Women's Role in Local Water Management: Insights from SEWA's Millenium Water Campaign in Gujarat (INDIA)

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Abstract:

This paper looks at one development organization the Self Employed Women's Association's (SEWA) Millennium Water Campaign in the state of Gujarat state in India. Guided by the belief that water is a fundamental human right, SEWA's water campaign objectives are to help women gain access to safe and dependable water and make women and their communities, owners and managers of water resources. The three main areas of interventions by SEWA are water harvesting, building capacity to manage and maintain water systems and, educating and creating awareness. Through the establishment of women's collectives at the community level, SEWA could adopt a facilitative approach aimed at capacity building, providing technical and logistical support, and helping communities gain access to existing government programmes. Grassroots women (200,000) in over 500 villages of semi-arid regions of Gujarat are playing a leading role in water campaign activities such as revival of traditional water sources (village and farm ponds), rainwater harvesting at household and community level, watershed development and maintenance of state-owned hand pumps and pipe lines, controlling flourosis, pond lining (plastic) to control salinity in drinking water, water quality monitoring and surveillance. The Campaign has made a visible impact on the livelihoods of women in terms of improving their income, reduction in drudgery and overall empowerment both at the household and the community levels. The paper also attempts to provide some recommendations on mainstreaming gender concerns in water resources policy and planning with the facilitation of the state and strengthening partnerships among stakeholders.

1. Introduction

In the past decade and half, water resource policy and planning has increasingly sought to integrate women in water development and management. This is because of the recognition of multiple roles of women as providers of domestic water, as caretakers of family health and also managers of community water at the local level. Rural women are also engaged in irrigation particularly of homestead and small farm-lands. However, what is observed is that despite the allocation of resources and the growing multiplicity of well-intentioned statements, the rhetoric of women's role as naturally privileged water

managers overlooks the divergent needs that women and men have in relation to water (Ahmed 2002). Women's needs are mediated by existing gender relations both at the household and the community levels. What is also seen is that water bureaucrats and technocrats are insensitive to the gender-differentiated needs and interests of all water users. On the other hand, there is a lot of literature available highlighting on the impact of water scarcity and pollution of women's health, drudgery of water collection by women, with cascading effects on the education of the girl child, on the time available for productive work and on coping mechanisms and strategies at the household and community level (van Wijk-Sijbesma 1998, Coates 1999, Shiva 1989).

The current development discourse emphatically puts forth the importance of decentralized water management and the role of non-governmental organizations with community participation for sustainable natural resource management. It is in the context of participation that women as important stakeholders in water management are important to consider. Despite the vital role of village women in the country's water supply, it was not until the eighth five-year plan (1992–1997) that the federal government formally recognized the need to involve rural communities in managing water resources, and only in 1999 did it establish guidelines for involving women. Guidelines included reserving 30 percent of places in government technical water training schemes and village-level water committees for women. Furthermore, despite provision for one third reservation of seats for women in the local elected governing bodies (through the 73rd and 74th constitutional amendment Acts of India, 1992), women have very little voice in water resource planning. Women's voice is by and large subsumed within the community in which invariably men are represented (heads of the household) in the name of grassroots participation. It may be mentioned at this point that participation of stakeholders at the community level further cuts across caste, class and ethnicity in rural areas of India.

The paper at hand focuses on the efforts made by a women's organization, namely the Self Employed Women's Association (SEWA) in the state of Gujarat in the western part of India, in involving rural women in a grassroots campaign for access to water. The introduction is followed by a discussion on the situation of water in the state of Gujarat and the existing institutions for management of water. The third section discusses SEWA's water campaign strategy in which women's collective action in sustaining water management is highlighted. This section also dwells on the different water related activities of SEWA with the involvement of women's collectives in different districts of Gujarat State. The fourth section deals with the impacts of the water campaign on women in terms of income and livelihood. Finally, in lieu of a conclusion, a way forward is suggested of how women's role in local water management could be institutionalized or mainstreamed with the facilitation of the state and strengthening partnership of stakeholders. Much of the data and information relating to the campaign has been collected by the author over a period of three years through primary survey and focused group discussions at the village level with women, functionaries of SEWA actively working in the campaign and through published literature from SEWA and other sources.

