Water Rights as Women's Rights? Assesing the Scope for Women's Empowerment through Decentralised Water Governance in Maharashtra and Gujarat

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Supported by

International Development Research Centre, Canada

SOPPECOM- Utthan- TISS

October 2008

Acknowledgements

Little did we imagine three years ago, that we would be so involved in debates around decentralisation in the water sector. It has been more than two years and we find ourselves so immersed in the new policies around water and their impact on women. Needless to add that we would not have got this nuanced understanding if this opportunity had not come our way and that too at the most opportune moment in the history of water sector.

The study was jointly done by SOPPECOM, Pune, Utthan, Ahmedabad and Tata Institute of Social Sciences, Mumbai and was hosted by SOPPECOM. We acknowledge the support of all the three organisations for the myriad ways in which they have supported the study.

In SOPPECOM thanks are due to SB Sane and S N Lele senior irrigation engineers and members of SOPPECOM for their inputs in the Maharashtra irrigation study. We would also like to thank Ayesha Pervez and Ashwini Bokade, our team members in the initial year of the study for their support.

In Utthan, particularly its Founder Trustee and Director, Ms Nafisa Barot for providing us with an institutional base for this project and for helping with the development of research tools and ideas.

In TISS Prof. Parasuraman for extending the support and to Soumya Prakash and Lakshmi for their support in data management.

The study was done in two states so apart from people in our own organizations there are a large number of people and organisations in each of the states to whom we are grateful.

It may not be possible here to name everyone, but we would like to mention a few names statewise.

In the field in Maharashtra we would specially like to thank Shaila Sawant, Sadhana Dadhich for their critical inputs in conducting focus group discussions in Jalgaon, Chandrapur and Satara districts. Thanks are also due to our enthusiastic team of investigators in Maharashtra, Vaibhav Oagle, Bharat Kalyankar, Janrao Haware, Neelam Lawand, Hasina Mulla, Kailash Sonar, Sheetal Sali, Sunanda Visawe, Manisha Patil, Apeksha Patil and Pramila Jadhav.

We thank our NGO partners for the drinking water sector Dilasagram (Chandrapur); Gramvardhini, Chaitanya, Nari Samata Manch (Pune); Narayan Ashram, Siddhagiri (Sindhudurg); Rashtra Vikas Samiti Social Work College, Jalgaon and Matrubhumi Sarvangeen Vikas Sanstha (Jalgaon); Shramik Janata Vikas Sanstha and Bhumiputra (Satara); and Dnyanajyoti (Jalna) and the irrigation sector partners -the WUAs in Maharashtra- Shivdas Maharaj Pani Vapar Santha (Solapur); Bharaivnath Pani Vapar Santha and Pragat Bagaitdar Pani Vapar Santha (Ahmednagar); Dr. Babasaheb Ambedkar Pani Vapar Santha (Nasik); Bharaivnath Pani Vapar Santha (Pune)

In Gujarat, special thanks to the field teams from our partner NGOs: Utthan (Bhavnagar team), Mahiti, AKRSP(I) (Sayla and Bharuch teams), KMVS, Development Support Centre (DSC) and Navjot Mahila Sanghathan as well as the network, Pravah. A word of thanks to Mr. Sama, Project Director, WASMO and his team, particularly Vandana Pandya, for giving us their time and for sharing data and information with us as requested. Thanks to Ranaji for helping us digitize the PRA maps and to all those who helped us with translations...

We had several interactions with government officials in both the states and in both the sectors and we would especially like to thank Mr. Shah from Directorate of Irrigation Research and Development (DIRD), Pune for providing us with all the information for the Irrigation sector in Maharashtra, Senior level officials in the Reform Sector Project

Monitoring Unit (RSPMU) in the drinking water sector in Maharashtra and all the district level officials in both the states for their time and for sharing data.

We gained a lot from the different workshops organised by IDRC and also our own dissemination workshop. We thank all the organizers of these workshops in Argentina, New Delhi and Nepal and all the participants in these workshops as well as our dissemination workshop in TISS, Mumbai. Comments and suggestions from all of these meetings were always discussed seriously within the teams and were taken on board as much as was possible.

Now to our friends, without whom this project just would not have been possible- Navsharan Singh of IDRC whom we would especially like to thank, for providing us with an enabling framework to work in. An environment which was non interfering but pushed just as much as could unleash our creative thinking. Thanks also to Jyoti, Catherine, Melissa and Rawaida from IDRC. A special thanks to Maitreyi Mukhopadhyay for her various writings and presentations which helped us in formulating our own understanding around decentralisation.

Words cannot suffice when it comes to acknowledging the women and men from the villages who spent a endless number of hours with us, telling us about their lives and about the water programmes. We deeply acknowledge all of them and dedicate this study to them.

These two years have tested our own patience as well as that of our families and friends and colleagues in SOPPECOM, Utthan and TISS. We would like to acknowledge their support which was so diverse and so crucial.

We do hope that this effort of ours contributes to a diverse audience from practioners, policy makers to the academics.

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14th October 2008

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Chapter 1
Introduction

Since the early 1990s there has been global concern about the 'crisis' in the water sector, a crisis marked by increasing conflicts over access to water for both domestic and productive purposes and growing deprivation or water insecurity for those who are unable to claim their just entitlements. Despite the recognition in 2002 of the right to water as a fundamental human right by the United Nations Committee on Economic, Social and Cultural Rights, it is estimated that 1.1 billion people worldwide lack access to safe water (Black and Talbot 2005). Although the Committee called upon states to meet their legal obligations in ensuring the right to water for all, fragmentation in water resource planning and competing perceptions on water management continue to mar the 'waterscape' of policies and programs. Not surprisingly, in this context it is the poor and marginalized – women, children, the elderly, landless and so on – who are the most affected, lacking both voice and the ability to articulate their water rights.

From the first central initiative to establish local governments in 1957 to the 73rd and 74th Constitutional Amendment in 1992 and 1993, the country has moved towards an effort at decentralization. The two constitutional amendments established mandatory provisions for decentralization to local governments in India in rural and urban areas respectively. One of the key features of these amendments is a proportional representation of the dalits and tribals and 1/3rd representation of women on local bodies. This has undoubtedly opened up spaces for local participation in *matters of their governance*. However, to what extent have these been successful in empowering people in *governing their own matters* has been a matter of concern to practioners and academics alike.

This project looks at the gendered terrain of water governance in India where decentralization policies in the early 1990s coupled with water sector reforms from the latter half of the decade have sought to change the role of the state from a supply driven *provider* of water services to one, which is *facilitating* demand and enabling community management. At the core of this process of institutional restructuring is the realization that water is no longer a free good and that decentralized management is the only way to ensure sustainable, equitable and efficient water delivery. Based on principles of cost recovery from users, the new institutions – *pani samitis* for domestic water consumption and water user associations (WUAs) in the case of irrigation management transfer – are meant to address management inefficiencies through participatory planning and inclusive decision-making.

Women's participation is seen as integral to these new institutions, not least because of the plethora of policy statements at global and national forums calling for gender mainstreaming in water management, but more importantly because rural women as water collectors, farmers and caretakers of family health and hygiene, are being systematically denied their water, and often basic human, rights (van Wijk-Sjibesma 1998). Where water scarcity affects agrarian livelihoods, migration is not uncommon either of men only or entire families compelling women to manage the land in the absence of any clear ownership rights or entitlements to community water resources which are invariably linked to land ownership. Gender relations also intersect with other categories of social exclusion, notably caste and class – *dalit* (Scheduled Caste) and *adivasi* (Scheduled Tribe) women face the double burden of walking further to collect water as they are denied access to the village well (fear of ritual pollution) and in the process may encounter sexual harassment from upper caste men (Ahmed 2005a).

Policies that promote women's representation in the new community institutions of decentralized water governance are based on the premise that such participation is necessary to ensure effectiveness and to give women a voice in decision-making given their central role in water collection, use and management at the household level. In participatory irrigation institutions, few, if any, women are direct members since they do not own land, but their one-third representation is typically called for on the executive committee as they are seen as more efficient managers, better able to collect user fees and resolve conflicts between irrigators (Vasavada 2005, Kulkarni 2005). However, this instrumentalist view to participation sees it largely as an apolitical process where women are to be harnessed as assets, as *naturally* privileged water managers, rather than recognizing the dynamics of power and negotiation in the articulation of participation as the exercise of citizen rights (Kabeer 2005).

Research questions and objectives

Drawing on empirical insights from demand responsive water supply projects in Gujarat and Maharashtra and participatory irrigation projects in Maharashtra, this research project proposes to look at the substantive context of women's participation in decentralized water management institutions, namely *pani samitis* in the domestic water sector and WUAs in the irrigation sector. The main **goal** of the project was to understand the factors in the context of decentralized water management, which have either facilitated or constrained rural women in the exercise of their rights and priorities as empowered water decision-makers and the implications of such articulation for the sustainable, gender-just and equitable management of community water resources. The **research questions** that we asked were:

1. What are the financial, political and administrative aspects of decentralized reforms in water management that have created space for women to participate or be excluded?
2. How are women representatives on community water management institutions selected, i.e. *which* women participate, *how* and *why*?
3. What are the opportunity costs of participation for women, particularly the poor and marginalized?
4. Are women representatives able to articulate their priorities in local planning for water resource development and management that are both gender just and inclusive taking into account other vulnerable communities?
5. What role do non-governmental organizations (NGOs) and other civil society organizations (CSOs) play in enabling women's active and effective participation?
6. To what extent has participation in community water governance been empowering for women representatives, i.e. challenged gender relations at the household/community/state/market level enabling women to develop self-efficacy as citizens?

Some of the specific objectives that guided our enquiry were as follows

- To critically outline the historical development of state policies in Maharashtra and Gujarat in the context of irrigation and the domestic water supply sectors respectively, from a gender, equity and governance perspective
- To map the institutional environment in the project area both in terms of the relationship between the state and civil society and the gender and organizational policies/structure/culture of selected partner NGOs and local water bureaucracies

(social and gender audit) so as to assess the potential for mobilizing and empowering local women water leaders

The research looked at the more visible forms of participation in water governance projects, but it also tried to understand the gendered norms, which structure or constrain articulation in both formal and informal institutions (Cleaver 1998, 2003)

The project was conceived with the broader **development goal** to evolve a more critical and nuanced understanding of women's participation in community water institutions as a process of negotiation, as an end in itself rather than merely as a means to achieve project efficiency.

Research context

Gender, water and decentralization in India

The gender and development scenario for the country as a whole can be broadly divided into four phases - the early phase of planning i.e. the 1950's which was completely gender blind and did not see women's presence as critical for development. The second phase onwards women were viewed as important for development, but largely as welfare subjects. Women along with *dalits* and tribals were conceptualized as vulnerable groups, needy of welfare particularly in the areas of health and education. This phase was followed by the poverty and population boom debates where women were specially targeted for population control programmes or the family planning programmes, which eventually led to the era of emergency in the country (Vasavi and Kingfisher 2003).

The later 70's and the 80's were in fact the golden years as far as the women's movement is concerned. After the launch of the UN decade for women in 1975, we see a plethora of women's voices asserting their contribution to development and demanding pro-women legislative change in the areas of wages, rape laws, violence, sex determination etc.

The early nineties brought in a changed political scenario with a mood for structural adjustment and opening up of the economies. Women were conceptualized as central to the model of economic growth. The agency of women to actively contribute to economic growth therefore had to be tapped actively. This conceptualization filtered down to almost every sector of development in as much as it contributed to growth without challenging current roles of women. The water sector is no exception.

In linking governance to economic performance, two key perspectives have directed the state's orientation to women's role. One has been to include women as key actors in the new decentralized administration process, and the second has been based on the efficiency approach with a focus on the economic efficiency of institutions, development projects and programmes.

It is important to remember that decentralization at the tertiary level comes in around the same time that neo-liberal policies and arguments of efficiency and economic growth dominate the development debate. Our research questions also try to look at some of these contradictions from the point of view of women's participation.

In the water sector we see a transition in the thrust of reform globally. Over the past decade, there has been an increasing consensus that the water crisis is at its core, a crisis of governance. A plethora of global policies and principles have been enunciated to broadly outline how we can apply the concept of good governance to the water sector. These include:

Recognition of the need to 'value' that is, 'price' water – water can no longer be seen as a free or even public good, particularly in view of climate variability, predicted scarcity, and increasing leakages (corruption) in the water sector.

Recognition that we need to move from state-centric, supply driven approaches to water services to one where the state is a facilitator of demand-responsive water provision through the organisation of user committees.

Restructuring of water management institutions to ensure decision-making at the lowest appropriate level – participatory, inclusive and accountable water governance.

Water is a state subject in India, that is, while the Union government at the Centre provides guidelines on how water resources should be developed and managed, individual state governments determine their own priorities for water allocation between competing sectors. Although agriculture continues to be the largest consumer of water in India, the National Water Policy (2002) reiterates that the first charge on any available water is to meet the drinking water needs of people and livestock. In December 2000, the Supreme Court ruled that access to clean water is a fundamental human right of all citizens under Article 21 of the Constitution, and the state is duty bound to provide it (Ramachandraiah, 2001). However, the augmentation, harvesting, recharging or transportation of water (pipelines, tankers) with the primary intention of meeting local domestic water needs is fraught with conflict in the absence of efficient and effective decentralized management structures.

Decentralisation was introduced in the early 90's with the 73rd and 74th constitutional amendments. According to a World Bank (WB) review of rural decentralization in India "while political decentralization has progressed satisfactorily, administrative and fiscal decentralization is happening at a much more hesitant pace," (WB, 2000: 8 Volume 1).

Interestingly in their seven state study, the WB also looked at participation of rural population and their findings shows that women, landless, *dalits* and tribals participated the least, since they had little to gain from these processes (WB, 2000: 10 Vol 1)

The water reform process

The 73rd and 74th Constitutional Amendments (1993), under which Panchayati Raj Institutions (PRIs) were restructured, gave these local governing bodies the added responsibility of managing drinking water and sanitation. It was felt that the Public Health Engineering Departments and/or state water boards which till then were responsible for meeting domestic water needs were centralized, monopolistic and overstaffed, lacking accountability to users, especially the poor and the marginalized. Instead, PRIs are now expected to be responsible for the choice of technology, recovery of operating costs (through water taxes or user fees), and the maintenance of rural water supply and sanitation schemes through elected *pani samitis* (water committees). However, because state governments in many cases still control grants to the PRIs and have access to funding from bilateral and multilateral agencies as well as the central government, they continue to be the main providers of a minimum supply of free water to rural areas (UNICEF 1997: 9).

The Ninth Five Year Plan (FYP, 1997-2002) re-articulates the global shift from perceiving water as a social good to be provided free by the government to acknowledging that it is a scarce economic resource, which should be provided according to the standard of service that users are willing to maintain, operate and finance. Not only are rural users expected to provide 10 per cent of capital costs, but they are also meant to be fully responsible for O&M through *panchayats* and *pani samitis*. For the first time in the domestic water sector people's participation is called for at all stages of project implementation right from the selection of

technological options (not surprising as they are then expected to pay for these) to implementation and maintenance (to overcome problems of poor workmanship and the use of sub-standard material). In the irrigation sector however we do not see a similar strategy unfolding. Here people's participation is expected only at the implementation level.

Recent policy documents indicate that the central government has a fairly large programme and financial layout for the drinking water programme in the country. Rural water supply is one of the six core components of the ambitious Bharat Nirman[1] project of the central government.

In irrigation development, equity is narrowly defined in terms of minimum access to beneficiaries within the command area of a particular project. Here too of course the tail enders of canal system often remain deprived. Linking of land ownership and water rights excludes women farmers from membership in water users associations and by extension decision-making on the timing of water delivery and pricing. Moreover, PRIs have no role to play in irrigation management and have no organic links with the WUAs which are independent users groups. Whether this link with the PRIs is desirable or not is a highly contested issue, but despite its separation it is evident that WUAs cannot remain political organizations. This division of administrative responsibility for water without coordinated planning is one of the major limitations of decentralized water governance, which needs to be explored in the context of gender equity and sustainability.

As far as irrigation is concerned despite its many benefits for the overall productivity of agriculture, it is significant to understand that a large number of poor men and even fewer women have not been able to get access to irrigation. Expansion of irrigation for meeting livelihoods of the poor has rarely been on the irrigation agenda, which has largely been dominated by production goals, which, it is argued, would finally filter down to the poorest. In this context then it is not difficult to understand how different social categories of users have never featured on the irrigation agenda at all leave alone women from within the household (Kulkarni, Joy and Paranjape 2004).

Neither the Ninth FYP nor the National Water Policy (2002) make any specific mention of gender differentiated water needs or women's role in water management – they are simply subsumed under the general category of 'stakeholder participation'. That is, women, and communities, are looked at as homogenous categories. Special attention is to be given to the needs of marginal groups while developing water projects, particularly those involving displacement. But the 'disadvantaged' are only identified as the scheduled tribes and castes, and gender is not considered a category of social stratification or exclusion *within* these marginalized communities.

This research looks at the unfolding of women's participation in community water institutions around access to safe drinking water in Gujarat and Maharashtra and access to water for irrigation in Maharashtra in this policy context. A brief outline of the research context in each state follows.

Why Maharashtra and Gujarat

There were several reasons that prompted us to choose these two states for our study.

[1] Bharat Nirman is an ambitious project of the central government to build rural infrastructure from 2005-2009. drinking water is one of its six components and it hopes to cover 55607 uncovered and 3.31 lakh slipped back habitations and 2.17 lakhs quality affected habitations during this period (NSA policy brief)

Maharashtra and Gujarat the two neighbouring states share a common history as they were one until 1960 after which they were formed as separate states. These neighbouring states lying in the western region of the country are characterized by both poverty and prosperity.

Location of researchers

At the outset, we would like to state that as researchers from both these states we share personal histories linked to both the water sector and women's movement. Having worked in these two states for over a decade now on issues of water sector reform and gender, we as researchers not only have an informed understanding of the processes but also hold a stake in seeing a process of change in both these substantive areas. Both of these have a bearing on the process of research and analysis. This personal and collective history is an important reason for us to locate the research here.

Socio-economic poverty amidst prosperity

Both are highly urbanized and industrialized and considered as among the top four states as far as the economy is concerned. According to the Human Development Report of Maharashtra 2002, the per capita State Domestic Product (Rs. 20,644) was 40 per cent higher than the all India average (Rs. 14,712) in 1998-99. It has until recently been ranked as the state with the highest per capita income in the country (HDR)[2]. The per capita income of Gujarat is 27% higher than the national average. It ranked fourth in terms of per capita income in India for the past two decades (GHDR 2004). In both these states, the non-agricultural sectors play a major role thereby covering up for the poor performance of the primary sector[3].

Despite the distinction that both these states carry as far as per capita incomes are concerned, their rural poverty is on the rise and so are the inequities in wealth distribution in general. Economic growth has come largely from non-agricultural sectors, essentially in areas like Mumbai and Thane for Maharashtra and around private ports and Special Economic Zones in Gujarat (Golden and Silver Corridors), resulting in both sectoral and regional imbalances as well as environmental degradation. Moreover, if we compare the Human Development Index (HDI) for both the states then Maharashtra ranks 4th and Gujarat ranks 6th in the country as per the 2001 Human Development Report indicating that despite the high per capita income we do not see corresponding levels of human development attainment. Pockets of prosperity have been created in both the states. For example in Maharashtra, the Marathwada region is the most backward and scores very low on the HDI. Almost fifty per cent of the population of Maharashtra consume less than the required calorie intake of 2700 cals a day.

As far as the gender indicators are concerned both the states fair very poorly. The sex ratios of Maharashtra and Gujarat as per the 2001 census are 922 and 920 respectively and gender gaps in literacy and access to basic services persist, while gender violence is increasing.

Non-state initiatives

Both the states have also had long histories of civil society initiatives of a differing nature. Maharashtra has had a long history of social reform and movements around inequities of

[2] The more recent report of 2003-2004 shows that it ranks third after Harayana and Punjab.

[3] Socio-economic survey of Maharashtra The share of agriculture in Maharashtra declined from 42.14 per cent in 1960-61 to 27.69 per cent in 1980-81 and fell to 15.8 per cent by 2002-03.

caste, class and patriarchy. Mahatma Phule, Savitribai Phule, Babasaheb Ambedkar are a few names that have contributed to the history of social change in Maharashtra.

In Gujarat, the Gandhian ideology set the tone for social change (Iyengar 2000) and most of the early NGOs strongly emphasize values of self-reliance, simplicity and volunteerism, within the development framework largely set by the state, (e.g. SEWA, the Self Employed Women's Association, has had a long history of accommodative politics, see Ahmed 2005b). Gujarat is also known for its enterprising spirit and not surprisingly, it was the base for the launch of the dairy cooperative movement and its brand-name, Amul – a development success story both locally and globally. A number of academic and research institutes in the state, notably the Institute of Rural Management in Anand, have also contributed to the more recent professionalisation of the voluntary sector.

Movements and initiatives around water charecterise the waterscape of both the states. In Maharashtra there have been pioneering example in the 1980's like the *Pani panchayat* experiment initiated by Vilasrao Salunkhe around equity in access to water. This was one of the very first experiments on delinking water rights from land rights. Mukti Sangharsh Chalwal in western Maharashtra further developed on this idea and spread it on a scale. Experiments around decentralized water management also were initiated by SOPPECOM in the late 80's and early 90's with the first water users association created on the Mula major irrigation project in Ahmednagar district of Maharashtra[4]. Experiments by Anna Hazare, Popatrao Pawar on watershed management too exemplify the rich civil society initiatives around water in Maharashtra[5].

Gujarat too has had several initiatives around water and the experience of the Swadhayay movement stands out in this regard. Pandurang Shashtri Athawale, who initiated the Swadhyaya movement in the early 80s was influenced by the Gandhian ideology. Self help was his main motto and that is how Swadhyaya got its name. The movement has stressed the importance of recharging of wells and groundwater. At the opposite end of the spectrum has been the Narmada Bachao Andolan which has been protesting the construction of the Sardar Sarovar project and the immense displacement of adivasis that this has entailed. But Gujarat has also seen much state-civil society collaboration over water policy and management issues as Chapter 3 outlines.

It is these vibrant movements and organisational collective action, which have in fact managed to make the state accountable and counter the otherwise adverse effects of states efforts at commodification and privatization in the water sector.

Decentralisation process

Maharashtra was the first state to adopt the Balwantrai Mehta committee report and bring in amendments in its two acts by 1994[6]. Interestingly it is also one of the lead states in launching the sector reform process in the water sector. The seven state World Bank study shows that even in a progressive state such as Maharashtra, PRIs are looked at as bodies which are responsible for the execution and maintenance of development works and schemes. They say that the government of Maharashtra is actually transferring funds, functions and functionaries to the local governments (WB, 2000, Volume II pg 188).

[4] For a detailed discussion on this experiment refer to chapter 5 of this report.
[5] Both these efforts in Ahmednagar district in watershed management have been sort of trend setters in the waterscape of the country. Anna Hazare is considered as a pioneer in this effort.
[6] Bombay Village Panchayat Act, 1958 and the Maharashtra ZilhaPanchayats and Panchayat Samitis Act 1961

In Gujarat, the history of decentralization predates the formation of the state as a distinct and separate entity, from Maharashtra, in 1960. With the enactment of the Bombay Village Panchayats Act (1958) a foundation for democratic decentralization was established and in 1961 the Gujarat Panchayat Act was passed, delegating authority and the transfer of funds to various departments. But it was not till the 73rd Constitutional Amendment and the renewed Gujarat Panchayats Act of 1993 that a more substantial commitment to decentralization was made.

The experience with women in *panchayats* has been mixed in both the states and although the whole question of men as proxies for elected women representatives continues to haunt the success of reservations for women in PRIs, increasingly we find a large number of women entering the public arena and asserting themselves. The Mahila Swaraj Abhiyan in Gujarat, is a network of women's groups and individuals who have been trying to capacitate women *panchayat* members and leaders as well as work on questions of gender right both through elected representatives and other networks.

Decentralisation in the water sector in its present form is fairly recent in both the states of Maharashtra and Gujarat. The once low-key sub committee of the GP, Drinking water committee has now acquired significance in the light of the recent reform process where a large fund flow to the *pani samitis* has been possible. The irrigation sector is under the state control and has no organic links with the PRI. Its process of decentralization is independent of the PRI amendments and are closely linked with irrigation performance and recovery of costs.

Given that a significant amount of resources are being channeled to *panchayats/* WUA*s* to promote decentralized and sustainable water management systems and community institution building, it is imperative that decision-makers at all levels are capacitated to ensure that principles of gender equity and social inclusion do not simply become instrumentalist design factors driven by project or program objectives of community/ stakeholder participation rather than empowered citizen action by all men and women. It is in this context that we locate our study for Maharashtra and Gujarat.

In Maharashtra, our study is located in both the sub-sectors of water namely domestic water and irrigation. The domestic water sector has a long history in the state with various experiments that started from dug wells, centralized regional piped water schemes introduced through a DFID (Department for International Development) support to the present demand driven schemes covered under the sector reform process. Our study concentrates on the present sector reform process where we specifically look at two schemes of Aple Pani (our water) and Jalswarajya (water freedom)[7] based on a demand driven approach with a 10% capital contribution from the users and entire Operation and Management (O&M) costs to be borne by the women. Participation especially of women in planning and implementation is a special feature of these schemes.

In Gujarat three different institutional environments were studied: (i) the Ghogha project, initiated in 1997 with Dutch bi-lateral aid as one of the first projects under the sector reforms framework, (ii) the Earthquake Reconstruction and Rehabilitation project in Kutch where the institution building process is ongoing and lessons learned are being transferred and (iii) NGO facilitated and community-led decentralised water interventions, *within* the framework of sector reforms, i.e. with users contributing 10 percent of capital costs and being responsible for all O&M expenditure.

[7] For a detailed discussion on the history of reform process in the domestic water sector in Maharashtra refer to chapter 4.

Comparing the two states, we see that the thrust of state led decentralization process varies. Maharashtra has launched water sector reform in both the sectors through the passage of several laws tied to the World Bank loans, while Gujarat is still moving gradually, particularly in the irrigation sector. Though the principles of the reform process in the domestic water sector are the same, Gujarat continues its implementation through centre and state support over multi or bi-lateral donor agencies, though ADB is funding urban slum infrastructure initiatives, including access to water and sanitation through cost recovery principles. NGOs are far more prominent in the Gujarat context as against the Maharashtra one where the state has laid its own apparatus for civil society participation.

This varied context therefore has a bearing on the methods of investigation and on our final analysis as well. Therefore, although there are aspects where comparisons will be possible between the two states, there will also be areas where the uniqueness would have to be respected.

Organisation of the report

The report is organised in six chapters, the first, which is the Introduction to the study, lays out the research context, the questions, and the rationale for selection of the two states. The second chapter discusses our normative concerns and conceptual framework on gender, water and decentralization. The third chapter details out the research context and the findings in the Gujarat domestic water scenario while the fourth chapter discusses the same for Maharashtra. The fifth chapter discusses the research context and the findings in the irrigation sector in Maharashtra and the final chapter brings out our learning and recommendations for policy and practice.

Chapter 2

Unmasking Decentralization in Water Management: Gender and Good Governance

Introduction

In a recent interview, the WASMO (Water and Sanitation Management Organization) Project Director claimed that one of the outcomes of decentralisation in the domestic water sector in Gujarat is that (rural) women should have the right to ask for (safe) water at their doorstep.[8] 'Good governance' is an integral part of his vision, but what does this mean, for water resources, or for the women and men who are elected or selected on community water management institutions, whether for domestic water or irrigation, in Gujarat and Maharashtra? For the WASMO project director, at the heart of the success of water sector reforms is self-change and the key to this is honesty and transparency. But for many poor women and men, good water governance, may simply translate as an assurance from their representatives that they will get enough water at the right time (i.e. appropriate, jointly decided) and at the right place (public or private connection).

This chapter outlines three conceptual gateways on which we hinged our inquiry, namely: (i) decentralization as a terrain for more efficient, effective and equitable water governance, (ii) an understanding of whether the processes of participation underlying the facilitation of a 'new' water commons translate into space for rural women and men from diverse socio-economic backgrounds to articulate citizenship, including livelihood, rights and (iii) the extent to which political space and articulation have empowered women, particularly those represented on the new water institutions, but also in the larger community arena. This requires engaging in a more nuanced understanding of the neo-liberal state in India, where decentralisation of water management is not driven by market exigencies solely, but rests, and to a large extent is directed by, political benevolence. Water, for the state, is both a public and a political good – while it struggles to ensure access to water through new partnerships with bi/multi-lateral agencies, NGOs, communities of water users and to a more limited extent the private sector, it also seeks to maintain its hegemony over this process through legitimizing forms of populist 'control'. Underlying or masking this process of state 'accumulation and dispossession' (Harvey 2003) is the language of growth with equity and justice[9] – which presents us with a somewhat hybrid agenda of neo-liberal reform, of which decentralisation is a key aspect, in the water sector.

We begin this chapter by an outline of our normative framework on democratic participation, equity and sustainability with respect to water, sustainability of water governance (both institutional and management related aspects) and empowerment. We then move on to outlining our conceptual framework. We begin with a brief introduction to decentralisation and its implications for environmental democracy as well as for gender rights, particularly in the context of water governance. Governance, increasingly seen as the 'key' to resolving the water crisis, is far removed from the rights of women – despite a plethora of statements calling for the equal participation of women and men in decision-making, the water governance agenda remains largely gender-blind (Cleaver and Franks 2005). This necessitates understanding not only how participation in decentralisation is structured, but equally, the problematic of (women's) agency and empowerment. We end this chapter with

[8] Personal interview, Ahmedabad, 24/6/08
[9] See approach paper to the 11th Five Year Plan.

our methodological framework, outlines our methods and the constraints or challenges we encountered in the field.

Our normative concerns around water

We detail our normative concerns around water by looking at its various attributes first followed by a discussion on concerns.

Water is an ecosystem resource wherein we need to recognise and respect concepts of ecological flow, minimum ecosystem requirements and the preservation of ecosystem services.

Water is a common pool resource and has competing uses which call for some form of collective management and regulation in order to ensure equitable and regenerative (sustainable) use. For example, in India most surface water is by and large seen as part of the public property regime, whereas groundwater, despite attempts to regulate access, operates under a private property regime, where land ownership has determined the right to use (and overexploit) water flowing below.

Water is both a local and non-local resource and modifying water regimes in upstream villages has *basin or watershed*-wide implications affecting water availability and quality for downstream villages. However, most planning around water remains limited to either the local level, particularly in the case of decentralisation and local governance, or in contrast, mega water projects are planned. There are few, if any attempts, at building meso-level institutions, either regional or around river basins and watersheds to negotiate conflicts and address sustainability of the resource / aquifer[10].

Equitable access to water

Equity is important because there are historically embedded social and economic inequalities. Class, caste, tribe (or community) and patriarchy are some of the stratifiers in society through which inequality manifests itself in India. This understanding leads us to critically examine the 'local community' the participation of which has become quite critical to water sector programmes. The gender dimension adds one more layer to the issue of historical disadvantages.

Equity as we understand it in the water sector is a matter of minimum assurance to all of water required for livelihood needs irrespective of their ownership of assets, especially those who depend on land and water for livelihood needs including landless. By livelihood needs we include water required for domestic use, energy, livestock/fisheries etc, productive needs as well as that required for ecosystem needs. Here we introduce the idea of a per capita right over use of water. Per capita water allocation, first taken up by Pani Panchayat and further developed by Mutki Sangharsh and the South Maharashtra movement is based actually embedded in this principle of separation between land rights and water rights.

While there is a spectrum of views on how far and to what degree equity in this sense can be realised, there needs to be a broad agreement that it forms an important component of a strategy for water sector reform. Minimum water assurance is here seen as a right that vests in people by virtue of their right to an adequate livelihood, and not by virtue of the land or other assets that they own. In the conventional approach, water rights are tied to and enjoyed through land rights. In contrast, the consensus around the concept of equitable access to water

[10] This has been drawn on the work of SOPPECOM, Pune and for a detailed discussion refer to Joy and Paranjape (2004)

is based on a separation between the two. This means that apart from water for domestic purposes for all, water for production needs to be extended to the landless and women. Special efforts will be needed to bring such disadvantaged groups within the ambit of minimum water assurance as a right of equitable water access.

Equity also has implications for water use prioritisation (or what could be called as inter-sectoral equity) and implies making distinctions about water use and treating water for different uses differently. Broadly, the priority in most areas would be: drinking water; water for domestic use and for cattle; water required for ecosystem regeneration (for example, minimum environmental flows) and water required for livelihood activity; and surplus/extra water that could be used for cash or commercial crops. The principle here is that water should become available to the next category of use only after the first use is assured – and also that some water uses (e.g. flushing toilets or watering lawns) may not require the same quality of water as that for drinking purposes.

Gender equity in the sector

At present gender is a dimension that is routinely added on as a component to most programmes, partly because women's movements and struggles have made a mark and equally because many funders have come to insist on its inclusion. It is these reasons that compel the state to address some of the inequities and disadvantages that women face. However, there is little attention given to the theoretical treatment of this issue in the water sector and hence most of the efforts at making the water sector inclusive become mere lip service.

The questions that we often face in this regard are whether women's hard work around water qualifies them for participation in the sector planning and a right to entitlements. Right to water often becomes a tricky issue in the context of water for women especially because at one level women are divided across social groups such as that of caste, class, religion etc and across households and at another level water itself is divided into sectors of domestic and production. What then is the notion of individual access, independent entitlements for women? How do we understand equity in this regard? Do we consider women as equal stakeholders in the water sector or are they seen only as part of these larger social groups.

Gender and equity in drinking water and sanitation is about basic human rights – the right to water and sanitation has been well stated and women, like men, are adequately covered in principle at least. Where they lose out though is not being able to participate in decision-making that ensures this right and that ensure that water for drinking purposes is the first priority.

On the other hand, you have water rights linked to land ownership which again is largely unfavourable to women. So the equity question in irrigation and water for livelihoods begins not with participation, though that this is important, but with the de-linking of access to water from land ownership – for women, poor and the landless. In India, this entire process is rather messy and we really don't have any rights or regulation of access for either groundwater or surface water systems, except where communities, with some external facilitation, have made these norms themselves through multi-stakeholder dialogue processes, negotiation, etc.

There is however a need to bridge this divide and look at water as a livelihood resource and therefore rights around water as right to water for livelihood. This calls for clear rights over use of water for meeting livelihood needs and decision making around it.

Sustainability and regenerative use of water

Terms like sustainability and sustainable development are being used very widely for very different things: from a purely economic sense equivalent to the withdrawal of all state subsidies and support, to a strictly environmental sense. Sustainability to us then is a) use of water within renewability limits where we restrict our uses to water that can be recharged b) minimising importing of water after a clear assessment of the local water resource is done along with the livelihood needs of the community.

Water: social or economic good

This is a highly contested terrain and there are polarised views on the question of pricing and cost recovery. Since the 90s there has been an increasing demand to remove subsidies in the water sector and that, the water tariff should reflect the real cost of providing water. This is also reflected in the World Bank prescription for water sector reforms in India as it advocates 'meeting costs from user charges. The other position has been advocating right to water as a state responsibility, which is free of cost. This position has largely been in the context of the domestic water sector. There seems very little expounding of positions on the water sector as a whole and this has only compounded the problems on the question of pricing and recovery. We find neither of these extreme positions advancing the goals of water sector restructuring as outlined earlier. We understand water as both a social and an economic good and argue for a critical role of the state and not its withdrawal as is perceived in the current paradigm. For example, the state will have to pursue the agenda of minimum assurance of water for all for meeting livelihood needs.

We do believe that we should take a rational, but socially just stand on the issue of water pricing and would argue that the basic service required for livelihood needs should be provided at an affordable cost, say to meet operation and maintenance costs. Any water used beyond the meeting of livelihood needs should be treated as an economic service should be provided at an economic cost which could mean that some share of the capital costs is taken over and above the O & M costs.

