The Changing Role of Women in Water Management: Myths and Realities

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1. INTRODUCTION

1.1 Women and Water Management: A Background

Women and water are linked in several ways, an important linkage being their role in water management. Traditionally, and almost universally, regarded as domestic water managers, women's role is neither limited nor static. It is known that women also play a substantial role in food production, although it varies regionally and from country to country. In Africa, women produce over 70% of the food, while in Asia, the figure stands at 60% (Aureli and Brelet, 2004). This makes women the primary water users and managers in agricultural and industrial sectors (Brismar, 1997; van-Wijk, 1985). Over the last few decades, there has been an overwhelming emphasis on enhancing women's involvement in the water sector from mere 'users' (beneficiaries) to 'managers' (actors), with increased choice and voice in the water resources management processes.

Global policies over the last three decades provide a framework for understanding women's changing role. First came an official recognition of women as domestic water managers at the UN Water Conference, in Mar del Plata, Argentina, in 1977. That prompted the UN to declare the decade of 1981-1990 as the 'International drinking water supply and sanitation decade' (IDWSSD), which aimed to better facilitate women in their

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domestic water provisioning tasks. These global policies promoted women's involvement in the operation and maintenance of water supplies and the sanitation infrastructure of local communities (Elmendorf and Isely, 1983; Kalbermatten, 1991). This was further expanded to acknowledge the role of women in other spheres of water use and management, as well as deepen their stake in the sector to promote their participation in water resources management as a whole (ICWE, 1992; UN, 1992). The final phase of development has seen an increased concern with 'stronger voices' of women in decision-making processes within the arena of water resources management (ICF, 2001; WWC, 2003).

1.2 The Issues

Water policy interventions have been designed and implemented within local community contexts. These include national policy frameworks and governmental programs as well as policies designed by the international development agencies such as UNICEF, SIDA and DFID, the major supporters in the developing world. The non-governmental (NGO) sector, too, has been active by implementing specific interventions in selected areas. Well-known NGO initiatives in this sector in India include those of SEWA in Gujarat (Maharaj, 1999) and Water Aid in the states of Maharashtra, Karnataka, Andhra Pradesh and Tamil Nadu (Water Aid, 2003).

Several studies have been conducted on the impact of such interventions and many of these attempt to illustrate that the interventions at various levels have been effective in bringing about a substantial change in the role of women in water management with economic and health benefits (Carr and Sandhu, 1988; Parshad, 1988; van-Wijk, 1985; Verhagen, et al., 2004) as well as improved participation (Gross, et al.

ISSN: 1545-6196

2001). On the whole, these studies identify issues and problems and suggest solutions that are depicted as universal in validity. According these studies, women universally face the problem of access to safe water sources; encounter hardships in fetching water; are denied equal water rights and resources within their societies; or that they have always lacked a forum or mechanism to have their voices heard in the process making decisions about water.

However, women's issues must be analyzed within the framework of gender[1]. An anthropological theory on gender, which is based upon generalizations drawn from specific micro-level studies, postulates that gender representations are multi-faceted and must be understood first in terms of the context in which they appear, and second in terms of their relation to other contexts (Sanday and Goodenough, 1990). Anthropological studies argue that it is not right to think in terms of a single status for women because status is dependent upon context. Within the scope of this theory, the prevailing consensus about the nature of gender inequality and the theories dealing with it--which perceive hierarchically-organized societies with men occupying dominant positions over women--is challenged. Any notion of universality regarding the position of women (versus men) is seen as fallacious, because men, women and their activities need to be seen as existing in their mutual relation to one another (Sanday and Goodenough, 1990).

Drawing support from the body of anthropological theory in general and of gender theory in particular, this paper seeks to unfold the realities underlying the

[1] Gender refers to the social construct of sex. Within this concept, society is seen as constituted of women and men who exhibit socially and culturally determined differences in behavior, attitudes, roles and responsibilities (Seymour-Smith, 1986). They may also exhibit differences in social, cultural, economic and political attributes and opportunities (Woronuik, Thomas and Schalkwyk, 1997).

ISSN: 1545-6196

universalistic claims about transformed roles for women in water management. Considering the importance of 'context' in the construction of gender ideologies and relations, it argues that while the transformation may have been possible or effective in some contexts, it cannot be taken as a universal reality. Since construction of gender ideologies and relations vary contextually, any intervention built upon universal processes of change may not actually make substantial impact upon the existing social forms. The paper will examine the situation with respect to the changing role of women in water management in the context of rural India, through a micro-level study based in two states that exhibit similarities in socio-cultural contexts.