2. Institutions and Policies in Water Management in Gujarat

Gujarat is a unique state with respect to rainfall and availability of water ranging from 250 mm in a northwestern district to 2000 mm in some parts of a southern district, within a distance of 0.2 million sq.km spread of the state (NID, 2000). The government of Gujarat owns all surface water and groundwater that falls within its jurisdiction. To administer its water resources, the state has set up several departments at the state, district, and village levels.

At the state level, there are three ministries and four departments in charge of water resources. The structure is complicated, the roles overlap, and there is no institutionalized manner of interdepartmental coordination (Capoor 2003). Besides, the Gujarat Water Supply and Sewerage Board (GWSSB) an autonomous body established in 1979 with a decentralized organizational structure is responsible for provision of drinking water. Apart from the regional pipeline schemes, which are largely maintained by the GWSSB and is donor funded, it also develops local water sources for villages with a population of 500 or less which are managed by the local bodies. In most cases however the village local bodies (panchayats) are dependent on the GWSSB for technical support (Sharma 1998). The approach of the state in provision of water is technologically centered and supply driven (generally through pipelines and tankers in case of acute shortage) Although the panchayat (village council/governing body) is also responsible for water management at the village level, they have limited financial powers and also lack the skills to garner resources for efficient provision of water and maintenance of infrastructure. Water policy in the state is by and large centralized and there is a growing dependency on the Water Board to provide water which has led to erosion of community norms and neglect of local resources. The role of non-governmental organizations as partners has been envisaged by the government of Gujarat as an alternative institutional arrangement in water management. Compared with other states in India, Gujarat enjoys the status of being a civil society friendly state. In the water sector, there are several NGOs and NGO networks working in both urban and rural areas to provide safe drinking water and develop irrigation sources for agriculture. Furthermore, the Gujarat Water Policy (2002) too mentions that women are the most interested users of rural water supply, domestic urban water consumption, in health and sanitation issues as well as agricultural production. Therefore, Gujarat is one state in India where there is much potential for grassroots women to play a crucial role in local water management.

3. Self Employed Women's Association's (SEWA) Millennium Water Campaign[1]

Established in 1972, SEWA is the largest self employed women's trade union in the country. It is a membership based organization with a total of around 800,000 members all over the country, of which more that 500,000 are based in the state of Gujarat (Refer Figure 1). The members are all poor women belonging to the informal sector, of which two-thirds are in the rural areas. SEWA strongly believes that the basis of development

and progress is through organization. It works with the two-fold objective of providing full employment to its members and making them self-reliant. SEWA combines four specific strategies – organizing women, since individual women have no voice; capacity building of women to become owners and managers (not just producers and labourers); encourage capital formation at the household, group and community levels; and increasing social security to enhance women's well-being and productivity to reduce the impacts of crisis on fragile household economies (SEWA 2003).

SEWA's experience suggests that women, water and work are integrated and their combination can effectively fight poverty (Nanavathy 2000). Women use water for domestic and economic purposes – as artisans, producers, labourers and traders (ibid).

Women, Water and Work Campaign – also known as the Millenium Campaign was started in 1995 in Gujarat, when SEWA realized that women's lack of access to water has a direct impact on their livelihoods in terms of time, health and income. The need to have access to water was raised by members (across caste and class) in most grassroots level SEWA meetings . Although SEWA has been involved in water management issues in Gujarat since the mid-eighties, the scale of activities increased manifold with the water Campaign. Furthermore, water was one single issue around which SEWA's membership expanded. It may be mentioned that in 1986, the GWSSB invited SEWA to use its grassroots base to strengthen village-level water committees (called *pani samitis*) so that the local people could take over the failing water supply systems. SEWA at that time agreed to take on the task as it realized that water was a critical issue affecting the productivity and quality of lives of its women members. Through continuous meetings with women and men in the villages, SEWA was able to identify two urgent needs of the people – to find non-water based economic work and the need to conserve water, revive traditional sources like surface wells and ponds, and create alternative water sources like roof rainwater harvesting structures. Many activities were intiated by SEWA through women's groups to maintain and augment water supply systems (both modern and indigenous). Although the results of this early partnership between SEWA and the Water Board were mixed, but it provided a foundation, for SEWA's Millenium Water Campaign, which began in 1995 (Capoor 2003).

The Campaign

The water Campaign is both a movement and a development alternative, spread across 11 districts covering more that 200,000 women in 500 villages of Gujarat (SEWA 2003). It is based on the promise of decentralized water management that captures the specific cultural and environmental contexts where it is currently active. It attempts at meeting needs of women from different socio-economic backgrounds. The organizational structure of the campaign (Figure 2) illustrates a well-coordinated, decentralized approach to water management, involving various stakeholders at three levels of action and interaction – the state, district and the village.

