Koichiro Matsura, Director – Geneva , UNESCO) By 2025, the UN estimates that as many as 5.5 billion people, the two thirds of the world's population, will face a water shortage. The degradation of water quality worsens the imbalance between water supply and demand. (UNESCO, 2004) Lack of access to water for drinking, hygiene and food security inflicts enormous hardship on more than a billion of the human family said UN Secretary General Kofi Annan on December 12, 2002 in New York. Women and children are usually the most affected persons by conflicts, they would clearly be the main victims of the resulting poverty often linked with the lack of access to fresh water (UNDP, 2001). Access to freshwater resources influences directly women's lives. According to the World Health Organization, approximately 250 million individuals were diagnosed with a water-borne disease at the dawn of the twenty-first century. Of the 250 million, 75% of these individuals lived in tropical rural or slum-like areas (UNICEF/WHO, 2000). Women are the most vulnerable as they are the most to be in direct contact with water due to domestic and sanitary purpose. Women are the most often main collectors, users and in formal managers of households. Easier access to fresh water would improve living conditions for girls who generally drop out of school and start working in the fields and fetching water at a very young age. Lack of access to water is an obstacle to their right to have access to formal education. (UNESCO, 2004) Women's considerable knowledge of water resources, including quality, reliability, and storage methods is too often not taken into account by decision makers who still ignore that this hidden chest of knowledge is one of the major keys to the success of water resources development and water management. (Murcoot, 1991 ; UNESCO, 2002). It is now recognized that the exclusion of women from the design, planning and decision-making of water supply and sanitation projects in developing countries is a major obstacle to the improvement of their well-being (World Bank, 1989). International initiatives, such as the International Drinking Water Supply and Sanitation Decade and the United Nations Conference on Environment and Development (UNCED), have been instrumental in promoting the role of women in the protection of natural resources as well as in water management (Verhasselt, 1998). The time is clearly ripe to link sustainable development to gender issues. The responsibility for the use of water and its degradation includes the respect for women's dignity as well as the equal and peaceful sharing of natural

resources. These issues are the core of the building of a universal 'Water Ethics'. (UNESCO, 2004) According to UNESCO Programme for Gender Equality, 'Gender equality means: giving women and men, girls and boys, the same opportunities to participate fully in the development of their societies and achieve self-fulfillment. Gender equality is an essential component of human rights, and it is a key of development' (UNESCO, 2003). In developing countries Women's life is particularly concern with water availability, mainly in rural areas. Family work usually covers one third to one half to women's working day. It included tiring tasks such as fetching water for domestic use, cooking, washing, family hygiene and sanitation. (UNESCO, 2004) The Swedish International Development Cooperation Agency (SIDA) points out: 'There is a very clear gender division of roles and resources in all areas of water resources management'. In rural developing areas, women are traditionally the main managers of domestic water resources at local level. Women alone decide where and how to collect domestic water, what amount and how to use it.(CIDA, 1994) Collecting water is usually undertaken several times a day, and that often entails a long walk of up to some eight hours/day an exhausting task especially during dry seasons when women carry about twenty kilos water cans on their heads, shoulders or strapped to their backs to meet their families' water needs.

CONCLUSION

The changing concept in development has progressively attended women's development. Women and water are both, source of lives and an integral part of society. Inaccessibility still operates as an important reason for drudgery of rural women. Not only the health of women but even the education of girl children is adversely affected by this. The shifting focus in community water supply given abundant opportunity for alleviating the water related difficulties of women as well as bring avenues to redefine stereo typed gender roles in our society. The strong bond existing of women and water creates a fine opportunity in favor of women's health, better quality life and sustainable development. Systematic long term planning for water resource development, distribution and management will have to be backed voluntarily with women at the center. The final aim should be to balance or harmonize the women's status along with preserving environment through sustainable development.

LIST OF TABLES

Table - 1 : Name of the Villages

Sr. No.	Name of the Village	Respondent
1	Limbe Jalgaon	14
2	Khedi	8
3	Pimperkhed	8
4	Dikshabhoominahar	7
5	Syyadpur	7
6	Nanegaon	7
7	Auranpur	6
8	Puregaon	5
9	Others	38
	Total	**100**

Table 1.1 : Marital Status

Sr. No.		Respondent
1	Unmarried	5
2	Married	95
	Total	**100**

Table 1.2 (a) : Education Status

Literate	59
Illiterate	41
Total	**100**

Table 1.2 (b) Level of Literacy

Sr. No.	Level of Literacy	Respondent
1	1st - 4th	6
2	5th	6
3	6th - 7th	18
4	8th - 9th	7
5	SSC	11
6	HSC	7
7	Graduate	4
	Total	**59**
8	**Illiterate**	41
	Total	**100**

Table 2 Water Problem

Sr. No.		Respondent
(a)	Seasonal	54
(b)	Permanent	46
	Total	**100**

Table 2.1 : Managing Scarcity of Water

Sr. No.		Respondent
1	Preserving or Storing Water	32
2	Planned usage of Water	23
3	Managing somehow	15
4	Less wastage of water	17
5	Others	9
6	Unanswered	4
	Total	**100**

Table 2.2 : Distance covered to fetch water (Km)

Sr. No.	Distance Covered	Respondent
1	Less than 1 km	27
2	1 Km	57
3	1.5 Kms	2
4	2 Kms	8
5	3 Kms	3
6	5 Kms	1
7	Not specified	2
	Total	**100**

Table 2.3 : Mainly Water fetched By :

Sr. No.		Respondent
1	Women	95
2	Men	2
3	Both	3
	Total	**100**

Table 2.4 : Time taken to fetch water (Hrs)

Sr. No.	Time Taken	Respondent
1	Half an hour	7
2	One Hour	35
3	One and half hour	11
4	Two hours	28
5	Two and half hours	6
6	Three hours	2
7	Three and half hours	5
8	Not specified	3
9	Unanswered	3
	Total	**100**

Table 3 : Water related health problems

Sr. No.		Respondent
1	Yes	75
2	No	23
3	Unanswered	2
	Total	**100**

Table 3.1 : Health problem's due to water fetching

Sr. No.	Nature of Disease	Respondent
1	Backache & Knee pain	33
2	Body pain	18
3	Headache	8
4	Breathlessness	4
5	Fatigue or Exertion	9
6	Not Specified	28
	Total	**100**

Table 3.2 : Health problems due to Unclean water

Sr. No.	Nature of Disease	Respondent
1	Dysentery or Diarrhea	20
2	Cholera	8
3	Malaria	18
4	Typhoid	11
5	Jaundice	12
6	Gastro problem	9
7	Other infections	13
8	Can't Specify	7
9	Unanswered	2
	Total	**100**

Table 4: No of Villages where Tankers come :

Sr. No.		Respondent
1	No	74
2	Sometimes	3
3	Yes	21
4	Unanswered	2
	Total	**100**

Table 4.1 : Helpers in fetching Water

Sr. No.		Respondent
1	None	42
2	Daughter-in-law	7
3	Mother-in-law	5
4	Daughter	17
5	Other female family member	6
6	Son	12
7	Husband	8
8	Other Women	2
9	Unanswered	1
	Total	**100**

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