The paper is divided into four sections, of which the first section comprises the introduction. The second section presents background on the traditional set-up regarding the role of women in water management in a rural Indian setting. The results of attempts at transforming this role (in terms of increasing women's benefits and participation in the sector) are qualitatively sketched in the third section. A discussion on the myths and realities of women's water management roles follows in the fourth section. The paper concludes with a summary of the findings and a presentation of suitable recommendations.

1.3 Methodology

The findings and discussions in the paper are largely based upon primary empirical data procured through an ethnographic study in a rural Indian setting. The study was conducted in 14 villages in the states of Bihar and Madhya Pradesh. The villages

ISSN: 1545-6196

were selected on the basis of criteria such as multi-caste[2] composition of the community; availability of traditional water supply sources; installation of new technology (handpumps); and introduction of new water management strategies under State initiative. Fieldwork techniques such as participant observation; unstructured and structured interviews with key informants using open-ended questions; focus group discussions; and case studies were used.

The sample of informants selected within the villages numbered 205 men and 215 women, and were drawn from the different social segments (castes) in the villages. A total of 11 focus group discussions were held in the selected villages, of which five were specifically for women. Case study data was also collected from three villages to obtain evidence of the interplay of factors such as caste and gender in the implementation process of the planned interventions. The data was then subject to qualitative analysis where caste- and village-based profiles were drawn according to traditional as well as modern water management set-ups. These profiles were compared to arrive at generalizations leading to the results of the research, some of which are outlined in this paper.

2. WOMEN'S ROLE IN WATER MANAGEMENT: THE TRADITIONAL CONTEXT

The role of women in water management in the rural Indian context cannot be adequately and properly understood from a universalistic perspective. The ascription of

[2] Castes are ranked, named and endogamous social groups, membership in which is determined by birth. Caste system represents a hierarchical arrangement of several castes that share a system of mutual interdependence, involving social, economic and ritual aspects (Beteille, 1996).

ISSN: 1545-6196

roles and responsibilities, and access to powers and resources related to these, are highly differentiated, both between women and men, and amongst women themselves. The differentiation is governed by a number of social principles, the most important of these being caste. Other important principles of differentiation are age, generation and religion.

Women's most important role in water management in the traditional context is seen within the domestic arena--as that of domestic water managers. In this role they are seen as responsible for the gender-specific tasks of procuring, managing, and using water for domestic purposes. Their chief concern lies with water used for five basic domestic purposes: namely, drinking and cooking, washing and cleaning, bathing, sacred and therapeutic usage. The fulfillment of these water needs is guided by the consideration of certain primary water qualities defined within the framework of local cosmologies. For drinking and cooking water these attributes are colour, smell and taste. Good quality water for these purposes is expected to be colourless, odourless and sweet in taste. Consideration of water qualities may then be coupled with additional criteria such as distance, accessibility, and convenience, to define the level of difficulties faced in procuring domestic water.

Given the above scenario of social differentiation among women, it is interesting to note that not all women in Indian villages actually face the hardships involved in fetching water. In the case of upper castes and also some religious groups like Muslims, women are largely restricted to decisions regarding water management in the 'domestic space'. The responsibility of working in the 'extra-domestic space' is believed to be that of men. Therefore, where an upper caste household lacks its own private water sources, the men are responsible for fetching domestic water from public sources. Violation of the norm is

ISSN: 1545-6196

seen to bring disturbance in the gender-based social arrangement. As one moves down the caste hierarchy, women show greater mobility in the extra-domestic sphere, shouldering also the burden of fetching water from great distances and uncertain water sources.

Factors of age and generation are also very important in providing further differentiation among women. Older women who are in the generation of 'mother-in-law' and occupy a senior position in a joint household enjoy access to a different social standing--with a set of rights, privileges and responsibilities that are markedly different from that of the younger women. In the upper castes and also in Muslim households, they can even shoulder the responsibility of fetching water from public sources in the absence of men and look after other matters pertaining to the extra-domestic sphere. Within the domestic arena, they actually exercise the decision-making powers with respect to water use and management, the younger women being obliged to follow.

At the household level, another facet of water use and management with which women are associated is agriculture, but here an internal differentiation among women as well. While women are often seen as having large-scale involvement in the agricultural sector, not all women are actually involved. Two categories of women may be examined here. First, the women from lower castes, who themselves generally lack the access to land resources because, due to the historical pattern of economic exchange in the village, their caste itself may be landless--settled for provision of services to the upper caste landlords. These women may, however, constitute an important labor force in the agricultural sector, without actually having much to do with irrigation. Labor for irrigation is generally provided by the men. Second, women from upper castes share

ISSN: 1545-6196

minimal concern with use and management of irrigation water, irrigation being a responsibility of the men. However, women's interest and role in the sector are seen in those cases where women manage the agricultural land, either because men of the household are absent or it is woman-headed. In case of small-scale plots that are used for raising vegetable gardens, women's more direct involvement and active role are more apparent. These women can belong to the middle or lower tiers of the caste hierarchy. The interest of women may also lie in those irrigation water sources that are exploited for domestic purposes as well. However, in all these cases, the decision-making and managerial responsibilities are largely handled by the senior women.