The ***objectives*** of the Campaign are to:

- raise women's and community's awareness of water related problems such as availability, quality and its conservation;
- establishment of local water user groups (of mostly women leaders) called '*pani samitis*' for the maintenance of community water sources;
- capacity building for women through leadership and technical training for them to function as efficient water managers;
- facilitate women's ownership of water resources, such as registration of household rainwater collection tanks in women's names and;
- forge links with other organizations, both nationally and internationally to promote gender-responsive water policies.

A water Campaign leader in each district heads the Spearhead Team and is responsible for coordinating Campaign activities liasing with the district level authorities and the SEWA District Coordinator. The leader is supported in her work by a group of 5-8 grassroots women leaders (*ageyvans*) from villages across the districts who meet once in a month to review activities, discuss strategies and plan for the future. The spear head team's main objective is to identify problems at the village level, mobilize rural women through meetings and group discussions, and organize user-based committees to manage water resources. At the village level, the entry is through the village head (*sarpanch*) who calls for a '*gram sabha'*, a meeting of the entire village community. The village water committee or the '*pani samiti'*(in which 70% of the committee members are women) is elected after the conduct of the '*gram sabha'*. The number of members of the committee is dependent on the size of the village. It could be 7 or 11, out of which one is a Chairperson and the other is a Secretary and the rest are members. At the state level, monthly meetings for all district coordinators and spear head teams are held where experiences and problems are shared and collective solutions arrived at in consultation with the Campaign Coordinator and other SEWA functionaries. Monthly reports are prepared by the water committees and sent to the SEWA office (of which some are published in their newsletter).