Understanding governance and decentralisation

The need to govern has been an intrinsic part of the evolution of human society from feudal kingdoms to nation states with the legitimatization of social order by the ruler over the ruled as one of the main objectives. From neo-liberal, democratic states to dictatorships, from adult franchise to the exclusion of citizens on the basis of gender, the nature of government machineries and governance around the world vary tremendously.[11] It was not till the early 1990s that the concept of governance gained attention when international institutions began to see the 'crisis of governance' at the heart of the failure of development and economic growth. The World Bank defined governance in narrow economist and administrative terms as "the manner in which power is exercised in the management of a country's economic and social resources for development," (World Bank 1992:1). Four key dimensions lay at the heart of this neo-liberal framework: public sector management (capacity and efficiency); accountability; providing the legal framework for development and ensuring access to information and transparency (Jayal 2003). Missing from this top-down, state-centric framework was the idea of politics and processes of power.

[11] It is important to distinguish between government and governance – the former refers to the institutional arrangements for the exercise of sovereign power while the latter defines the process as well as the results of making decisions on behalf of society(Mander and Asif 2004: 11)

In 1997, UNDP (and other donor agencies, social actors) extended the definition of governance beyond the mere exercise of power by the state to include "the exercise of power or authority – political, economic, administrative or otherwise – to manage a country's resources and affairs. It comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences," (UNDP 1997: 9). The growing visibility of civil society and social movements in the late 1980s and 1990s, particularly with the end of the Cold War, the breakdown of the USSR, the emergence of transitional economies in Europe, the end of apartheid in South Africa and the liberalisation of trade made it essential that the concept of governance is inclusive and recognizes the notion of citizenship and the articulation of rights. A rights-based approach mandates the state to provide 'enabling conditions' and recognizes the importance of treating voice as a significant criterion of legitimacy in processes of policy formulation (Jayal 2003).

The new definition of governance was seen to converge with the human capabilities approach (Sen 1990, UNDP 2000) and the poverty reduction agenda: enhancing human capabilities, particularly for the poor, through education, good health and participation in decision-making has an indirect influence on economic production and plays a role in influencing social change (Mukhopadhyay and Meer 2004: 20).

It is in this overriding context that the policy terrain of decentralisation emerged as the corner stone or edifice of the proposed good governance and rights based agendas. Under the umbrella of decentralisation, the transfer of management responsibilities and powers from central government to a variety of local institution rests on the belief that such reforms not only increase popular participation, but also promote more equitable and efficient forms of local management, which would ultimately lead to sustainable development (Ribot 2003, Manor 2004, Beall 2006).

In India, decentralisation in the post independence era dates back to the early constitutional debates between Gandhi and Ambedkar in 1948 where the question of village versus individual as the primary unit was discussed. Gandhi had argued for village republics and had in fact in an issue of 'Harijan' detailed out what a panchayat should be (Harijan 1942 as cited in World Bank, 2000 pg 18). and Ambedkar had spoken of individual rights and tended towards a doing away of the village as an administrative unit." *What is the village but a sink of localism, a den of ignorance, narrow-mindedness and communalism? I am glad that the Draft Constitution has discarded the village and adopted the individual as its unit.1"(*Ambedkar in the constitutional debates 1948, as cited in the World Bank 2000 pg 18)

Several committees were launched by the post independent Indian governments to look into the possibilities of decentralisation. The first among these was the Balwantrai committee in 1958, followed by several others to look into different aspects of rural decentralisation. Almost all the committees spoke about a lack of political will, interfering bureaucracy and elite capture at the local level as the key obstacles in decentralisation. However, none of the subsequent processes seem to have effectively tackled some of these constraints until 1993 when the 73rd amendment was introduced with the political idea of democratic decentralisation (WB, 2000).

While there is no standard model or definition of decentralisation, many authors have tried to distinguish between types and forms of government functions which are decentralised. Litvack *et al.* (2001) delineates three types: (i) *fiscal decentralisation* refers to lower tiers of government setting and collecting taxes, making particular expenditures and rectifying 'vertical imbalances' between revenue and public spending, (ii) *political decentralisation* is related to democratic participation in decision-making, through for example, quotas for

marginalised groups or women and (iii) *administrative decentralisation* refers to how responsible political or governing institutions turn policy decisions into more just and inclusive outcomes (cited in Beall 2003, adapted).

In terms of administrative decentralisation, Rondinelli's three-way categorisation between deconcentration, delegation and devolution is useful; wherein *deconcentration* refers to the transfer of certain planning, financing and management tasks to local units of central agencies, without any inherent transfer of authority. "*Delegation* by contrast, relates to the transferring of responsibility for decision-making and administration of public functions to other organisations that have semi-independent authority and 'are not wholly controlled by the central government but are ultimately accountable to it' (Rondinelli *et al*, 1989:75-76). *Devolution* is a more extensive form of decentralisation that refers to the actual transfer of authority to lower tiers of government, with local governments being given autonomy with respect to decision-making, finance and management," (Beall 2003). While deconcentration and delegation imply a reorganisation of central government, devolution means relinquishing political, i.e. decision-making, power (DFID 2002).

However, decentralisation is not a panacea for either the facilitation of democratic participation or more efficient and effective governance. The discourse on decentralization assumes to a large extent that once the institutions of governance have been engineered to bring these closer to localities, participation and voice will follow. Non-elite groups in society will automatically raise their voices and demand accountability, transparency and a fair (just, equitable) share in public goods (such as water). On the one hand, decentralisation entails complex changes to administrative, financial and decision making systems that require a high level of technical expertise and coordination. On the other hand, the basic premise of decentralization that government is brought closer to people and therefore is more responsive to the real needs and interests of people (citizens) is undermined without strategies to mobilize 'voice' of subordinate groups in society, and the forging of institutionalized spaces for participation and accountability (Standing 2004 and Mukhopadhyay 2004).

Most work on gender dimensions of decentralization focuses on the connection between the subordinate power of women in the private domain and possibilities and limits to the exercise of power in the public sphere, in the world of politics, decision- making and governance. It is assumed by some studies (Evertzen 2001) that local politics is easier for women because eligibility criteria for the local level are less stringent and local government is the closest (physically) to women's spheres of life, and easier to combine with the rearing of children. Moreover, since women's interests tend to be linked to their gendered responsibilities, it has been argued that their priorities would often relate to the provision of local amenities, services and infrastructure – for example, improved water and sanitation (Beall 2006).

On the other hand, Goetz (1997) argues that local government is always hierarchical and more embedded in local social and power structures compared to national government and so it is difficult for women to penetrate as independent political actors, or for them to raise controversial gender issues. Whether or not women would be effective in the exercise of participation and power depends upon to a greater extent on the terms of their inclusion. Often, the role and influence of traditional authorities gets mapped on to the new form of formal local government structures introduced by decentralisation. Customary *panchayats* act as gate keepers controlling nominations to elections in general, but their influence is particularly strong in the selection of women that may take advantage of reservations (Sharma 1998).

It is clear to most gender and development researchers and practitioners that institutional innovations are required such that there are rules to secure institutionalized spaces for

women's participation in planning and monitoring and most importantly auditing and review of expenditures, allocating a percentage of budgets for women-only deliberations, gender sensitive local revenue and spending analysis. However, creating institutional spaces is also not enough, but what is required is that the 'construction of interest as also the construction of voice' is seen as a political project involving building citizen capacity to collectively engage local powers as well as the state. This capacity is created through the simultaneous process of engagement from below and above. Heller (2001) maintains that whereas the active agency of civil and political society builds participation and mobilization from below (read NGOs and party activists), state created channels, opportunities and incentives (or disincentives) for collective action construct citizen capacity from above. Here many writers warrant caution: while decentralization is supposed to be increasing accountability and participation of women, it has to be remembered that politics at the local level is far more embedded in unequal social structures where traditional authorities and elites hold power and institution building and planning capacity is weaker.

Decentralising and democratising water

Crafting democratic and decentralised institutions for community water management where concerns of equity, gender and sustainability are integral requires an understanding of the peculiar nature of water as a common pool, flow resource where conflict and competition at multiple levels between upstream/downstream villages, and between sectors is not uncommon.

Equally, water plays an important role in local democratisation, not only because it is at the heart of daily livelihoods and decision-making can facilitate democratic change, but water also has the potential to generate revenue for local government (Ribot 2003). Thus the water sector reform process in India has been parallel, at least in the drinking/domestic water sector with the restructuring of the institutions of local governance, namely the *panchayats* (PRIs), the creation of sub-committees and the empowerment of *gram sabhas* (village assemblies) as collective decision-making forums.

Re-thinking participation

"…Control over water signals social organisation. A community that cannot hold on to its water resources probably cannot do much else," (Ingram 1997:2).

Central to the goals of decentralisation and institutional restructuring is participation, a concept which has been much debated in development practice, as both a valorising discourse providing space for the acquisition of new knowledge, building project ownership and facilitating empowerment on the one hand, and on the other with the underlying, but largely unrecognised potential for creating new forms of uncontested power – the 'tyranny of participation' (Cooke and Kothari 2001, Cited in O'Reilly, 2008). Typically, participatory approaches have been dichotomized into 'means' and 'ends' (Oakley et al. 1991) with the former seeing participation as an *efficient* tool or means for achieving better project outcomes and the latter arguing that the *process* of participation is important in itself as it enhances the capacity of individuals, particularly those from disadvantaged or marginalised groups, to improve their own lives and build self-autonomy (Cleaver 1999).

In the water sector, participation is used as a term to validate numerous activities including legitimizing expenditure, reducing operational costs (through the collection of community contributions for capital costs and O&M charges) and improving the public image of bureaucratic mis-management and languishing infrastructure (Mosse 2001). At the core of

most project or programmatic understandings of participation is the notion of the unitary, undifferentiated community, imbued with holistic, albeit lost, values of environmental stewardship which can be revived through collective mobilisation and participation in the emerging new commons. Such a conceptualisation of communities overlooks social difference and relations of power and exclusion underlying access and entitlements to resources, conflicts and processes of negotiation or the complexity of cooperative action. It also eulogises communities as having specific/appropriate knowledge and skills for environmental governance. So although communities do have an understanding of their local resources, firstly it is likely to be diverse across different social groups and moreover various structural and resource (financial) constraints might prevent people from making informed choices around planning of their own resources. The role of 'outsiders' (social change agents, technical experts, civil society) becomes important both because of the likelihood of them bringing in new skills and information and creating a space for alternate subaltern politics. It becomes important though to state at the outset that outsiders need to have a broad consensus on the normative concerns detailed out earlier.

Drawing on various conceptualisations of participation, Agarwal (2001) outlines six different forms or levels typifying varying degrees of participation in a hierarchical 'ladder' moving upwards towards more effective and empowering participation. Levels are defined here, "not by how a group is initiated, but by the extent of people's activeness," (Agarwal 2001: 1625). Participatory exclusions for women *as women*, (gendered hierarchies of power), and for women from diverse social and economic backgrounds (differentiated by caste, class, faith, ethnicity), take many forms. These can be overt (membership rules of water user associations) or subtle, located in local cultural and social practices which implicitly *prevent* women from speaking out at public meetings or in front of male elders. Discourses of participation are rooted in power – "….different meanings may serve similar purposes, while similar meanings may serve different purposes," (O'Reilly 2008: 197).

Table 2.1 Typology of participation

Form/level of participation	**Characteristic features**
Nominal participation	Membership in the group
Passive participation	Being informed of decisions *ex post facto;* attending meetings and listening without speaking up
Consultative participation	Being asked an opinion in specific matters without influencing decisions
Activity-specific participation	Being asked to (or volunteering to) undertake specific tasks
Active participation	Expressing opinions, whether or not solicited, or taking initiative
Interactive (empowering) participation	Having voice and influence in the group's decision

(Source: Agarwal 2001: 1624)

A review of programme and project level experience of involving women in government and donor-assisted drinking water schemes in India during the U.N. Decade reveals that, for the

most part, women have been seen as beneficiaries rather than partners (Venkateswaran 1995). Participation is often reduced to 'labour utilisation' (particularly in drought relief work), while 'consultation with communities' generally signifies consultation with men as heads of households and community leaders. Viewing women's participation as both incremental and instrumental has meant that women's *practical needs* have not always been addressed, nor has their knowledge about water sources and preferences been taken into account.[12] In a number of cases participation has placed an extra burden on women's time or reinforced gender inequalities without commensurate economic or social benefits in terms of income or status gains (Baden 1993: 5). Neither has such participation addressed the larger question of women's water rights – both in terms of access to water (physical, affordable, potable) or their role in decision-making on how (scarce) water sources should be used and managed, i.e. water distribution and entitlements for individuals / households in socially differentiated communities. Not surprisingly, a review of the Report of the First National Commission on Water (1999) by one of its members, stated that women have "little voice in water-resource planning in this country, yet they are always depicted as the providers and managers of water at the household level," (Iyer 2001: 1117).

In her study of a drinking water project in northern Rajasthan, jointly funded by the state government and a large German development bank, under the aegis of public-private partnerships, O'Reilly (2008) argues that there is an unquestioned relationship between women and water underlying women's participation in the project:

"Women's groups must first and foremost serve the purpose of making the water supply system sustainable in the long run, i.e. women must be mobilised to take responsibility for the water management of their village. The health and hygiene education objective and the empowerment and self-help objective are important but should be subordinate to this overriding goal,"

(Project Social Side report cited in O'Reilly 2008: 199).

Not only does women's participation explicitly impinge on their (unpaid) labour as mothers and housewives to facilitate the long-term viability of a community / decentralised system, but there is also an underlying assumption that women would be willing to comply, because of their altruistic relationship with water and the environment. Such assumptions give primacy to women's roles as domestic water collectors as well as privilege her positioning as a *natural* caretaker for nature and her family, without looking at the structures of power underlying agency.[13] Ultimately, participation is about the exercise of power – in relation to the 'other', for power is not possessed by an individual (Foucault 1980, Cited in O'Reilly, 2008), but is shaped through a recursive relationship between agency and structure.

[12] The distinction between practical and strategic gender needs and interests was first made by Moser where the former refers to meeting the basic needs that would reduce the drudgery of women's everyday lives, for example, access to potable water or improved stoves, that would reduce the time and energy spent in water / fuelwood collection or cooking. However, practical needs, while an important entry point into complex socio-cultural environments, do not question who continues to collect water or even how much water an individual or a household is entitled to. Strategic interests raised larger questions of women's rights, control over resources and participation in decision-making.

[13] There is a wide range of ecofeminist literature which sees women not only as victims of the environmental crisis but also ascribes to them the virtue of being natural carers because of their role in the reproduction, nurturing and sustenance of life (see Braidotti *et al.* 1994). Such biologically deterministic typologies of women as unitary categories have been widely criticised by feminist political ecology (Rocheleau et al. 1996) and feminist environmentalism (Agarwal 1992) for being ahistorical and overlooking the larger structures of power within which women's relationship with the environment is embedded.

Problematising women's agency

"A prototype rural woman water user is traditionally responsible for fetching domestic water for her family and should also become involved in planning and decision-making about the management of integrated water resources, raising funds and contributing other resources for the construction of new supplies. Through membership in water user associations and groups, she should play a part in the maintenance of water supply infrastructure and in regulating the distribution of water. As a consumer, she [should be] is empowered to exert sufficient pressure to demand a good service from water suppliers," (Cleaver 2003: 3, brackets added).

The assumptions underlying women's agency need to be critically examined because of the high value that is placed on the active participation of marginalised people and women in community institutions around collective resources. Agency is the ability to define one's goal and act upon it, but agency is more than 'observable action' as it also encompasses the meaning, motivation and purpose that individuals bring to their activity, or in other words, 'the power within'. Agency tends to be operationalised as decision-making – the power to act – but it can take a variety of forms including bargaining and negotiation, resistance and intangible cognitive processes of reflection and analysis by individuals and groups (Kabeer 1999: 3). Agency can also be exercised in the more negative sense of 'power over' – but power can also operate in the absence of agency, through consent and complicity, an acceptance of the legitimacy of a given social order. There is a longstanding debate in contemporary social science theory, which is beyond the confine of our framework, on the extent to which agency is in fact 'conscious' or whether what is assumed to be conscious is in fact the deliberate exercise of 'false consciousness' by the powerless

One way of understanding this deeper reality lies in Bourdieu's idea of '*doxa*' – the traditions and beliefs that exist beyond discourse or argumentation and are taken for granted to such an extent that they are 'naturalised', i.e. they form an objective, acceptable social world (Bourdieu 1977). Bourdieu argues "that as long as the subjective assessments of social actors are largely congruent with the objectively organised possibilities available to them, the world of *doxa* remains intact, a self-evident 'common sense' about the world that is validated in the objective consensus of the way that world is," (Kabeer 1999:9). In Bourdieu's view doxa is determined by *habitus* – a set of dispositions, embedded in culture and shaped by elites that makes people act or react in different ways. Thus, while agency is largely prescribed by what is culturally appropriate or not, many would argue that compliance is not complicity and that women do challenge hegemonies, even in the organisation of water, in ways that do not necessarily constitute overt resistance (Agarwal 1997).

"The availability of alternatives at the discursive level, of being able to have chosen differently or at least being able to imagine such a possibility, is thus crucial to the emergence of a critical consciousness, to the process by which people move from a position of unquestioning acceptance of the social order to a critical, and perhaps transformatory, perspective on it. But the process is always uneven in any given context because people come to specific points in their lives through very different histories and hence bring very different material standpoints and discursive potentials to their present situation," (Kabeer 1999: 9).

For Kabeer, the issue is not simply about being able to choose between different alternatives, but from a feminist standpoint, the kind of choices or decisions women are able to make. She distinguishes between first and second order choices – the former are *strategic* decisions which are fundamental to the shaping of a woman's life (e.g. the right to go to school, to belong to a women's group or to marry a person of one's choice or have a child/daughter). Second order choices, located around the assertion of practical gender needs, affect a

woman's quality of life – for example, the right to choose where a water standpost should be located – but do not constitute its defining parameters or transformatory potential. In other words, the exercise of agency for Kabeer, is not just about *potential* ability to exercise choice, but more importantly about the *impacts* of such choices on well-being outcomes.

However, empowering citizens to choose, with dignity, the kind of life they value requires not only an enabling institutional and material environment but also pre-supposes a normative and moral good which empowered and capable citizens are expected to value and 'choose'. In practice, this is far more complex than we realise – women, for example, do not always (or necessarily) want the option of autonomy, nor do they *necessarily* conceptualise power differently from men (Deshmukh-Ranadive 2005). This inner dialectic has been well brought out in studies on women fieldworkers who tread a delicate line between expectations of their ability to share gender concerns with village women and on the other hand, their organisational compulsions as 'outsiders' to a larger authority where their positioning and exercise of power is structured by gender and other social stratifiers, not uncommon to what the women they work with face (see Goetz).

Cleaver (2007) argues, that people do not exercise (property) rights over natural resources simply as 'resource appropriators' but as women and men with complex and multi-faceted identities that are not only embedded in social contexts or structured by social space, but equally located in embodied notions of the 'self'. While there has been little attention to how embodiment – the presentation of the self – enables or constrains women's participation, it is clear that the human body is a signifier of social status and power as well as communicative intent (see Jackson 1998).

From agency to structure

Women's incentive for water management – underlying their agency – is not just related to their resource dependence, but also to social and institutional structures, which do not allow them the same access to resource rights, economic opportunities or decision-making as it does for men. Engendering governance is not merely a technical exercise – increasing the number of women in organisations or political spaces, such as water committees, but about redefining the nature of public space and acknowledging that the private domain – where much gendered socialization takes place – cannot be seen as distinct or separate. However, there is little recognition of the implications of the public-private divide or the terrain of households and to a lesser extent, communities, and the intra and inter-dynamics of power that characterize institutional sites and that set the boundaries for participation by women and men (Ashworth 1996). "Although governance is about 'getting institutions right for development' governance policies rarely concentrate on 'getting institutions right for women *in* development' (Goetz 1997 in Baden 2000, emphasis added). Not only are institutions assumed to be neutral, the public-private divide that determines women's exclusion from the public domain is used to reinforce gendered power relations in 'organisations' at all levels (public, private and civil society).[14]

Men who see women's roles as confined to the home find it difficult to accept their participation in the public sphere ('women lack mental and educational skills to make decisions') while organisational cultures tend to assign typically 'female tasks' to women staff or keeping them in desk-top rather than field-oriented positions. While these roles are being challenged, the shaping of women's lives cannot be understood without understanding

[14] It is important to clarify the distinction between institutions as 'rules of the game' and organizations as the 'players' – see Kabeer's work on the institutional framework (Kabeer and Subramanian 1999) and Goetz (1995) who builds on the above in the context of gender and organizations.

the expectations and opportunities that shape men's lives (Nussbaum 2003). Although emerging research on gender and governance in the water sector (Cleaver, Zwarteveen) is beginning to address the question of masculinity and the construction and implications of gendered identities in water bureaucracies or NGOs, a large part of our inquiry has focussed on women, as they continue to remain an under-researched and un-recognized constituency in water policy and water management. However, women's relationship with men, the structures of patriarchy that determine participation in water governance at various levels and how men perceive women's changing roles have been important questions for us and the community water institutions we have looked at in the context of decentralisation processes in Gujarat and Maharashtra.

We would argue that decentralization provides (or at least, appears to do so) legitimate space and a framework for women's participation in water governance at the community level. Decentralization has the potential for re-shaping the institutional infrastructure of water management and of facilitating equitable community representation and inclusion (Ribot 2003). However, the decentralization of roles and responsibilities without the concomitant devolution of real power and resources means that decentralization as a political objective has little meaning for women's representation or participation given the inherent gender biases which prevent women from exercising voice, accessing resources or institutions (Mukhopadhayay 2005). Decentralization is a process, which needs to be negotiated, and the hard reality is that for poor and marginalized women negotiation is being contested in an economic environment where policies of privatization, pricing and centralized, technocentric delivery systems (large dams, pipelines and the Indian state's river linking project) dominate the political discourse on water management.

Issues of methodology

A methodology as we understand it is how research should proceed. It essentially looks at whether existing theories can explain the question under investigation. At the outset, we would like to make it clear that we are feminist researchers. At the heart of feminist methodology is the critique of who produces what kind of knowledge and how it is systematically used to construct and sustain women's oppression in different ways across caste, class, race, tribe etc. A new kind of thinking and research practice is therefore required which holds potential to counter knowledge that has consistently perpetuated women's oppression.

Feminist research is any research that involves an empirical study, which draws on feminist insights. A feminist methodology therefore is one, which involves a distinctive body of research practice and epistemology. It becomes distinctive in three key ways a) it uses new resources, in this case it is the women's experiences and perceptions; b) there is a well outlined purpose of enquiry directed at addressing gender inequities; c) understanding that the location of the researcher her/himself plays a critical role in shaping the research design as well as the final analysis of the research (Harding, 1987).

Analysis in feminist research

A frequent question that comes up in discussions on feminist methodology is whether perceptions and subjectivities can be treated as knowledge. To that extent, would research that investigates women's voice or silence produce knowledge? Can the voice of only women or some women really be treated as knowledge to generalize? These questions gain relevance particularly in the light of post-modern theories which talk of multiple truths, providing at one level space for diverse narratives of subaltern, but also narrowing the idea of a universal

truth of women's oppression that raises possibilities of collective action to counter ways in which domination is enacted and institutionalized (Harding 1987).

What makes feminist research relevant is the potential its analysis holds for changing theory, or bringing in new topics into the discipline, consciousness raising or producing data that will support or stimulate policy decisions or political action. In this case water is seen as having a central role in women's lives from a livelihoods perspective. Our present study hopes to support research of value to women, leading to social change or action beneficial to women though a nuanced understanding of the decentralization process in the water sector and its relationship with women's empowerment.

Methods

Often discussions on methodology are reduced to discussions on methods and tools. We believe that the difference lies not in the tools but in which questions are asked and to whom, how the questions are framed, how men and women's lives are conceptualized and to what purpose finally the research is used. Feminist methods therefore are often different interpretations using similar set of tools used by social scientists in general.

Having made the distinction between methodology and methods, we now come to our methods. Methods can be broadly categorised into three main categories- a) hearing / listening through interviews, Focus Group Discussions (FGDs) etc., b) observations and c) tracing of historical records/policies, secondary data, etc. (Harding, 1992)

In our study we have used all the three kind of methods in varying combinations. Almost all feminist researchers would use a combination of these methods to investigate the problem. One of the themes emerging from feminist methodology has been a shifting focus from individual knowers to the perspectives of collectives. Feminism has always valued knowledge as a process of cumulative ideas and collective perceptions. In our choice of methods therefore we have gone for individual as well as collective/group interviews as well as the FGDs.

Sample, research tools and data collection

The whole question of scale versus detail was a matter of concern while deciding on the sampling process. As we have seen earlier, the process of decentralization has been different in both the states and across the sectors as well. In Maharashtra it has been launched at a fairly large scale in both the sectors, whereas Gujarat experiences it as a slower process which has kept itself away from multilateral funding. At one level there was need to capture the scale of the event in both the states and at another to understand the depth of the process and its impact on women's empowerment. Given our perspective around decentralized water governance, participation and gender we needed to have a sample that would capture differences across social groups and bio-physical regions.

Sampling process: domestic water

In the drinking water sector in Maharashtra as we shall see in the concerned chapter, we looked specifically at two drinking water schemes which were Jalswarjya and Aple pani, the details of which have been elaborated in Chapter 1. We had a sample that covered the different bio-physical regions of the state as well as different class, caste, tribal groups. Among our primary criteria in the domestic water sector in Maharashtra we had the region, followed by the size of population, size of the dalit and tribal population and finally the opinion of the support organization with reference to completion or non completion of the

scheme. We had a database of 3000 villages where the scheme had been launched in Maharashtra, but due to its inaccuracy, we were not able to follow a very systematic sampling procedure. We covered a total sample of 17 villages across the six districts spread in five bio-physical regions of Maharashtra.

In Gujarat the sampling process was a bit different as the nature of decentralization too was different from that of Maharashtra. The sample was a *purposive* one based on the information provided by our NGO partners, some of whom were quite prominent players in this state, unlike Maharashtra. In Gujarat three different institutional environments were studied and these were (i) the Ghogha project, initiated in 1997 with Dutch bi-lateral aid as one of the first projects under the sector reforms framework, (ii) the Earthquake Reconstruction and Rehabilitation project in Kutch where the institution building process is ongoing and lessons learned are being transferred and (iii) NGO facilitated and community-led decentralised water interventions, *within* the framework of sector reforms. A total of 13 villages were covered across the different hydro-geological regions of Gujarat with partner NGOs.

The key criteria for selection were as follows:

- Diversity of population *(dalits, adivasis, minorities…)*
- Diversity of water infrastructure, mechanisms and innovations
- Participation of women strong (perceived)
- Positive outcomes: access, equity, sustainability
- Not extensively researched (particularly important in the Gujarat context where there is a longer history of civil society-state water partnerships and a number of well documented community water management initiatives)

Pani Samitis in Gujarat (village water committees) were selected with partners from different social and hydro-geological contexts (see map 3.1) under the three institutional environments identified. NGOs facilitating *pani samitis* in these project villages were invited to support the limited research team based at Utthan with the fieldwork, for a small honorarium, making them partners in the research. The NGOs selected are not only different in size (small, medium and large organizations) but also have different approaches and capacities for addressing gender and water concerns, at the level of policy advocacy, in their organizational environment and in practice.

Research tools and methods- domestic water

For both the states, we have used a similar set of research tools[15]. These can be broadly, categorized as follows

- Semi-structured, in-depth interviews with women members on the *pani samitis* (both states), women's empowerment committees and social audit committees (Maharashtra only)
- FGDs with men and women committee members
- FGDs with men and women from different caste/tribal hamlets within the village
- Focus group discussions with the women members of different self help groups (SHGs) in the village for Maharashtra

[15] Refer to annexure .. for the research tools for domestic water sector.

- Detailed interviews with the Support Organizations in Maharashtra and NGOs in Gujarat
- Interviews with government officials at different levels
- Transect walks and PRA (Participatory Rural Appraisal) exercises to understand the physical location of the scheme and its implications on equity and sustainability
- Scrutinising records of the *pani samitis* in terms of financial transactions, maintenance of proceedings, etc which form a central part of good governance, what we referred to as the physical verification of records especially in Maharashtra

Primary data have been supplemented with secondary information about the villages collected from partner organizations such as demographic and socio-economic village profiles and the physical/ financial details of the schemes.

Sampling: irrigation

Our study in the irrigation sector was more of an exploratory nature as the launch of the reform process in Maharashtra has been comparatively new and Gujarat did not have the legislation in place until very recently.

Our sampling process in Maharashtra covered different types of irrigation projects ranging from major, medium and minor. Water Users Associations (WUAs) from across four different irrigation projects were selected for the study. Almost all of them fall in western Maharashtra and four out of the five are included in the sector improvement programme of irrigation.

Research tools and data collection

A similar set of tools were used for the irrigation sector as well. Our experience in the domestic water sector also helped us in designing and improving our research tools for the irrigation sector. In our earlier phase of data collection, our two key tools were individual interviews and focus group discussions. Our experience was that individual interviews can be very cumbersome for women as there is little stimulus for them to think and talk. On the other hand FGDs can sometimes silence some of the voices. We thought that the best way to address these shortcomings would be to conduct smaller group interviews with women. We did not see this as a substitute for individual interviews and FGDs, but more to complement the data from there. Group interview tool was therefore designed for the irrigation sector study.

Transect walks through the entire service area[16] of the concerned canal to see the canal system and talk to the farmers located in different reaches of the canal system. This was to get an overall understanding of the decentralisation process and also of how it had impacted different sections of the community, importantly the women members in terms of the access to water.

- In-depth individual and group interviews with women on the committees and women members of the WUAs
- In-depth group interviews with men members of the WUAs and some of the committee members to get men's view to the decentralisation process as well as about women's participation.

[16] Service area or command area is the area served by a particular irrigation project or its different canals.

- FGDs with the committee members, women members and also with the members of the WUAs. Here a conscious effort has been made to discuss the issues in different bastis[17] where different sections of the population reside. For e.g., FGDs were conducted in dalit bastis or with farmers in the tail reaches of the WUA.
- FGDs with landless and other non members of the WUA to assess their perceptions on use of water.
- Discussions with Irrigation officials wherever it has been possible.
- Physical verification of records such as minutes of the meeting,

Challenges

At the outset, we need to highlight some of the challenges that we faced. Much of these issues were unfolding as we went deeper into the process of collecting data. One of the important contexts that need to be understood is that although introduced as early as 2002, many of the outcomes of the state led decentralization process are yet not visible. Both the design and the delays associated with it have contributed to this effect. Thus understanding women's participation and their effective empowerment in such a context has been difficult. Many of the unanticipated issues related to pricing, cost recovery become difficult for women to respond to as their impacts have not necessarily unfolded as yet. Women are yet to internalize these new phenomena and are seen to be grappling with many of the issues especially so in Maharashtra. In Gujarat, where we have villages from the older Ghogha project and from NGO-led interventions we do see more responses of women in this regard.

In the irrigation sector, it is evident that women are not at all in picture as far as governance issues are concerned. Therefore, although they are active in the agricultural sector, we do not see them participating in the planning processes, an area that needs deeper theoretical and empirical investigation.

The second limitation stems from the first one, as the tools designed and the methods used then seemed inadequate to deal with this early stage of state led decentralization.

As far as our data collection process goes one of the things we were not been able to do is participant observation of water committee/users meetings or the gram sabhas/mahila gram sabhas around the question of water. The initial phase of planning in gram sabhas was more or less over by the time we started our data collection. In fact much of the initial enthusiasm had waned and the frequency of meetings of pani samitis had reduced considerably. In the irrigation sector, there has been an overall lethargy and unlike the domestic water sector, there is no apparent incentive for people to participate. Attending these meetings would have provided us rich insights into questions such as who takes the lead in articulating problems, whose voices are heard etc. Much of the data we have is from interviews and FGDs, which were largely organised around our visits.

Delays in implementation of the scheme in Maharashtra domestic water sector, meant that we could assess only the process of empowerment which came by way of the Information, Education and Communication component of the programme and not really the impacts. Similarly in the irrigation sector quotas for women on managing committees are very recent and there is no history of women's participation in governance issues in this sector either.

As a result of these realities in both the states and across the sectors, some of the questions that remained unanswered were related to performance of decentralization and women's

[17] Bastis are localities in a village. These are usually organized around caste in rural areas.

empowerment and the relationship between the two; costs on women in the absence of decentralization in terms of time saved, financial costs etc. Taking into account these limitations, we had realized that we would not be able to present counterfactual reality about women's concerns and interventions. By counterfactual reality we mean what it would mean for women in the absence of decentralized water governance. This reality also meant that many of the questions that were directly related to investigating on counterfactuals, or their role in contributing to the overall process of decentralization or its impact on their empowerment did not receive any responses from women, as they were not able to imagine such situations. Here we realized the limitations of doing the study at a scale and therefore not spending enough time on recreating scenarios to get women to respond to different possibilities of absence and presence of decentralized efforts in water management. We realized that probing with women cannot go beyond a point when the scenarios themselves have not fully unfolded. These processes would need a very different kind of an enquiry.

The other challenges we faced were in terms of constituting our field teams which were both male and female. Some of them were new to the water sector and some not so familiar with gender issues. So the multi-disciplinarity was important but combining it was very crucial and this was done through a series of trainings and on field discussions. The other issues were related to the availability of people during field work, both in the villages as well as with government officials. Planning time with NGOs in both the states was another challenge we faced. Many a times this meant delays in field work and missing out on some important interviews. In some cases it was difficult to obtain the data from government sources. This also gave us a view on the issue of transparency and right to information. In the chapters that follow we discuss our detailed findings on decentralised governance in the water sector for the states of Maharashtra and Gujarat.

Chapter 3

Water, Decentralisation and the State in Gujarat: Policy and Practice

Part I: Introduction: the development landscape

Since its formation in 1960, Gujarat has shown steady progress in economic growth and has been ranked fourth in terms of per capita income in India for the past two decades.[18] Although the state's population of 50 million (Census 2001) accounts for less than 5 per cent of the country's population, Gujarat contributes about 7 per cent of national production and about 13 per cent of national industrial output (GHDR 2004: 21). However, agricultural growth has shown a steady decline in the state forcing small farmers and farm labor into spiraling poverty and increasing migration to urban areas. Part of the reason for this has been the overriding focus on the unsustainable Green Revolution approach to agricultural development with high exploitation of groundwater for irrigation, and introduction of genetically modified crop varieties depending on intensive use of fertilizers and pesticides. In contrast, dry-farming technologies have, till recently, been consistently overlooked in rain-fed areas which account for 70 per cent of the cultivated area of the state forcing them to remain at the vagaries of monsoon variability and periodic drought.

Animal husbandry and dairy development are important sub-sectors contributing from 22 to 33 per cent (in drought years) to agricultural output and providing livelihood security for the poor (GHDR 2004: 27). But provision and access to fodder, particularly during drought years remains critical and less water intensive fodder crops need to be developed as the 'virtual costs' of livestock production increase (see Kumar *et al.*).

Growing industrialization in the post reforms period (1991 onwards) has seen massive capital and infrastructure investments in coastal regions, notably Saurashtra and Kachchh, often at the cost of land and water resources acquired and/or degraded (polluted) by industries through liberal government policies. Not surprisingly, the state does not have an environmental policy and the water policy first drafted in 2002, based on the national water policy and then re-drafted and shared with civil society in 2004, has yet to be implemented.

Poverty, gender and human development

While poverty is a multi-dimensional concept, income poverty, is the most commonly used official indicator of the percentage of the population living below the poverty line.[19] According to government estimates, there has been a considerable decline in income poverty during the last few decades. Currently, the rural poor account for about 12.2 per cent of the population and the urban poor, 13.76 per cent (GHDR 2004: 51).[20] Although high economic growth and relatively good employment opportunities have contributed to the decline, the

[18] According to the Gujarat Human Development Report (GHDR 2004) the state's per capita income in 2001 was Rs. 12,975 (at 1993-94 prices) which was about 27 per cent higher than the national average of Rs. 10,254 in the same year (p. 21).

