

Women, Water and Development: Issues and Challenges-The Studies on Global Perspective

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Abstract:

Water is one of the most important necessities of human life. In terms of utility gender-based use of water is seen throughout the world. women play important or can say major role in conduct, arrangement and conservation of water which follows one of the internationally principal of water management. Women plays crucial role from the collection, utilization and manage the distribution of water within the family members specifically in rural areas. So, in development and water management policies should look towards the women interest. But water scarcity still exists, and millions of women did not access water to fulfill their basic needs. the objective of the study is to find the involvement of women in water supply and sanitation from the traditional past which plays major role in the formation of projects and programs to improve them. The potential role of women helps to execute different stages of a project such as planning, construction, maintenance, and evaluation depend up on cultural and technological diversity. The benefit of women involvement helps to achieve wider developmental goals in both direct and indirect ways. From the literature reviews theorizing data found in terms of gender based involvement in water policies without knowing the ground reality, for that it will be difficult to find out which policies will be beneficial for the poor women to get access of safe and clean water easily.

Key words: Women, Development, Water management, Sanitation.

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I. INTRODUCTION:

Water is essential for life. Our body contains 70% of water. Thus, water is useful for our livelihood. Water plays a vital role in the day to day life of people. Humans bounded with culturally constructed gender role in which men and women plays different roles. In case of meeting the household needs of water women plays key role in the management of water. In agricultural field woman involve in 70% of the work, which is more than a man, but women eliminated when developmental policies implemented women viewpoint on the water management and sustainable development. Women role in the utility of water for the household purposes is mostly consider, except their role in other activities. Focus of the International Conference on Water and Environment held in Dublin, Ireland, in 1992, was on the roots of Integrated Water Resource Management (IWRM) in which women's role in the management, prohibition and safeguard of water were discussed. Collecting water from distance places by women members in the family for safety of the health of all the members in the family needs time management. It sometimes has adverse effect on the health of women.

Water is indispensable for the sustenance of life, not only human life. It should be safe and easily accessible to all. According to the UN Commission report from 1990 to 2015 safe drinking water accessible to 2.6 billion peoples, but still now a huge number more than 663 million people's still confide underdeveloped sources. Insufficient water supply brings an additional distress to women, because it is usually the women, especially the women in African countries, who spend a lot of time in collecting water. Water scarcity, thus, have an impact upon the economy of the house and on the education and health of children. Various health related disease among the people in the family specially for females are due poor sanitation and pollution of water. The major goal of UN Woman Act is to improve the water quality and sanitation facility in a sustainable manner. In the ... organized by Food and Agriculture Organization of the United Nations (FAO) and the United Nations Economic and Social Commission for Western Asia (ESCWA), high priority has been given on clean water and sanitation in the agenda of sustainable development goals (SDGs) to be achieved by 2030. Their focus on the following goals by 2030:

- 1) Accessing safe and inexpensive drinking water for all
- 2) Reasonable hygiene and sanitation for all
- 3) Improving water quality and reduction of pollution and recycling the used water
- 4) Increase the proficiency to use water in all sectors

For the social and economic progress and development practices gender plays an important role. Male and female contain half of the total population so to implement sustainable development in a proper way we must look both.

Arab Forum of Sustainable Development (AFSD) in 2018 addressed six factors about the interlinkages between water and woman security. These are: Human right to water & sanitation, Gender disaggregated datasets needed, reduce gender inequities and poverty gap in access to 'Water, Sanitation and Hygiene' (WASH) services. Water is essential in achieving food security, health and peace, Gender mainstreaming in water management strategies and policies involves women in decision-making processes. Male and female's involvement in the matter of water management and sanitation were shifting from its homogenous identity which shows its impact during the 1990s conference on water and sanitation held in Delhi where the unit of analysis were from household level of the communities. In the year 1992 Dublin Conference on water and environment, the key focus was on the women's role and traditional knowledge and practice. According to the UN Women report 2020 in case of Sustainable development one third of the world's women involved in agriculture, fishing as a paid labor or as unpaid family labor. Most of women and girls suffer from scarcity of accessing safe water for maintaining hygiene and sanitation in regular basis and during menstruation at home and in school or work.

II. AIMS AND OBJECTIVES:

This paper aims to do thorough reviews of papers on water management and then highlights the needs for woman's participation in the management of water and sanitation. which has one of the major roles in Sustainable Development.

III. MATERIAL AND METHODS:

Since this is a review paper, as envisaged in the proposed aims and objectives, the present researchers have discussed at length what the other researchers have written about the present area of interest. The data have been collected through secondary sources like books journals, newspapers, internet sources and administrative materials.