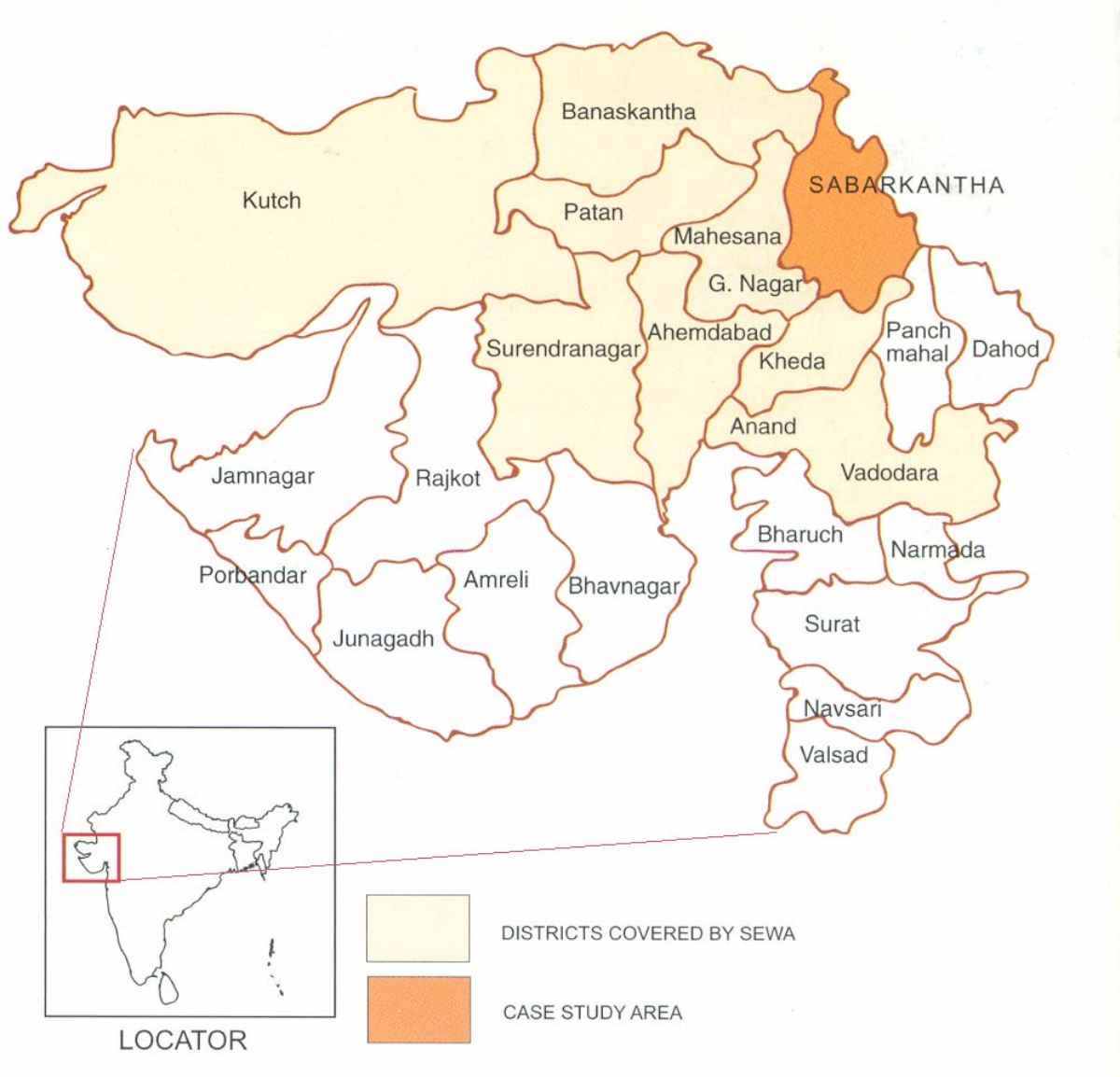

Fig 1: Location of Gujarat and the SEWA's Water Campaign Areas (in colour).

Note: The orange coloured represents the case study area on Handpumps.