[19] Poverty line…

[20] These figures vary depending on data sources, but roughly 17-19 percent of the population can be classified as (income) poor.

majority of the poor continue to depend on agriculture and include rural labourers particularly those coming from SC and ST communities, and small and marginal farmers.

However, Gujarat ranks sixth among major states in terms of the incidence of human poverty (1991 estimates), which is defined as "absence of certain basic capabilities needed for human functioning" (GHDR 2004: 53). About 28 to 29 per cent of the population lived in human poverty in 1991 and the incidence of human poverty is much higher in rural areas where access to basic infrastructure including health and education services is limited. Apart from the skewed pattern of growth in Gujarat with an undue emphasis on the secondary and tertiary sectors, there was also a corresponding decline in spending in the social sectors, notably health and education through the 1990s, which is only now being addressed (post-2000). In contrast states such as Kerala, have achieved a high level of human development at relatively low levels of per capita income.

Not surprisingly, in this overall context of low human development in Gujarat, the gender gap has increased. The most notable indicator of gender inequality is the declining sex ratio in the state which fell from 934 in 1991 to 921 in 2001 (Census 2001), largely due to the drop by almost 50 points in the juvenile sex ratio (0-6 years) during this period.[21] Female infanticide, particularly in the better-off districts such as Mehsana in northern Gujarat and embedded cultural biases (discrimination) against the girl child and women, in terms of access to education, health and nutrition and basic resource entitlements, persist despite the presence of a considerable number of NGOs working on women's empowerment and gender rights in the state. Infant and child mortality rates for females is higher in most parts of the state while data on the maternal mortality rate is conflicting, though as a whole there have been improvements in the delivery of health care to women.

The gap between the female and male literacy rate, although narrowing, still persists particularly in rural areas and amongst marginalized communities – minorities, *dalits* and *adivasis*. Currently the overall female literacy rate is 50.2 per cent (adult age 7+) while the male literacy rate is 68.6 per cent. However, in rural areas the female literacy rate is as low as 41.2 per cent (male: 63.2 per cent). Apart from low enrolment and retention rates for girls in schools, environmental degradation in several districts forces girls into domestic unpaid labour, collecting water or fuel or looking after younger siblings while her brothers would be studying and her mother working. The lack of separate sanitation facilities for girls, particularly in secondary schools, is another constraining factor as is the low value put on educating daughters amongst minorities and other social groups living in poverty.

Gender budget analysis of women-specific and pro-women schemes in 2000-01 and 2001-02 shows that actual expenditure is far less than budgeted estimates which in real terms have been declining as state funds have been diverted to disaster reconstruction and rehabilitation.[22]

Despite women's increased participation in local governance, self-help groups, co-operatives and community natural resource management institutions, gender violence persists, especially during times of riots and communal strife as was witnessed in the 2002 riots where women's bodies became sites of struggle. Social reconciliation strategies while important have failed to address issues of justice or reconciliation and the livelihood divide between majority and minority communities in both urban and rural areas is significant.[23] In 2006, the state launched its policy on gender equity and empowerment (*Nari Gaurav Niti*), the culmination

[21] The juvenile sex ratio declined from 928 in 1991 to 878 in 2001 (GHDR 2004: 182).
[22] For a more detailed discussion on gender budgeting see GHDR 2004: 205-207.
[23] This is not the place to discuss communal politics in Gujarat but exclusion on the basis of faith is an increasingly important part of the social landscape.

of almost 3-4 years of collaboration between government departments and civil society institutions, supported by UNFPA and led by the department of women and child development. The main goal of the policy is to create an enabling environment for the realization of equal rights by women in all spheres of life, for the eradication of all forms of violence and gender discrimination and to mainstream gender including gender audits and gender budgeting, in all development policies, programmes and projects. Although the policy has been very ambitious in its' chalking out of gender details for each department as well as specific goals to be met by 2010, in reality apart from a massive media campaign to save and educate the girl child (endorsed by the CM), very little seems to have transpired and certainly all the collective energy that was mobilized during the policy formulation process seems to have dissipated.

Water in this context, becomes a symbolic medium for understanding both the political economy of development and the cultural politics underlying agency and social action. For water in Gujarat can be seen as a political marker of competing development paradigms on resource management, a cultural marker of social stratification and exclusion and a social marker of changing gender roles in the context of competing claims and growing attempts to involve women in community initiatives. In fact, the gender policy calls for the equal (50%) participation of women at all stages of water resources planning and management, for the design of water infrastructure which is sensitive to gender needs, for capacity building on technical skills for women (e.g. water quality monitoring, repairing handpumps) and for changes in property laws so that women can own, self or jointly, land – on the basis of which access to water, at least for irrigation, is still determined.

Water resources and water management issues: the GWSSB[24]

Despite huge investments in the water sector in Gujarat, notably on ambitious projects such as the Sardar Sarovar or Narmada project to meet drinking water and irrigation needs, growing conflicts in an essentially drought prone state continue to dominate the waterscape, highlighting asymmetries in development (Hirway and Mahadevia 1999). Not only are water resources distributed unevenly across space and time, the extent to which they have been utilised varies according to political and economic interests (Wood 1999). Rainfall in the state ranges from over 2,000 mm in the Dangs in South Gujarat to about 200 mm in Kutch. But it is not the amount of rainfall per se which is important – rather it is the frequency and intensity of rainy days and the extent to which infrastructure is able to capture or harvest rain. For example, the alluvial areas of north Gujarat receive low rainfall, but because of the good recharging potential of the aquifers, the region is rich in groundwater resources. However, over the last 40 years these have been increasingly exploited for irrigation resulting in the drying up of many open wells and mining of deep aquifers.[25] In contrast, the high rainfall regions of south Gujarat have poor groundwater conditions but provide scope for the development of surface water reservoirs (Hirway and Patel 1994:12-16). Saurashtra meanwhile receives low to medium rainfall, a small percentage of which is captured by surface reservoirs, but because of heavy soils and hard rock geology, groundwater recharging potential is very poor.

Overlying this diverse spatial hydro-geomorphology is a pattern of development characterised by urbanisation, industrialisation and water-intensive agriculture as well as the growing demand for domestic water as a result of natural population increase and changes in

[24] This section has been abstracted from Ahmed 2003 and 2005.
[25] This is largely due to subsidized loans with free or cheap energy to pump groundwater.

lifestyle.[26] Currently, 23 per cent of the state's water needs are met from surface water sources and about 77 per cent from groundwater sources with agriculture accounting for the major share of water consumption. About 77.4 per cent of the total drinking water requirement in the state is met from groundwater sources (Kumar and Talati 2000: 44). However, the level of depletion of groundwater is alarming and today the state falls into the 'grey' category of groundwater exploitation where 65-80 per cent of recharged water is extracted (GHDR 2004: 80).[27] This has also led to a rapid deterioration in the quality of available groundwater with about 15 per cent of the villages in Gujarat affected by excessive fluoride content in groundwater, 6 per cent of villages suffering from excessive salinity and another 5 per cent from high levels of nitrates (GHDR 2004: 81).

Although Gujarat has the largest extent of coastline in the country, coastal livelihoods are increasingly vulnerable to cyclones, storms and to saline intrusion as a result of over-pumping of aquifers for both agriculture and industrial growth and, more recently, sea level rise or storm surges due to global warming and thermal expansion of the oceans.

While markets for groundwater have developed in recent years (Shah 1993), they remain highly inequitable and attempts to develop legal mechanisms for groundwater withdrawal have been limited because of the difficulty in determining water rights (Dubash 2000). Moreover, after the introduction of structural reforms in the early 1990s, "a new social class has emerged to dominate the state's political economy, that of the mega-industries, which has much larger political clout than the earlier dominant rich farmers' lobby," (Mahadevia 1997:179). In fact water pollution, particularly in the 'Golden Corridor' and now the rapidly developing, 'Silver Corridor' is recognised as a critical environmental problem with severe livelihood implications for the poor.[28]

The principle responsibility for providing drinking water rests with the Gujarat Water Supply and Sewerage Board (GWSSB), an autonomous body established in 1979 with a decentralized organizational structure at the district and *taluka (*block level).[29] Since 1981 all the activities of the Public Health Engineering Department have been transferred to it. The main objectives of the Board are to provide safe and adequate drinking water on a sustainable basis to all, to maintain sanitary conditions and to prevent waterborne diseases so as to promote the health and well-being of the people.

For administrative purposes the Board has divided the state into three zones: Vadodara, Ahmedabad and Rajkot (Sharma 1998: 2) covering between 6-7 districts each. The technical

[26] It is important to stress that 'lifestyle' is socio-culturally and ecologically specific - where water is scarce people have adapted livelihood strategies in terms of cropping patterns, water use intensity and so on. However, variations within villages or towns as a result of differential economic and political power are notable – for example, slum dwellers in the city of Bhuj in the water scarce region of Kachchh use only 14 litres per capita per day (lpcd) of water while middle and upper class housing societies record a daily use of 79 and 109 lpcd (IRMA / UNICEF 2000: 26).

[27] Water scarcity as defined by the UN Commission on Sustainable Development refers to a situation where the annual withdrawal of water is greater than 40 percent of the annual renewable freshwater (IRMA / UNICEF 2000: 29).

[28] The Golden Corridor refers to the industrial belt stretching for 400 kms along the western coast of Gujarat, from Vapi in the south to Vatva in the north, which is literally a 'hot-bed' of pollution. See the report by the Indian People's Tribunal on Environment and Human Rights (1999*) Who Bears the Cost? Industrial and Toxic Pollution in the Golden Corridor of Gujarat.* The Silver Corridor refers to the coastal, water scarce regions of Saurashtra and Kachchh which have been attracting considerable investments recently in the area of mineral exploitation (Hirway and Mahadevia 1999).

[29] Administratively, the GWSSB falls under the Department of Narmada and Water Supply under the Ministry of Water Supply. The Department is headed by a secretary to the government and is responsible for formulating drinking water policy, allocating funds, preparing plans etc.

aspects of rural drinking water supply schemes at each zonal level are looked after by three types of circles: Public Health Works Circle, Public Health Projects Circle and Public Health Mechanical Circle. In each circle, there are divisional and sub-divisional offices which provide technical support to the GWSSB's rural drinking water programmes. As of 2000, there were 18 circle offices, 56 divisional offices and 220 sub-divisional offices (TERI 2000: 8).

The main functions of the GWSSB include, identifying no source villages and developing water resources therein, undertaking rural sanitation works, responding to water supply needs during periods of drought as well as overseeing urban water supply and sanitation requirements. In addition to the development of local water sources, usually for villages with a population of 500 or less, the GWSSB is responsible for the implementation of regional water supply schemes (RWSS) which are funded both by the state government and, till recently, bi-lateral aid from the Netherlands. The Board is empowered to negotiate loans, plan and design water works and supervise their construction. The state government funds most of the rural schemes, with support from external agencies, and also oversees cost recovery and personnel management issues, while urban schemes are generally financed by the respective local authorities, though recurrent costs are often borne by the state (GoG 2000).

Recognising the need for human resources development and training in the drinking water sector, the government established the Gujarat Jalseva Training Institute in 1990 with the help of a loan from the World Bank. It supports capacity building efforts in the water supply sector as well as undertaking monitoring and evaluation on water quality, and strengthening local institutions involved in water management through its numerous training programmes.

A detailed analysis of the strengths and weaknesses of the GWSSB was done twice, first in October 1994 and then in August 1999 as part of the Netherlands Missions looking at institutional reform and change in the water sector. The main strengths of the Board are derived from its extensive infrastructure, experienced engineering staff (all male), access to state funds and an Act which empowers it to assume a nodal role in the water sector (e.g. review tariffs) and gives it considerable scope to initiate partnerships with other actors. However, with over 4000 people on its staff, the GWSSB is a massive bureaucracy, literally a juggernaut (IRMA / UNICEF 2000: 38). But, "… the Board is unable to derive any effective autonomy because it has no powers of enforcement or policing, and is too closely interlinked with the government," (Ibid: 39).

In fact the GWSSB's weaknesses are embedded in its structure, its poor financial viability and its heavy reliance on government subsidy and hence, political patronage. There has been no systematic assessment of its human resource potential or requirements and due to the rigid separation of tasks there is little communication between those who design projects and those who implement them (Haskoning 1994). The overlying emphasis on technocentric rationality – engineering expertise – coupled with little devolution of 'empowered' responsibility has led to unsustainable water management investments.

For example, there are major problems in the operations and maintenance (O&M) of the 343 regional pipeline schemes in the state. It is impossible for the GWSSB to monitor or 'police' these pipelines simply because of the tremendous distance they cover. Therefore, not surprisingly, villages along the route, particularly those who are not directly beneficiaries, tamper with the pipelines (breach them) to withdraw water for irrigation or for their cattle. This affects the availability of water for downstream users in the scheme (Mehta 1997: 17). On many occasions pipelines do not function effectively – unreliable electricity supply particularly in the summer months when the need for piped water is most critical, affects the

frequency, timing and quantity of water available. In addition, the distribution of water in villages is governed by social and power relations which determine *where* water should be stored and distributed and how much water *which* people should receive and *when* (Barot 1997: 473).

Part of the reason for this scenario was the lack of coordination or organisational linkages between the GWSSB and other departments which have an impact on water use and development in the state. Problems arise when water sources are identified and developed for the provision of drinking water without taking into consideration other water uses or users (e.g., livestock, agriculture and industry) which leads to conflict and eventually, unsustainable water planning and management.[30] The GWSSB's response is simply to find more and more new sources, usually requiring the transfer of water from water rich to scarce areas, through pipelines or increasingly, tankers, greater fund allocation and the creation of even further technical bodies by the state, for e.g., the Gujarat State Drinking Water Infrastructure Co. Ltd. (GSDWICL).

By the mid-1990s, recognizing the limitations of large bureaucracies to implement participatory and sustainable water management, the Gujarat government, in line with sector reforms initiated by the Centre moved towards decentralized water governance.

Decentralisation and water management: the beginning of a paradigm shift

In Gujarat, the history of decentralization predates the formation of the state as a distinct and separate entity, from Maharashtra, in 1960. With the enactment of the Bombay Village Panchayats Act (1958) a foundation for democratic decentralization was established and in 1961 the Gujarat Panchayat Act was passed, delegating authority and the transfer of funds to various departments. But it was not till the 73rd Constitutional Amendment and the renewed Gujarat Panchayats Act of 1993 that a more substantial commitment to decentralization was made. However, problems in decentralizing governance remain – the state governments were expected to devolve functional autonomy, administrative support and financial resources to the PRIs, but the results of this process, and Gujarat is no exception, are mixed. Although Gujarat claims to have transferred the 3Fs – functions, funds and functionaries – to the PRIs in respect to 15 items (departments and subjects, see Sama and Khurana 2006: 49), effective devolution also requires effective capacity to manage all the new responsibilities as well as transparent mechanisms for involving people (elections), particularly women and marginalized groups in democratic decision-making.

Under the *panchayat* system, community participation and contribution for in-village water supply was called for in the 1961 Gujarat Panchayat Act. These schemes were usually based on locally available sources, particularly wells, and costs were not too high. However, community contributions at 25 percent of the capital costs were higher compared to the present model; O&M was the responsibility of the village (panchayat) or beneficiary community (Sama and Khurana 2006: 50). In 1971, hand-pumps for drinking water supply were installed, mainly in tribal hamlets, by the state government with support from UNICEF and later, tribal development schemes. O&M was the responsibility of the *panchayat* and training and repair kits were provided, but in the absence of funds, O&M soon became the responsibility of the GWSSB. Although in some villages, NGOs and women's groups were

[30] One of the most fundamental areas of conflict are the debatable water supply norms used by the Centre and states – 40 litres per capita per day (lpcd) for rural areas and 140 lpcd for sewered urban areas (100 lpcd for unsewered urban areas) which do not take into account livestock needs for rural communities.

involved it was not till 1987 that NGOs were more officially involved. Organisations like SEWA (the Self-Employed Women's Association) were invited to raise awareness, motivate and mobilize communities during the implementation of the Santalpur Regional Water Supply Scheme to provide drinking water to 72 villages in three blocks of the drought prone Banaskantha district, including Santalpur taluka. Funded by the Netherlands government, this rural pipeline scheme was known as a second-generation water project because of the attempt to involve water users in water management (Ahmed 2005).

SEWA conducted an action-research study, with the Foundation for Public Interest Research[31], to understand the impact of the pipeline on local water availability as well as suggest ways for improving its management. The study found that not only were people rarely getting water from the pipeline scheme, they had become dependent on it to such an extent that there were numerous conflicts over scarce water and little concern for maintaining traditional water sources. Women, the primary water collectors, were hardly consulted about the location of standposts or the timing of water delivery and *pani panchayats* were largely non-functional.[32] These were *informal* bodies, formed under guidelines issued by the GWSSB in consultation with the *gram panchayat*, usually as a post-project exercise. They were responsible for ensuring the smooth functioning of the water supply system in the village, to oversee that no water is wasted, major repairs reported and minor repairs taken care of, cattle drink from the trough only and the surrounding area, including drains, is kept clean. SEWA found that in many cases so-called members of *pani panchayats* were not even aware that they were on these bodies or what their roles were. They hardly met on a regular basis, often expected monetary compensation and were not interested in maintaining infrastructure which they felt was the Board's responsibility. Women members found it difficult to attend meetings because of the prevailing socio-cultural context, and little effort had gone into capacity building by either the GWSSB or other organisations.[33]

In April 1995, a government resolution was passed (and revised in 2002) calling for the formation of a *pani samiti* (a village water and sanitation committee) in every *panchayat* where a drinking water scheme had been implemented. Although this is essentially to facilitate local participation, the order stipulates the structure, duties and function of the *samiti* in a "typically top-down manner. The tone seems more like orders issued to a subordinate rather than one inviting the sharing of powers," (IRMA / UNICEF 2000: 40). Moreover, the resolution only increases the responsibilities of communities without giving them any corresponding authority. Not only do the responsibilities assigned require considerable managerial skills, the *samitis* have been given a less than 50 percent share in the taxes collected and no power to set tariffs or generate resources through other sources. The responsibility for overseeing the formation of *pani samitis* lay with the Taluka Development Officer. We return to the role and efficacy of *pani samitis* later in this chapter.

Parallel to the process of decentralization, the national and state level water policies also reiterated the need for institutional restructuring for more efficient water management and called for the participation of local communities. However, the perception of 'communities' as homogenous categories *waiting* to participate suggested that participation was seen as an instrumentalist project rather than one with the potential to transform unequal social relations. Although drinking water needs of 'human beings' and animals were re-asserted as the first

[31] Now known as the All India Disaster Mitigation Institute (AIDMI).

[32] Technically, each *panchaya*t is supposed to consist of two female members, two men, the linesman and the *sarpanch* or deputy *sarpanch* of the village.

[33] SEWA used this experience to launch its campaign on women, water and work in 1995 and to link approaches to women's empowerment through water management to the larger livelihoods and gender rights development agenda (Ahmed 2005).

charge for any available water, the question of equity (i.e. *who has access to how much water, when, for what*?) was not addressed. Special attention was to be focused on the needs of marginal groups when developing water projects, particularly those which may involve displacement. But the 'disadvantaged' were only identified as scheduled tribes and castes, and gender was not considered as a category of social stratification or exclusion *within* these marginalised communities. The draft Gujarat Water Policy (August 2000 and revised 2004) maintained that outreach to women should not be overlooked because they are "*the most interested and involved users in rural water supply, domestic urban water consumption, health and sanitation issues and are at least equally concerned as men in agricultural production,*" (GoG 2000: 24). Written in the framework of demand management, the policy regards the household as a unitary category, overlooking questions of *who pays* for water, not simply in financial terms, but also as women's unpaid time and her access to productive opportunities. It was not till the initiation of the second phase of decentralization and the formation of WASMO that the question of women's participation in water management and her empowerment, received attention.

Decentralisation: the second phase

From the mid 1990s onwards, the project of decentralized water management began to significantly move ahead with the launch of the Ghogha project in the coastal, drought prone southern district of Bhavnagar, building on the Santalpur experience of state-civil society and CBO partnerships. Initially implemented by the GWSSB, this faced all the technical re-engineering problems we discussed earlier till WASMO (the Water and Sanitation Management Organisation) was formed in 2002 to facilitate community water distribution. Subsequently, the lessons from Ghogha were transposed to the Earthquake Reconstruction and Rehabilitation project (ERR) and WASMO also came to be seen as the main agency for the implementation of sector reforms, including the Swajaldhara programme, in the state. The next two sections trace the objectives and strategies of these two projects before looking more closely at the mission and challenges of WASMO.

The Ghogha project: objectives, history and strategies

"The overall purpose of the project is to develop, integrating with water resources management, the improved, safe, reliable and sustainable drinking water and environmental sanitation provisions in 81 villages and 1 town of Bhavnagar district in Gujarat, which facilities will be community owned and managed through the local Pani-Samitis," (from Amendment to Grant Agreement, dated 2 December 2002).

The Ghogha Rural Water Supply and Sanitation Project (GRWSSP) under the Indo-Dutch bilateral aid programme was originally designed as a conventional external supply piped water scheme, drawing on water from the Shetrunji Reservoir, and to be implemented under GWSSB management (1994). Considerations of lessons of past projects and the emerging demand-responsive approaches (sector reforms) led to a new approach: the building of local institutional capacities to set up and manage local piped water supply systems, based on improved local water resources. Under the new project design external piped water would only be provided to no-source villages. A project agreement between the GoI and the Netherlands government represented by the Royal Netherlands Embassy (RNE), New Delhi, was signed in August 1997.

Three NGOs, called Implementation Support Agencies (ISAs) were invited to facilitate the capacity building of the communities, enabling them to run and manage the new water and sanitation installations that would be developed under this project and to provide training on

village and home hygiene. Two of the NGOs had already been operative in the area (Utthan and Medhavi), and the third NGO, the Centre for Environment Education (CEE), had worked on rural water supply projects elsewhere in Gujarat. With the support of a Dutch external technical assistance organisation contracted for this project, IWACO, the NGOs undertook participatory rural appraisals (PRAs), mainly focusing on water related issues and the socio-economic context (demand assessment, willingness and capacity to pay). They also started to facilitate the formation and capacity building of *pani samitis* to manage local drinking water assets and ensure equitable water distribution.

Pilot water resource management projects were designed based on local needs and scope assessments. Considerable work on roof water harvesting tank (RWHTs) and sanitation was undertaken with the help of the NGOs but with funding from outside the Ghogha project (e.g. directly from the GWSSB under a 70:30 scheme for RWHTs). Self Help Groups (SHGs) were promoted to enhance the socio-economic position of women and facilitate their participation in mixed *pani samitis*. Under the Ghogha project itself little progress was made in implementation of hardware activities till 2003. This was the result of insufficient interest of GWSSB in the new approach, in which no traditional major external engineering works would be undertaken. The project would mainly provide small scale village level resource and distribution systems. GWSSB surveys of ground water potential as water source in the project area were undertaken in a way to prove the impossibility of the proposed local source-based project. GWSSB was promoting the large scale Mahi pipeline as a source already coming to the larger area and they put pressure on the Dutch government to accept the need to support the Mahi project as villages would otherwise 'suffer' under the Dutch aided project. GoG indicated that two consecutive drought years in the project area had shown that '*the local sources do not hold promise'* (Reynders *et al.* 2004).

The Dutch government gave in to the pressures and accepted the incorporation and partial financing of the Mahi pipeline system, making the Ghogha project a dual source project. In the new project phase *pani samitis* with adequate capacity could take responsibility for the construction of the village level distribution system and sanitation installation, rather than only external contractors as was the case in the earlier phase. *Pani samitis* would also be responsible for water resources management as well as the O&M of the new installations. However, in its final evaluation of the Ghogha project, the RNE appointed international Mission found no difference in the quality or speed of work between the pani samitis and the earlier contractors (Reynders *et al*. 2004).[34]

In 2002, strongly supported and partially financed from Dutch bilateral funding, WASMO was set up. It was designed as a Special Purpose Vehicle (SPV) to operate independently from GWSSB and involve civil society institutions and individuals in its steering committee, to facilitate community based water management activities. The main objective of WASMO was to "promote new mind-sets capable of a genuine paradigm shift in the sector. Communication skills and human resource development opportunities within WASMO will therefore be a critical factor. It is these that must ultimately encourage all stakeholders – community leaders and organizations, government functionaries, women's groups, technicians and *panchayat* members – to accept new roles and responsibilities upon which change now depends," (GSDWICL 2000: 81). We return to the discussion of WASMO, its mission and challenges later.

[34] Sara Ahmed was the only woman on this 4-member Mission appointed to evaluate the technical, social, financial sustainability and institutional aspects of the Ghogha project. The Mission undertook this evaluation in November 2004 and as one of the principal co-authors of this report, Ahmed has drawn upon the Mission's collective findings, with due acknowledgement.

In 2003, with the change in policy at the Centre on the acceptance of funds from donors, the Dutch government decided to withdraw its support to the water sector in Gujarat.[35] This came as a major blow to the newly formed WASMO and its stated commitment to extend the learning from the Ghogha project to the ERR project. However, it was mutually decided that the Dutch withdrawal would be gradual (by June 2005) and the state government stepped in to support the community water and sanitation programme under the ERR in four districts where water drinking water infrastructure was severely affected by the Kutch earthquake of 2001. Before we look at the ERR project it is important to take stock of the key challenges and constraints emerging from the Ghogha – were these transferred to the ERR, or with more institutional experience, were things done differently? The answers to the latter questions will be discussed later in the context of our field insights and analysis, but for the moment we outline some of the key findings emerging from the Ghogha evaluation (Reynders *et al*. 2004) that have implications for the sustainability of decentralized water governance.

Key challenges emerging from the Ghogha project

Initially intended to be a rural pipeline water supply project, then realizing that village water supplies also need to draw on local sources to ensure sustainability and finally accepting the need for dual water supplies (the Mahi pipeline plus local sources, where available), the Ghogha project design almost came a full circle since its inception. One of the biggest challenges was ensuring adequate recharging and local source sustainability through water resource conservation, small scale harvesting (check dams, ponds) and management (tidal barriers to prevent salinity intrusion). However, water resources management (WRM) was not seen as an important or integral component of the project till Phase 2, when WASMO was initiated; consequently in at least 25 percent of the villages, WRM work had not been initiated, even as the project was drawing to a close (June 2005). A concern was also raised about the abstraction of water for irrigation use: in the absence of any clear entitlements this remains a major policy concern.

Another key constraint was the envisaged dependency on the Mahi pipeline – only 35 percent of the Ghogha project villages were dependent on the Mahi system as their sole water source. Although all the villages were eventually connect to the Mahi system, most saw this supply as a back-up, particularly in the context of water scarcity or long summer months when recharging potential is low. Most were reluctant to use Mahi water because of the anticipated high costs, irregular water supplies dependent on power (electricity or diesel) and the lack of any organizational arrangement where local users could interact with the Mahi administration (the GWSSB). The only official link was the pump operator who would open the valves for water distribution and advise the villagers when to expect water. *Pani samitis* are expected to pay the operators and monitor their work while they receive basic technical training (operation of valves, chlorination of water supply) from the GWSSB and WASMO.

A third challenge faced in the Ghogha villages was the design and maintenance of village water works (the distribution system). To quote from the evaluation Mission's report: "*User facilities are generally in poor condition with many requiring rehabilitation. Standposts have taps missing or broken and some drainage platforms / systems are also in disrepair. Most completed community washing facilities (e.g., communal bathing and washing spaces for*

[35] The BJP-led, National Democratic Alliance (NDA), decided to only accept financial resources (bilateral aid) from five large donors, including DfID, USAID, the World Bank, the EU and the Japanese as it was felt that India did not need medium-sized grants in which the transaction costs were high. However, many civil society organizations were deeply affected by the immediate withdrawal or cutting back of medium donors such as the RNE, which were also perceived as having a commitment to rights-based development.

women and girls) are not being used, with some in disrepair also. Cattle troughs are mostly used and in better condition," (Reynders *et al*. 2004: iv).[36]

In addition, sanitation and hygiene status in most villages was very poor, both within the household and in the larger community environment. The Mission concluded that the project had not met its envisaged environmental sanitation objectives which are essential to the realization of the health benefits from improved water supplies. Soak pits were the most commonly funded activity, with 312 demonstration and 7223 subsidised soak pits installed by the end of October 2004, resulting in dry lanes.[37] However, demonstration toilets were few and their uptake even more limited because of the costs involved (hard, rocky terrain) and the lack of information on appropriate alternatives (the one size fits all approach with respect to subsidies does not fit ALL!). Dustbins provided on various street corners were too small to be effective and the slogans on walls were 'preaching' rather than facilitating awareness on the links between water/sanitation, hygiene and health. School sanitation blocks, though important in facilitating access for adolescent girls, were often locked, lacked water supply and designs were not child-friendly (e.g. high urinals for little boys).

As far as the institutional aspects were concerned, many working within WASMO as consultants felt that a demand responsive water supply project should give priority to villages that are eager to participate, whereas in the GRWSSP the number of villages was fixed and there was no addition or subtraction.[38] Participation was seen to be largely instrumentalist, "….only to sell the project, not to adjust it to the needs of the target villages," (Grijpstra 2006: 201) making it very different to not only redirect the project, but also for villagers to take ownership. Not surprisingly, many villagers prefer to use traditional water sources, augmented by the WRM measures, as village water supplies are not available regularly or at convenient times during the day.

In sum, "bureaucrats and engineers dominated the formulation of the Ghogha project. To them the needs of the people were clear as well as how these could be met…participation only meant getting the people's cooperation and agreement to the plans of the project initiators," (Ibid, p. 195). While the ISAs (the NGOs) played a critical role in facilitating *pani samitis* and women's participation, they largely accepted the project framework: ideas for change were rarely entertained and coordination, clear communication channels, roles and responsibilities as well as knowledge sharing were poor – till the last year, at least, when there was a rush to document lessons. Much handholding on capacity building, O&M aspects, just water pricing and collection of tariffs needed to be done with the *pani samitis*, but once the Ghogha project finished (June 2005), it seemed so had the larger institutional responsibility of both the state and civil society – a point we return to in our findings.

Given water allocation issues (particularly between upstream/downstream villages) and possible conflicts at times of scarcity, the Mission had also recommended watershed based user federations of *pani samitis*, one for each watershed covered by the scheme (Reynders *et al*. 2004: ix). But the issue of conjunctive planning – between ground /surface water as well as between domestic / productive water remains the biggest challenge to sustainable WRM.

[36] According to one of the WASMO consultants, women would often fill their pots from the cattle trough as it was quicker than waiting for water from a tap or handpump – another reason (low pressure) for why the separate bathing places for women were not used (Grijpstra 2006: 197).

[37] Dry lanes were only found in those parts of the villages where households had invested in soak pits and not necessarily in the whole village.

[38] Project staff did not know what to do with villages that showed little interest as progress was always measured in terms of 'so many out of the 82 villages' which put field staff under pressure to show results.

With these constraints from the Ghogha project, we now move on to look at the ERR framework and whether any of these challenges were addressed in the initial project design.

The ERR project

Following careful stocktaking of the damages caused to the water sources as well as supply systems by the 2001 Kutch earthquake and detailed planning, WASMO launched the five year ERR project in April 2003 proposing to cover 1,255 earthquake affected villages to restore and develop water supply and sanitation facilities in the districts of Kutch, Surendranagar, Jamnagar and Santalpur block in Patan, leaving villages of Rajkot district which was covered under the sector reform pilot project of the Government of India.

While the ERR project follows the same basic approach as the Ghogha, that is, demand responsive, community based water development through the support of NGOs as ISAs (in this case 31) it has some flexibility in its approach on community contribution and more accountability through the use of *gram sabhas* for approval of all village-level plans, rather than just the legally constituted *pani samitis*. In addition, there was a greater focus on sanitation and water resources management as ***integral*** to the development of sustainable water supply systems.

The major objectives of this five-year project (still continuing) may be listed as follows:

- To establish decentralized, demand-driven, community owned rural water supply and sanitation systems which would be planned, approved implemented, operated and managed by rural populace;
- To ensure drinking water safety through an integrated grouping of pipelines, local traditional sources and multiple sources for alternative use;
- To build effective community institutions at the local level by supporting capacity building and empowerment;
- To ensure that all community groups, including women, are able to play a part in the decision making process and benefit from the programme;
- To improve the living environment of households and community through setting up of sanitation facilities and promoting hygiene awareness in the local population; and
- To provide implementation support to communities through independent civil society organizations who would function as ISAs.

The overall implementation of the programme at the village level follows a two-stage approach, the total time period being 18 months. The first six months or the first phase of the programme cycle is spent on community mobilization to build shared learning on the principles of decentralized water governance and community ownership, through the use of information, education and communication (IEC) materials and the formation of *pani samitis* to directly involve villagers in responsive decision-making process. During the second cycle, which extends for a year, the hardware aspect of the project receives priority. The activities include preparing and finalizing detailed proposals with approximate costs for Village Action Plans (VAPs) and household contributions and also execution of structural work for required water and sanitation facilities along with WRM work wherever applicable. The whole process can broadly be divided into the following activities (these are not necessarily in linear order):

- Introduction of the project through different cultural media to generate demand

- Formation of the *pani samiti* with 30-50 percent representation of women, depending on local context
- Preparation of the VAP based on participatory assessment of local water requirements
- Finalization and approval of the VAP in *gram sabha*
- Fixing of community contribution and its deposit in separate bank account
- Training on issues related to construction and financial management
- Disbursement of funds and maintenance of accounts
- Start of construction / structural work with supervision by *pani samitis* supported by ISA and Community Management Support Units (CMSU)
- Setting of water tariff and O&M contribution by community
- Physical work completed and hand-over of scheme to pani samiti or *panchayat* for management

As in the Ghogha project, the ERR is also coordinated by Community Management Support Units (CMSU's) which are based in each implementation district and are the closest public interface between WASMO and water users. In other districts, the District Water and Sanitation Committee (DWSC) serves as the major implementing partner for approving village level plans, guiding *pani samitis* and facilitating partnerships between the range of stakeholders involved (government, NGOs and CBOs). WASMO has formed Core Teams of engineering and social sector professionals to support the DWSC. But as table 1 below indicates there is still a long way to go in meeting even the quantitative water coverage targets for the state.

The implementation of the project is facilitated by a Steering Committee which meets bi-annually to review progress and comprises representatives from partner organizations, academics and officers/engineers from the water bureaucracy.

Table 3.1 Progress under various water reforms programme in Gujarat

Project Name	Total Pani Samiti formed	Total nos. of villages taken up	No. of villages completed	Villages with work in progress
Ghogha Project	82	82	82	0
Sector Reform Pilot Project	833	833	833	0
ERR Project	1251	1260	1172	88
Swajaldhara	8199	3677	1050	2627
ITDP	100	50	0	50
Total	10465	5902	3137	2765

Source: WASMO 2008: 9

ITDP = Integrated Tribal Development Programme

Building partnerships: key actors

The process of decentralized water management in Gujarat envisages partnerships between three categories of stakeholders: the state as represented earlier by GWSSB and now largely by WASMO, the NGOs or ISAs as intermediary facilitating agencies and water users, women and men, through village *pani samitis*. This section outlines the key roles and objectives of

each set of actors and the challenges they confront in building partnerships around decentralized water management and governance.