IV. TRADITIONAL ROLES OF WOMEN:

The contribution of women in the as a major water user noticeable from their traditional past. The women as a domestic manager decided when and from where to collect water and how to utilize the water in different purposes in various seasons. In case of water and sanitation the information shared through the interpersonal relationship between women. Their opinion helps to develop consequences in the water and sanitation related policies within the society. Through reviewing literature women issues related with water in domestic, agricultural and sanitation related issues taken forwarded without ignoring the possible water related policy formation for community. The review of literatures has been made in two parts. First the problems of water management are discussed at international perspectives and then we narrow down our discussions at national level.

International Scenarios:

In a longitudinal study on Bangladesh which shows the condition of infectious disease and nutrition. Water and food samples collected for lab testing which shows that traditional weaning foods plays key role in the transmission of diarrheal diseases. Frequency of E. coli was higher in the 50% of the drinking water specimens which is another reason of diarrhea in children. Mother's role to prevent the disease and sanitation were important factor in this paper (Black, Robert, et al 1982).

An in-depth study on water carried out in rural areas of Botswana in which specific water program (Swedish International Development Authority) from late 1971 until 1993 initiated on socio-economic objectives and benefits of the villagers. Women was the mostly benefited through this program resulting as time saving and get opportunities as council water supply employees. Higher unit cost mainly in small villages in hand pumps is a major drawback of the scheme (Agrell, Jan Olov, and Schulzberg, Gunnar, and White, Richard, 1984).

To improve pump performance and support the government of Guinea-Bissau developed decentralized maintenance system and the standardization of handpumps since 1987. Since 1993 females had been trained for the maintenance of those handpumps (Visscher, J.T., and Werff, K. van de, 1995).

In 1987 two organizations Grameen Bank and the Grameen Krishi Foundation (GKF) brought 790 deep tube wells for the management of agricultural and household needs in Bangladesh. Their focus was poverty mollification and women's empowerment (Jordans, E. and Zwartveen, M. 1997).

A developmental project was done by the World Conservation Union which continued to 1996 among the poorest people of Tanga region Tanzania. The aim of the project was to make the local people, especially the local women, aware about their coastal environment that help them to find ways for sustainable livelihood and protection of Mangroves and freshwater resources (Van Ingen, T. and Kawau, C., undated).

In a study covered Kibwezi, Makindu and Kathonzi Districts in Kenya in which situation of food, nutrition, water, and sanitation taken forward. They mostly rely on the rainwater for cropping and harvesting. The drinking water situation in those areas not better and in case of sanitation situation become worse. Females carry water far away from their home so that they cannot give more time to engaged in production activities. Government initiatives to achieving sustainable development of the community such as making sanitation and hygiene better (Absalon, Elkana, 2011).

Water, Sanitation and Hygiene (WASH) programs consider the conceptual framework used to classify gender equity and changes. This study tries to give a framework towards bringing a harmony between gender and WASH developmental programs. WASH programs promote equity in gender relationship, status and power that help the future policy makers as a tool to improve sustainability (Carrard, N., Crawford, J., Halcrow, G., Rowland, C., Willetts, J., 2013).

A study taken place by The Department of Geology, Mines & Water Resources (DGMWR) of Vanuatu, with support from UNICEF, on the issue of effectiveness of women participation in the Water User Committees (WUCs), which shows that women involvement plays key role in the water related committees. Meeting regularity and revenue collection found better when women hold the key posts of the committees. Water Resources Management Act (December 2016) was also discussed in this study which amended 40% of reservation for rural women in the water related projects. This study analyzed the importance of gender equality and established the worth of women involvement in the government departments (Mommen, B., Waa, H.K., Gwavuya, S., 2017).

An in-depth study of the Turkey-North Cyprus Water Pipeline Project helps to reveal the insights on the gender aspect of the decision-making mechanisms related to water governance and sustainable development. In case of natural resource management men and women show distinctive interests because of the gender role in the society, their knowledge, and responsibilities. For the prospect of Ecological change, livelihood and sustainable development gender plays its role as an important way. The underwater pipeline project was proposed in 1959 during the political agreement between London and Zurich to bring pipeline water in Turkey. But the women and the community perspectives were eliminating from that project. In case of the Turkey-North Cyprus Water pipeline Project, women need to be practically illustrated in water related implantation and decision-making substances as well and provide them economic opportunity to empower them. In this study, the author tries to link between two distinct areas of research such as gender equality and natural resource management in north Cyprus, but it lacks sustainability (Sülün, E.E., 2018).

National Scenarios:

Though the major portion of India is surrounded by water, but lack of water management programs put the people vulnerable so far as access to enough water is concerned. The question is not only on the quantity of water, but also quality of water. Continuous of ground water is the reason behind the shortage of clean water. The National Water Policy (1987 and 2002) and National Policy on Empowerment of Women (DWCD, 2001) emphasized on the supply of safe and drinking water in the rural areas and on the needs of safe water for women to maintain hygiene and sanitation. Easy access of water in rural areas is also an issue. Another project, "Accelerated Rural Water Supply Program" (ARWSP), induced in 1972-1973, focused on the supply of safe drinking water in rural areas. Handpumps and piped water schemes were also incorporated under this project (MoRD, 2002). In India, the water supply in the rural areas done through Panchayat Raj Institution (PRI) in which 33% of reservation for Schedule Caste/Schedule Tribe women were noted. In 2019, Chennai was suffering a huge water crisis which is an alarming call for other cities in India to make strong water management policies.