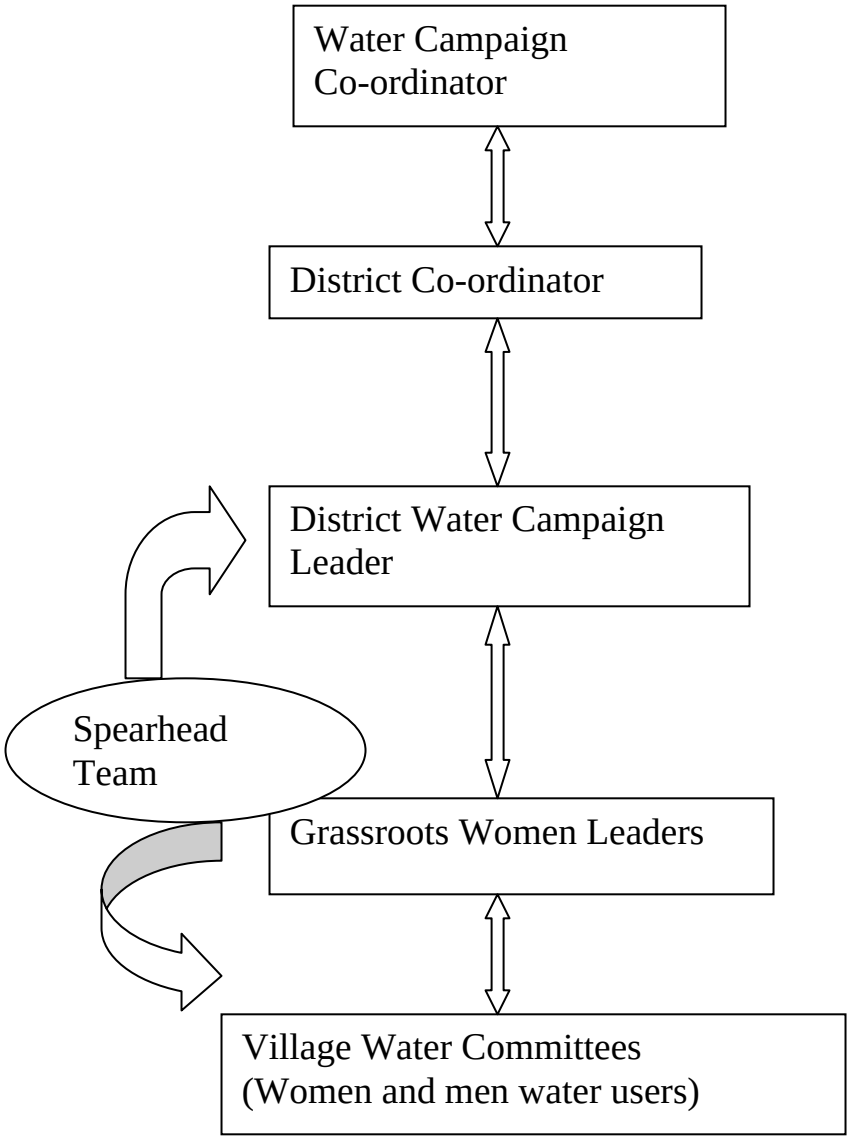

Fig 2: Organisational Structure of SEWA's Water Campaign

A monthly exposure meeting is also conducted in a selected village where the Campaign has been very active or demonstrated successful initiatives to share strategies that have worked. This is essentially a lateral learning process between members providing them with opportunity to learn from each other as well as visit different parts of the state to get a first hand knowledge of how water problems have been tackled by other women. Thus, this is not only an exposure visit meant to build capacities of women, but also an empowering experience.

Within a short span of time, women made it loud and clear that '*Clean water is our right'*. They say –

> *"Clean water is our basic right, we cannot live without water, without water we can not be healthy, our employment is severely affected because of lack of water, we migrate with our families and animals due to water scarcity, we want to develop sources of drinking water in every village and we want to collect and save rainwater (Nanavathy P 270)".*

The success of the Campaign so far does not recount the process of struggles of women that they have undergone to achieve recognition. At first, however, women were reluctant to come forward because water infrastructure was regarded as a male territory. Most men were also unco-operative. They were critical of women entering the public domain on this issue, and several went so far as to say they would not drink water from a source created by women. Many threatened not to work on water harvesting structures that would be managed by women. Some men openly said women would make financial blunders and force them to mortgage their lands (as all land titles are in men's names) to repay their debts. In the initial years, SEWA persisted and facilitated the formation of women-dominated water users committees called '*pani samities'*. Instead of the stipulated 30 percent quota for women, these were either all-women committees or had at least an equal number of men and women members. Women slowly gained confidence as they began to lead water activities, raise their productivity, and see their incomes increase. A year after the water activities were initiated, the promising results prompted more women to join in. Poonamben of Bharvad village, Radhanpur, recounts how no one wanted to join the pani samities initially. "Now we've learned so much about measurements, maps, and surveying methods that everyone wants to become a member and know about these things." SEWA's argument is that because women are primarily responsible for fetching and using water for domestic purposes, cattle, and kitchen gardens, it is necessary to give them prominent roles in water governance. Such a premise made it easier for SEWA to take on water-related activities because, as a trade union, it can only undertake activities that are mandated by its members.

Water Campaign Activities across Districts

Three examples have been selected for illustration in this section to highlight the actions at the grassroots level undertaken by women members of SEWA as part of the Water Campaign – upgradation and revival of traditional sources of water, rainwater harvesting and technical training to women members of SEWA for building and maintaining water infrastructure at the village level. They are described in Boxes 1-3.

Box 1: Revival and Upgrading of Traditional Sources of Water

Traditional sources of water (wells and ponds) often face neglect with the establishment of the piped water supply to villages. Rejuvenating these sources pose two challenges to women – (a) being community assets, these sources require a community-based approach, where short-term efforts at repair is not enough. There is a need for a long-term commitment to maintain the pond or well and to distribute the benefits equally; (b) women being the main water users, are traditionally not involved in the management of local water sources and therefore there is a need to change in power relations in favour of the poor rural women.

The Campaign with the help of the 'pani samitis', organizes the execution of actual repair/upgradation work, including financial matters. SEWA organizers and engineers provide the logistic and technical support. It ensures that women play a leading role in the entire process of revival of the traditional water sources, and undertaking tailor-made training and on-the-spot capacity building to become efficient water managers. For example in case of ponds which need to be repaired – the pond and feeding channels are desilted, bunds improved and an outlet is constructed. If needed they are lined with a plastic film to prevent salinity. Wells on the other hand are also desilted, cleaned and a new boundary wall at the top with a concrete platform is constructed. They are also fitted with a pulley to make fetching water less strenuous. The community is expected to make a contribution of 10% of the costs either in labour or cash. Sometimes SEWA creates employment through its water infrastructure construction works and deducts 10% of the wages as part of their contribution to community maintenance fund. Capacity building of women is also done through exposure visits to other areas where such activities have proved to be successful.

Upgraded and repaired community water sources have led to improvements in the quality of water (mentioned by 95% of the respondents) and reduced the time spent in fetching water (mentioned by 98% of the respondents). The water committee has imposed regulations in the usage of water (to maintain cleanliness and reduce wastage) from wells and ponds, thereby establishing a good governance system. Women could engage themselves in income-generating activities with the time saved from fetching water. Such a change also had an impact on gender/power relations both at the household and community levels and also towards greater gender equity.