WASMO: mission and challenges

WASMO is a registered society and a public trust formed in 2002 as a SPV to facilitate the process of sector reforms. Its mission includes:

- Empowering communities to plan, own, construct, manage and maintain their water supply and sanitation facilities
- Ensuring participation of communities, particularly women, in managing their water supply and sanitation
- Attaining drinking water security through a combination of local (sources) and bulk water supply systems (pipelines) along with (appropriate) village level infrastructure
- Encouraging communities to adopt best practices in local water resources management, including rainwater harvesting, artificial recharging and water quality testing
- Bridging information and knowledge gaps through the creation of a strong knowledge base and communication and dissemination through a variety of media
- Developing community leaders through capacity building and partnerships

Funds have never been a problem for WASMO despite the early withdrawal of Dutch support – the communities and *pani samitis* were never aware of this and the state adopted the sector reforms programme. WASMO has a multi-disciplinary team of professionals both in-house and external consultants who are hired from time-to-time on a need basis. Because it has adequate funds for institutional support, WASMO has been able to attract some of the best young talent in the water sector – though retaining professionals has been a challenge. Although it has a relatively hierarchal organizational structure WASMO tries to maintain a flexible organizational culture, providing space for innovation and voice.

"Good governance", according to the WASMO Project Director, "suits everyone. Our mission is honesty as purpose. Gujarat has been a state characterized by scarcity so decentralisation was important – and also a focus on water quality issues – we have created a demand for safe water. Political need and commitment at all levels is visible," (personal interview, Gandhinagar, June 2008).

The hallmark of WASMO's strategy rests on three principles:

- Get communities empowered
- Create alternative approaches and reach people
- Provide an enabling framework for demand responsive water management.

The key to the success of their approach lies in the recognition of the following:

- The importance of **dual water supply**: since village drinking water systems only have the capacity to meet standard norms of 40 lpcd and people need more water for livelihood purposes, WASMO believes that it is important to facilitate access to water from other sources too – and to look at water for drinking and livelihood purposes as integrated.

- **Multiple sources for ensuring water security** are important: WASMO realizes that communities cannot depend on only one source for water and there is a need to innovate and look at alternatives such as – roof water harvesting, reverse osmosis, as well as pipelines.
- **Quality surveillance:** WASMO believes that people have to appreciate and know what is good quality water and that there has to be a demand for safe water from local communities. This is important in terms of 'valuing' water. WASMO marks sources which are not fit for human consumption with a red cross and basic water quality testing kits have been distributed to all villages.
- Women have the **right to ask** for (safe) water at their doorstep: WASMO hopes that by 2010, 75% of the villages in Gujarat and women in these villages will have access to safe water at their doorstep.

What is important to note here, from the point of view and gender and water governance, is that although WASMO's Project Director made it clear that women's empowerment per se (as distinct from participation which is part of the mission statement) is not one of the objectives of sector reforms (IDRC Project Inception workshop, 2006), the fact is that two years down the line WASMO has realized that not only has women's participation been integral to the effectiveness of *pani samitis*, but that as responsibility for household water use and management rests with women, they have the right to demand this. And it is presumably the responsibility of the state to meet this obligation.

One of the other challenges for WASMO is the contradiction between its vision of decentralized water management and the state's continuing focus on bulk water transfers through such ambitious schemes as the Narmada-Mahi link canal. Although WASMO claims to be quasi-government (even calling itself 'non-government' at times) the truth of the matter is that both its governing and executive boards are headed by the Secretary Water Supply Department, GoG. However, WASMO has been fortunate over the last five years it has had some very dynamic men heading the organization, all committed to gender mainstreaming in *pani samitis*, if not entirely at the organizational level.

Another challenge that WASMO faces, and which is also one of the weaknesses of the approach to decentralization, is that WASMO claims it is only responsible for facilitating and ensuring the distribution and management of water at the village level by *pani samitis*. Building infrastructure and providing water to the village is not its responsibility but that of the GWSSB though WASMO has played a critical role in facilitating a focus on alternative water sources (not merely pipelines) and helping communities develop local sources. But many of WASMO's partners feel that such a narrow understanding of decentralization is flawed since the ultimate 'control' – of the water source – will often remain outside the village, i.e. with the GWSSB or water policy decision-makers. What are needed are clear and enforceable water rights (or entitlements) – in the absence of these, the issue of *who* has control or ownership remains ambiguous. We address the question of water rights later.

NGOs as partners

Until the communal violence of 2002, Gujarat, for the most part, provided a favourable terrain for state-civil society partnerships and the water sector has been no exception. Not only have representatives from leading NGOs including some of the ones in our study (namely, AKRSP(I), Utthan and KMVS) been invited to sit on the State-level Groundwater Recharging Committee and the Task Force on PIM, initiatives such as the Gujarat Jal-Disha or Water Vision 2010 (GSDWICL 2000) and the White Paper on Water (IRMA-UNICEF

2000) mark important collaborations between the state and civil society, including NGOs, CBO representatives, development professionals and academics (Ahmed 2002, 2005). According to the collective of civil society organisations and individuals who were responsible for the Gujarat Jal-Disha:

*"Decentralisation does not necessarily mean the complete dismantling of existing bureaucracies. It means devolution of power to stakeholder communities, active partnership with the community at all levels (from policy making to project design and evaluation) and abandoning the comfortable top-down approach for a more complex, organic, bottom-up approach," (*Gujarat Jal-Disha 2010.)

While the experience of sector reforms and the formation of WASMO have generally been received favourably by civil society in Gujarat, the terms of NGO engagement have often been questioned and the fact that they are still defined as *implementation support agencies* raises fundamental questions on how they are perceived by the state – largely as catalysts to meet project objectives by being responsible for the 'software' (attitudinal change) without which, needless to say, the 'hardware' (water and sanitation infrastructure) would not be sustainable. Questions have also been raised about which NGOs participate and the kind of roles ascribed to them.

The selection criterion for NGOs as ISAs is based on an assessment of the following:

- Experience in the field of drinking water, sanitation, health and hygiene
- Experience of working with participatory approaches
- Experience in organising women and working with gender concerns
- Experience of working with government programmes
- Numbers of village level organisations initiated / strengthened
- Number of training programmes on water and sanitation for capacity building of rural communities
- Number of years of experience of working with PRIs
- Number of villages covered by the organisation (till 2004) and extent of community contribution to development efforts
- Organisational profile – ratio of technical to social experts, education and experience of staff, number of women in the organisation

According to WASMO, the selection of NGOs was done in a systematic and transparent manner beginning with an advertisement in leading state newspapers and the rigorous screening of all applications by an independent committee, including civil society representatives with no stakes in the projects. Marks were awarded to the different criteria listed above and a weightage of 60 percent for organisational experience and 40 percent for personnel applied. It was decided that a score of 60 percent should be kept as a cut-off point for the NGOs to avoid a compromise on their quality of work and NGOs that were blacklisted by other government departments were immediately disqualified.

It is interesting to note that experience of working with gender concerns and the numbers of women in the NGO were listed as criteria – the first accounting for 12.5 percent of the total marks accorded in the experience category and the latter accounting for 15 percent of the marks awarded for diversity in organisational personnel. However, while this is an important starting point for screening potential NGO partners, a focus on numbers (personnel) misses

out the positioning of women within an organisation (e.g. do they have the power to decide programmatic direction or are they merely community mobilisers and animators?). While a focus on the organisational gender experience may get translated into the ability to organise women's SHGs, facilitate micro-credit, develop livelihood alternatives and so on, rather than the substantive questions of gender rights and women's empowerment. In practice, it seems that the ISAs were selected for their experience in the drinking water sector rather than their commitment to gender rights per se, though some, score highly on both counts as we discuss later.

NGOs were expected to mobilize communities, guide the institution building process and ensure transparency in account keeping by *pani samitis* and facilitate the development of participatory VAPs as well as women's participation at all levels. While WASMO saw NGOs as key, if not equal, partners and maintained that their relationship was based on mutual respect, many NGOs felt otherwise. In the end-tern evaluation of the Ghogha project for the RNE, NGOs maintained that they felt treated as sub-contractors of WASMO, as part of the government providers in a (still) highly technically oriented project. It was also felt that at least two of the three NGOs in the Ghogha project did not have enough women staff and in the case of all partners, including WASMO and the new ERR partners, there has not been enough time spent on capacity building on participatory and gender-sensitive approaches in the context of decentralised water governance. For some NGOs involved in the ERR, the process of collaboration is unfolding in much the same way with WASMO seemingly interested in meeting targets rather than long-term sustainability and equity in water management.

Building community water management institutions: pani samitis

Traditionally, wells, ponds and tanks have been the principal means of water harvesting in Gujarat, providing water for both domestic and agricultural purposes. Wells are largely of two types – shallow wells called *virdhas* (or *virdhis*) where rainwater is captured in low depressions and the more elaborate step-well which is fed by an underground spring.

The construction of both types of wells required collective action, albeit of different degrees.[39] Step-wells date to the 7th century and resemble a subterranean temple with a long-stepped corridor leading five or six flights down to the actual water source. The construction of a step-well was an important community event supported by the patronage of the dominant caste/class in the village, usually the moneylenders (*patidars*) or merchant usurers. Funding the construction of a well was considered to be one of the seven great meritorious acts Hindus were expected to perform during their lifetime. Sites were chosen with care and great skill by 'water diviners' called *panikalas,* who were paid for their services by the state.

Not only did wells provide a reliable source of water in adverse climatic conditions, they were also an important meeting place for the local community and frequently a cool resting place for travellers. In addition, apart from their intricate sculptures, step-wells had ritual and cultural significance embedded in the worship of the mother goddess of water or watering places. Many step-wells (known as '*vav*' in Gujarati) carry the title '*mata*' as part of their name, e.g., Mata Bhavani vav, as it is commonly believed in Hindu philosophy, that the sacred places of female power (*shakti*) are always combined with sacred ponds (*kunds*). Typically, women make offerings of coconuts, grains and milk to the goddess at the step-well seeking blessings for a good husband, children, especially sons, and prosperity. But there is

[39] This varies with the rock and soil type in the area and hence the depth of the well to be dug.

also pain associated with water: for many young women in Saurashtra driven by domestic violence and poverty, wells are sites for committing suicide (Ahmed 2005).

Although villagers were responsible for the day-to-day maintenance of community water structures, there is little historical documentation about the social organization of domestic water as compared to irrigation (see Hardiman 1998). In Trapaj village, Bhavnagar district, the first *panchayat* bore well was dug in 1982 and piped water was provided to households who could afford house connections at an annual cost of Rs 60 (for water). A small group of five men, effectively a sub-committee under the *panchayat* managed the scheme.

However, there were no clear principles governing the roles and responsibilities of these committees or the representation of different interests (most likely they were dominated by those who could afford to pay for water and connections). Thus, in many cases these schemes only worked for a few years – for example in Chaniyala village, in the same district, standposts were constructed by the *panchayat* in 1991-92 with the support of the GWSSB to provide water from a borewell. But the quality of construction was poor and the contractor ran-off with the money, leaving the job half-finished. Consequently the scheme only worked for less than two years.

Women did not participate in these early *pani samitis* nor were they consulted about the citing of water infrastructure. For example, about 15 years ago in Kobadi village (Bhavngar district) the *panchayat*, with the support of the GWSSB, built a dug well and an overhead tank with a capacity of 30,000 litres to supply water through six standposts. A small informal *pani samiti* was formed to manage the scheme. However, there were no women on the samiti and neither were they consulted about the location of the standposts or the timing of water distribution. Women maintained that there were frequent conflicts in the lines, sometimes violent. Since there were no charges for the water and therefore no funds for O&M the water source soon dried up and the scheme became defunct after only four years.

With the government resolution of 1995, *pani samitis* were constituted as sub-committees of the gram *panchayat* with the task of managing and maintaining water and sanitation infrastructure in the village, both at the community and household level, including responsibility for collection of household contributions, supervising construction work and maintaining regular and transparent accounts. In October 2002 the Gujarat government issued another GR ordering all *panchayats* in villages where a water scheme is to be started or is already in place to pass a resolution to form a *pani samiti*. According to the GR each PS should have about 10-12 members, one third of whom must be women and SC/ST should be proportionately represented, including ward wise if necessary. In case a GP represents more than one village, each village with a scheme either has its own PS or the unitary PS must represent both villages proportionately. Each PS must have at least 4-5 members from the *panchaya*t including the deputy *sarpanch*. The rest of the members can include representatives from different community and/or local organisations and people, who are willing to work voluntarily. In addition, according to the GR, the PS can also co-opt interested community members such as the local health worker, teacher, *anganwadi* worker, *talati*, water department representatives, etc. as permanent guest members without voting rights.

The chairperson of the PS is to be elected by the members and the term of the PS is only two years – though this can be extended to coincide with the term of the GP if necessary. While the *sarpanch* is not constitutionally mandated to be the president of the PS (unlike in the earlier GR), in a number of villages the *sarpanch* is also (or has been) the president of the PS. Norms for the length of membership are rather ambiguous – "members can be re-elected but the membership can also change". Furthermore, the GR stipulates that if a member dies or

resigns before the two year period their post should be kept vacant but it is not so clear why this rule was framed. Each PS works under the administrative control of the Block Development Officer and the technical guidance of the GWSSB (until the official 'handover') and has to maintain minutes and other records.

In 2002, the re-elected BJP-led Gujarat government introduced the policy of '*Samras*': a village *panchayat* does not need to hold elections, but can select eligible members through a process of dialogue based on consensus. The rationale behind this policy, according to the administration, is to prevent the violence, which occurs during elections and which in some allegedly notorious districts, such as Bhavnagar and Amreli, can be fatal. The government provides a one-time grant of Rs 65,000 to villages, which have successfully 'selected' their *panchayat* members and sometimes these grants go towards the *pani samiti* funds. While the merit or otherwise of this policy, (which the Gujarat government has borrowed from the populist measures of the last chief minister of Andhra Pradesh), are beyond the scope of this study, it does appear to raise critical questions of transparency and accountability in the development of local governance.

Apart from assessing the impact of decentralisation on women's participation in water governance in state-led programmes, through WASMO, five of the 13 villages surveyed in Gujarat had *pani samitis* facilitated under NGO led community based water management initiatives. Three of these villages were part of the PRAVAH demonstration pilots seeking to demonstrate what gender-just, equitable and sustainable community water management would mean in practice, while two villages had facilitated demand-responsive drinking water schemes under various tribal and watershed development programmes. The next section provides a brief outline on PRAVAH, a civil society water and sanitation network, facilitating partnerships with the state government at different levels, but important to note, ***within*** the framework of sector reforms.

PRAVAH: making water flow for all

In 1994, the Centre for Drinking Water Resources Management at Utthan[40] conducted an in-depth study on the drinking water situation in the state and shared its alarming findings at a public seminar (Hirway and Patel 1994). All the 65 NGO representatives and individuals present decided that there was an urgent need to evolve a collective body to influence government policy and promote effective decentralized water and sanitation alternatives. And so PRAVAH, which means *flow* in Hindi, was born and registered as a Trust in 1996.

Today PRAVAH has over 105 individual and organisational members (NGOs, CBOs, students, development professionals, academics and activists) which together reach out to thousands of predominantly, rural communities all over Gujarat. With the launch of its new urban initiative, PRAVAH has begun to work in urban slums, primarily in Ahmedabad city, now declared a mega-city by the Indian government (under the JNNURM). As a membership based network PRAVAH has evolved the following objectives through consensus:

- To help partners develop a perspective on drinking water and sanitation issues at the regional, national and global level through mutual learning, information sharing and appropriate dissemination of research and documentation.

[40] Utthan is one of the leading NGOs promoting decentralized, equitable water alternatives in Gujarat and has more than 20 years of experience on gender equity, human rights and livelihood issues.

- To promote on a pilot basis decentralized, sustainable and equitable water harvesting or supply systems which take into account water quality and conservation parameters as 'demonstration models' for policy advocacy.
- To support NGO and CBO members in facilitating the participation of women and marginalized communities in the planning, implementation and management of water systems and services through awareness creation and capacity building.
- To network with other civil society organizations in Gujarat and at the national and global level to address larger questions of gender rights and access to information, etc. that impact on fundamental rights to water and sanitation.

Pravah's larger goal is to initiate a broader people's movement with effective participation of all stakeholders to access rights to water and sanitation. In its initial years PRAVAH was driven by its founder members: experienced development organizations, research institutions and individuals, largely based in Ahmedabad, the unofficial state capital. While they were in a better position to guide PRAVAH in its formative phase many regional members felt that they were 'defining' PRAVAH's agenda (Sood 2000). In addition, it was felt that a centrally based core group/secretariat could not on its own address policy concerns effectively. Hence, over the last decade through a process of critical internal reflection, PRAVAH has evolved a decentralized governance structure enabling greater participation of all members in decision-making, agenda-setting and building ownership for the network.

At the core is the Central Secretariat, located in Ahmedabad, with paid staff reporting to the Executive Secretary, a member of the Board of Trustees, which guides PRAVAH in terms of its vision, mission and strategy.[41] There are five regional centres, based on the major geo-climatic zones in Gujarat, and staff, (regional coordinator plus administrative support) are housed within a local member organisation's office. Each region is governed by a 'Sankalan Samiti' (steering committee) comprising 1-2 member(s) from each of the districts (6-9) which fall in that region. They are responsible for regional planning and resource allocation and every effort is taken to ensure that at least 50 percent of the members are women. One member from each Sankalan Samiti (SS) is selected at the Annual General Body meeting to represent that region on the Executive Committee (EC). In addition, the EC has 4 members from the Board and 2-3 co-opted development professionals bringing different skills to PRAVAH, e.g. technical support, social and gender analysis. The EC plans and implements core activities through a range of member-driven sub-committees such as, the scrutiny committee for demonstration projects, the research and documentation committee, media, advocacy and campaign committee and so on.

Increasingly, PRAVAH is driven by the *Lok Manchs* – emerging district level people's platforms comprising representatives from NGOs, CBOs and the district administration who work collectively on a regionally specific water governance agenda as well as support advocacy efforts at the state level. Each *Lok Manch* has a representative executive committee, headed by the District Collector who is also the chairperson for the District Water and Sanitation Mission in each district (formed under sector reforms, see earlier discussion on decentralisation). Having a senior bureaucrat at the helm provides legitimacy for the *Lok Manch* as well as access to public information on water and sanitation programmes and resource allocation. Emerging insights suggest that *Lok Manchs* are active where local leadership is strong and believes in self-reliance as opposed to those areas where there is a high dependence on NGOs. There is also a need to look at other potential water 'champions'

[41] The Executive Secretary is the main interface between the PRAVAH Coordinator/central secretariat and the Board and plays a crucial role in steering the value-based growth of the network.

(e.g. interested school teachers) rather than work through NGOs only as they are often embedded in their own power dynamics (Ahmed and Mittal 2005).

While the Lok Manches and Sankalan Samitis have been critical learning platforms for decentralized water governance, PRAVAH's members have also been implementing pilots which seek to demonstrate alternative participatory, equitable, gender-just and sustainable approaches to community-led water management. Demonstration pilots were meant to build community self reliance on water and sanitation, change attitudes and create institutional mechanisms that were secular and addressed questions of poverty, rights and good governance (accountability, transparency, etc.) within the framework of sector reforms.[42] Successful pilots were to be used towards policy advocacy on what a model of decentralized water governance should comprise. However, external, independent monitoring of these pilots revealed that implementing members needed a lot more hand-holding vis-à-vis gender equity, financial and technical sustainability dimensions and that in the absence of strong facilitating NGOs this was difficult.[43] In addition, financial contributions in some cases were not forthcoming because of the past history of NGO involvement – benevolent and welfare oriented rather than facilitating self-reliance. Apart from O&M costs, communities were meant to contribute 10% of the capital costs for community water assets and 30% for individual or household assets – which some considered high or higher in view of the state-led decentralization programmes.

The next part of this chapter draws on our field research to critically examine the functioning of *pani samitis* (PS), questions of equity, accountability and transparency in the governance of water, and the constraints and opportunities for women's participation in the process of decentralisation. Our insights are drawn from extensive interviews with women PS members and focus group discussions (FGDs) with both members, women and men, as well as non-members in 13 villages drawn from a cross-section of decentralised contexts including, the WASMO Ghogha and ERR projects described above as well as community-led water management supported by PRAVAH and its members.

Part II: An analysis of our findings on decentralised water management in Gujarat

Introduction: a brief note on methodology

Chapter 1 outlined the project methodology across both states and sectors. Table 3.2 shows the villages selected across 6 districts in Gujarat with 8 villages being selected from the state-led decentralisation context and the other 5 villages fall under PRAVAH demonstration pilots and community-led natural resource management interventions. To reiterate: all villages are *within* the sector reforms framework and were *purposively* selected in consultation with NGO partners to represent:

- Diversity of socio-economic and water contexts (e.g. drought/flood prone, poor water quality)
- Heterogeneity of communities – mix of castes, tribal communities and issues (e.g. conflicts)
- Strong women's participation in *pani samitis* (as perceived by the facilitating NGO)

[42] Concept note for demonstration pilots and application forms, PRAVAH (2005).
[43] PRAVAH – notes from monitoring of demonstration pilots (Ahmed 2006).

The questionnaire and FGD checklists were developed in consultation with our main NGO partner, Utthan, and differs slightly from the one used in the Maharashtra context – for example, information on women PS members landholding status was not collected. For each NGO partner and subsequently in each village surveyed, the following steps were followed:

- One day workshop with each NGO, and women PS members where possible, to share project framework and identify key informants to support IDRC project team
- Village transect (PRA) to look at distributions and accessibility of village water supply works as well as general environmental sanitation
- In-depth interviews with women members of *pani samitis* (individual and group)
- FGDs with ALL members of *pani samitis*, women and men
- FGDs, sometimes combined with transect walks, with non-members on their perceptions of governance vis-à-vis role of PS, responsibilities of PS members

In addition, interviews were also undertaken with some district level functionaries (water engineers in the CMSU or DWSM), key actors in WASMO, NGO team members and civil society leaders. All primary insights were supplemented by secondary data from the Census, government reports, WASMO documentation, case studies and previous work in the state.

Table 3. 2 Socio-economic village profile

District	Village	Total Population	No. of Households	Sex ratio (female/ 1000 males)	Literacy rate		SC/ST population		Availability of Basic amenities
					M	F	SC	ST	
Kutch WASMO-ERR NGO partner: KMVS	Chadura	445	84	1023	67.8	45.7	157		Balwadi / Primary school Gram Panchayat Electricity / Transportation Telephone and post office Open defecation
	Dador	492	111	907	39.5	20.6	0	0	Balwadi / Primary school Gram Panchayat Electricity / Transportation Telephone and post office Community hall Open defecation
	Hajipir	453	121	903	75.2	47.6	0	48	Balwadi / Primary school Gram Panchayat Electricity / Transportation Telephone and post office Public Distribution shop Open defecation
	Mokarshivangh	480	86	798	30.4	9.6	0	0	Balwadi / Primary school Gram Panchayat Electricity / Transportation Telephone and post office Open defecation
	Ghogha	10,848	2174	1013	87.1	60.8	225	70	Balwadi Primary / High school Taluka Panchayat

Bhavnagar									Electricity Transportation Telephone and post office Community hall / Bank PHC / Sanitation Dairy / PDS shop
WASMO-Ghogha NGO partner: Utthan	Mithivirdi	3,015	502	980	73.6	39.8	0	0	Balwadi / Primary school Gram Panchayat Electricity / Transportation Telephone and post office
	Jasapara	1,868	280	946	77.4	48.9	4	0	Balwadi Primary / High schools Gram Panchayat Electricity / Transportation Telephone and post office Community hall PHC not functional 100% Sanitation
Surendranagar NGO partner: AKRSP(I)	Mokasar (Watershed development)	1,433	209	878	69.6	30.4	172	0	Balwadi / Primary school Gram Panchayat Electricity / Transportation Telephone and post office
	Navagam (WASMO-ERR)	1,069	186	902	52.6	13.1	59	0	Balwadi / Primary school Gram Panchayat Electricity / Transportation Telephone and post office
Dahod PRAVAH demo With Utthan	Pav	3,352	517	966	10.4	3.4	4	33 43	Balwadi / Primary school Gram Panchayat Electricity / Transportation Telephone
Ahmedaba		1,376	249	906	44.0	15.2	134	0	Balwadi /Primary school

d PRAVAH demo with Mahiti	Refda								Gram Panchayat Electricity / Transportation Telephone and post office Community hall 100 hh toilets, 150 soak pits
Bhavnagar PRAVAH demo with Navjot Mahila Vikas Sangathan	Janada	2,028	312	943	74.1	40.6	124	0	Balwadi /Primary school Gram Panchayat Electricity / Transportation Telephone and post office
Surat Tribal Sub-Plan with AKRSP(I)	Gangapur	298	59	874	76.2	42.5	0	298	Balwadi / Primary school Gram Panchayat / Dairy Electricity / Transportation Community hall / Telephones

The table above shows that though all the sample villages have primary schools, female literacy is very low, ranging from 3.4 % in the largely tribal village of Pav in Dahod district to 9.6% in Mokarshivangh, Kutch where water availability is still constrained, probably affecting girls access to school. This village also has the lowest sex ratio which is lower than the state average. Anther village with a surprisingly low sex ratio is the tribal village of Gangapur – gender relations are generally assumed to be more egalitarian in tribal societies, but research has time and again shown that this is not necessarily the case. All the villages have a gram panchayat and basic infrastructure like electricity, public transport, communication (telephones, mobiles, post office) – only two villages have primary health centres (PHC), one of which is not functional; one village has a shop under the public distribution system PDS and Ghogha, a small town (or large village by Gujarat standards) has a bank. Most villages, particularly in Kutch where water scarcity prevails, have only open defecation.

Table 3.3 provides a brief profile of the five NGO partners involved and the map 3.1 shows the location of these villages covering a cross-section of hydro-geomorphological regions in

Gujarat, from semi-arid / arid Kutch to relatively less water stressed districts such as Surat. However, despite some good rainfall years since 2002, most of these villages fall in drought-prone districts.

Map 3.1 District map of Gujarat showing districts and villages studied

Table 3.3 Profile of NGO partners

Partner organization	Year set up	Main thrust areas	Area of work
UTTHAN	1981	Gender empowerment, livelihood security and conflict transformation with focus on women, poor and vulnerable.	Bhavnagar district - coastal, high salinity, water scarcity. Also tribal districts of Dahod and Panchmahal
AKRSP(I)	1983	Natural resource management and policy advocacy (eg. PIM, JFM). Women's participation in separate/mixed groups.	Sayla, Chotila blocks in Surendranagar district, drought prone
MAHITI	1994	Gender empowerment through credit cooperatives, natural resource management especially, water conservation and land salinity control.	Ahmedabad and Bhavnagar districts - Bhal region: saline wasteland, flood-prone
KMVS	1989	Grassroots rural development organization comprising some 12,000 women organized through (women's groups) covering 160 villages to address issues of health, violence, livelihoods, disasters and education.	Kutch

Before the introduction of community developed water interventions, whether led by NGOs directly or in partnership with WASMO all these villages were facing extensive water problems, particularly in the summer months – and women /girls were sharing the brunt of the drudgery of water collection. Table 3.4 outlines the broad drinking water situation in each village before and after the various water interventions; in some cases schemes are still in progress.

Table 3.4 Village water profile, before / after interventions and current status of PS

Village	Situation Before	Situation After Water Supply Works
Mithivirdi	People were fetching water from well in Vadis (farms) area and also making Virdas in the river (shallow hand dug wells).	Mahi water supply scheme has been discontinued as village was not water charges; back to traditional sources. The PS installed a motor to pump water from one of the wells near a check-dam to an overhead tank, but at time of visit, pump was found stolen and water in well was muddy with frogs. Some people have private connections, e.g. roof rainwater tanks, but largely buy water.
Ghogha	They were facing so much water crisis earlier. They used to bring water from well, pond and well in Vadi. In summer they had to suffer a lot.	Connected to Mahi water supply system – two overhead tanks (500,000 and 300,000 litres capacity), two distribution lines, 3 cattle troughs, 47 standposts, bathing ghat – distribution problems persist due to low pressure for houses further away from pump. No local water resources – quality poor because of salinity and industrial effluents.
Jasapara	Before scheme they were fetching water from village well and hand pump.	Now they get water from well to stand post – in each hamlet. 95% of houses have sanitation facilities under TSC (mostly BPL families), 30% houses have private connections. Water also supplied to farms, each hamlet gets water for an hour, daily and hh have water storage capacity for 2 days.
Janada	Water in borewell had gone saline, GWSSB supply very irregular, women used to travel upto 2 kms to fetch water, panchayat not able to pay water bills, illegal pumping	One borewell connected to overhead tank, well built under demo-pilot also connected to tank, but no power supply to pump water. Not all hamlets in village get water because they are at higher elevation: each gets water for 1-2 hours every 3-4 days, SC hamlet has little water and poor sanitary conditions, also cattle trough not maintained.
Navagam	They used to go to fetch water from village well. If they don't get water from it they were going to Vadi to fetch water.	They get enough water from bore-well to cluster storage tanks – 9 tanks, but not all get water, all the time.

Mokasar	Getting water from village well and Vadi well	Watershed development programme which later addressed drinking water needs, 9 community / cluster storage tanks built, old bore well deepened, recharging through check dam, etc.
Refda	They had to go to farm (Vadi) for fetching water. Literally whole day was spent on fetching water	Under the demo-pilot, two old wells were deepened and a bore well to supply water to an overhead tank was also built. In addition, 150 soak pits and 100 hh toilets were made, with at least 25 % of the hh doing so on their own.
Pav	Women used to bring water from the well, but it used to get dry in the summer. Then they brought water from river or check dam, but that was also not enough.	Now in each faliya / hamlet they have a well from where women fetch water. Each well is shared by 15-20 houses, each well has net covering. Also four overhead/roof water collection tanks built for houses at an elevation.
Gangapur	There was only 1 hand pump in the village and people used to go to well and river to fetch water and wash clothes.	There are 10 hand pumps in the village and people claim they get enough. Scheme is not functioning now as pipes are broken and PS doesn't have money for repairs as people are not paying water charges – get enough 'free' water from handpumps.
Dador	Earlier they were making Virda in pond and river and fetching water. Water supply board's water was not coming regularly. Panchayat was ordering for tankers in summer.	Now they get enough water from village well and also water from water supply board. They fetch water from stand posts. Solar system is fixed at well to supply water.
Hajipir	Water supply by GWSSB is not regular – maybe once a week. During the summer they depend on tankers. Sometimes they get water from Luna village, but conflicts.	Scheme still under construction – involves development of local sources, well recharging and construction of 2 overhead tank, cattle troughs and standposts as well as 6 underground storage tanks. Still depend on local water resources – pond – or have to buy water (expensive). Pilgrims come for annual fair, pond gets dirty, water drained and refilled from dam close by – costly.
Chadura	Earlier women were getting water from well but in summer and during drought years it was getting dry; also very far. Panchayat was ordering for tankers but	Water from village pond, well near check dam and also from Water Supply Board.

	that was also not enough or regular.	
Mokarshivangh	Women used to fetch water from private Vadi wells. During the summer they would wake-up by 4 am to fetch water. Those who were late did not get water. Water tankers came once in 8 days. Wo/men also went to Chadura village pond with bullock carts to fetch water.	Women fetch water from village well developed under Drought Prone Programme (DPP). WASMO scheme still under construction (started in April 2007) – two underground tanks (capacity of 5,000 litres each) and one overhead tank (capacity of 30,000 litres) being built

Table 3.5 presents a quick gender scan of the *pani samitis* studied – most have been functioning between the past three to five years. The number of women members ranges from a low of 25 percent (Mithivirdi village, part of the Ghogha project) to all women *samitis* (100 percent) in the two tribal villages covered. In total, of the 160 members on these 13 *pani samitis*, just over half (53%) are women and we interviewed 80 percent of them.

Table 3.5 Gender scan of Pani Samitis

Village	Date PS formed (current)	Frequency of PS meetings	No. of Members	Women Members (%)	SC / ST / minority members	Women interviewed
Refda	2005		16	6 (37.5)	SC: 5	4
Pav	2005		12	ALL	All tribal	10
Janada	2006	Once a month	9	6 (66.6)		4
Gangapur	2006 (first PS: 2001)	No regular meetings	11	ALL	All tribal	9
Mokasar	2004	Every month or fortnight	18	9 (50)		6
Nayagam	2004	Every month	15	8 (53.3) Female VP	No SC on samiti	6
Mokarshivangh	2005	Every month	11	6 (54.5)	All Muslim	5
Hajipir	2005	Every month	11	6 (54.5) Female VP	All Muslim	5
Chadura	2006		11	3 (27.2)		3
Dador	2006	Meet once or twice a year	11	7 (63.6), Female President	8 Muslims	6
Mithivirdi	2003	Meet as necessary	12	3 (25)		3
Jasapara	2003, first PS: 1997-98	Now no regular meetings	12	4 (33)		4
Ghogha	2003		11	4 (36.4)		3
Total			160	85 (53%)		68 (80%)

VP = Vice President

There are two parts to this analysis – the first considers the women members of the *pani samiti* – who are they, how were they selected, what are their roles and what is their knowledge/perception on various aspects concerning the objectives and functioning of the PS. The second part of our analysis draws on the FGDs with members (wo/men) and non-members to look at larger questions of governance – how effective has the PS been in facilitating gender just and equitable water management?

Table 3.6 Profile of women pani samiti members

	Number of Respondents (N = 68)	**Percentage**
Age (reproductive age categories)		
15-29	4	6
30-45	49	72
46-64	13	19
64+	2	3
Income Classes (approximate annual income of the household)		
0-4,000	--	--
4,001-11,000	6	9
11,001-20,000	19	28
20,001-30,000	10	15
30,001-40,000	6	9
40,001-50,000	7	10
50,001-60,000	3	4
60,001-70,000	3	4
70,001-80,000	--	--
80,001-90,000	--	--
90,001-1,00,000	7	10
1,00,000+	7	10
Education		
Uneducated	45	66
Uneducated, can sign	5	7
1^{st}-5^{th} std	8	12
6^{th}-10^{th} std	9	13
11^{th}-12^{th} std	--	--
Graduate	--	--
Post graduate/ professionally qualified	1	1
Religion		
Hindu	43	63.23
Muslim	17	25.0
Catholic	6	8.83
Protestant	2	2.94
Caste		
General	5	7.3
SC	11	16.2
ST	18	26.5
OBC	34	50
Marital Status		
Married	56	82
Widow	10	15
Unmarried	1	1.5
Divorced	1	1.5

As can be seen from Table 3.6, the majority of women in our sample our married (82%), fall in the age group of 30-45 years (75%) and are largely uneducated (66%). Married and older women have a higher degree of mobility in the social domain and are more 'acceptable'

within the given cultural context. They also have more time as they are past their child-bearing and nurturing years; many would also be grandmothers by the time they are 40 or 45 years old. Interestingly, the lack of education does not act as a deterrent in terms of women's selection to the PS – rather other factors, which we look at later, are more important. And the presence of 1-2 'educated' women on the PS is often enough for women to ensure that the PS is functioning according to its basic objectives.

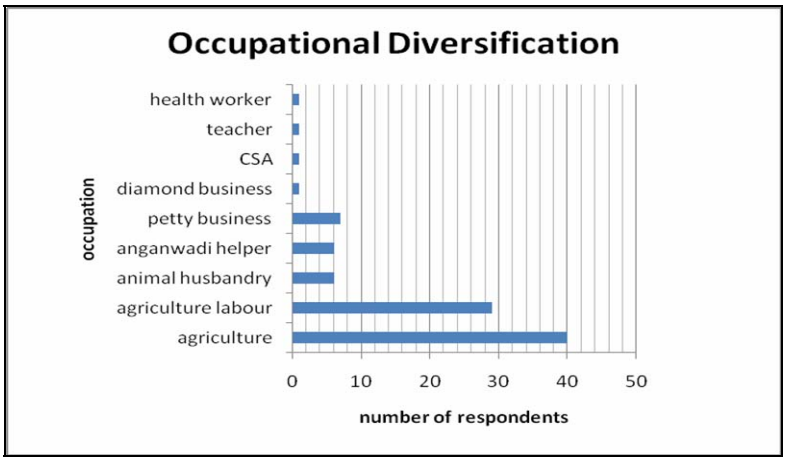
With respect to poverty and the participation of the poor in governance, data on annual income levels was used as an estimate – however, this data is an under-estimate and a more detailed analysis would require looking at consumption expenditure and accounting for inflation, which we did not have the time or resources for. Looking at this 'crude' data we can see that 37 percent of the women on our *pani samitis* come from households that have reported income levels of less than $0.40/day to just over a S1/day.[44] In contrast, 20 percent of the sample includes women who come from upper social classes in the community, while the majority of the sample is women who are in a median income category. This suggests that although the *pani samitis* are dominated by women from relatively better off socio-economic categories, there are still considerable spaces for the poor to participate.