In terms of the traditional institutional patterns for managing water needs and resources, two kinds of tasks for women may be analyzed: first, the creation and maintenance of water sources; and second, participation in the decision-making processes governing the water sources. The physical tasks of creating and maintaining water sources are primarily not a part of women's role. From managing resources to employing labor in construction, the responsibility basically lies with the men. However, lower caste women may sometimes provide support in the form of physical labor. The same holds true for the repair and maintenance of water sources, whether private (at household level) or communal.

However, women do participate in decision-making regarding the creation and maintenance of water sources. With respect to needs and problems that pertain to domestic water sources, women's expression is generally through 'indirect' channels of communication, through what may be called the traditional consultative mechanism that is essentially gendered. Thus, women may express their needs and opinions through their

ISSN: 1545-6196

husbands, sons or other male relations. Alternately, there is a channel of expression through traditional women leaders. These leaders are generally elderly women who enjoy charismatic authority in the community as a whole, their voice and choice being heard, accepted and followed by the men, even in the extra-domestic space. Thus, women may meet and discuss their needs within their own caste-based groups and express opinions through such women leaders. Alternately, men may consult the senior women leaders for opinions regarding women's domestic needs.

These institutional channels function in relation to public/communal as well as private/household-level sources. In case of the latter, elderly women of the household may act as the opinion leaders. Even decisions regarding execution of action in relation to the expressed needs may be influenced by the opinion of such women leaders.

In addition to the above roles, senior women from the upper castes, or those from within the caste having user rights to a particular water source[3], may also be involved in monitoring water use by keeping vigil over the users and bringing up instances of infringement of the norms to the public arena for decision. A number of cultural beliefs and practices contribute towards maintaining the quality of water and the source (these may extend to both public and private sources). Enculturation of children to such beliefs and practices is primarily regarded as the women's responsibility; even younger women may participate in this. Women also generally possess knowledge and are responsible for maintaining quality of the water stored and used at home.

[3] The caste system lays down rules regarding rights of access to and use of spaces and resources in the village based on the principles of purity and pollution. In accordance with these norms, users of a common water source may consist of members of one or more castes that are contiguously placed in the local social hierarchy.

ISSN: 1545-6196

3. CHANGING WOMEN'S ROLE IN WATER MANAGEMENT: SOME REALITIES

Against the backdrop of the traditional role structure for women in water management, some realities of the changing scenario will be presented in this section. It is often assumed that women will benefit from savings of time, energy and better health if they have access to improved, accessible, and reliable water sources. The time saved will be spent taking up additional economic activities as well (van Wijk, 1985; Verhagen, et al., 2004). However, the present study indicates that in the study area, such benefits have not come automatically to all women, and a number of reasons can be examined.

First is the fact noted earlier that local cosmology guides the choice of water sources by consideration of appropriate water qualities defined within it. For instance, good quality water for drinking and cooking is generally expected to be colorless, odorless, sweet and fresh, these in turn being closely related to the local concepts of purity, health and hygiene. Water from the new sources does not always fulfill these criteria, leading to decisions about continued dependence on the traditional sources already in use. This has influenced the level of adoption of the modern water supply sources, often leading to a situation where the new communal handpumps are merely used as 'add-on' sources of water; many times their water is not perceived as appropriate for drinking and cooking at all. Thus, the workload of women is actually enhanced, not reduced, because of the variety of water supply options, some of which continue to be remote.

Second is the fact that the water management roles of all women in rural India have not been universally transformed. On the one hand, women from the upper castes--who constitute a substantial proportion of the women's population in the villages--have not

ISSN: 1545-6196

been substantially affected because they were never involved in the physical task of fetching water in the first place., On the other hand, many of the more needy and also specially-targeted women from the lower segments of the rural society--those belonging to the scheduled castes (SC) and scheduled tribes (ST)[4]-- remain deprived of the benefits because their access to the new improved water sources is extremely restricted. Inter-caste behavior is based upon notions of purity and pollution, so contact with the members of SC/ST is seen as potentially harmful; hence, not only are the different castes segregated, but the location of resources (and therefore water sources) prevent caste-based distribution. Sharing of resources is generally permissible only among castes of equivalent position or at most among those considered as the 'cleaner' castes. Ignorance of these social intricacies has led to the new communal handpumps being installed within upper caste boundaries, despite the apparent 'public' locations (such as near schools and roads). For example, in M.P., it was found that only 9 out of 44 handpumps were actually installed in the poorer localities inhabited by the lower castes. As a result, a substantial improvement of the water-fetching roles of these women has not been achieved.