The challenge for the government is to develop a more holistic and participative approach to the improvement of domestic water supply – for livestock, kitchen gardens and income generation. Because of depleting ground water tables and salinity the revival of traditional sources are expensive, especially the plastic lining of ponds and the government needs to take cognition of this problem.

Source: SEWA 2003

Box 2: Roof Rainwater Harvesting

Promotion of rainwater harvesting is a major initiative of SEWA's water Campaign. In many areas of Gujarat ground water is not accessible or not fit for human consumption. SEWA through its Campaign realized that rainwater harvesting is a viable alternative to transporting water over long distances by pipelines and/or tankers. Roof rainwater harvesting structures use a roof to catch the rain and store it

in a tank. In the semi-arid areas, with an average annual rainfall of 300 mm, a roofing area of 30 sq meters provides a family with 90,000 litres of safe drinking water. This is enough to provide water to a family of five with 20 litres of water a day for three months. The construction cost is around US $300 with negligible running costs. After a resolution is passed in the 'gram sabha' on the agreement of households to share 10% of the construction costs in either cash or labour, the individual beneficiaries (also identified by SEWA) with the help of SEWA engineers select a site, prepare a cost estimate, order construction materials and select a mason. Household members, exacavate the pit as part of their contribution. Women are trained to maintain the structures such as cleaning the tank with lime and flushing out the first rainwater collected.

In many villages there are few concrete roofs and SEWA along with the '*pani samiti'* decide to build community tanks using the roofs of community buildings such as schools, health centres, dairy society buildings etc. to harvest rainwater, with a capacity of 60,000 litres. The communities themselves have worked out a system of water sharing. In order to cater to the needs of all sections and avoid conflicts within the community, it is necessary to have more than one community tank in the village.

Rainwater harvesting has several advantages for women – provides water at the doorstep, reducing the time women need to spend in collecting drinking water; it can be managed at the household level; reduces the dependency on the other water supply systems controlled by men; it is a simple technology that women can learn by using locally available materials; tanks can used for storing water that is brought by the tanker in drought months of the year. Table 1 gives the time profiles before and after construction of roof rainwater harvesting tanks.

Table 1: Time Profiles

Activity	**Monsoon**			**Summer**		
	Before	After	Difference	Before	After	Difference
Sleep	6.1	7.4	1.3	6.0	7.0	0.9
Household Work	6.6	7.3	0.7	6.9	6.3	-0.6
Fetching Water	5.9	1.3	-4.6	5.2	1.5	-3.8
Communication & Social Activities	1.1	1.3	0.1	1.4	1.4	0.0
Income Generation	4.3	6.8	2.5	4.5	8.0	3.5
Total	24.0	24.0		24.0	24.0	

Source: SEWA 2003 (N = 6 focus group discussions)

Source: SEWA 2003.

Box 3: SEWA's Barefoot Water Technicians

Handing over the maintenance of handpumps to grassroots women is one of the initiatives of SEWA's water Campaign to improve the access to safe drinking water. In many villages, handpumps are the sole source of drinking water. The GWSSB found it increasingly difficult to maintain 10,000 handpumps. On the other hand, villagers found it cumbersome to report to the board on malfunctioning handpumps due to long-winding bureaucratic procedures. Women suffered in the

process as they had to spend 6 hours a day in fetching water from long distances. The water board realized the need for involvement and collaboration of private players and NGOs in handpump maintenance. After a initial struggle with the water board, SEWA was able to convince the water bureaucrats that women could manage and maintain the handpumps. This was followed by regular training programmes for women by the Board. Women members for training were identified by SEWA with the help of the '*pani samiti'*. As many as over 2500 women have been technically trained by 2004. SEWA supports the trained women technicians with a a small fee and vehicle expenses to travel to villages with their tools and spare parts for repairing handpumps. Initially women faced problems as technical knowledge is considered a male domain and their work was not taken seriously by the villagers. Only after women proved themselves as able technicians, they were accepted by the community. The task of overhauling a handpump requires 6 women technicians as there is a need to lift the pipe which is 150-200 feet long. They receive a fee from the water board for the work – overhauling and repairing of the handpumps.