In terms of religion, given national averages, it is not surprising that the *pani samitis* are dominated by Hindu women – most of the Muslim women in our sample come from the *pani samitis* in Kutch where the Muslim population has traditionally enjoyed better social mobility and participation in the public domain compared to the rest of the state – though this is likely to change given the progress of fundamentalist politics. With respect to the representation of marginalized communities – at least 42 percent of the women on the PS come from scheduled castes (16%) and scheduled tribe (26%) categories – though the tribal figures are only representative of a couple of villages/districts in our sample, namely the eastern district of Dahod (Utthan – Pav village) and the southern district of Surat (AKRSP(I) – Gangapur village).

In terms of their livelihoods strategies, most of the women are engaged in agriculture as primary/self-cultivators (i.e. working on fields owned by their husbands/families), as well as seeking additional employment as agricultural labourers. Some of the women are engaged in animal husbandry, a few are involved in the delivery of village social and welfare services as primary health workers, anganwadi (child-care), mid-day meal service providers and teachers. Some of the women run petty businesses like tailoring or grocery shops and a few work as daily labourers, including in the flourishing, but poorly paid, diamond polishing business. The important point to note here is that at least 90 percent of the women in our sample do some paid work outside the house – those who are not able to work in the public domain, are typically women who come from upper caste households where there are restrictions on their mobility (Patel, Koli Patel and Brahmin households).

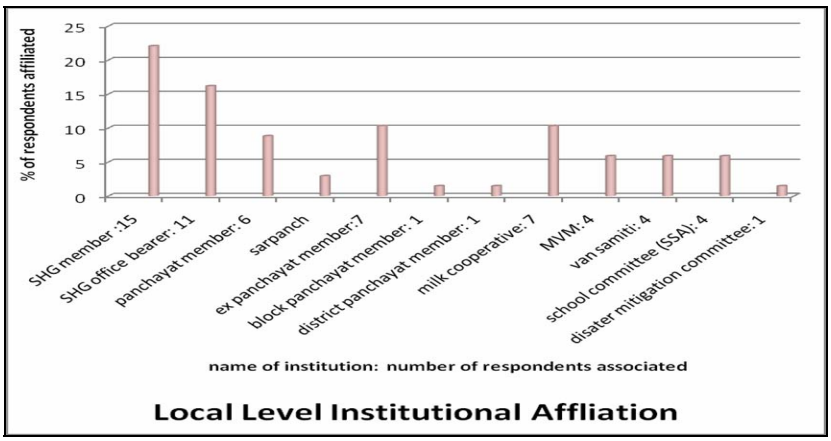
[44] The government specified poverty threshold is $0.40/day with various estimates suggesting that 25% of the Indian population live on less than Rs 20/day with most working in the informal labour sector with no job or social security. Given the fluctuations in the $=Rs exchange rate we are using an average of $=Rs 40 in this assessment – S1/day is the global figure of poverty based on GDP and purchasing power parity.

Chart 3.1 Occupational diversification of women on pani samitis



Most of the women members have some prior political or social mobilization experience (institutional affiliation), either as members of the village or block or district) *panchayat*, SHGs, or other village institutions such as the dairy cooperative, disaster mitigation committee, watershed, forest management or education committee. Some of the women have held leadership positions in the *panchayat* or in their SHGs, but only 3 of the women in our sample currently hold office bearing positions in their *pani samiti*, as president, vice-president and secretary – all of them from the villages in Kutch.

Chart 3.2 Institutional affiliation of women on pani samitis

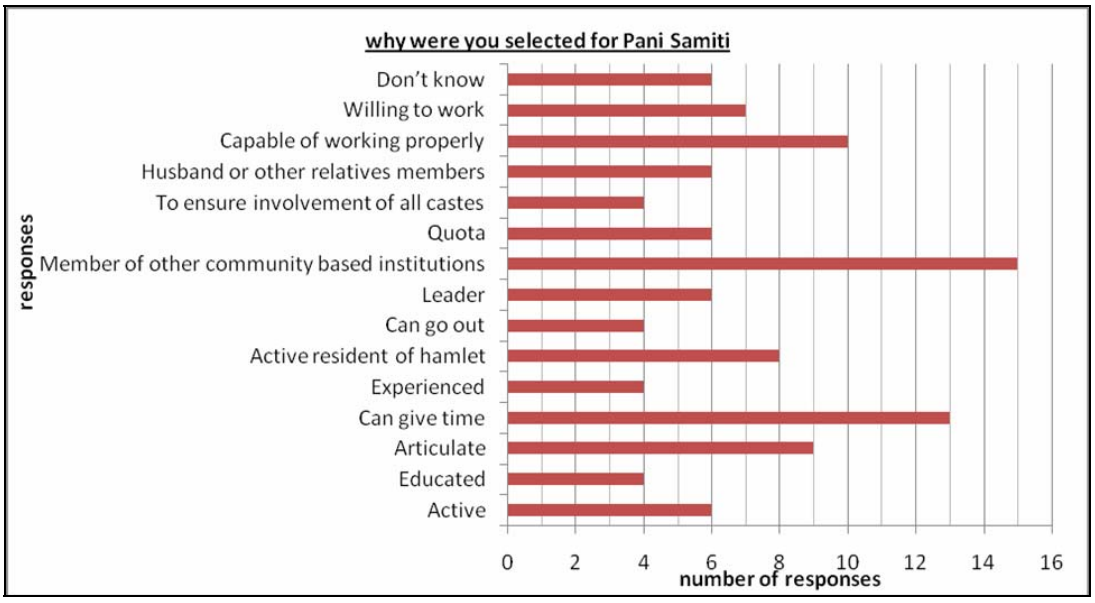


In the next section we look at the patterns of selection –how did these women get selected for the *pani samiti*, what were there driving characteristics, was there an election and who took the final decision?

Process of selection to pani samiti- characteristics of women, who decides?

A number of co-related factors determine *which* women are selected for the pani samiti, *who* selects them and how this process unfolds – is it transparent and democratic or is the question of which women participate decided by a few men, their husbands or village seniors, and largely determined by class and/or caste. The graph below (chart 3.3) shows the frequency of the most important characteristics women highlighted as the reasons for their selection.

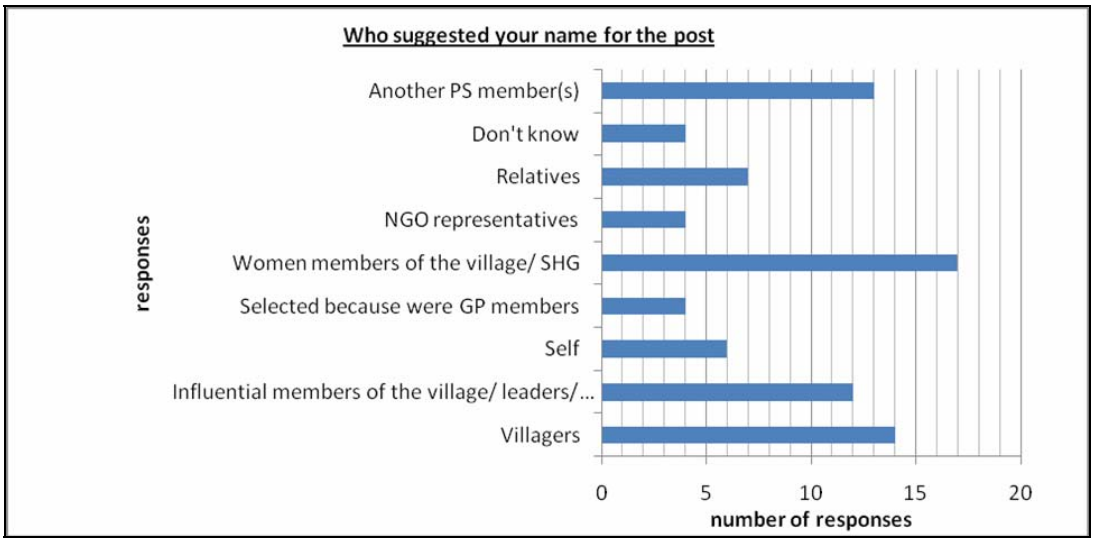
Chart 3.3 Characteristics of women pani samiti members



As can be seen from the graph, the two criteria that women articulate as being most important in their selection are prior experience (membership of other community based institutions) and whether or not they have (or are perceived to have) time for attending meetings and fulfilling their PS responsibilities. Other criteria, such as being articulate, willingness and capacity to work effectively, demonstration of leadership skills and ability to move out (within the hamlet, village) are also important determinants. Factors such as the presence of their husbands or other family members on the PS, the quota (reservation) or their level of education are not so significant, comparatively. One of the interesting criteria that a few women have cited is the perception of them as being individuals who have the skills to ensure the involvement of people from diverse caste or faith backgrounds – and in the context of conflict, or even the perception that conflict is /can be a reality, this is an important characteristic.

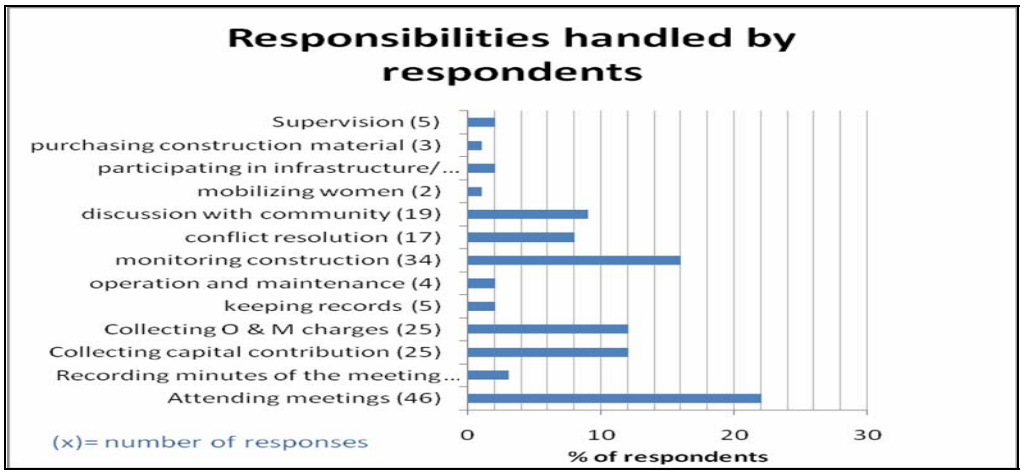
Most of the women had their names proposed by members of the SHGs or other village institutions, or even other PS members as the graph in Figure 3 illustrates. They were also selected because they were already on the *panchayat*, and by law, there has to be some representation from the *panchayat* on the *pani samiti*. In the case of a number of villages, particularly those in Kutch, representation on the PS is also by *faliya* or *vaas* (hamlet) with each hamlet nominating three people for the PS.

Chart 3.4 Who proposed names of women pani samiti members?



Sometimes names were proposed by more than one category of individuals and women have even suggested themselves, or been suggested by NGO representatives. The role of relatives and influential village members in suggesting names of women candidates is comparatively less (about 22 percent of the total of options). In nearly 72 percent of the cases women were asked if they wanted to be on the PS which suggests that women's names were not just proposed to fill a quota but their acquiescence was deemed important in a democratic process. In addition, in the case of 44 percent of the women, their names were discussed and then decided upon in a gram sabha. While in the case of 35 percent of the women, a separate meeting was called for usually by the facilitating NGO to select the names of women candidates – this is mandatory in the WASMO-ERR project and other sector reform initiatives. Surprisingly, 22 percent of our sample could not recall where (in which forum) they had been selected or even how they had been selected (18%) – whether there was a discussion (under the *samras* process) or an election. However, the majority of our sample (82%) confirmed that they had been selected after an open process of discussion.

Chart 3.5 Role and responsibilities as pani samiti members



As PS members, women listed a number of responsibilities – the first amongst these being attending meetings – 68 percent of the women felt that attending meetings regularly was an important responsibility. Another significant responsibility was seen as the monitoring of construction work – 50 percent of the women said that monitoring the construction of village water and sanitation infrastructure and ensuring quality of material used was a key responsibility. This also includes maintaining the attendance register and paying labourers. Three women claimed they had also been responsible for purchasing materials.

However, the most important responsibility women felt that they had was in the collection of capital contribution and O&M charges, including water tariffs – nearly 74 percent of the sample listed this as an important responsibility.[45] Some of the reasons women felt they assumed or were sometimes assigned this task was that in some cases households are reluctant to pay water charges – either they cannot afford these, being very poor, or they don't see any direct benefits for themselves (e.g. they live most of the time in houses located in their fields and are not so depended on village water sources or they are well off and have private connections). Women PS members claimed that it was easier for them as women to counsel or negotiate with the women in these households on the need to contribute and encouraging them to either pay themselves (if they were SHG members) or ensure that their husbands pay.

Women also claimed that they had an important role in discussing key committee decisions with non-PS members, either at the hamlet or neighbourhood level or in other village institution meetings and in resolving conflicts (53 percent of the women said this was an important responsibility for them). Some of the women who held leadership positions on other village institutions explained that they had been instrumental in ironing out differences in the location of community water infrastructure (e.g. standposts). Having standposts which are accessible (within 200 meters) would be important for most women, however, if the area around standposts and other community water points is not properly maintained there is waterlogging which leads to breeding of mosquitoes, etc. – so who makes what decisions on the appropriate location of community water assets is critical. Other conflicts that women cited were between those who paid O&M costs regularly and those who did not: for example, in Navagam village (Surendranagar district, WASMO-ERR project with AKRSP) where

[45] Women listed multiple responsibilities and the percentages are calculated as a % of women who listed that as a responsibility, not as a percentage of responses

there are cluster storage tanks in hamlets for water distribution, there were conflicts when those who paid and felt responsible asked others to stop wasting water

Other responsibilities that women cited that they were responsible for included supervising or monitoring that people did not waste water, followed rules on disposal of waste material and kept the area around community infrastructure clean. A few women, those who had basic literacy skills, were responsible for maintaining PS records (5 women) and some also recorded PS meeting minutes (6 women) while a couple of women claimed they had mobilized other village women for meetings and training programmes. Only four women claimed that they had any direct responsibility for operation and maintenance of the infrastructure itself.

In sum, most of the responsibilities discussed above were cited by the women who regularly attended meetings – at least 26.5 percent of our sample, that is, just over one-fourth of the women, maintained that they did not attend meetings, regularly or otherwise, and did not participate in much committee-related responsibilities. Of the women who did attend meetings regularly and were actively aware of their responsibilities (73.5 % of the sample), 78 percent claimed that they took up tasks themselves while the balance 22 percent claimed that they were assigned tasks, but that they were largely willing to take them on. However, most women felt that there was some gender stereotyping in the tasks assigned to women – particularly the responsibility for financial contribution, which is the key for the sustainability of the community water system: "so if money does not come in, i.e. if people do not pay the water charges on time it is seen as women's fault". Another gender stereotyped task that women pointed out was the responsibility assigned to them for maintaining cleanliness around the water and sanitation infrastructure. This was seen as an extension of their unpaid work in keeping their homes clean, the same caring role was being extended to the public domain on the assumption that 'women did not mind' or that they had an innate sense of altruism, to do good for the community.

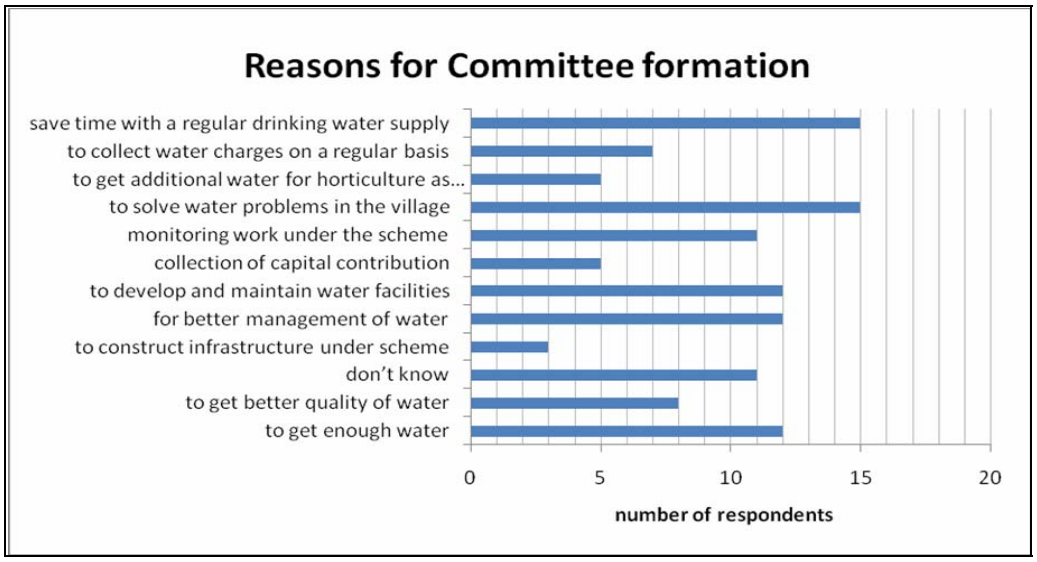
Gender and knowledge: access to information, awareness, perceptions

Access to information and the ability to process information – produce knowledge – which is then internalized, shared and disseminated to other women and men, particularly non-members is a key factor in facilitating women's participation and building gender just and equitable village water and sanitation committees. We began by asking women PS members, the basic questions like when was their village PS formed and did they know why it was formed, are they aware of its rules and regulations. An overwhelming 81 percent of the sample reported that they knew when their PS was formed (year only) – and this date was later confirmed in PS records. The reasons behind the establishment of the PS were many and quite diverse, depending on the institutional context under which the PS was initiated. For example, for some women the PS was there to facilitate the construction of village ponds under drought proofing programmes (Kutch), while in some of the tribal villages, the PS was seen as a means of asserting rights to water for horticulture.

However, most women asserted that the PS was a [governance] mechanism to facilitate water problems and negotiate conflicts in the village through better management, as well as monitor construction work, collect water charges on a regular basis and ensure sufficient availability and quality of water. A number of women also felt that an efficient PS would help them save time as they would have access to a regular, well-maintained water supply. Interestingly, while women stressed factors such as efficiency and effectiveness in terms of the delivery of water and maintenance of water infrastructure as important reasons for the formation of the PS, they did not look at ensuring equity in the distribution of water as a rationale for the PS.

This is not to say that women are not aware of equity and inclusiveness issues, but that their overriding or primary concern, like men, is with first ensuring a regular and adequate water supply and building a reasonably robust community institution.

Chart 3.6 Reasons for formation of village pani samiti

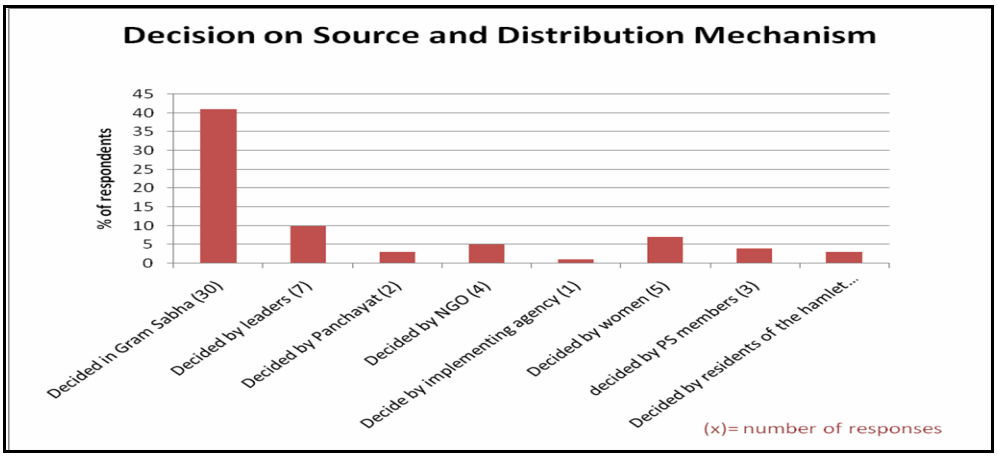


At least 69 percent of the women were aware of the rules (or lack of rules) made by the committee – and the rest, 31 percent, were not aware of the actual mechanisms or principles under which the PS was mandated to work.

Knowledge on decisions related to water source, storage and distribution

Most of the women PS members – 72.06 percent of the sample were aware of how the water source, storage and distribution mechanisms were decided, by whom or in which institutional forum. In terms of the options that women who were aware of how and where these decisions were taken listed, about 61 percent of the respondents agreed that the *gram sabha* was the most important forum for democratic and inclusive decision-making on the location of water infrastructure. However, decisions were also made in other forums such as meetings of the women's group or the *pani samiti* or the *panchayat*. In addition, there were a number of influencing factors, including active community leaders, the partner NGO, or the implementing agency and in some cases, residents of the hamlets where the infrastructure was to be located.

Chart 3.7 Decision-making on water according to women who claimed they knew



Nearly 51 percent of the sample claimed that they had a role to play in the decision-making regarding the location of the village water infrastructure. And 82 percent of the sample claimed they were relatively content with the location of the various water systems. In terms of the location of public facilities such as standposts and community storage tanks, most women felt that these should be on 'common' land and accessible to everyone equally. That is, the land should not be held by an individual who may later deny access to other community members either on grounds of caste or faith or if there is prolonged water scarcity, s/he may claim the water asset as theirs.

Perception on water pricing system

There are two sets of costs that water users have to bear – the first concerns the community contribution which is a minimum 10 percent of the capital costs and is usually a one-off fee collected per household (cash or labour), once the amount is collectively decided in the gram sabha. In some villages, better off families contribute more – often just to get the work started. The other set of costs – the water tariffs – are recurring costs and vary from village to village, in terms of the actual fee, whether it is per household or per person (varies with public or private connections) and whether it is collected monthly, quarterly, biannually or annually. The table below illustrates the wide difference in water tariffs in our sample villages. Essentially, the water tariff is meant to cover the operation of the system, costs of repair and maintenance as needed, salaries of operators and the costs of water supply where applicable (e.g. paid to GWSSB for external water transfer).

Table 3.7 Water tariffs in sample villages

District	Village	Water Tariff
Bhavnagar	Mithivirdi	Rs. 15 per person per year (well)
	Ghogha	Rs. 20 per household per month for stand post usage. Rs.50 per household per month for private connection usage.
	Jasapara	Rs. 20 per month per hh for private connections and Rs. 10 per month per hh for stand post usage.
	Janada	Rs. 200 per household, annually
Surendranagar	Navagam	Rs. 20 monthly per household.
	Mokasar	Rs. 10 per household per month (additional funds on need basis)
Ahmedabad	Refda	Not started collecting water tariff.
Dahod	Pav	Not started collecting water tariff.
Surat	Gangapur	Rs. 20 per household per month
Kutch	Dador	Rs.3 per person per month
	Hajipir	Scheme under construction
	Chadura	Rs. 50 per month per household
	Mokarshivangh	Scheme under construction

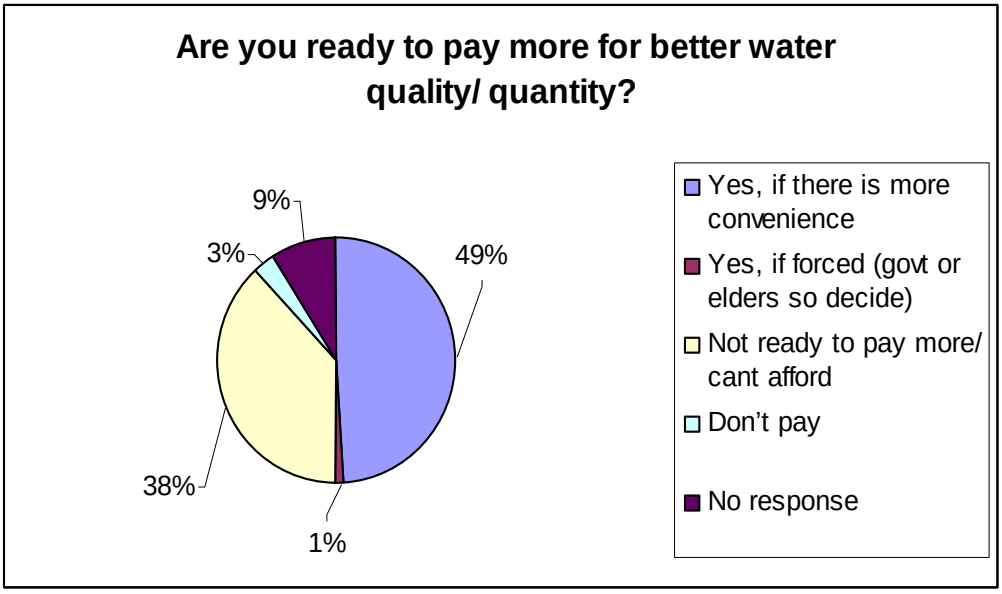
An overwhelming number of women, 82 percent of the sample, knew how the water tariff in their village was applied – whether it was per person or per household and the differential rates applied to private and public connections. The women who did not know came from the villages where the scheme was not yet operational and so the tariff was not being collected. However, when the women were asked how the water tariff was decided, at least 27 percent (just under one third of the sample) did not know. Those who did know how the tariff was calculated pointed out the following components as being important in determining the tariff (in declining order of significance):

- Maintenance and repair costs, including costs of diesel, spare parts – 48 percent of the sample listed this as the most important set of costs
- The operator's salary – this is perhaps the highest component of the tariff and one of the more 'visible' costs – 45 percent of the women who knew how the tariff was calculated listed this
- The costs of electricity (where applicable)

When asked whether they thought the water tariff was appropriate, 60 percent of the sample maintained that whatever was decided collectively was deemed correct in their opinion. However, 30 percent of the sample did not have an opinion on this and the rest thought it should be calculated per person instead of per household – only one woman felt that it was more than they could afford. Interestingly, the discourse on decentralization which demands that users should pay for services has been internalized quite strongly by the women committee members – 90 percent of them felt that users should pay for water; only one person thought the government should pay for water and no one felt, even the poorest, that

people could not afford to pay for water. However, only 49 percent of the women were ready to pay more for water if they could be ensured of better quality and better service delivery – "if water is available for 24 hours, at my doorstep" – her dream, reiterated by the WASMO project director. On the other hand, 38 percent of our sample said that they could not afford to pay more for better quality water services.

Chart 3.8 Readiness to pay for more / better quality water



In terms of looking at the willingness and ability to pay – for more / better quality and efficiency of water services, we find the data rather inconclusive when it comes to the question of *which* women.[46] The data shows those who are willing to pay for better services include: women from economically better off households, older women as it would ease their work burden/drudgery as well as widows since they tend to be on their own and/or have more dependents. Interesting, educated respondents, who would be somewhat aware of their water entitlements and the role of the state in this respect, do not agree to pay extra for more/better quality water. Low income group respondents (4,000-20,000 INR per annum) seem equally willing and unwilling to pay. That may be because while they want better facilities, they cannot afford it. Even in contexts of severe water scarcity, people are either too poor to pay more or have devised / adapted their livelihood strategies to live with less / poor quality water in the face of government apathy. Better positioned individuals may be agreeing as a little more expense is immaterial. On the other hand, they might not want to pay because they are likely to already have facilities like private borewells or farm wells or can afford tanker delivery.

In some cases, for example, in Navagam village, Surendranagar district (WASMO-ERR project with AKRSP), Hansaben Mehta, a PS member, recounts how a family was allowed to take (pump) more water from one of the cluster storage tanks for their house construction – and pay extra for it. The only regulation was that the pumping time should not exceed one hour and that this could only be done after everyone in the hamlet had got their share of water. The said family paid Rs 180 for taking extra water for four days – this is still cheaper than if they had to arrange for water from outside or fetch it themselves (saves time).

[46] Willingness to pay studies in the water sector – not the same rigour here.

Women's perceptions on equity in the water tariff are also important – should all members of a village, given the diversity of different socio-economic conditions pay the same or equal water tariff, whether per person or per household (accounting for the difference in private/public connections). The majority of women – 49 percent of the sample – thought that all should pay the same water tariff whether in cash or kind (labour). However, 10 percent of the sample felt that households should pay according to their ability (economic conditions), while 24 percent thought the poor should be exempted and 3 percent felt that the rich should pay for the poor or those who cannot afford the water tariff so that the community does not suffer. In addition, 6 percent of the sample felt that flexible payments, particularly if it is a monthly payment, could be an option for the very poor. What this analysis suggests is that although women, collectively agree to the *pani samiti* decision that all users should pay for water and that the water tariff in their village was largely appropriate, when probed, women do feel that some degree of flexibility needs to be considered when the poor are asked to pay for water, i.e. they realize that not everyone has the same ability to pay for domestic water. Many poor families, for example, depend on daily wages or sometimes remittances from family members to pay water charges.

Gender and participation: ability to attend meetings

Pani samiti meetings are held regularly, at least once a month, in villages where schemes are still going on; but where village water works have been completed and handed over, meetings are less frequent. In terms of the timing and location of the PS meetings, 72 percent of the sample said that these were appropriate for them. For the other women members, the timing and location of the PS meetings did not matter, since they did not attend these meetings (10.3%), or only sometimes (10.3%) or sent their husbands or sons instead of them (7.4%). Just over half the sample, 53 percent said that they were consulted about the timings, 13 percent felt that even if they were not consulted, the timings suited them. However, 18 percent of the sample maintained that they were not consulted about the meeting timings and therefore found it difficult to attend the meetings regularly. Generally, most women find the afternoons a good time for meetings as that's when their workload is less, but meetings held in the evenings are difficult to attend – either it clashes with preparation of dinner or it is too late for them to venture out. In some villages (e.g. Navagam) it is women members who inform other women about the next PS meeting, while men inform male members.

In Navagam village where the PS was having regular meetings, an otherwise active woman member, claimed that she had not attended a PS meeting for the past two years! However, its not only women who do not attend PS meetings regularly: in Hajipir village, Kutch, women complained that only two of the five male PS members regularly attended meetings, whereas women dutifully attended all meetings held to date: " *Only women can't do everything on their own; men have to support us. But in our monthly PS meetings only 2 men come, while all the women participate. Maybe if we had rules about attendance, men would also attend regularly?*" Raimaben (Vice-President of PS in the FGD with PS members, November 2007).

Apart from factors such as the lack of information about when or where the meeting is scheduled, some of the women who did not attend the meetings, regularly or otherwise, felt that there was little support for them on the *pani samiti.* Male members often dominated the PS discussions and that because of the socio-cultural context they had little opportunity to participate effectively, so they stopped attending meetings, as they found them a waste of time.

Gender and participation: ability to articulate /voice concerns in meetings

One of the main concerns about decentralization has been whether the space created for women's participation – through quotas or otherwise – has been used to articulate or voice gendered priorities. In the case of the *pani samiti* meetings, 72 percent of the women who do attend meetings felt that they could articulate their priority concerns in such forums. In Navagam village (Surendranagar district, WASMO-ERR with AKRSP), Hansaben claimed that she had decided the water tariff and others on the PS had agreed – albeit without any cost calculations. Other women who attended meetings felt constrained to speak by the social structure, particularly in front of men – many of them (10.5% of the sub-set of women attending meetings) asked others to put their point across. This is an interesting strategy that women seem to be employing – using the experience of older, more articulate and confident women to voice their concerns if they feel inadequate or shy in the given cultural context.

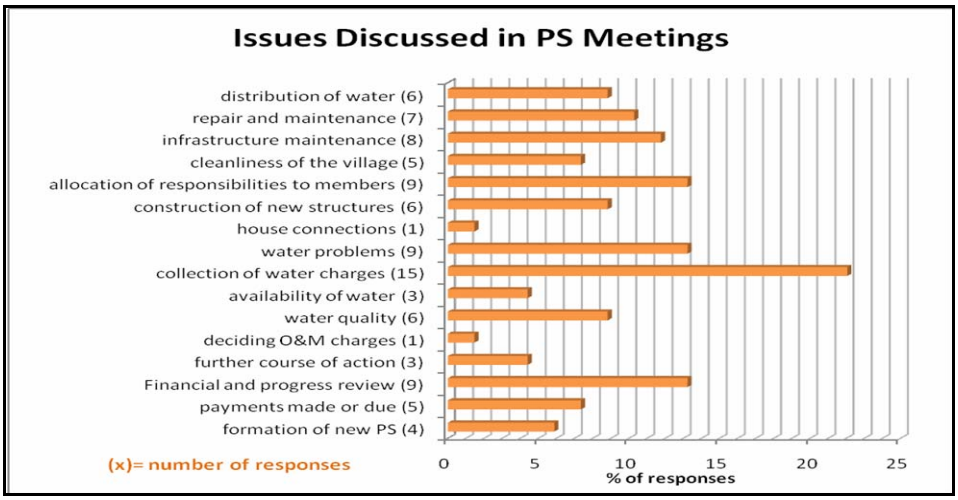
Table 3.8 Ability to speak in PS meetings

	No. of responses	**As a percentage of women who attend meetings**
Yes, I can speak	41	72%
Can speak during PS meeting but not where larger community is involved	2	3.5%
Can speak in a women's meeting only	1	1.8%
No, take help	6	10.5%
No, don't have anything to say	5	8.7%
No, social structure does not allow to speak if men are present	2	3.5%
Sub-total of women who do attend meetings	57	100 %
Women who don't attend meetings	11	16.2% (of total)
Total women	68	

The analysis of the profile of women who do feel confident about speaking in meetings shows that these are generally older women and with past or present institutional affiliation – either as members of SHGs or *panchayat*. Tribal women, not surprisingly given their relative mobility in the public domain vis-à-vis other women, are also confident of speaking in meetings as are women from the OBC category. However, and again not surprisingly, women from the SC category (*dalits)* find it harder to articulate voice. And finally, education while an important 'capacity' for women does not seem to have any co-relation with the articulation of voice.

Women have considerable awareness of the issues being discussed in PS meetings and were able to list out a range of issues as show in figure 12. The most significant set of issues that the PS discusses – which is also one of the responsibilities allocated to women PS members – is the collection of water tariffs and the financial and works progress review. However, 23.5 percent of the women claimed that they were not aware of the issues being discussed – most of these are naturally the women who claimed they were not attending meetings, but more to the point is that it seems there is little interest amongst them to find out what the PS is discussing even if they were not able to physically participate in such discussions.

Chart 3.9 Issues discussed in pani samiti meetings



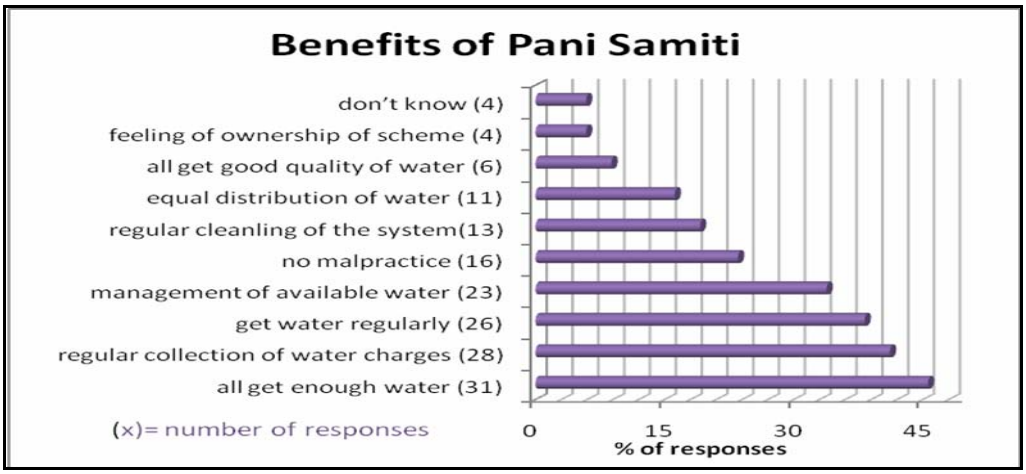
Interestingly, in some villages men on the PS acknowledge that women are doing good (water related) work in the village, that they have gained their respect and are able to speak in meetings: "*Earlier, we were not asking women to help with village water works. But now we get water only because of their hard work* (referring to village infrastructure and not water collection by women). *Women were feeling shy to participate earlier, but now they come and sit in the meetings and also talk, raise important points*," (men in FGD at Mokarshivangh village, Kutch, WASMO-ERR with KMVS, December 2007).