Regarding enhancing women's involvement in operation and maintenance roles, again contradictions with the projected realities emerge from the present study. In the mid-1980s, a program called TRYSEM (Training of Rural Youth for Self-employment) was implemented, where local handpump mechanics were to be trained under the 'village level operation and maintenance concept' (VLOM) (UNDP and WB, 1987), with priority

[4] The terms scheduled castes (SC) and scheduled tribes (ST) refer to categories mentioned in the Indian Constitution. These categories are considered to be weaker sections of society whose interests need to be safeguarded and promoted. Socially, these groups are seen as occupying the lower rungs of local hierarchies.

ISSN: 1545-6196

given to young women. It was argued that since women have better availability in the community, efficiency of the technology and therefore of the water supply program can be improved by building the capacity of women users, besides providing the scope of self-employment to such trained women. While the literature cites instances of 'successful' cases (WSP, 1999), in the study area it was found that very few women candidates came forward for the training and of those trained, only a handful work as handpump mechanics. The reason is embedded in the fact that repair and maintenance of water sources is deemed men's work and women consider the idea of taking up this task as extremely unconventional. Also, the act itself, if taken up by women, especially those from the upper castes or religious groups like Muslims, is not positively valued since it involves their working outside the privacy of the house. Many women are reluctant to disrupt the standards governing separate workspaces as well as the social code of conduct based on 'avoidance' between certain social categories, including all senior men and the women from other households that the latter are supposed to reciprocate.

At the same time, a systematic arrangement for payment is generally missing, with some local governments considering the work as some kind of community benevolence, with no expectation of payment of wages. For women from the underprivileged sections, an added disincentive comes from their lack of social access to those very communal handpumps that they are supposed to repair. Under such circumstances, transformation of the role of women through learning mechanical skills has not really proved to be successful.

The expanded role for women in management processes was introduced early in the irrigation sector when their participation in 'participatory irrigation management' (PIM)

ISSN: 1545-6196

was promoted. This actually had limited relevance for women for reasons noted earlier and resulted in tokenistic participation in most instances. In the water supply sector, women's participation in decision-making within the local governance structure was introduced through the 'Panchayat Raj' institution (PRI) that is based on a 3-tier rural local government structure, the lowest being at the village level. With respect to water management, the PRIs are expected to play a major role in providing safe drinking water and managing the systems and sources in their respective areas by implementing the schemes designed at higher levels, selecting the location of new water sources (generally handpumps), and operating and maintaining the sources.

Women's participation in the local water governance initiative was ensured through a reservation quota of 33% in the PRI bodies at each level. A specialized committee in a PRI body is responsible for water supply issues. However, a first hand observation of the working of the PRI committee at village level revealed that women do not actively participate in the committee and its activities. In many cases, their membership is tokenistic and in meetings they are represented by their male relations, mostly husbands and sons. While a number of studies on the situation have been conducted (Prokopy, 2004), the reasons cited appear to be rather superficially identified, such as lack of education and confidence, ignorance, heavy workload, inconvenient timings and venues, etc. From this study, factors more deeply embedded in the gender ideologies, constructions and relations emerged. These essentially relate to women's role in the traditional decision-making structure as explained below.

The women who are supposed to traditionally enjoy authority in the village/household are not actually supported by the preferred criteria for democracies

ISSN: 1545-6196

under the democratic process by which the women members are elected. The local governance procedures demand younger women who are educated, active, and naturally more predisposed to adopt change. Ironically, these women, especially when married, enjoy the least rights and privileges at household- as well as community-levels, because they are socially obliged to follow the guidance from elders and practice avoidance norms with men as well as with women from other households. These considerations affect the active participation of women members in the meetings of the PRI as well as its committee for water supply, especially with respect to members from the upper castes. Women from the lower castes enjoy greater mobility and are subject to lesser segregation of work arenas; however, adherence to caste ideologies based upon social dominance of the upper caste (who are the traditional elite), prevents them from expressing their interests and executing action for ensuring their fulfillment.

4. DISCUSSION AND CONCLUSIONS

From the above descriptions, the myths underlying the issue of transformation of women's role in water management emerge clearly. These can be delineated and contested on the basis of ethnographic realities.