With SEWA's intervention, handpumps are functioning efficiently and the time gap between complaints and repair has reduced from 45 days to 2-3 days. Women have also gained economically from the maintenance work – around Rs 5,000 annually which is an important supplement to the highly volatile incomes from agriculture. Equally important is their awareness of the importance of their role in the society.

Besides handpump, women have been also trained in maintaining government pipelines – operation and maintenance (digging pits, fitting pipelines, cement work and plugging the leakages etc.). This is the first time in India that such activities have been initiated with the help of SEWA women members. The success rate is high and the water board is very keen to continue with this collaboration.

Source: SEWA 2003.

In all the activities initiated by SEWA the underlying strategy is to link environmental protection with livelihoods. Mainstream state agencies deal with these two issues as mutually exclusive. Through collective action, women are motivated to rebuild their environmental bases if they are convinced of tangible economic benefits in doing so.

Features of the Campaign Success

SEWA is able to work at all the three levels because it is primarily a membership based organization which devotes substantial amount of time and resources systematically to collective activities (meetings, training programmes, social functions etc.). Furthermore, SEWA has been able to link the water Campaign's activities to other gender issues such as land rights, social security concerns (heath, education, credit), curbing alchoholism among men etc. Its strategy has been to focus on the need based issues (e.g drinking water) and gradually create an enabling environment for women themselves to voice other pressing issues of concern that affect their lives. Such an approach by SEWA has proved successful in solving many social problems through women's collectives.

SEWA's interventions have demonstrated that women's collective action transcends caste/class and ethnic differences when it comes to improving access to water for the village community. The functionaries of SEWA mention that the differences are visible initially but once women are involved in the water related activity, they tend to ignore them and efficient water provision becomes a common goal. Demonstration effects

(success of the Campaign in some villages – a lateral learning process for women) of the programme has a long-lasting impact on women. SEWA disseminates information through its quarterly newsletter (in Gujarati language) called 'Anysuya' in which information on water activities are regularly reported. Besides it has also produced several video documentaries on the Campaign which can be used for training and information dissemination.

Thus the Campaign is not a programme but a movement to empower poor rural women of Gujarat. Women have been continually trained and supported to deal with the technical, social, institutional, and cultural demands of water-related activities. Furthermore, new institutions dominated by women have been created with strong links to mainstream governing institutions. These strategies have empowered women both at the individual level and within their communities. SEWA is aware that rebuilding local capacity for decentralized water management is a slow process, requiring the support of many stakeholders – men, community organizations and the government.

Best Practices *derived from the Campaign* (Capoor 2003):

- A bottom-up organizational approach that reflects the diverse priorities of grassroots women through an expanding membership base, spearhead teams, lateral learning opportunities and sharing of information
- An integrated approach to water issues which takes into account multiple uses, users and livelihood concerns in the context of equity and judicious water use.
- Flexible non-hierarchical operations which support women's participation and is not threatening to men
- Innovative and continuous capacity building efforts, complemented by the use of folk and traditional media for communication and information dissemination
- Constructive and constant interaction with mainstream water institutions at all levels of governance, rather than adopting a confrontational or antagonistic stance.
- Integrated water management at the local level could be achieved through women's collective action

4. Impact of the Water Campaign on Women

Some of the impacts of the Campaign on women have been discussed in the previous sections and also in the three examples illustrated in the Boxes. Figure 3 gives an idea of the impact of the water Campaign in Gujarat. A summary of the impact is given below:

- Improved quality and governance of water supply
- Increased participation of local community, especially women
- Increased income of women (by Rs. 12 – 17 / day)
- Increased income of the family – strengthening the livelihood.
- Improved gender relations
- Revival & management of water sources by local women
- Water fetching time is saved almost by 3 - 5 hours
- Reduction in health problems of women and children

- Increased capacity to cope with drought
- Outmigration of both women and men declined