Pani Samitis: accountability and transparency

Most women members feel that overall there are tremendous benefits in having a good, functioning and accountable village *pani samiti*. The four most important benefits they listed (in declining order of importance according to the number of responses):

- All households/persons in the village get enough water
- There is regular collection of water charges
- Water is available regularly
- Water is managed effectively – no wastage, leakage, on time

Chart 3.10 Benefits perceived as a result of well functioning pani samiti



Other benefits of the PS that were listed as significant, but of less significance than the first set of benefits, was the fact that with the formation of the PS there was less malpractice in accounts or during construction work, everybody got an 'equal' amount of water (according to what they were entitled to and paid for) and that there was regular cleaning of the water infrastructure and more broadly, the village (environmental sanitation). Interestingly, only four women felt that the PS inculcated a sense of ownership for the water infrastructure amongst the village community.

When asked whether their participation both as individuals in their own right and as women made a difference to the functioning of the PS, just over half of our respondents felt that it had not (this includes the women who did not actively participate in PS meetings). Amongst the active women who felt that their participation had made a difference, a number of outcomes were cited where the presence of women on the PS, had in their opinion made a difference. This included more transparency and fewer malpractices in PS matters, an assured and regular supply of water and better quality of construction work.

Although it is difficult to find clear examples of malpractice or corruption, many women claim that reservations for women in the public sphere are important, as women are known to work honestly: *"If one-third of the members on the committee are women, it automatically brings the corruption down by 1/3rd so it is essential to provide reservations to ensure that women are able to come up in public spheres,"* (interview with Hansaben, PS member, Navagam village, Surendranagar district, September 2007).

Another woman argued that *"Bhaiyo joye chhe ki kya paisa male chhe, beno jove ke kaam saru thaye* – Men try to figure out where can they make money through cuts in the project allocations while women make sure that the work is done properly," (Interview with Prabhaben, Janada village Bhavnagar district, April 2007).

However, in the village of Mokarshivangh (Kutch, WASMO-ERR project with KMVS), men reported how WASMO brought their own contractors to do the village water supply works, when one of the learning from the Ghogha project was that PS could either undertake the work itself (labour from the village) or select contractors, to prevent malpractices: *"We told WASMO that their contractor will only be able to work from 8 a.m. to 5 p.m. so that we can monitor their work; also they could not bring any (raw) materials at night,"* (Khanjibhai, secretary of PS, FGD, Mokarshivangh village, Kutch, December 2007).

The *pani samiti* is seen as the most effective institutional mechanism for resolving conflicts over water distribution (22 percent of the women agreed on this), while for some women,

village elders and the *panchayat*, or more specifically, the *sarpanch*, were deemed to have a greater role in resolving community conflicts, because of their access to larger networks of power such as political parties or local politicians (MLAs).

Participation: facilitating and constraining factors

We looked earlier at the reasons why women were selected to the *pani samiti* – their personal attributes and characteristics which got them selected. But it is also important to understand why women wanted to be on the PS – 19 percent of our sample gave no particular reason for why they were on the committee. Of the ones who did have a reason – 61.8 percent of the respondents maintained that they stood for the PS because they were interested, they wanted to do good for the community and water was an important livelihood resource, while 40 percent of the respondents maintained that they were on the PS because they had been selected and so were fulfilling community responsibilities – as largely determined by others.

Table 3.9 Reasons for participation in Pani Samiti

	No. of responses N=68	**Percentage**
No particular reason	13	19.2
Those who gave a reason, multiple responses in some cases, % of N=55	55	80.8
Interested	34	61.8
Because selected by villagers	22	40.0
Aware	1	
Mandatory requirement	1	

There are a number of factors which either constrain or facilitate women's participation, primary amongst them, at least in the South Asia context being the role of the family. Other factors that determine participation are poverty and social position (caste, class, age) – we had argued earlier that the sample is fairly representative both in terms of income groups and social inclusion. With respect to their family, an overwhelming 60 percent of the sample claimed they had no opposition from their family when they stood for election, while 19 percent claimed that though there was some opposition earlier, now the family has reconciled to them being on the *pani samiti.* Those who don't participate in PS meetings (20%), probably continue to face some opposition from their family members.

When it comes to support from their family when they have to attend committee meetings or other committee responsibilities, 72 percent of the sample maintained that they had the support of their families. On the other hand, 25 percent of the sample maintained that there was not so much work for them to depend on their families for support – these largely included the women who did not attend meetings and who did not take up committee responsibilities.

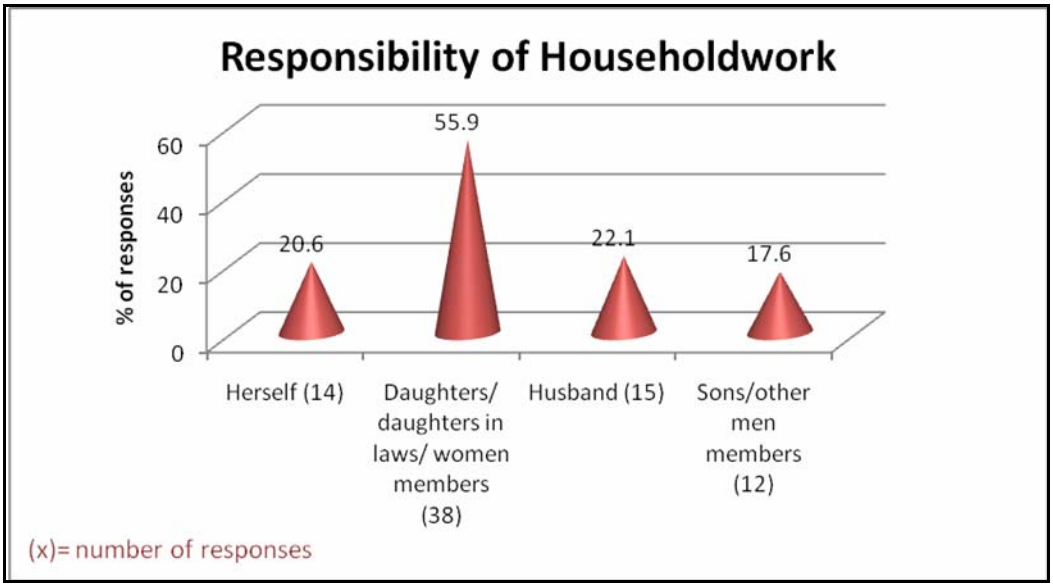
Table 3.10 Extent of family support when women are busy with committee work

	No. of responses	Percentage
Yes	49	72
None	1	1.5
Not so busy, includes those who don't attend meetings or if they do, have few tasks	17	25
No family members	1	1.5
Total	68	100

However, when probed further as to *whom* within the family supports the women PS members, we find that most of the support for their household work comes from daughters and daughter-in-laws (or other women members, like mothers/in-laws) although in some cases husbands and other male members are also supportive. Since we never asked the women who takes primary responsibility for housework when they are busy with committee meetings, there are multiple responses (i.e. joint work) which illustrates that although the burden of domestic work remains with women, men – husbands, sons or other male members – are beginning to share in this workload.

Chart 3.11 Responsibility for household work when women are busy with PS work

(Multiple responses, % more than 100)



Most of the women in our sample, 59 percent, felt that being on the PS does not interfere with their household work, nor are they so preoccupied that they do not have time for other things, like rest or leisure. This is perhaps a reflection of the number of meetings that a PS has – while the construction work and institution building processes are going on, meetings are more frequent (maybe twice or thrice a month) but once the basics are in place there is only the maintenance, including cleanliness and sanitation, and collection of water charges which the committee needs to attend to and any problems, or conflicts, as they come up.

Table 3.11 Does participation in PS affect your time for other activities, including leisure or rest?

	No. of responses	Percentage
Yes	16	24
No	40	59
Can't say	1	1
Not applicable	11	16
Total	68	100

Most women don't see their being on the *pani samiti* as additional work, or if they do, they take it in their stride as a social responsibility (i.e. not just more work), but also an opportunity – to participate in the public sphere. A word of caution here –the large number of 'no responses' in the table below is perhaps an indication of indifference or lack of understanding of the question.

Table 3.12 Is your participation an opportunity or a cost (increased work)?

	No. of responses	percentage
Increased work	10	15
Opportunity	6	9
Both	12	18
Indifferent / no response	40	58
Total	68	100

Most of the women realize that their participation is essential for a well-functioning *pani samiti* and for them these 'opportunities' are translated at first into practical gender needs before women can address the larger dimensions of change and empowerment (strategic gender needs). The principle benefit of the PS is the availability of an assured, accessible water supply and the time women save in the drudgery of daily water collection – 71 percent of the sample agreed on this. However, in 25 percent of the cases (one fourth of the sample) the scheme either had no water or the water supply was temporarily disrupted so women did not in effect save time. The other negative responses are probably from the households who already have their own private connections or water source and are not dependent on the village water scheme.

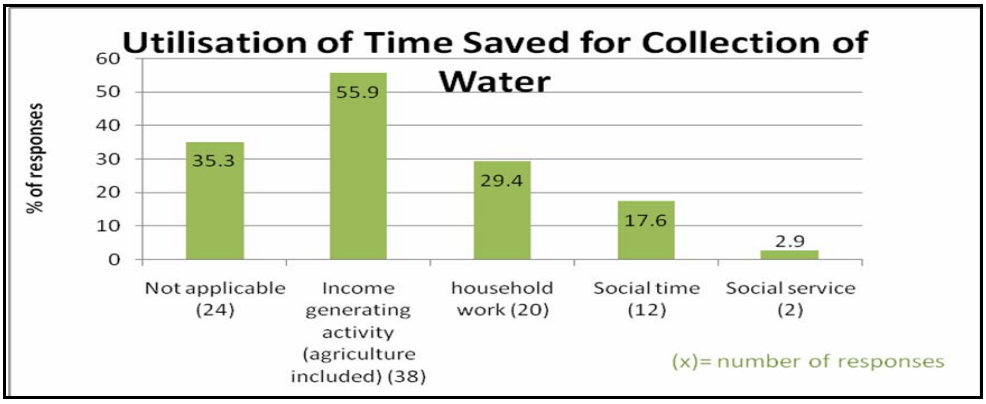
Table 3.13 Time saved in water collection because of scheme

	No. of responses	Percentage
No water (either scheme not functional or water supply has been disrupted)	17	25
Yes	48	71
No	3	4
Total	68	100

We did a very crude analysis of where time saved is used and most women claimed that this went into income generating activities, including agricultural work (multiple responses).

Some women also spent additional time on more household work, while very few spent time saved on leisure or rest and only two women found that they had time for social service.

Chart 3.12 Utilisation of time saved from water collection (multiple responses)



Apart from time saved, many women also reported that they could now send their children to school more regularly, particularly girls who would have otherwise been involved in water collection. The women also mentioned that they could give regular baths to children before school. Many women, at least 72 percent of the sample, reported that there were positive improvements in the health of family members. More women however (87 percent of the sample), reported that there was an improvement in the general cleanliness around their homes and in the village – the discrepancy is due to the fact that not all villages have received water under the scheme (work in progress) so it is difficult to account for changes at the household level, while changes at the community level may be more forthcoming.

Empowering women?

How far has participation in *pani samitis* transformed women's lives – led them to have a greater say in decision-making for example, increased acceptance of their views and perceptions or led to greater mobility for them and sharing of household work. The other critical question is whether women have been able to move beyond water to articulate other gender concerns at the village level, or in a larger context? Analysis of change is largely perceptional and qualitative, i.e. we are not trying to measure levels of empowerment attained, but to understand how women are expressing and seeing change at all levels.

Just over half the women in our sample (54 percent) felt that there had been some change. This change was manifest in many different ways – at the level of the self and in relation to their position in their households and the community. For example, 57 percent of the women reported that they had more respect from their family and community members, while 44 percent of the women felt that they were participating more in household decision making and 49 percent of the women felt that their was greater acceptance of their views and opinions. In addition, 51 percent of the women reported that they had more mobility – access to the public domain now than before:

"People have started respecting me more now. My extended family members ask me for suggestions for all decisions. Now I can speak up, when required. I can go out for meetings/ trainings. First time I went out alone to Botad for buying material for the project. Now I have an independent identity as "Shivuben", rather than just a relative of a male family member," (Personal interview with Shivuben, Janada village, Bhavnagar, 2007).

Many women are elated at the fact that they can now sit on a chair while in a meeting *"just like educated women from cities like you"* (Hansaben, Navagam, Surnedranagar, 2007)

However, many women reported no change in terms of their mobility, or participation in decision-making and many (one-third of the sample) maintained that most of these 'empowerment indicators' were there from before and being on the PS had not fundamentally changed their lives.

Table 3.14 Changes towards women's empowerment

Changes at household level		
Increased participation in decision making process within household		
Answer	No of women reporting	Percentage
Yes it has increased	30	44
It is there from before	22	32
There is no change	16	24
Total	68	100
Increased respect		
Answer	No of women reporting	Percentage
Yes it has increased	39	57
It is there from before	8	12
No there is no change	19	28
don't know	2	3
Total	68	100
Increased acceptance of views and opinions		
Answer	No of women reporting	Percentage
Yes it has increased	33	49
It is there from before	12	18
There is no change	23	34
Total	68	100
Increased mobility		
Answer	No of women reporting	Percentage
Yes it has increased	35	51
It is there from before	9	13
There is no change	24	35
Total	68	100
Sharing of work by household members (m/w)		
Answer	No of women reporting	Percentage
Yes it is shared now	17	25
There is no change	10	15
It is there from before	41	60
Total	68	100

In terms of sharing of household work, most women felt that this had not changed significantly (60%). In most cases, work continues to be shared by daughters/ daughter-in-law or other female relatives. Sometimes it looks like further burdening of the women of this particular generation. The PS member (majority are between 40-45 years) now spends even more time outside, resulting in further involvement of the next generation women in household work. We have seen daughters unable to attend school, daughter-in-laws managing ALL household work and her small kids, while the mother-in-law is "empowered" and able to visit distant towns for trainings and demonstrations. The "emancipation" of the next generation doesn't seem to be happening, or at least they will have to wait for their turn, as it

is the mother figure who has more mobility and improved status within the family and community.

Part III: Summary: key emerging issues and their implications for decentralization and women's empowerment in Gujarat

Our findings in Gujarat have illustrated that decentralisation, like democracy, is a process and not a destination.[47] *Pani samitis* that have been formed as a sub-committee of the gram *panchayat*, at least under the WASMO-Ghogha and ERR projects, do have independent bank accounts and project funds have largely been transferred directly to them, albeit with some delays. Accountability and transparency of the PS is assured through village *gram sabhas* for all significant decision-making throughout the project cycle (e.g. on selection of *samiti* members, particularly women and marginalized communities and on deciding location of water infrastructure and fixing village contribution and water tariffs). Separate account books are maintained by the PS and regularly audited by the facilitating NGO as well as WASMO – although it was difficult to verify these as the records were often kept with the block development officer (the talati), and minutes of PS meetings were not maintained.

Unlike the Ghogha project, in the WASMO-ERR project there has been clear recognition for the need for dual water supplies and the development of local sources, if available (quantity and quality of water), have been given priority. Similarly the need for water resources management (water and land/soil conservation, recharging) to ensure source sustainability were built into the programme from its inception and not added on later. Every village plan was based on local needs and priorities rather than a 'one size fits all' approach and innovations were encouraged. For example, Dador village has solar power plates which help pump water from the local source – a covered well – for distribution in the village through standposts. With the help of facilitating NGOs, technical capacity of *pani samitis* was built through specific training programmes on their roles, functions of a PS, monitoring construction of village water works and managing water tariffs and O&M. Exposure visits to well functioning schemes managed by efficient *pani samitis* were also organized and many women and men shared their experiences of what they had learned and how they had used their learning in the development of their own village water works.

However, building communities' technical capacity to develop, manage and maintain village water supply is not the same as building their capacity to constructively engage in the process of decentralization as citizen and subjects rather than 'objects' of participatory water planning. Political articulation – the degree to which communities of water users represented through *pani samitis* can influence water policy – is determined by the institutional architecture which facilitates articulation between civil society, the state (polity and bureaucracy) and citizens in a wider democratic context (Chhatre 2007). The impact of water sector reforms and the space for rural women to participate in decentralized institutions, as well as their empowerment, has to be looked at within this larger framework.

In this section we try and summarise the key outcomes both for women and men as well as specifically for women in terms of a number of broad parameters: efficiency, effectiveness and sustainability of demand-responsive water management, social inclusion, equity and political voice, participation and empowerment. The discussion that follows draws on our FGDs with all *pani samiti* members, women and men, as well as FGDs with non-members, sometimes in the course of a village transect, around (non)-functioning water infrastructure or

[47] Adapted from quote by Jardo Muekalia, representative for Angola's Unita, a rebel movement turned opposition party, on the nation's first election in 16 years (TIME, September 22, 2008, 172(11): 10).

in a specific marginalized hamlet (e.g. where *dalits* live). There are some points of difference and some points of convergence in this analysis from our preceding discussion based largely on the in-depth interviews with women PS members, and these are highlighted.

Efficiency and effectiveness

While the former refers to the benefits of decentralization outweighing the costs (financial, social) the latter refers to whether the process has met its goal, i.e. of developing self-reliant, water supply systems capable of meeting community domestic water needs. Both are inter-linked and together would contribute towards equitable and sustainable water management. In terms of efficiency, the unfolding of this process of developing demand responsive water management has required tremendous financial and human resources and time. In the case of the Ghogha project for example, little was achieved for the first 5 years (from 1997-2002) and it was only with the formation of WASMO as a Special Purpose Vehicle and the powers and resources that it had (financial, technical, human) that we see serious efforts at developing *pani samitis* and facilitating partnerships between them, civil society actors (the Implementation Support Agencies) and the state (GWSSB/WASMO). While we were not able to do a financial analysis of costs overrun, etc., it is clear that without the collaboration of NGOs with substantial experience of community-led water management as well as gender mainstreaming, this programme would not have been able to meet its intended goals, efficiently.

That said however, problems in the delivery of water, in access (physical, costs), water availability and quality persist in many villages raising questions about the effectiveness of sector reforms. These concerns persist and are largely felt by the community (non-PS members) despite the fact that overall most women on the PS have claimed that access to water has largely improved, for all. We would argue that access to water is a reflection of the choice of technology (given demand and population), community pricing decisions (water tariffs) and social factors underlying inclusion.

Choice of technology

while WASMO claims that it encourages appropriate technological innovations that address the diversity of agro-ecological conditions and water availability in rural Gujarat, the reality is that much of the 'innovation' has been led by partner NGOs and not the water engineers who would otherwise be content with their overhead tanks, sumps and distribution pipelines. Even here there are glaring gaps in the assessment of water needs – for example, in Ghogha village on the one hand, the capacity of the overhead tank is low compared to village requirements and on the other hand, there is not enough pressure because of inadequate power supply, to pump water to hamlets further away (at the tail-end of the distribution system). Water supplies are irregular – once in 10-15 days; insufficient (only for 2-3 hours at a time) and at odd times (not fixed, sometimes late at night). Consequently, there is illegal pumping of water direct from the main pipelines, and although the PS has imposed a fine of Rs 250, this is not enough of a deterrent.

Conflicts over the choice of technology, between WASMO and local communities, are not uncommon. In Dador village, Kutch – villagers claimed that in one of the hamlets which was at an elevation, WASMO engineers had insisted that they build an underground storage tank otherwise water would not reach, whereas they had insisted on an overhead tank. But WASMO got its way as villagers did not have substantive resources of their own to build the tank they wanted. However, now the underground tank is always overflowing, the handpump which was put on the head of the tank is broken and consequently dogs are freely drinking

water which was meant for domestic use. And in a predominantly Muslim context, dogs are considered unclean.

Pricing of water

Our analysis shows that while women PS members had internalized the discourse on valuing water (all users should pay), there were concerns in many villages about the ability of the very poor to pay. In Hajipir village, Kutch (WASMO-ERR with KMVS) there are some 10-15 households of Koli Patels (backward castes) who are very poor. The PS decided that they would provide them a water tank at no cost (the 10% community contribution to capital costs was waived) but they will be expected to pay water charges as applicable.

In many cases, willingness to pay was linked to the efficiency of services, but this became the proverbial double bind. For example, in Ghogha where water delivery to the furtherest hamlets was irregular, households were not willing to pay the water charges levied by the PS, but they were willing to pay more to get the occasional water tanker to meet their needs. An exasperated woman panchayat member from the hamlet who had been trying to coax the 10 households there, claimed: "Unless you pay for water, you should not complain about poor services!" (FGD with non-PS members, Ghogha, January 2007).

Social exclusion

Despite the fact that the *pani samitis*, as earlier discussed, are fairly representative of women from socially marginalized groups, discriminatory politics of caste and faith still determine who has access to water. In a *dalit* hamlet in Navagam village, Surendranagar district (WASMO-ERR with AKRSP) – women and men claimed that the location of (water) Cluster Storage Tanks (CSTs) was decided by the middle caste Bharvad community. Caste discrimination in the village persists – so older women generally do not go to fetch water. Children are sent instead (girls), but sometimes even they are pushed aside, not allowed to take water from tanks so *dalit* women have to walk to the well nearby. Water also does not come to all the CSTs – at the time of our field-visit only three of the 8 CSTs were getting water regularly, so *dalit* women and children had to use the tank which was near the Bharvad or Koli hamlets, both from middle caste categories.

Women claimed that they did not have time to be part of the PS because they had to go for daily labour (also no men from *dalit* community on the PS) and they felt diffident about speaking in meetings (FGD with non-PS members, Navagam village, January 2007). While they were not asked for their views on the location of the CST in their hamlet, they were content with the site (it's the water that's not coming regularly) and are involved in keeping the tank/surrounding area clean. Poor *dalit* women are also not members of any SHGs in the village where information on water and other development issues is often shared by women members of village institutions. One of the women present in the FGD (January 2007) did become a SHG member by giving Rs 10/ but when she went for the first meeting the other upper caste women complained about her presence (did not want to share the same social space with her), so her family told her not to go anymore.

Surendranagar is a poor, drought prone district and factional conflicts, particularly caste conflicts are not uncommon as AKRSP(I) has documented in its attempts to introduce demand responsive water projects with support from WASMO (see Prajapati 2005). AKRSP(I) has tried a number of conflict resolution strategies, usually based around dialogue with village elders, *panchayat* members or women's *mahila mandal*. Where these have failed, AKRSP has been forced to withdraw from the village. An analysis of who participates and who benefits in Mokasar village, also in Surendranagar district, showed that most of the

developmental benefits from AKRSP facilitated interventions were accruing to the wealthy and better off farmers. The poor, who constituted 32.5 percent of the village population, were unable to pay the contribution for water harvesting structures in the village and remained indebted to moneylenders, particularly during periods of drought (ibid).

Apart from caste, exclusion based on faith in a state which is highly communalized is also not uncommon. Kutch is the only district, where there are a sizeable number of Muslim women and men participating in the *pani samitis* and in other village institutions, some holding office-bearer positions. In Ghogha, many non-PS members felt that since it is a Muslim dominated village and since the distribution of water is controlled from outside the village, by the GWSSB (external source), the village was suffering as the state government is BJP (FGD, April 2007). However, while it is difficult to probe or prove such statements they cannot be dismissed as perceptions also determine social action.[48]

Governance

If we look at governance as a process of decision-making which is more or less accountable to community needs for water and which is open for scrutiny (transparent), then we need to begin by looking at the framework of rules, incentives and formal/informal practice which constitutes the *pani samitis*.

Meetings

most PS do not have regular meetings – the only exceptions are those villages where water supply work is still ongoing. In some villages, like Hajipir (Kutch, WASMO-ERR) where the PS they had regular monthly meetings, on further probing, it was found that the last meeting was held five months back! Apart from infrequent meetings, meetings when they are held are also poorly attended – at least one third of the women in our sample did not attend meetings, while in other villages women pointed out that it was mostly the men who did not attend, as domestic water was seen as women's work (we return to this largely unquestioned assumption later). However, most committees did not have rules for erring/absent members – in Mokarshivangh village (Kutch, WASMO-ERR) the PS had made it compulsory for every member to attend a meeting at least once in two months – if they did not have any justifiable reasons, they would be asked to step down.

Rules

In most villages there are (in)formal rules, for example, not to wash clothes or utensils or bring animals (livestock) to the same water sources which are used for drinking or cooking purposes. In addition, no one is allowed to pump water directly from any of the water infrastructure (pipelines, tanks) but to use the hand pumps, etc. However, the extent of monitoring or enforcement varies – since most rules are not written or adequately communicated to the larger public it is difficult to assess whether they are being complied with, though people generally seem to be aware of what's right/wrong water and sanitation practice. Fines are also not clear in most villages – particularly where work is still in progress or where water supplies are irregular. In Mokasar village (AKRSP, tribal development programme) where people who were found washing their hands or legs inside the cluster water storage tanks would have to give 5 kgs of grain to feed the pigeons! And in Ghogha

[48] This is again not the place to go into the Gujarat carnage of 2002 and developments post this, but many villages have been publicly declared (board at entrance to village) Hindu Rashtra and free from Muslims, i.e. there are no Muslim residents in the said village, many did not return after the riots, others have been economically forced out.

village, as mentioned earlier, there is a fine of Rs 250 for anyone caught pumping water directly from the main pipeline. Where fines have been enforced, the money collected has gone into the village O&M account.

Corruption

Curruption is difficult to measure either directly or even indirectly, hence perceptions of corruption are taken as a proxy (Asthana 2004). Although WASMO has introduced a number of steps to minimize corruption, including auditing of all accounts and letting the PS decide who should build their village water works – contractors (monitored by them) or themselves (local labour also seen as employment generation), corruption even if not tangible, is pervasive, at least in people's perceptions. Some PS members maintain that corruption exists higher up the ladder (naming bureaucrats within WASMO), despite WASMO's claims at being an 'honest organisation'. While others in the community, dismayed at still not receiving water, point their fingers at rent-seeking PS members who they argue will not do anything unless you pay them. For others, corruption is embedded in a development process which lacks direction or foresight: "*As part of our capacity building we were attending a workshop on community disaster management where the officers were telling us what steps to take AFTER a disaster rather than how we can prevent disasters through better building (retrofitting our schools, homes) and planning*," Ismailbhai, PS member, Ghogha (FGD, February 2007).

Certainly the Right to Information Act (2005) has provided a platform for many villages in Gujarat, with the help of civil society actors like PRAVAH, to raise questions of accountability and transparency vis-à-vis public officers and water projects. But it is more difficult to look at corruption *within* – whether it is in local communities where the power of vested interests is often blatantly visible or in NGOs where field teams who have been facilitating partnerships between the PS and WASMO have themselves been accused of rent-seeking behaviour to get village projects approved and sanctioned in time. Needless to say it is difficult to prove such allegations, but it is important to recognize the potential nexus of power between local level government functionaries, elected leaders (sarpanches, etc.) and contractors. Equally important is to understand the struggle for livelihoods, not only for the rural poor and marginalised, but also for the personnel within NGOs, particularly small organizations with low salaries or incentives, who have to work long hours in difficult terrains with limited access to education, health or other social services.

Participation, gender and inclusion

Participation, gender and inclusion is intrinsic to the process of water governance and certainly through their quotas, the *pani samitis* have provided space for the participation of women (1/3 reservation) and marginalized communities (representative). In Gujarat, this process has not been based on election, but selection through consensus – the policy of *samraas* adopted by the state government after 2002, when the *pani samitis* were also reconstituted according to the new government guidelines.[49] Women who have been selected to the PS are largely older (40+ years), married women with considerable experience in community institutions such as SHGs, village *panchayats* and other decentralized institutions around natural resources management. Unlike other examples of local governance, except for a few cases, women were not selected because of their relationship with male *panchayat*

[49] According to the 2002 GR, panchayats in villages where there are water schemes have to form a PS of 10-12 members, of which at least 4-5 have to be from the panchayat, including the deputy sarpanch. It is no longer mandatory for the sarpanch to be the head of the PS.

or PS members or other powerful men in the village. Though in some villages, like Mokarshivangh (Kutch, WASMO-ERR) the *panchayat* had consciously selected couples so that women could attend meetings, even those held late at night and there would (allegedly) be no opposition from their family or kin to their participation in the public domain.

In terms of their roles and responsibilities, other than attending meetings regularly, women PS members were responsible for collection of water tariffs, for negotiating conflicts around the location of public water infrastructure and for ensuring that the area around these was kept clean and water was not being wasted. Many women felt that the latter was extending their unpaid household work to the public arena (as *natural* environmental caretakers), entrusting them with the collection of water charges amounted to vesting in them the responsibility for ensuring the financial sustainability of their PS. It is interesting to note how these roles intersect with each other – one based on privileging women as carers, as 'assets' to be 'harnessed' for water management (Rocheleau *et al.* 1996) and the other privileging her as an honest person (Green et al. 1998). Both roles are embedded in perceptions of rural, poor women as more 'accustomed to voluntary work' (World Bank's Water Resource Management Strategy 1993, cited in Green et al. 1998: 264), yet ironically both roles are at the centre of the technical and financial sustainability of the PS and the village water works where considerable funds have been allocated and/or spent and where access to regular, sufficient and quality water supplies can improve lives, save expenditure on health and perhaps, save time for productive (income generating) work for women (and men).

At another level is the parallel question of *who* or *which* women participate? Scheduled castes account for less than one-third (16.2%) of the women on *pani samitis*, while the representation of scheduled tribes is better (26.5%) because of the presence of some *adivasi* dominated villages in our sample (Pav, Navagam, Mokasar). Looking at the distribution of poverty, about 50 percent of the women on the PS are from middle-income households while 25-30 percent are very poor, with household incomes below the poverty line and the balance 20% come from the better off or large income households. Certainly, for women from poor households and lower castes it is difficult to find the time to participate as their only source of livelihoods is arduous daily labour (agriculture, construction), they are often compelled to migrate with their families or they are excluded from public meeting spaces because they are considered 'polluting' (as the women from Navagam village explained).

On the other hand, upper caste women and men also apply more subtle social sanctions, by questioning the very process or need for broader participation as is evident from this FGD (January 2007) with the largely upper caste, Darbar men and women members of the *pani samiti* in Jasapara village (Bhavnagar district, WASMO-Ghogha project with Utthan): "*What is the need to involve other people? What however is required is regular availability of water,"* claims Nirmalaba, an ex-sarpanch (female PS member). Shakti Singh (male PS member) added: "*If you try to involve more people it also brings in more chaos and conflict – participatory decision-making takes time*." Ghanshyma Singh (male PS member) agreed: "*Most people here just think for themselves – they lack a larger vision for the community or village*." Referring no doubt, to the fact that the poor so caught up with their daily livelihood struggle have no time to think big, beyond their basic livelihood needs about the larger agenda of environmental justice and water rights. [50] And even if they were involved, opening the process to more inclusive participation would lead to unnecessary delays, affecting all in the long run.

[50] Chambers also referred to this in some of his early work on participation (refs to be included).

Participation and women's empowerment

Understanding what empowerment means in concrete terms for the women who have come into these (new) public spaces is challenging. If we look at the four inter-related elements of empowerment: social, economic, political and physical with respect to decentralized water governance, what can we say from our discussions with women and men in Gujarat.

- *Social empowerment* in terms of changes in self-image and status for women is increasingly visible in terms of their greater mobility in the public sphere (particularly important for upper caste, Darbar women), their ability to command respect and to negotiate with men and government officers. However, all these changes cannot be attributed to their participation in PS alone – much is due to a longer process of political engagement with other village institutions (particularly SHGs), political parties or panchayats. In other cases, it is strongly linked to the gender sensitive leadership of some of the NGOs (notably Utthan and KMVS) and to the attempts to link women's participation in water governance to larger questions of gender rights. But clearly, there is a lot more work to be done on this front as many women members did not see these linkages, nor were they able to relate the contestation over water in their micro environments to the larger shifts in water policy and sector reforms. Support from men, particularly in terms of sharing in household chores is still limited and most of the 'burden' of women's participation has been borne by their daughters and daughter-in-laws. In the Darbar dominated Jasapara village, men stated that women's participation in PS meetings should not be at the cost of their primary household responsibilities: "We men have to wait for our meals if women go out to meetings!" (Mohanbhai, PS member, FGD January 2007).

- *Economic empowerment* is not an aspect that we categorically explored but despite problems in some of the villages as pointed out, overall access to water has improved and women are finding more time for productive work. The gradual increase in the enrolment/retention of girls in schools, school sanitation and improved hygiene practices will also, one hopes, translate into economic gains for women and men. However, there is a still long way to go in terms of changing or challenging the intra-household division of labour, resource entitlements and decision-making over benefits, including the right to work, and equal wages.

- *Political empowerment:* has clearly improved with women's right to participate now constitutionally mandated in both *panchayats* and *pani samitis*. However, the extent to which women, particularly from marginalized communities, are able to articulate voice is still contingent on socio-cultural practices of *purdah* (female seclusion) and what is considered appropriate behaviour for women. In earlier work on *pani samitis* facilitated by Utthan under the Ghogha project, Ahmed (2005), had pointed out how women maintained that whenever they spoke at PS meetings, other male members would go and complain to their husbands – "*how could their wives have the audacity to speak in front of us, they exclaimed! When questioned by their husbands, women replied that drinking water is their problem, and they feel compelled to speak out when there is a discussion or a particular decision is being taken which is likely to affect them. To an extent, such male perceptions are a reflection of the cultural practice of mariadah – the culturally expected shyness from women in terms of vocalizing their opinions, which is still prevalent in many part of Saurashtra (Blennerhasset 1999: 129). Patriarchal definitions of what is appropriate feminine behaviour, particularly in public spaces, often entails women risking intra-household conflict if their husbands think they have transcended their socially accepted roles*

and so violated their masculine identity based on power, control and dominance," (Ahmed 2005: --).

- For women from the upper caste Darbar households, participation in the public domain is still difficult. Explains Shakti Singh, (PS member, Jasapara village): *"Things are changing slowly, with education more girls are coming out – I let my wife be nominated for sarpanch,"* admitting reluctantly, that he attends meetings, but he adds, *"I have at least made her a sarpanch in name – in my grandfather's time even that would not have been possible. Our children will have women sarpanches who will also work. But this is not possible till everyone is educated,"* (FGD, January 2007). However, just to remind the likes of Shakti Singh, being educated or literate was not one of the key deciding factors in the selection of women PS members – rather factors, like past experience, ability to attend meetings, commitment, etc. were key determinants of who/which women got selected.

- *Physical empowerment:* the right to clean water and sanitation – and the ability to access these – is at the core of women's physical safety, security and dignity, particularly in conflict and disaster-prone environments. Although much work still needs to be done on developing affordable, appropriate sanitation alternatives as well as capacity building on the 'software' aspects underlying household decision-making on sanitation, a beginning has been made and women (and some men) are demanding household latrines. However, where access to water is still limited, as in many of the villages in Kutch, and open spaces exist (though not adequate tree cover, except from the abundant acacia or *prosopis julifera*) – creating demand, without providing technological, environmentally appropriate and culturally acceptable alternatives is still a challenge.