In the year 1995, Self-Employed Women's Association (SEWA) project in Gujrat, were organized and provided some key messages for the development of rural women through this project (SEWA, 1995).

Diagram-1: Key Messages for Rural Women Development Gujrat India

<i>Enhancement of financial and managerial powers of women</i>	<i>Women manage their own watershed resources</i>	<i>Equity between poor women and better-off women</i>
<i>Traditional knowledge</i>	<i>technology and</i>	<i>Women's effective involvement in protection of forestry and biodiversity</i>

The major focus of the study, carried out in the rural areas of Madhya Pradesh and West Bengal, were the water quality issues and problems faced by rural women to fulfill the regular water needs. The increasing contamination of Arsenic and Fluoride in the water in these states was taken consideration in the study. The study also reveals the states that are recently suffering from arsenic related diseases like Assam, Bihar, Chhattisgarh, Manipur, Tripura, West Bengal. and Uttar Pradesh. Cases of the contamination of fluoride in the ground water reported from 196 districts in 19 states (Susheela, 2001) including West Bengal and Madhya Pradesh were reported. A few more cases of fluorosis contamination were reported in 2006. This has an increasing trend and is of major concern our Government. These two states, Madhya Pradesh and West Bengal, show water scarcity in few developmental blocks, which is possibly due to over exploitation of water for economic purposes. Women are suffering a lot in order to collect safe water for drinking and household purposes from distant places. These are the areas, which are marked as 'overexploited' and 'dark'. West Bengal shows high percentage of having 'dark' developmental blocks or water sheds. This study reveals the micro-level factors to ensure the challenges that women face. This in effect emphasizes the need for the introduction of 1) culture bounded water related norms, values and beliefs, 2) local level social institution allowing access to water, 3) traditional knowledge and technologies for water management (Singh, N., Jacks, G., Bhattacharya, P., 2009)

In India, a study on the utilization and management of water for production and domestic use was carried out in which the interlinkages between Gender, water and nutrition were discussed (Mitra, A. Rao, N., 2019). The study was undertaken in 12 villages of Maharashtra and Odisha state. In the villages, water utility is linked with not only with the agriculture but also with gender, social relations, and hierarchies. In the study, the author concludes that rapid commercialization is one of the factors that shatter the natural water flow cycle and put impact upon the people and their relations. The Holistic Ecosystem approach was described to ensure the harmony between natural resources and humans. Production (agriculture), consumption and food and nutrition are linked with water in which gender plays important and intermediate the role (Mitra, A. Rao, N., 2019).

A study on the rural areas of Eastern India reveals the negligence of women contribution in irrigation water management sectors though the women gave more efforts than man. Inclusion and hence participation of women in the Water User Associations (WUAs) and meetings was exceptionally low. Though women actively play their role in the water management and irrigation but ignored while forming policies and programs. Women in that area felt that their participation in the water related program not only helped them to uplift their status and prestige in the society but also, that they can improve their skills and knowledge that will be helpful for the development programs (Khandker, V., Gandhi, V.P., Johnson, N., 2020).

V. DISCUSSIONS AND INTERPRETATIONS:

Women's involvement in water related activities present from the traditional past. From the literary sources it found that women struggling for their native rights from the traditional past and still struggling. Though the scenario become quite improved but not reached satisfactory level. Women are the major water users in the community from economic to household sectors. In the governmental initiatives for community level policy formation for water management and sanitation women knows the better what needs for the development and how to manage water. They took primary initiatives for childcare and maintaining hygiene for their child through traditional knowledge, but they are still avoided and become secondary in policy formation initiatives even jobs in water management sectors. In India women are more neglected than other countries in the world. Using arsenic and fluoride contaminated water for different purposes their chance of skin disease increases which needs to be highlighted. India need to look for the involvement of women in different water management sectors and increase the facilities that they can give opinion for better policy formation. Several girls cannot attain school because of poor sanitation and lack of clean water.

VI. CONCLUSION:

The findings of the study call for making appropriate policy both at national and international level. The focus of the paper is on women, who are involved in water utility, investment of time for collecting water and management of water. Overlooking the importance of women in this venture will only push us to deterioration of water quality and health problems. The researchers in this paper mostly focus upon the women

involvement in water management, but more focus is also needed to the household water management, water quality and the preservation without hampering the cultural need. In India, there is a need of local knowledge base water management programs to prevent future water crisis and to increase women participation without doing gender stereotype. The plans should be streamlined so that the Sustainable development is achieved. We need a more holistic and insightful approach.

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