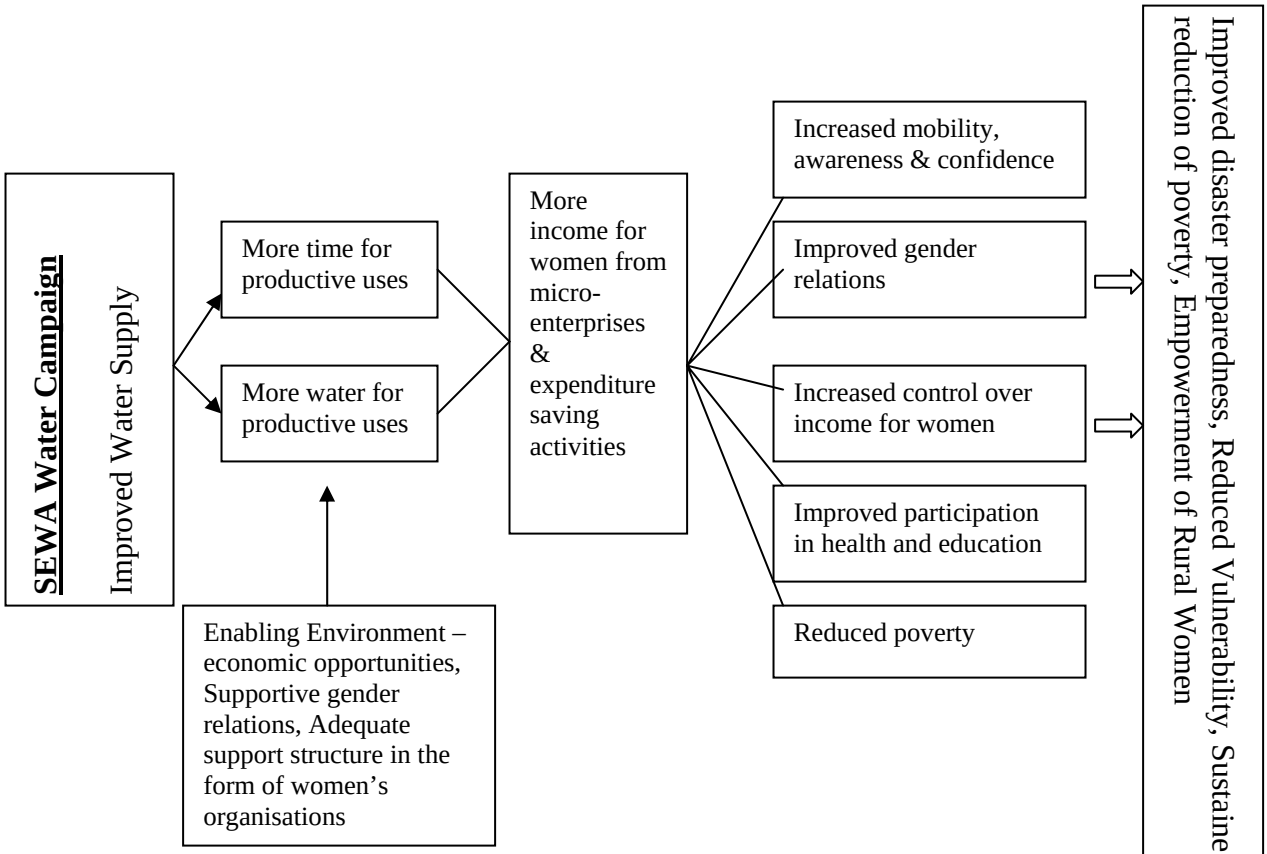

Fig: 3 Long-term Impact of SEWA' Water Campaign in Gujarat

5. Millenium Campaign: Sustaining the Efforts

SEWA's water Campaign has been successful in most parts of Gujarat state because of a strong institutional base with women's collectives at the grassroots level. The campaign has led to women's empowerment, whereby they are able to collectively negotiate in the public domain or in the erstwhile male spaces to achieve their goals in this case sustainable local water management. However, there is a need to institutionalize gender concerns in water policy and planning. It is both a technical and political process which requires shift in organizational culture, goals and strategies (Coates 1999) as well as in processes incorporating gender concerns in water management. Strengthening the partnership between the civil society and the state is an effective manner in which

mainstreaming gender in water management is possible. SEWA water Campaign clearly indicates that it is possible to establish grassroots women's institutions and link them with macro-level institutions for sustainable local water management. A change in approach is imperative where water is viewed holistically (coordination among drinking, irrigation and agriculture sectors) within the framework of gender equity, efficiency and sustainability. Water planning should move beyond a segmented approach, e.g productive versus domestic needs, the latter being typically associated with women' responsibility and hence given low priority. Creating gender sensitivity at all levels of the government among both women and men is imperative to bring about a gender-responsive water management policy and planning.

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Endnote

1 Although SEWA is a trade union and also commonly referred to as a movement, it functions like a NGO. The millennium Campaign won an award as a Best Practice in the NGO category in the World Water Forum 3 (Kyoto), 2003.