Looking at empowerment in a broader framework linked to questions of sustainability, equity in water use and gender equality, much remains to be done. While access to potable drinking water has improved considerably, handing over management responsibilities to *pani samitis* without ensuring that they have the technical, financial and human resource capacity to both 'manage' as well as 'govern' defeats the larger goal of decentralization. No doubt capacity to manage through access to information and new knowledge, exposure visits, etc. has increased and is being extended to other village developmental activities. For example, in Janada village (PRAVAH demo-pilot, Bhavnagar) one of the women PS members who had undergone training on monitoring the construction of water supply works recounted how when the village *anganwadi* (day-care) was being built she realized the contractor was using more sand and less cement: *"I brought all the raw materials to my house and when the contractor asking me what did I want, thinking he could bribe me, I just told him that we did not want the angawadi walls to collapse and our children to get hurt,* (FGD, April 2007).

With respect to equity – fairness in the allocation of water – none of the villages had any rules as to how much water a person/household can take, when water is available that is. Even if such norms existed, they would have been difficult to enforce. Only in one village – Dador in Kutch (WASMO-ERR) – did we find that the *pani samiti* had taken a conscious decision not to provide private household connections. Given the continuing problems of water scarcity in Kutch, it would have been difficult to monitor water use and good quality, drinking water would have been wasted, maintained the PS members, adding that there were enough community taps at tanks and standposts. Still, this does not answer the question of how much water is one entitled to?

Equally, the PS do not seem to have any norms regarding water distribution – such as, providing water to the furtherest hamlets first, which inevitably, as in the case of Ghogha and

Navagam villages are where the poor and marginalized live. Part of the reasons for these gaps is not because of the limited understanding of villagers but because of the limited discussion in our water community (civil society and the state) on what constitutes minimum livelihood, including drinking water, assurances for water. And not simply needs, which get translated into rather skewed government norms for water allocation.[51]

Linked to the question of intra-village equity is inter-village equity, particularly when villages are part of the same watershed or river basin and share the same underground water aquifers. Across nearly all the villages, partly because of the historical problem of water scarcity in Gujarat, villagers, women and men, felt that their water was theirs and that if they shared it with other villages they would not have enough for themselves. While there are some examples of inter-village water sharing in Kutch, giving the resilience of the Kutcchis, they do not like to be dependent on others and would rather have their own water systems.

In addition, is the question of ownership: has the process of decentralization and the creation of *pani samitis* facilitated greater responsibility for water management and good governance? Does the larger community feel that the *pani samitis* can be entrusted to manage their water and to develop self-reliant, sustainable systems and institutions? Unfortunately, our discussions with non-PS members were rather mixed – in many villages, particularly where schemes were not working, habitations were scattered and women did not attend *gram sabha* meetings, there was limited knowledge about the PS or who comprised its members. Surprisingly, many women, and even a few men, stressed that this was the first time (referring to the FGDs we were facilitating) that they were being asked for their views on any village issues, raising questions about the democratization of information beyond the capacity building of PS members.

Most people felt that it was the state's responsibility to either provide them with drinking water – or help them develop their own local systems – but decision-making should be vested with them. However, with decentralization only extending to the distribution of water within villages, questions persist as to who owns /manages or governs water sources? According to some NGO leaders, the major flaw in WASMO's definition of decentralization is that ultimate control over the water source (where there is an external water source) remains outside the village and decentralization should mean self sufficiency in developing, managing and distributing water from local (within villages) sources.

[51] Water allocation norms are currently 40 litres per capita per day (lpcd) for rural areas and about 100-120 lpcd for urban areas because of the need for sewerage. There have been discussions about increasing rural allocations and in drought prone areas, the state has in principle accepted 70 lpcd because of the livestock needs of people, which they calculate with their water requirements. However, most of the WASMO projects were designed to meet 40 or 50 lpcd, which is the minimum personal water requirements accepted by WHO, etc.

Chapter 4

Maharashtra: Rural Water Supply, Decentralization and Gender

Section I: Rural drinking water in Maharashtra

Maharashtra is the third largest state in India, having an area of 3.08 lakh sq. km. It is the second most populous state, having a population, according to the census of 2001, the population of Maharashtra 96.8 million (9.42% of India's population). The total number of villages in the state is estimated to be 43,722; in addition, there are about 45,528 hamlets (wadis/padas). The state has been urbanizing rapidly and at 42% is the second most urbanized state in the country as per the 2001 census. Its population density is 341/sq Kms.

Government data point to a sufficiency in the availability of drinking water in the state. There are about 1,505 watersheds in the entire state. The Groundwater Survey and Development Agency (GSDA), an organisation of the Government of Maharashtra (GoM), categorises the watersheds of the state into three – white, grey or dark[52]. According to the assessment done by the GSDA, 92% of the total 1505 watersheds in the state are categorised as white, i.e. with adequate water availability

These data would give the impression that the situation in the state is very comfortable in terms of availability of ground water. However, this does not present the true picture. The exploitation of ground water has not been uniform across the state, due to skewed development pattern across the state. There are different regions in Maharshtra – Konkan, Western Maharashtra, Marathwada, Khandesh and Vidharbha. The stress on development has always been in the Western Maharashtra region due to mostly political reasons. The exploitation of water has also been the most severe in these areas. In these drought prone areas of Western Maharashtra, excessive and disproportionate development has taken place to support sugarcane and banana, two of the highly water intensive crops. For e.g. it is ironic that Ahmednager, one of the rainshadow districts and one which has tremendous water shortages, boasts of the highest number of sugar factories in all of Maharashtra. This has dangerously lowered the ground water table in these areas.

Wells – dug wells and bore wells – contribute significantly to irrigation and there are about 1.51 million wells in the state. Currently, 35% of the groundwater resource in Maharashtra is estimated to have been exploited. According to a survey by GSDA, groundwater development is maximum in 10 districts of western Maharashtra (42%) followed by 8 districts of Marathwada (27%) and 11 districts of Vidarbha (15%). Groundwater development in four districts of Konkan is the least (7.6%). In 76 areas in the state comprising about 5% of the total state area, groundwater is over-exploited causing concern about resource sustainability. The over-exploitation is manifested by progressive decline of water table at the rate of 0.3 m per year.

[52] White is one where exploitation of groundwater is less than 65% of the total annual recharge, grey has 65-85% exploitation and dark is where 85% has been tapped. Maharashtra has 1392 white watersheds, 87 grey and 26 dark as per the GSDA data.

Table 4.1 Changes in wells and area irrigated

Sr. No.	Item	1960	1998 (till March)	% change
1	No. of dug wells	779,000	1,453,654	87
2	No. of borewells / tubewells	2925	215,941	7283
3	No. of electric pumpsets	-	2,100,000	Very high
4	Area irrigated by Ground water	1,092,810	1,628,092	49

Table 4.2 Ground water resources as on 1/4/1998

	Total Replenish-able GW Resource Mha-m/yr	Provision for domestic, industrial and Other uses Mha-m/yr	Available for irrigation in net terms Mha-m/yr	Utilisable for irrigation in net term	Gross Draft estimated on pro rata basis Mha-m/Yr	Net Draft Mha-m/Yr	Balance ground-water resources for future use in net terms	Level of ground-water developm ent in percent
Maharashtra	3.77	1.24	2.55	2.29	1.26	0.88	1.66	34.7
India	43.39	7.13	36.26	32.63	19.29	13.50	22.73	37.2

(Mha-m-Million hectare-metres)

Source: Annual Report, 2002-03, Ministry of Water Resources, Government of India taken from Economic and Political Weekly October 4, 2003

Policy on ground water

Since the early 1970's the government of Maharashtra has laid a lot of emphasis on ground water development. It advanced several loans for the exploitation of groundwater for both drinking water use as well as irrigation. There is no regulation of these vast resources which covers a vast expanse of the state and remains in the private domain.

The only regulation that has been introduced by the GoM in connection with Ground water is through the Ground water act in 1993, along with associated rules in 1995. The institution which is mandated to operationalise this act is the GSDA. The act sought to achieve its objective through a series of measures – for e.g. control ground water usage in close proximity to public drinking water sources as well as in area scarce in water.

Quality of water

Several villages in the state experience excess iron and fluoride in their water. Studies show that 875 villages in 28 districts, which include Sindhudurg, Nagpur, Thane, Ratnagiri, Solapur and Raigad, are affected by excess iron. 1183 villages in 28 districts are affected by excess fluoride – they are in the districts of Chandrapur, Sindhudurg, Solapur and Ahmednagar. About 600 villages in different parts of the state are also affected by salinity problems (GoM, 2001)

Another issue is that of the bacterial contamination of drinking water in rural areas. The sample studies by GSDA found that the contamination levels varied across districts from 19% to as high as 55% in some districts. Inadequate dosage of disinfectant as well as recontamination in the distribution network was blamed for this high level of contamination.

Brief history of water supply programmes

There have been many programmes undertaken by the GoM to supply water to the rural areas. Some of these have been from its own funds, while others are from the funds provided by the Government of India or from multilateral funding agencies like the World Bank, Department for International Development (DFID) etc.

The provision drinking water is a state subject in India. The central government sponsored programmes are not legally binding on the states, but operate through financial influence, as state governments have limited prospects to raise their own funds. Taking into account the magnitude of the problem and to accelerate the pace of coverage of problem villages, the Central Government introduced the Accelerated Rural Water Supply Programme (ARWSP) in 1972-73 to assist the States and the Union Territories with 100% grants-in-aid to implement the schemes in such villages. The Rajiv Gandhi National Drinking Water Mission was introduced by the Central Government in 1986 to give fresh impetus to the drinking water delivery system.

Piped drinking water supply schemes are designed for larger habitations. The minimum number of people for eligibility of a piped water supply scheme is 50 for MNP programme and 100 for AWRSP. Piped water schemes are designed where the reliability of the source from where the water is to be lifted is about 95%, planning is done for a period of 30 years. The Operation and Maintenance (O & M) of the projects are done from the 10% of the capital costs allocated under the project; this has been increased to 15% as part of the recent sector reforms by the Government of Maharashtra. In smaller villages where piped water supply cannot be undertaken, the GSDA drills borewells and installs handpumps. GSDA has a restriction of going down to a depth of sixty metres for digging borewells under its borewell programme.

In addition to these programmes, there are some specific programmes implemented by the Government in some selected districts out of the funding received from bilateral or multilateral funding agencies. The World Bank supported Maharashtra Rural Water Supply and Environmental Sanitation Project ran from 1991 to 1998 and covered 560 villages in 10 districts with a total outlay of Rs.400 crores. The DFID, U.K. supported the Rural Water Supply and Sanitation Programme, which was implemented in 200 villages in the three north Maharashtra districts of Nasik, Jalgaon and Dhule. The project was operational from 1991 to 1999 and cost about Rs. 45 crores. The Government implemented another water supply project in the three districts of Ahmednagar, Aurangabad and Pune districts, starting from 2001 and continuing until 2007. This project is being supported by the German Agency for Development (KFW) and involves Rs.153 crores.

The reform guidelines came from GoI in 2000 and the era of decentralization began. Under this, the Government has started implementing pilot projects in 4 districts of Maharashtra in different parts of the state – Dhule, Amaravati, Nanded and Raigad. The implementation is between 2000 and 2003 and costs Rs.140 crores, provided by the Government of India. The condition for receiving these funds from the GoI was to implement the sector reforms, which the GoM has agreed to do.

Key institutions

Major changes were brought in the institutional set up. The management of the drinking water projects in the state of Maharashtra is characterized by a multiplicity of institutions at different levels, right from the state level to the villages concerned. In fact even at the same level, different departments are responsible for different aspects of the water delivery system,

making co-ordination difficult, resulting in inefficiency. The Government of Maharashtra came out with a 'White paper' on the drinking water situation in the state. An outcome of this was the setting up of the Water Supply Sanitation Department (WSSD) as separate from the Rural Development Department, in 1996. The WSSD has the overall responsibility in the state for urban and rural water supply; it is responsible also for the development of policies, establishment of institutions for implementing the projects, monitoring and evaluation of state as well as central programmes and mobilisaton of resources. In addition, ground water monitoring, development and implementation of the Ground Water Act, 1993, also come under its purview. The Reform Sector Project and Management Unit (RSPMU) has been set up within the WSSD to implement the special projects funded by the foreign aid.

The WSSD has various institutions under it to operationalise its mandate. These include the Maharashtra Jeevan Pradhikaran, the GSDA, the Zilla Parishad, the Panchayat Samiti and the Gram Panchayat.

Maharashtra Jeevan Pradhikaran (MJP)

The MJP has over a period of time grown into a mammoth organisation, currently employing about 14,000 staff in six divisions across the state; almost 95% of these are Class C and D staff like valve operations, administrative and clerical staff.

The MJP executed all projects of regional and individual rural water supply, where the capital outlay was more than Rs. 15 lakhs; those below that outlay was managed by Zilla Parishad. On completion of construction of the scheme and its testing, it is handed over to the local authorities to operate and maintain for which a Memorandum of Understanding (MoU) is signed with local authorities. Despite clear guidelines to this effect, local authorities often did not take over the management of the schemes thereby leaving the task to the MJP[53]

The MJP was entrusted with the execution of about 349 drinking water schemes till 1999, of which 88 schemes were completed, the remaining being at various stages of completion. These were all supply driven programmes and delays were anticipated. By 1999, the organisation was expected to provide safe drinking water to 14,679 villages and 10,565 hamlets; however, it could manage to achieve completion only in 2,773 villages and 2,834 hamlets. The MJP has come under heavy attack from the state as well as from the local urban authorities for its lack of competence in completing schemes on time and handing them over to the local authorities.

Groundwater Survey and Development Agency (GSDA)

The GSDA has been in operation since 1972. Its functions includes the forecasting and monitoring of ground water condition in state, installation and maintenance of borewells for irrigation and drinking water, giving technical advice to agencies involved in ground water based minor irrigation activities as well as private owners, as well as the implementation of the Ground Water Act, 1993.

Status of rural drinking water in Maharashtra

According to the draft report of the Sukthankar Committee (2001) set up by the Government of Maharashtra, as on April 1, 2000, the availability of safe drinking water is as below:

[53] Eight urban local authorities have filed a case stating their inability to manage the drinking water schemes set up by MJP

Table 4.3 Status of availability of drinking water in rural Maharashtra, April 2000

Category	Coverage			
	Village		Hamlets (Wadis)	
	No.	Percentage	No.	Percentage
Total number of villages	40,402	100	45,528	100
FC – villages fully covered (i.e. per capita supply > 40 lpcd)	22,209	54.97	29,149	64.02
SS – villages with safe source but supply inadequate (i.e. per capita supply between 10 and 40 lpcd)	13,636	33.75	10,311	22.65
NSS – villages with no safe source (i.e. per capita availability < 10 lpcd)	3,333	8.25	4,362,	9.58
NC – villages not at all covered by the safe source	1,224	3.03	1,706	3.75

Source: Water Supply and Sanitation Department: Sukthankar committee 2000

The state government had to intervene almost every year to provide emergency drinking water to problem villages by tanker; during the 8th FYP, the total expenditure incurred for this was Rs. 282 crores.

Institutional set up

District level

The WSSD had issued resolutions to set up a separate division within ZP for managing these water supply schemes, following which 19 ZPs set up water supply division while another 14 established water supply cum minor irrigation divisions. In additions, 5 ZPs have set up Water Management Units (WMU) to handle exclusive projects (this was first established in Jalgaon district to manage the DFID project). ZP is empowered to fix water rate, collect share from GPs and take action against them if they don't pay.

Village level

GPs can themselves plan and implement individual water supply schemes on their own. It has the powers to fix water tariffs, collect them and also has powers of recovery against defaulters. The *Gram Sevak*[54] is responsible for serving the bills and collecting the water charges. He is expected to serve both the Government and the GP. Gram Sevak is responsible for two or more GPs. This results in a very high workload, which has a bearing on the function of collecting the water charges from the people.

The VWSC has been created by the state Government and formalized through a Government Resolution (GR) in November 96. The tenure for this body is 5 years and the memberships includes the Sarpanch and members of the Gram Panchayat as well as other representatives – a 50% reservation for women exists, in addition to others for Schedules castes, Scheduled tribes and other marginal groups. The main mandate of this Committee is to manage the water supply at the local level.

Funds for maintenance – Gram Panchayat level (heading 3)

The GPs have the power to fix and collect water tariffs from the households of the village under the power given to it by sections 124 and 176 of Bombay Village Panchayats Act,

[54] Village level worker representing the lowest rung of the Block development office (BDO)

1958. However, this tariff cannot be arbitrarily fixed, but within the minimum and maximum rates prescribed by the Government of Maharashtra. The rates fixed by the Rural Development Department were Rs. 75 and Rs. 250 respectively. In March 1997, the GOM issued a resolution to revise water tariff for private connections (both metered and unmetered) – minimum Rs.360 p.a. and maximum Rs.450 p.a. However despite all these provisions, the status of revenues to the GPs remains precarious.

Table 4.4 Status of tariff collection in the different divisions of Maharashtra

Category	Division wise number of villages							
	Konkan	**Nasik**	**Pune**	**Aurangabad**	**Amaravati**	**Nagpur**	**Total**	**Percentage to total number**
Village Panchayats that have sent information	1804	3512	4119	1859	2131	149	13574	100
Villages with no tariffs	578	22	364	686	377	2	2029	14.95
Village with old tariffs (for 30 years)	587	1,394	802	446	319	118	3666	27.01
Village with tariffs in the range of Rs. 75 – 150 per annum (as per RDD's resolution)	486	2,047	2,707	694	1,397	26	7357	54.2
Village with tariffs in the range of Rs. 151 – 250 per annum (as per RDD's resolution)	153	49	246	33	38	3	522	3.85

Source: WSSD, 2000 in Sukthankar Committee Report, 2000

This is the financial context in which Jalswarajya scheme was launched. Usually elected representatives are wary of raising tariffs of any kind as they could result in political failures for them. The Jalswarajya scheme, launched with great fanfare, in a sense went against the grain by introducing a 10% capital contribution over infrastructure and the full responsibility of operation and maintenance of the scheme by the community.

Rural drinking water scenario at present

In 1999 survey was done to classify villages under four categories: Not-convered (NC), partially covered (PC), Water Quality affected (WQ), and Slipped Back. NC included the villages where lper capita water availability per day was below ten litres. For PC this figure was 20 litres per capita per day (lpcd). Water quality problems such as fluoride or arsenic contamination were recognized and villages were given priority. Slipped back were the villages where either the wells went dry or the construction was damaged over the years and hence have to be included for the new schemes. In 2005 another survey was done and more updated information was made available. It appeared that almost more than 35,000 villages required assistance of one kind or another. Apart from Aple Pani (our water) and Jalswarajya, which are foreign funded schemes, Central government too had, under Rajiv Gandhi Drinking Water Mission (RGDWM) allocated funds for the state under the sector reform programme, highlighting the demand based approach. Demand was recognized in terms of public contribution of ten per cent towards the capital cost as well as with owning the

responsibility of construction with the help of VWSC, a sub committee of the GP. The main features of both these schemes is largely the same. The difference lies in a) introduction of a special purpose vehicle at the district level which is called the District Facilitating Team (DFT) b) presence and participation of NGOs or what they are called in the Jalswarjya scheme as Support Organisations (SO's). Both these set ups are supposed to motivate the communities and implement the scheme in a time bound manner.

The funds were made available under ARWSP, Swajaldhara, and also under Bharat Nirman. Out of those funds Maharasthra is utilizing the large funds under Bharat Nirman and has ambitiously targeted 19,877villages during the period of 2008-2009. Swajaldhara programme too is implemented in some districts since 2002- 2008 and the latest figure for completed schemes is 1138 villages, those which have started with O&M are 998, and ongoing are 420 The total number of villages is 1573 schemes.

Table 4.5 Past trend analysis of the drinking water schemes

Description	Period	Highlights
Dug Well Era	1960-1970	• Providing dug wells • Mainly manual drawing, sparingly with power pumps
Bore Well Era	1971-1985	• Bore well digging technology introduced • Providing hand pumps and power pumps on bore wells • As on date around 2.2 Lakh hand pumps and 14,000 power pumps/ piped water supply schemes functioning in the state • Large scale digging of bore wells for irrigation purposes (around 20lakhs bore wells dug) causes drying up of bore wells for drinking water supply • About 90,000 community dug wells
Rural Piped Water Supply Era		• Increase in the number of piped water supply schemes in rural areas based on surface water sources • First World Bank project with a cost of INR 504.25 crores implemented during the period 1991 to 1998 implementing 17 single village schemes and 47 multi-village schemes covering 560 villages in 10 districts • DFID project (1990-2000) building 3 regional schemes in 3 districts costing INR 74.3 crores • A White Paper on drinking water supply was published in 1995 to set a direction to the plans and programmes to solve drinking water problems.
Master Plan Era	1997-2000	• Highest expenditure for regional and single village piped water supply schemes • Estimated cost of INR 7,300 crores • Till December 2002 expenditure INR 4,500 crores • As on date 1,907 on going schemes which require INR 1,750 crores for completion
The Policy Reform Era	Since 2000	• First state in India to adopt a state wide new reform policy in water supply and sanitation sector • Demand-driven approach to delivery of rural water supply and sanitation services • Use of participatory processes • Adoption of 10% capital cost sharing and 100% of O&M cost sharing by beneficiaries • Shifting the role of Government from direct provider of service to that of policy formulation and capacity support • Beneficiaries to participate in planning, implementation and O&M of facilities • Emphasis on women involvement in water and sanitation related decision-making through VWSCs and Mahila Mandals • Introduced norms for social audit of the activities under the new policy • A three pronged strategy was adopted for water conservation, preservation and utilisation through increasing water supply, managing demand and regulating over abstraction of ground water • Well designed IEC campaigns to precede planning/designing of schemes • Independent monitoring and evaluation studies by reputed institutions • Human resource development activities or village level employees

Section II: A brief overview of the schemes under study: Jalswarajya and Aple Pani

Both the schemes, Jalswarajya and Aple Pani were introduced in the Sector Reform Phase of the Rural Drinking Water Policy. Aple Pani programme which was introduced in 2000 was funded by KFW, a German Development Bank. Jalswarajya project which is funded by World Bank started in 2003. Both these schemes are largely similar, except that Jalswarajya has a special women's development component, which was not there in Aple Pani.

Some of the salient features of both these schemes are as follows

- Both these schemes are based on demand based approach. In the schemes there is a shift to village level water supply schemes from earlier regional water supply.
- Gramsabha is the final decision making body. Schemes emphasize people's participation.
- Capital contribution of 10% is expected to come from the community
- Entire operation and maintenance (O&M) to be borne by the community.
- Along with the water supply, total sanitation is given importance.
- Village level committees to be formed to see to the implementation of the scheme of which the village water and sanitation committee or the VWSC is the most crucial.
- Special emphasis has been given to women's participation and 50% quota has been given to women in the committees formed at village level.

In this section we are going to discuss key features of these schemes, their scope and their achievements.

Jalswarajya

Coverage

As mentioned earlier the first phase of project started in 2003. The Project has been designed using participatory methodologies involving to a great extent the primary stakeholders – the users and the beneficiaries of a pilot initiative in 30 VPs in 3 Districts of the State. In the first phase 9 districts were covered. The second phase started in 2006 and is supposed to end in 2012. Both the phases together will cover 26 districts in Maharashtra. Scope of the project could be seen in the following table.

Table 4.6 Jalswarajya: coverage in Maharashtra (2008)

Districts covered	26
No. of GPs selected	3464
No. of GPs dropped	389
GPs implemented	3080
Villages covered	4392
Padas covered	5269
Population covered	93.87 Lacs

Source:

(For detailed district wise coverage see table 1in annexure)

Objectives of the project

The two main objectives of the project are: Increase the access of the rural communities to improved and sustainable drinking water and sanitation services; and to decentralize rural water supply and sanitation service delivery through three tier Panchayati Raj Institutes in the state. Expected outputs and outcomes of the project are mentioned as follows:

Table 4.7 Objectives, output and outcome: Jalswarajya

Objective	Output	Outcome
Improved and sustainable drinking water supply and sanitation services.	1. Construction/ improvement of water supply to give 40 lpcd 2. Source strengthening 3. Water quality testing 4. Construction of soak pit toilets, parasbaag, lane and drain improvement, community toilets 5. Construction of compost pits 6. School water supply and sanitation	1. Availability of 40 lpcd water on sustainable basis 2. Partial utilization of sanitation facilities 3. Water borne and water related diseases reduced
To institutionalize decentralization of rural water supply and sanitation service delivery to rural local governments and communities	1. Strengthening of gram sabhas through capacity building 2. Formalities of VWSC, WDC and SAC 3. Involvement of CBOs, Mahila mandals	1. Decentralization of powers 2. Gram sabha has become the central point for decision making 3. Women are holding leadership positions and are coming in the main stream

Selection of the villages

As mentioned earlier, it is demand based project and the villages have to demand for the scheme. At the district level then from the villages who have applied, villages for implementation were selected on the basis of following criteria:

1. Need for the project (Weightage 45%): It includes different criteria regarding draught proneness of the village such as number of tankers deployed, number of habitations without safe drinking water source, number of non covered habitations etc.
2. Socio-economic characteristics (Weightage 25%): It includes percentage of backward classes, tribal and BPL households.
3. Potential of the village (Weightage 30%): It includes implementation of different schemes by the village such as Sant Gadge Baba Village Sanitation Campaign, Shiv Kalin Water Harvesting Scheme, Yashwant Rural Development Scheme etc.

Scheme structure

Institutional arrangements

For the implementation of the scheme a huge institutional set up has been established. Different components at the level of state, region, district and village could be discussed as follows.

State level

RSPMU has been set up at the state level especially to handle multi and bi lateral funding around drinking water. It does the overall co-ordinating and monitoring of the different projects that come under foreign funding.

District level

At the district level different teams like DFT (District Facilitation Team), DAMT (District Appraisal and Monitoring Team) and DFMT (District Financial Team) have been formed to carry out different functions.

Village level

At the village level gramsabha is the main decision making body. To implement the scheme there have been three committees established: Village Water Supply and Sanitation Committee (VWSC), Social Audit Committee (SAC) and Women's Development Committee (WDC). Support Organizations (SO) have been appointed to help villages to implement the scheme.

Project cycle

It is supposed that the project should be completed within time period of 18 months. A project cycle has been developed accordingly. Main phases of the cycle are community mobilization and planning, community implementation and operation and maintenance. Time limit for each phase and expected activities are mentioned in the following table.

Table 4.8 Project cycle, Jalswarajya

Phase	Time period	Major activities
Community mobilization and planning	6 months	• Village level sector sanitation report • Baseline situation • Formation of committees • Solution to existing water supply and sanitation problems identified • Participatory Village Action Plan (VAP) developed • VAP appraised and sanctioned
Community implementation	9 months	Implementation of solution to water supply and sanitation problems of the village
Operation and maintenance	3 months	Sustainable delivery of water supply and sanitation services

Financial flow

Funds are allocated from the state to ZP, and then are transferred from ZP to village level. At village level a different account would be opened to receive funds from ZP and to credit capital contribution. This account would be operated on behalf of VWSC by two office bearers of VWSC as joint signatories, and one of them has to be a woman. Funds are divided in three addendums, Addendum I, II, and III. Addendum I is provided mainly for community mobilization and capacity building. Addendum II goes towards actual cost of building water supply infrastructure and Addendum III is given as Women's Development Fund.

Quota

To ensure participation from all the sections, regulations for quota have been set up. In all the three committees one third members are selected from GP. There is also 30% quota for SC and ST. In VWSC and SAC 50% quota is reserved for women. In case of WDC, it is 75%.

Tribal development programme

There are 11 districts in project which have prominent tribal population. There is provision for forming 'Pada committees' as sub committees under VWSC in such tribal villages. In case of tribals capital contribution has been decided as 5%, of which 4% could be paid through labour.

Women development programme

Jalswarajya project emphasizes on women's participation and empowerment. As mentioned earlier, women have provided 50% quota to ensure their participation. With implementation of project, mahila gramsabhas have became mandatory, and they have to precede general gramsabha. Emphasis is given to formation of SHG. A special fund has been provided for women's development. It is mainly used for capacity building through trainings and exposure trips and also as revolving seed money to SHGs. (For more information on women's development component see table 2 in annexure)

Financial outlay

The total financial outlay for the scheme is USD $268 million. Of this USD$ million 181 would be through World Bank assistance 73 million and USD$ 14 million through people's contribution.

Aple Pani

Project background

The Project has a long history. Initially, it was proposed to be implemented on the basis of a feasibility study prepared for GoM and KfW in 1998. The DFID had implemented a project based on external water in four districts – Jalgaon, Nashik, Dhule and Nandurbar. Based on the lessons learnt by GoM, DFID and the World Bank, in past projects with emphasis on regional systems and limited involvement of the users, the new project proposed by DFID in 1999 followed a demand responsive, participatory approach. KFW appreciated this approach. This approach involves all stakeholders in all stages of the preparation, implementation, operation and maintenance of the project thus ensuring high degree of appropriateness, sustainability and equity. In brief:

- The ToR issued by KfW (as summarised below), contains the guidelines for the Project implementation and also reflects this approach and concept:
- Bottom-up village centred and demand driven approach;
- Village specific supply level;
- Site specific solutions with emphasis to local groundwater based schemes;
- Full O&M cost coverage and partial capital cost contribution;
- Full responsibility of the local administration (Gram Panchayat through Village Water Supply and Sanitation Committee) for the O&M of the schemes;
- Integration of relevant complementary measures in the fields of watershed management, sanitation and health education;
- Implementation with the cooperation of NGOs as far as possible.

The purpose of the project is summarised under the following aspects:

- Greater awareness of key economic, social, ecological and institutional conditions encountered
- Greater awareness of and certainty about major economic, social, ecological and institutional implications of the Programme's schemes, enabling better adaptation of strategies to the potentials and constraints of the target population
- Improving methods in the planning and participation procedures and ensuring the adaptation of the local schemes to the capacities of their target groups in order to achieve sustainability
- Participatory decision-making regarding some key issues and strategies, such as the role and corresponding strengths of the DPMUs, role and selection process of the NGOs and the village selection process.

Profile of the project

The project was instituted in 1999. SETU was the consortium, which included Karve Institute of Social Sciences, Pune, (social processes) Kirloskar Consultancy (engineering) and the German person as a CEO for overall monitoring. Three districts were selected: Pune, Aurangabad and Ahmednagar. In total 75 villages were identified for implementation of the schemes. The mechanism for implementing the project was same as Jalswarajya except the fact that the special component of women's empowerment in terms of funding was not worked out at that time. Coverage of the scheme could be seen from the below table

Table 4.9 Coverage, Aple Pani

No. of districts selected	3
No. of GPs selected	75
No. of GPs dropped	14
GPs implemented	61
Villages covered	61
Padas covered	61
Population covered	2.16 Lacs

Financial profile

Estimated project cost was 152.44 crores, out of which KFW funding was 107.16 crores and GoM funding was 40.02 crores. Remaining 5.26 crores was estimated to be collected from public contribution.

Following table gives summary of expenditure as in November 2005.

Table 4.10 Cumulative expenditure, Aple Pani, November 2005

Expenditure item	Amount in Rs
Water Supply system	94,64,50,000
Latrine campaign	23,00,000
Consultants	16,10,00,000
NGO, training, IEC	2,30,00,000

(For some more information about financial details see table 3 in annexure)

Institutional arrangement

District level: DPMU

These District Planning and Monitoring Units (DPMU) were established in 1999 in the Zilla Parishads of the project districts of Pune, Aurangabad and Ahmednagar. The DPMUs are headed by Executive Engineers and have staff assigned to them for the different professional roles.

The GoM has issued a GR dated 7 October 2002, in which certain staffing pattern is sanctioned for the DPMUs (the process of placing of the staff in the DPMUs is in progress):

The staff posted or being posted in the DPMUs is from different departments having different work cultures. The concept of participatory methods of project implementation is also new to them. Intensive orientation and training is therefore necessary to build the capacities of the staff members of the DPMUs to shoulder the responsibility of project implementation. Such training activities are also planned after identification of the training needs.

The DPMUs are the main actors in the project implementation activities. These units will also work closely with:

- District authorities (of Zilla Parishads) and the DRDA, Soil and Water Conservation Department, Public Health Department etc. for implementing of supplementary measures
- NGOs for village mobilisation and organisation activities, participatory planning process in villages
- Gram Panchayats and the VWSCs for implementation of the project activities in their respective village, capital cost contribution and other project operations
- Information, Education and Communication Bureau (IECB) for development of educational/promotional material and the organisation of promotional activities
- Groundwater Survey and Development Agency (GSDA) in connection with exploration of groundwater, definition of watersheds and watershed-protection measures.
- Local institutions and non-governmental organisations involved in similar activities locally for general participation and cooperation of local activities.

DPMUs are at present functioning under the administrative control of the CEOs of the respective ZP. Functionally, the DPMUs are however reportable to the Director PPMU. In order to avoid problems of dual reporting, it is desirable to issue clear directives regarding the matters to be reported by the DPMUs to the CEOs and to the Director, PPMU.

The roles to be performed by the individual staff members of the DPMU are detailed in the Approach Paper.

Village level: GP, gramsabha and VWSC

At the village level, the Gram Panchayat is an elected body of representatives of the villagers. The Sarpanch is head of the Gram Panchayat. According to the 73rd constitutional amendment, subject committees are formed to look after the matters of public interest like health and hygiene, water supply and sanitation, education etc. Major issues are discussed in the Gram Sabha (village meeting).

Village Water Supply and Sanitation Committee is one of the subject committees, which will be established in each of the project villages – if not already existing – or reconstituted if necessary. At least 50% of VWSC members will be women. VWSC will co-opt additional members as invitees if felt necessary in the interest of the Project. These committees will be responsible for planning and implementation of the project activities at village level and will be supported by the NGOs and DPMU staff in this task. VWSC will be responsible for the participatory planning process and the development of the local village action plan (VAP).

Section III: Methodology and profiles of the districts selected

As explained in the perspective we decided to obtain information on two core elements of our research proposal; the decentralization process designed in Jalswarajya and Aple Pani Projects and its impact on the empowerment process of women under its influence. To understand the operationalisation of decentralization process in the field we had to investigate the management side of the project and the functioning of crucial elements which were built into the design of the project. To understand the empowerment process we needed to talk to

the women who got selected through gramsabha to be members of three committees; VWSC, SAC and WDC.

Understanding the government perspective

Before we started visiting the districts we met the Principal Secretary and Joint Secretary of WSSD to understand their perspective on the design of the Jalswarajya. Also we had an opportunity to participate in the workshop organized for the Outcome Budget project undertaken by TISS on behalf of Finance Department of GoM, where officials from RSPMU were present and we could discuss with them the roadblocks reported to them from the district teams. This interaction was useful to understand the ethos within the management team of Jalswarajya at the state level, which was found reasonably optimistic and assuring the existence of necessary will and support of the project. The workshop was also repeated once the Outcome Budget report and the Public Verification Exercise report were to be submitted. These two occasions were important for us to get a feel about how much the objective of decentralization and institution building has gone down well at the highest level of bureaucracy and has not remained a grudging exercise under the pressure of the World Bank.

Understanding the SO perspective

A one day consultative meeting was organised in Pune to understand the perspective of the SOs on the two schemes. This helped us in getting insights into the scheme and the role of SOs in the scheme. Since many of them were well into the scheme, they shared their experiences in implementing the schemes, the problems encountered while doing so both with the village community as well as with the government officials. This helped us in designing our questionnaires and checklists as well as in the sampling procedures.

Sample selection

Selection of districts

Discussions with RSPMU at CIDCO Bhavan, Mumbai helped us decide on our districts from across five regions of the state i.e.-Konkan, Western Maharashtra, Northern Maharashtra Marathwada and Vidharbha. Six districts were selected a little randomly, from these five regions, on the basis of response to our request of visit to that district. They are Sindhudurg (Konkan), Satara and Pune (Western Maharashtra), Jalgaon (Nashik), Chandrapur (Vidarbha) and Jalna (Marathwada). Of these five were from the Jalswarjya scheme and Pune district was from the Aple Pani Project initiated earlier (2000).