Myth 1: *Any technological intervention for enhancing efficiency in role performance will be adopted uniformly and spontaneously by women and therefore be beneficial in ensuring their access to safe water*.

The new water supply technology (primarily in the form of public handpumps) has not been really adopted uniformly and spontaneously by the targeted women beneficiaries. The myth is contestable on two grounds. First, decisions about adoption of

ISSN: 1545-6196

new technology are influenced by the prevailing cultural context. In this case, the cultural beliefs and values concerning water quality continue to guide selection of water sources for particular water uses, an arena where women's decisions prevail. Therefore, the universal advantage offered by the modern 'safe' water supply source is not valued the same at the community level and hence, may be rejected for drinking purposes or else actually end up adding to women's burden by providing only alternate 'add-on' sources of water rather than one usable source of dependence.

Second, not all women in local communities are the water providers for their households. On the basis of population statistics for the states where the present study was conducted[5], it can be said that at least half the population in rural areas belongs to castes where women do not fetch water from public sources. The actual figures would vary from one village to another. In many of these households, men shoulder this responsibility or alternately, private water sources are available within the domestic premises that, however, may not necessarily be safe. Conversely, the other half of the women's population who belong to lower castes, though enjoying official priority as the target group, are actually denied the opportunity of accessing improved water sources due to local caste dynamics that continue to be guided by traditional norms and values.

Myth 2: *Given the chance of greater involvement and opportunities (for sustaining efficiency in role performance), all women will uniformly volunteer.*

The reality evident in the area of study indicates that new roles that are alien to the context as well as contradictory to the prevailing social norms may not be well received and adopted by the community. As opined by the local women and men, it is difficult to

[5] The SC population in Bihar is 15.7% and in M.P. 15.1% while the ST population here is 20.3% (Census of India, 2001).

ISSN: 1545-6196

adopt new roles that transcend the sphere of accepted, existing patterns of distribution of labor between the genders, without a real 'benefit' value, which is indispensable and irreplaceable. In this case, the intervention for training women as handpump mechanics has not been effective for two reasons. First, in many instances, repair of broken handpumps by women is not a societal necessity because there are options to domestic water sources. If the handpumps break down, the traditional sources can be used for drinking as well as other domestic purposes. Under such circumstances, transgressing the social norms can lead to social criticism, which is neither desirable nor necessary.

Second, women are not willing to take up a task that is associated with men's work because the spheres of labor distribution are quite sharply demarcated, and manipulating them disturbs the social fabric. Further, many women do not see a problem with men continuing as the operation and maintenance managers and actors.

Myth 3: *Women are excluded from participation in water management decisions and actions, thereby harboring inequality in the sector. Their participation needs to be fostered through equality-based opportunities.*

The data shows that it is not perhaps universally true that women are denied a role in decision-making and action with respect to water management. In the traditional rural Indian setting as observed here, women play an active, though gender-differentiated role where their opinions are expressed and needs and concerns are addressed, though the channels of communication and leadership are embedded in the given socio-cultural context. Gender-differentiation with respect to channels of participation and action in the sphere of water management is the reality underlying this myth. The absence of such

ISSN: 1545-6196

understanding has limited the effectiveness of the interventions introduced in the name of fostering women's participation in the sector.

Certain generalizations regarding the role of women in water management can be drawn from the situation encountered in the rural areas of M.P. and Bihar. While a number of studies have attempted to show the positive outputs of interventions aimed at enhancing and improving the role of women in water management, a number of others have tried to identify barriers to their participation (Prokopy, 2004; Gross et al. 2001). However, what is notable in such studies is the universal character that is often attributed to the social context of women, irrespective of the location of the women or their communities in question. Essentially, these studies aim at reflecting realities using a macro-level perspective, one that is fraught with methodological limitations because it neglects micro-level realities that shape the women and their societies. For example, it may not be enough to say that women are unable to participate because of lack of education or 'overburdening' that prevents them from attending to the new responsibilities linked to participation in water management activities.

On the whole, motivations as well as opportunities that are meaningfully workable in the given socio-cultural context are critical for encouraging women's participation and ensuring benefits. Unfortunately, repeated policy shifts and expansions continue to neglect this critical aspect. The right motivation and opportunities cannot be provided through interventions that are contradictory to the prevailing socio-cultural patterns. The findings of the study underline the importance of understanding the 'contextual perspective' of gender relations and ideologies in analyzing the transformation of women's role in water management, with such analysis based upon a

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holistic study of the situation of women (in relation to men) as located in their given socio-cultural context. Existing roles can be effectively modified only when interventions are built upon realistic, workable strategies that are meaningful and acceptable to the women and their communities.

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