Chandrapur was selected as it had a dominant tribal population and because of the fluoride deposits in the water, which had made potable water scarce in this district. Sindhudurg was selected because of its peculiar geological structure of basaltic formation which made percolation of groundwater difficult. This is also a district, which has a large female population due to male outmigration.

Selection of villages

From these six districts 17 villages were selected. The selection was done based on the following criteria:

Primary criteria

- Population size (both large and small villages)

- Percentage of SC and ST population
- Opinion of the SOs[55] please do the needful

Secondary criteria

Villages at the different stages of the project cycle- to include ongoing, just started and completed villages where scheme is functioning for some time and O & M is managed by villagers

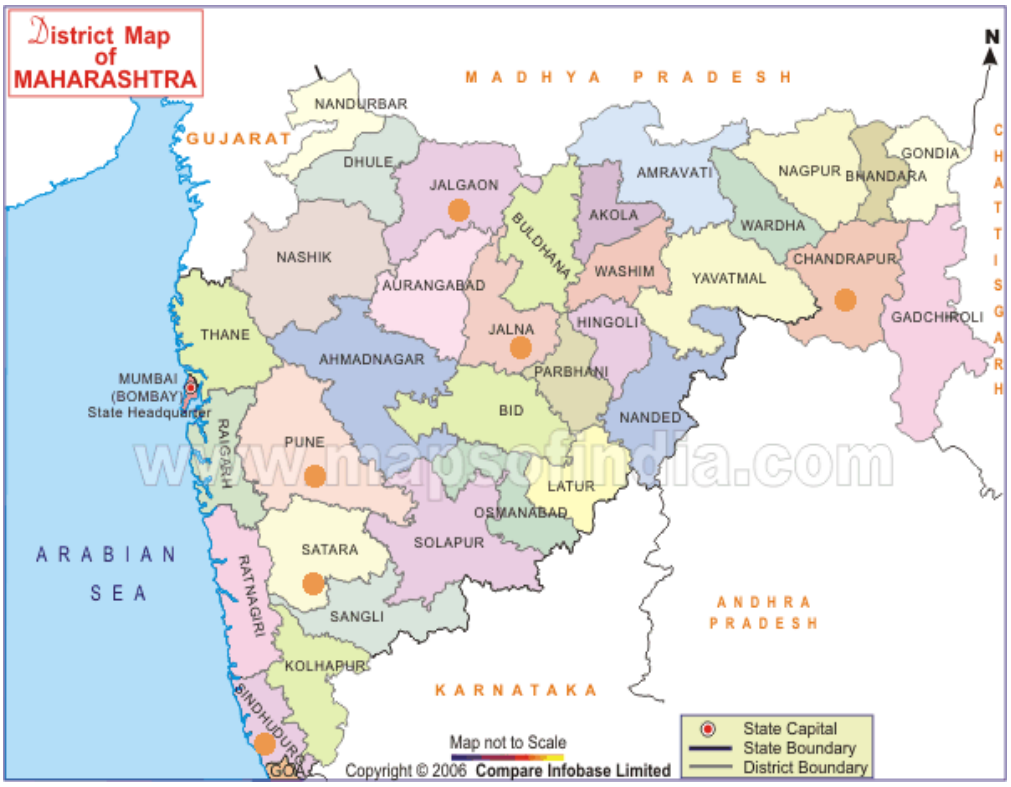
We used the data base provided by the WSSD for 3000 villages. However, this selection did not go by any systematic sampling process as we realized that the data base for 3000 villages was inaccurate in terms of the different stages at which the Jalswarajya project was at. Also many of the villages were being dropped for various reasons ranging from non participation of people, inability to pay towards 10% contribution, village level conflicts and several such reasons. We therefore were not in a position to do a systematic stratified sampling across the state of Maharashtra. We used the above criteria as a baseline and then used information provided to us by the WSSD, local NGOs and the district level set up of the Jalswarjaya to select our villages.

Typically, we would carry a full listing for that district of names of villages covered under the Jawswarjya with their entire census information in terms of population size, dalit non dalit or tribal population and any other special features that the 3000 village data base provided us. Based on this information and on the field realities we selected our final sample. However, in every district we ensured that the primary and secondary criteria that we had set for our village selection were met.

In Maharashtra we had an additional advantage due to our collaborating partner's i.e. Tata Institute of Social Sciences involvement in the outcome budgeting project of the State government which sought to evaluate several schemes in the state and one of them was the Jalswarjya and as a matter of fact the domestic water sector as a whole. This allowed us access to different data sets of the government, access to different villages through the district level apparatus of the domestic water scheme and importantly access to government officials at different levels in the WSSD. This association also helped us understand the decentralization process from the inside and how the government perceives it and what kind of a future it sees in decentralization.

[55] These are NGOs who have been appointed by the government after a certain process of scrutiny to implement the community organization aspects of Jalswarajya in a decided number of villages which can range from 3-20

Map 4.1: Selected districts, Maharashtra



Interaction with the districts

Interacting with government officials at all, the levels despite the advantage that the team carried were many. The district level officials rarely responded to our requests. Formal communication was often difficult with phones not working, e-mail out of order, frequent transfers of key officials and of course, the procedural delays due to decisions to be taken in several rounds of their meeting. Persistent follow up was what finally yielded results and we could plan our field trips. Often posts that were meant as communication points for the scheme were vacant. Records were not maintained so accessing data was difficult, moreover there was complete resistance to share information in a form that can be understood and used.

Often the district authorities complained that the RSPMU, too often changed the formats for filling in information and this led to difficulties in keeping pace with procedures up to the village level. Despite the claims for transparency we found very little of that in practice.

While the district was difficult, the RSPMU was nothing different. The baseline data provided by the RSPMU for 3000 villages we found that except for one the villages that we had selected through our primary and secondary criteria did not feature in the list at all.

The steps during the district visits

Met Chief Executive Officer(CEO), who is in charge of the project there and whose office releases the funds

Discussion with the DFT leaders and the Monitoring and Evaluation person. The objectives of the study were discussed and then they were asked to share thier own experiences regarding roadblocks and also the way mitigation was achieved. Discussions with DFT and DAMT presented good insights into the processes of operationalization of PIP.

Presented them with our proposed list of villages and sought their opinion

Checked the data available on these villages in compliance with the processes described in PIP and got the printouts.

Contacted the Consortium wherever it existed and collected the reports prepared by them.

Contacted the concerned Support Organizations who were working in the villages tentatively selected by us. They were our main guides to the village level data collection process

Final selection was done based on the information provided by the DFT and the SO's as to the actual status of the villages in the project cycle. Our insistence was on villages from batch one so that an older experience could be studied.

Since this was a collaborative study with TISS and TISS was also involved in the Outcome budget study, its objective was also explained.

The observations from the district visits would be presented as annexure in tabular format.(V.1) However, the highlights of observations would be presented in the text. Similarly, the table (V.2) based on progress reports procured during visits is presented as annexure but highlights on some essential components would be presented in text in brief.

Interaction at villages: questionnaires and FGDs

Our data that we present is across seventeen villages from six districts and we spoke to 114 women from the three different committees. Since this was a study around the process of decentralization and how well it has been understood by women, we decided to interview women committee members primarily. However, we also discussed the processes in the village with other women through the Focus group discussions and informal interactions in different vastis. Many of the questions were left open ended so that women could articulate well. We had also hoped that we would pursue discussions with certain women who we found very active through case studies. But this was not possible as the time frames and resources were limited. As mentioned in our challenges section in chapter 1 we were unable to attend the gram sabhas and observe the dynamics of decision making, because in most of the villages that initial process and the enthusiasm was waning during our data collection period.

In the section that follows we present the data for 17 villages under different themes. We have tried to look at data across caste and districts. Data from our FGDs is also discussed in this section which is our primary data base.

District and village profile

Detailed profiles of six districts are presented in the table below. The selected villages are listed below (Table 4.11 and 4.12). The list also consists of support organisations and consortia., which were assigned to those villages.

Table 4.11 Demographic features of selected districts

Features	Districts					
	Chandrapur	**Jalgaon**	**Jalna**	**Pune**	**Satara**	**Sindhudurg**
No of households	462632	732767	303886	1517041	570606	192666
Total population	2071101	3682690	1612980	7232555	2808994	868825
Sex ratio	948	933	951	919	995	1079
Child sex ratio (0 to 6 years)	939	880	903	902	878	944
Percentage of SC population	14	8	11	11	9	4
Percentage of ST population	18	12	2	4	1	1
Literacy Rate	73.2	75.4	64.4	80.5	78.2	80.3
Literacy Rate- Female	62.9	64.3	49.0	71.9	68.4	71.2

Table 4.12 Demographic profile of selected villages

District	VIllage	Population	Sex Ratio	Child Sex Ratio (0 to 6 Yr.)	Percentage of SC population	Percentage of ST population	Literacy rate		Support Organisation	Consortium
							Male	Female		
Chandrapur	Jambharla	383	896	1417	0	99.7	67.2	32.8	Ambika Bahuddeshiya Sanstha	Water And Power Consultancy Services
	Kanhalgaon	777	877	929	11.97	52.4	65.3	34.7	Dilasagram	
	Mendhamal	934	930	1268	25.16	10	60.3	39.7	Dilasagram	
Jalgaon	Hadsan	573	1018	1000	4.01	39.8	61.3	38.7	Matrubhumi Sarvangin Vikas Sanstha	Scott Wilson
	Mundkheda	1043	1002	682	1.05	15.4	54.7	45.3	Samajkarya Mahavidyalay	
	Shelave	2496	932	738	13.66	12.7	58.7	41.3	Rashtra Vikas Samiti	
Jalna	Akola Dev	2972	949	859	21.43	0.98	64.3	35.7	Vision Plus Foudnation	Dilasa Pratishthan
	Ambadgaon	818	925	803	14.67	9.17	66.1	33.9	Dnyanjyoti Foundation	
	Singona	1778	1058	1093	6.81	0	60.9	39.1	Dilasa Pratishthan	
Pune	Harni	1580	1153	1147	4.24	0	52.9	47.1	Gramvardhini	Setu
	Koye	1746	957	789	2.63	21.65	61.2	38.8	Chaitanya	
	Golewadi (Mhasar)	606	1090	688	4.62	6.44	56.1	43.9	Nari Samata Manch	
Satara	Bhondavade	805	1099	1065	5.84	0	53.3	46.7	Shramjivi Sanstha	AFPRO
	Manewadi	464	1090	806	0	0	48.2	51.8	Bhumiputra	
	Nandgane	355	1076	1150	1.69	6.2	57.3	42.7	Shramik Janta Vikas Sanstha	
Sindhudurg	Parabwada	1279	1097	803	0	0	50.6	49.4	SidhhagiriGramotkarsh Mandal	
	Vabhve	2134	940	913	7.78	4.92	55.8	44.2	Narayan Ashram	

Table 4.13 Coverage of committee members in selected sample from each village

District	Villages	Total Committee Members	VWSC		SAC		WDC		Selected Women Members				
			M	F	M	F	M	F	Open	OBC	SC	ST	NT
Jalgaon	Hadsan	34	0	12	0	12	0	10	3	2	NA	3	NA
	Mundkheda	36	6	6	6	6	0	12	5	1	NA	1	1
	Shelave	41	8	6	3	10	4	10	1	3	NA	4	NA
Satara	Bhondavade	42	6	7	9	6	0	14	4	1	2	NA	NA
	Manewadi	48	7	7	8	8	0	18	5	3	NA	NA	NA
	Nandgane	NA	NA	NA	NA	NA	NA	NA	8	NA	NA	NA	NA
Chandrapur	Jambharla	52	9	9	7	10	3	14	NA	NA	NA	5	NA
	Kanhalgaon	60	9	11	10	11	4	15	1	1	NA	5	NA
	Mendhamal	NA	NA	NA	NA	NA	NA	NA	1	2	NA	NA	NA
Sindhudurg	Parabwada	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Vabhave	37	6	7	6	6	3	9	4	2	NA	NA	1
Jalna	Akola Dev	60	7	9	12	12	4	16	5	1	1	NA	NA
	Ambadgaon	52	11	7	7	9	18	0	5	NA	3	NA	NA
	Singona	NA	NA	NA	NA	NA	NA	NA	3	1	NA	NA	NA
Pune	Harni	NA	NA	NA	NA	NA	NA	NA	3	2	NA	NA	NA
	Koye	NA	NA	NA	NA	NA	NA	NA	7	1	NA	NA	NA
	Golewadi (Mhasar)	15	8	7	NA	NA	NA	NA	NA	NA	NA	NA	NA

Section IV: Performance of decentralization

This section largely draws on our field observations and detailed discussions with committee members as well as various vasti wise meetings with non-committee members and importantly our discussions with the government officials at various levels.

The overall performance: capsuling the government view

Here we present a capsule of the data provided to us by the district level authorities on how they view their performance. The data was not complete as information from some districts in some areas was missing. The district level data has been analysed on seven counts outlined in the table below. It basically tells us about the coverage of villages in the district, average cost of VAPs, financial progress in terms of collection of capital contribution and installment release for capacity building and VAP and finally of course women's empowerment.

The main components of Jalswarjaya as outlined earlier are laid out in three Addendums which are as follows 1) Addendum I is the initial money for capacity building 2) Addendum II Village Action Plan is the physical cost of the scheme and 3) Addendum III Women's Development Fund

Table 4.14 Jalswarajya: overview of financial aspects for the entire State

Description of Cost	Costs (In Rs.)	
	Highest	Lowest
VAP Total	65.44 Lakhs (Sindhudurg)	17.12 Lakhs (Yawatmal)
VAP Per Capita	2569 (Chandrapur)	577 (Gondia)
Average O & M calculated per annum	4731 (Buldhana)	330 (Gadchiroli)
5% Public Contribution in cash (collection of 1st phase)	624.19 Lacs (Kolhapur)	46.49 Lacs (Yavatmal)
5% Public Contribution in labour	123.52 Lacs (Nasik)	74 Lacs (Nagpur)

Table 4.15 Overview for selected districts

Profile of implementation	
Chandrapur has maximum number of villages	243
Satara selected maximum Gram Panchayats	153
Jalna and Satara covered Padas (distant vastees attached to GPs)	41
Jalgaon covered maximum total population	3.26 Lacs
Physical progress	
Average VAP cost is highest in Sindhudurg	Rs. 65.44 Lacs
Average VAP cost is lowest in Jalna	Rs. 21.18 Lacs
In Satara maximum old sources are strengthened	26
Financial progress	
Capacity development: Addendum I	
Satara had maximum GPs who received IInd installment	137
Satara had maximum GPs who received IIIrd installment	115
Village Action Plan: Addendum II	
Jalna had maximum GPs who received II installment	118
No third installment was received by anybody	
Public contribution achievement	
Jalna raised maximum PC	Rs. 253.00Lacs
Chandrapur raised lowest PC	Rs. 32.51 Lacs
Only Chandrapur collected PC in labour	Rs. 34.71 Lacs
Women's empowerment picture	
Jalgaon has highest number of women VWSC presidents	135
Chandrapur had highest number of women VWSC secretary	124
Jalna, Satara and Sindhudurg formed SHGs post- project	808
Satara VWSC total (President and Secretary)	149
Jalna VWSC total (President and Secretary)	120
Satara WDC total (President and secretary)	444
Jalna WDC total (President and Secretary)	273

Special purpose vehicle

One of the innovative aspects of this project has been to create a parallel structure, which is like a special purpose vehicle for the implementation of the programme. The introduction of the DFT, DAMT and DFMT and recruiting of experts on contract basis alongside deputation of some zilla parishad functionaries at the district level seemed to have a galvanising effect on an otherwise lethargic district administration. Although a special structure did have an impact in terms of building enthusiasm, it also did create several tensions in authorities

Tensions over authority

Jalna and Satara were given ranking[56] A+ on the website of Jalswarajya project. Two important causal factors appeared to be that the CEOs of the district were very supportive and all the posts in the three teams DFT, DAMT and DFMT were filled. In Jalna district

[56] The WSSD provides a rank to the best performing districts the criteria for this ranking has not been disclosed. A+ is the highest ranking and most district CEOs would strive for that.

the regional facilitator for the Marathawada region was very active in monitoring the scheme. As a part of the monitoring there was a SWOT analysis carried out and this showed that it was the co-ordination between the three teams that allowed them to work in harmony with each other. They also had a good communication with the RSPMU at the state level.

In Satara district there were tensions over the issue of authority between the executive engineer from MJP who was assigned the duty of approving Village Action Plan for the construction of the scheme, and the DFT leader who was given responsibility of overall in charge. The Engineer challenged the authority of the DFT leader who is a social sector person and argued that the scheme should have technical person at its head.

We realized that the initiative of the district head i.e. the CEO, the key person responsible for the scheme is critical for the effective implementation of the scheme. In Jalgaon, the CEO was never interested in the scheme and this lethargy was transmitted to the officials on the lower rung. As a result there were delays in getting money from RSPMU. Chandrapur CEO was enthusiastic otherwise but had problems with DFT leader's appointment. This district also got its second installment from RSPMU late and this was evident in the delayed schemes in the villages. Sindhudurg had initially some problems because of CEO but later it picked up when new CEO came. But the many posts remained vacant for quite some time.

As per the RSPMU report of January 2008, 33 posts out of 234 posts required for all the districts were vacant. The post of Monitoring and Evaluation expert generally known as person in charge of computerisation of data was found vacant in three districts out of five. It had hampered the objective of transparency in the project. Gender experts too were not available at many places.

Role of consortium

In both Jalna and Satara which came across good performers, we realized that the role of the consortium was important. In Satara AFPRO had built a good network of the SOs in the district and also had maintained good relations with the DFT. In Jalna, Dilasa, an Aurangabad NGO was active in the capacity building phase. Chandrapur consortium was not active and Jalgaon consortium too had problems with payment from CEO. Sindhudurg did not have a consortium at all. Consortium was supposed to provide the much needed support at the district level. Not only was it supposed to train and build capacities of SOs to implement the schemes well in the villages, it was also support to co-ordinate the activities of the SOs at the district level and be link between the DFT and the SOs. Most consortiums failed to provide this support. In fact the selection process of the Consortium and the duress under which they were supposed to function are important factors for the lethargy of the Consortium or their complete absence. In many of the districts the consortiums were not local to the place and in fact not even to the state. They were management companies in most cases, who hired experts in an assorted manner. There was no team spirit that was inculcated among the various experts who were hired on a person day basis and neither were there shared goals. This led to a dampening of the spirit of civil society participation.

Community mobilisation and capacity building: role of SOs

The community mobilisation and capacity building component of Jalswarajya was considered as an important one and here the role of the SOs and the DFT and their co-ordination was seen as critical. One SO was to manage a cluster of 10 villages and support the DFT in community mobilsation. This was seen as important for devolution of power and finances to the VWSCs. The role of support organsiations was seen as important for information dissemination and thereby helping DFTs in performing its role effectively on the one hand and on the other to help develop capacities within VWSCs for implementation of the scheme. Although this showed signs of hope on paper, it did not seem to translate into action.

Typically an SO was to be selected by the community after they had heard presentations from the prospective SOs and were convinced that the SO was capable of handling the community. DFT was usually present during these presentations. An apparently transparent and accountable process often turns out to be very biased in a structural context of inequities and vested interests. At the foundation of the failure of the community mobilsiation prgrammes lies this divide between the communities and DFTs on the one hand and the SOs on the other. So while communities and DFT joined hands in their complaints against SO's, the SOs in turn were critical of the DFTs and the communities as well.

Many of the SOs were selected randomly, without any prior experience of working in this sector. Tenders were requested and those with the lowest tenders were usually selected. Many of them were small time NGOs and their only work was to implement schemes of the government. Few had any radical vision of their own on either people's participation, water sector and least of all women's empowerment. (For a brief profile of the SOs see table 4 in annexure) As a result of this they were not equipped to handle the village level conflicts and neither were they able to bring an idea of change[57]. There were exceptions of course and they did try to drive the scheme in the initial stages, but the apathy of the DFT on the one hand and their nexus with the local elite, discouraged them and they finally either withdrew or they became run of the mill partners. Narayan Ashram an active SO in Sindhudurg district tried to bring in change in their ten villages by proposing alternative VAPs. They stressed the need for bringing in Jalswarjya as part of the larger water resource development programmes in the village. They also opposed some of the technical flaws in the sanitation models in the villages. They were immediately sidelined and eventually the organization withdrew out of some of the villages and refused to accept money from the community for its services. Nari Samata Manch in a successful effort went in for roof top harvesting in one of their cluster villages Palshoshi in Pune district. This has been lauded as a unique experience in the Aple Pani project. They narrated to us the planning process in this village which could just now have completed in 18 months. The initial few months only went in exploring various possibilities and

57 Dilasa Janvikas Pratishthan in Aurangabad a consortium for Jalna had been asked to do mid-term evaluation. It reported that the study tours organized by SOs were not well planned, in the sense that proper selection of the villages for the exposure tour was lacking and thus the desirable impact of the exposure tour was not achieved.

when none were feasible this alternative was chosen by the people. The entire time frame went well beyond the stipulated time.

Interviews and group discussions with SOs showed that they were paid meagerly and often were left at the mercy of the VWSC. The budgets were made as per the 18 month time frames, but often the time period got extended and the SOs were not paid for that additional time. Nari Samata Manch an SO for the Aple Pani programme in Pune district has maintained a detailed financial account to show the paucity of fund allocation to the SOs. This was also evident from the budgets allocated to the SO's which were much lower than that allocated to the experts from both the DFT as well as the consortium. Chaitanya another SO in the Aple Pani programme of Pune district informed us that they are into the 5^{th} year of the scheme in Koye village, officially they have completed all their tasks and have withdrawn but still have not been paid the final installments.

SOs were expected to recruit technical staff in their team, but they were totally ignored during planning and implementation of Village Action Plan activities. The technical staff was supposed to have educated the VWSC members about the technical aspect and should have taught them how to monitor the Technical Service Provider's activities as well as those of the contractor. It would have helped to make the process transparent, and less corruption would have taken place, which did not happen. Many of the SOs came in only after these processes had taken place.

The DFT members too treated the SOs with great disdain and often showed their disrespect during the village meetings, which further eroded their status. This tension between the SOs and the DFT was evident in all the districts that we studied.

This also speaks about the apathy of the state in involving meaningful participation from the civil society. Consortiums too were selected in a haphazard manner. Our interviews with the senior officers in the WSSD and the RSPMU also seemed to resonate a similar feeling. They were convinced that they did not really see the need for SOs. The SOs were included in the scheme to ensure participation of the hitherto excluded sections like women, dalits, tribals etc, but they were not provided the time and space to get these processes going. These inequities have a long history and cannot be addressed in 18 months time. The attitude of senior officers was that addressing these inequities was part of micro-management and the state cannot be expected to be involved in this. For them working towards devolution of power with Gram Panchayat, or Village Water and Sanitation Committee was sufficient commitment to institutional changes intended in the project. This feeling was transferred very well up to the district and the village level.

The paradox was that DFTs continuously complained of inadequate time and staff to reach out, but did not see the SOs as meaningful partners in this process.

One of the key learnings from this is that although decentralization may have been introduced as a 'good intention' programme from the top, it is the dynamics at the local level that governs its success. Here the nexus between the local level officials and the vested interests in the VWSC partnered to subvert the very reason for which decentralization was launched.

Village level committees

Three committees had to be constituted at the village level under the Jalswarajya programme and two under the Aple Pani programme. These were the VWSC, WDC and the SAC.

In all the Jalswarajya villages the three committees had been formed and in place as per the required quotas. However in none of the villages did we find that they were performing their roles separately, there seemed to be a merged identity especially of VWSC and the SAC committees.

VWSC's which is the most important committee was seen to be fairly active in most of our villages. There were often 2-3 key people who led the process in each of the villages and they were the ones we needed to contact when we went to the villages. Our findings and physical verifications show that in most of the villages basic records were maintained, meetings were minuted and accounts registers too were maintained. WDC accounts were kept separate. In the initial phases the VWSCs did meet frequently for planning processes. Often the SAC and WDC too met commonly with the VWSC for planning related to water sources etc.

The SAC is expected to perform an audit of the VWSC, monitor its functioning and ensure that it fulfils its role. However, we did not see the SAC in that kind of a role in any of the villages. They often met together and decided on matters together.

The WDC did have a distinct role to play in building collective identity of women and facilitating their participation in the water management project. One of its main strategies to attract women was to form SHGs and allocate special funds for economic activities. It was believed that this is the best route towards women's empowerment. It provided a space for women to not only get together, form SHGs, save and borrow, but also to handle funds in a fair and just manner. Unfortunately the route became an end in itself and they seemed to be largely concerned with the special fund that was instituted towards SHGs formed under the scheme. In fact, our findings showed that women were overtly concerned about the SHG activity rather than the main activity of water management. This has been corroborated by a rapid assessment done by Dilasa, the Aurangabad based consortium for Jalna district in its report where it states that the secretaries and presidents of WDC across the state have largely focused only on SHG activities almost entirely sidelining the main scheme.

Empowerment of women then largely remains restricted to the area of economic empowerment. From women's groups point of view this was the main activity of the project and they were therefore seen complaining about the lack of resources to meet the needs of all the SHGs in the village. Women also said that many a times there was no follow up after the initial skill training process and so women could not use their skills towards income generation goals. In Jalna, the DFT without consulting the local women, went ahead and purchased few machines such as Dal processing; Mirch pounding etc. out of the revolving fund allotted to the WDC and delivered them to the villages. There was no opportunity for women to say whether they would like these activities, no training about running it as a co-operative activity or maintaining it etc. Rather than being paternalistic, the DFT should have allowed the women to explore and learn form their mistakes. Parabwada was the only village where they managed to have an SHG

Mahasangh or federation of 20 SHGs and they had started collecting shares from members for setting up the core funds to facilitate eligibility to bank loans.

We can see how the WDC role had deviated from its main purpose of getting women together to rally around the scheme and participate in its planning process. Unfortunately, many of the SOs too got sucked into implementation of this activity and failed to see its broader role in consolidating women's collectivity.

However, it also raises questions in terms of whether the economic route is the best route to invoke women's collective values. One it is used it needs to be followed to its logical end, or else it would lose its meaning both as an end in itself as well as a vehicle towards building collective identity.

Aple Pani did not have this committee and neither the fund and perhaps we did not see enthusiasm amongst women the way it was present in Jalswarjya.

Women's Participation

The progress report of each district had separate section to report on women's participation in quantitative terms. Such as percentage of women members in each committee: VWSC, SAC and WDC. In addition, the percentage of women in the leadership position was also separately noted down. The attendance of women in women's gramsabhas was recorded. The number of SHGs formed before and after the project was an important indicator to assess the impact of the project. Women's responses from the interviews too showed us that the project had made some difference, to different groups of women in different ways, but overall did create enthusiasm. It stirred them to take interest in the public life and the governance issue.

In Sindhudurg, particularly, women were very active. In one of the villages a male Surpanch attributed his election to his work in the VWSC and importantly women's support for the water project. We do a more detailed discussion of this towards the end of this chapter.

Pricing of water

As per the scheme, a 10% capital contribution is to be made by the community. We made a separate enquiry on collection of capital contribution and found that in most villages up to 5% was paid up by people. Methods and amounts of collecting capital contribution varied from village to village. Whereas in some villages it was based on per capita in others it was based on per household. There were no uniform rates decided either. In most of the villages we found that the range varied from Rs 50/hh to even 50,000/hh. In some villages like Hudson for example the Bhil vasti was unaware of the capital contribution and had not paid up anything so far while the Rajput family from where the woman surpanch came had paid a large amount of Rs 10,000/-. This family was looked upon as the benevolent household of this village and was providing drinking water for the whole village.

In none of the villages did we find any discussion on the remaining 5% contribution. It was assumed that this would be either waived or paid for by the contractor.

Full costs towards O&M are to be borne by the community and the implications of this had not completely been internalized by the people. At the moment O&M seemed relavant to only a few villages which had completed the scheme. In Jambharle village for example Rs30/month/hh was the rate decided and a 3 month collection in advance was already done. But there was a lot of uncertainty about the rates and women and men felt that they are likely to increase.

There seemed to be a lot of ambiguity about both CC as well as O&M charges. We discuss this in detail in the women's responses.

Section V: Responses of women

Here we present our findings from our discussions with women committee members as well as draw on the FGDs with women from SHGs and also general group of village women.

Profiles of women

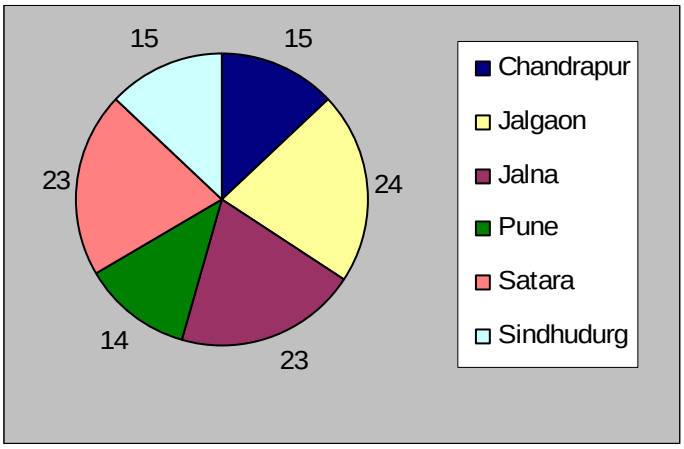
We present here the profile, which indicates the socio-economic location of our sample, which would help us seeing its relation with empowerment.

The women we interviewed were spread over three committees which were constituted under the Jalswarjya and Aple Pani scheme. The three committees we studied were VWSC, SAC WDC. Their strength differed across villages depending on the will of the local community to make the process more inclusive.

District wise committee members

The chart below shows the district wise spread of committee members. In Jalgaon and Satara we interviewed 24 and 23 members respectively and in Pune (14), Chandrapur (15), Sindhudurg (15).

Chart 4.1 District wise distribution of the sample



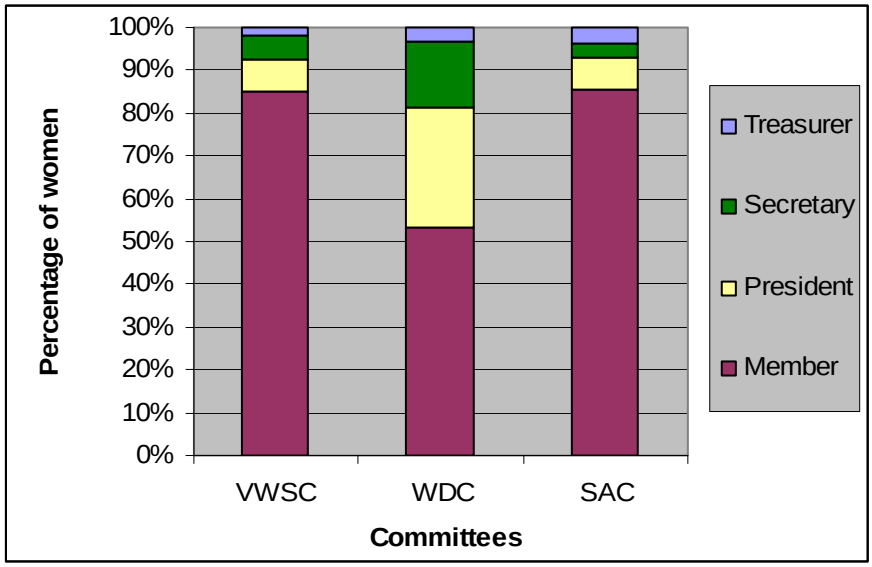
VWSC happens to be the main committee, more active in day today functioning. Out of total 114 women 54 were members of the VWSC, 32 were from WDC and 28 were from SAC. Thus it appears that we could capture overall good representation of our

constituency, the sections of which differ in the intensity of their involvement in the project implementation.

Committee post wise distribution of the members

We had total 13.16 percent presidents, 7.89 percent secretaries, 0.88 percent vice presidents and 2.63 percent treasurers among our sample. The rest were simple members. The sample in fact corresponds to the overall spread of women functionaries as per the data provided by the RSPMU. Among total numbers of VWSC, only 7.41 percent were presidents, among WDC members 28.13 percent were presidents and among SAC only 7.14 were presidents. It is obvious that WDC presidents were more in numbers since it mainly consisted of the women members who were supposed to be the members of SHGs. Men's participation in the WDC was merely tokenistic.

Chart 4.2 Committee and post wise distribution of the sample



Among the category of secretary WDC had largest percentage of 15.63, VWSC had 5.56 percent and SAC had only 2.63 percent. Secretary is a key functionary in the VWSC. S/he has the signing authority and can call for meetings of the VWSC.

In cases of women secretaries, we have seen some other male member of the community taking the lead or sometimes her own husband as well.

Caste profiles of women

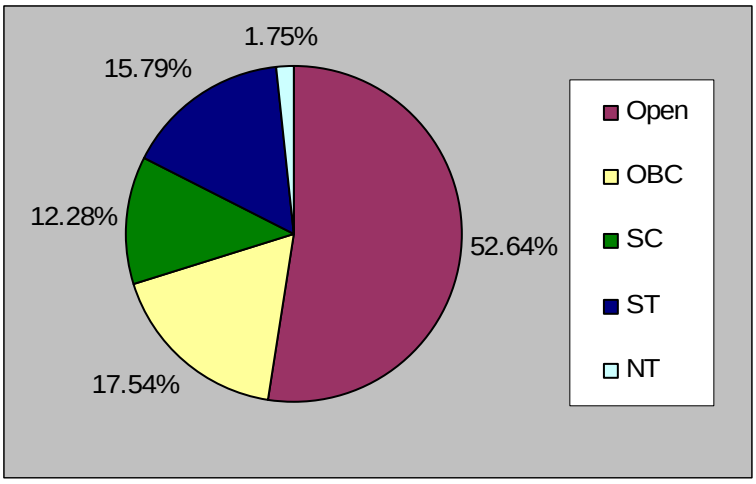
Out of 114 women respondents 52.63 percent belonged to open category, 17.54 percent belonged to OBC (Other backward castes) 15.79 percent belonged to ST (tribals) category, 12.28 percent belonged to Scheduled caste (previously untouchables) and 1.57 belonged to NT (nomadic tribes) category.

These percentages are in proportion to the population of these communities in these villages. Chandrapur is the only district where there was a dominant tribal population.

Table 4.16 Caste and sex wise membership in committees (for 7 villages)

Village	Committee	Open		OBC		SC		ST		NT		DT	
		M	F	M	F	M	F	M	F	M	F	M	F
Akola dev	VWSC	4	3	0	1	1	3	0	0	0	1	1	0
	WDC	2	6	0	3	0	5	0	0	0	0	0	1
	SAC	6	6	0	0	4	3	0	0	0	1	0	1
Ambadgaon	VWSC	11	6	0	0	0	1	0	0	0	0	0	0
	WDC	0	14	0	1	0	3	0	0	0	0	0	0
	SAC	7	7	0	0	0	1	0	1	0	0	0	0
Bhondavade	VWSC	6	4	1	0	1	1	0	0	0	0	0	0
	WDC	0	12	0	0	0	2	0	0	0	0	0	0
	SAC	6	5	2	0	1	1	0	0	0	0	0	0
Hadsan	VWSC	0	8	0	0	0	3	0	1	0	0	0	0
	WDC	0	8	0	0	0	4	0	0	0	0	0	0
	SAC	0	7	0	0	0	2	0	3	0	0	0	0
Mundkheda	VWSC	3	5	0	0	0	0	2	1	1	0	0	0
	WDC	0	8	0	0	0	2	0	2	0	0	0	0
	SAC	2	3	0	0	1	0	2	1	1	2	0	0
Parabwada	VWSC	5	3	3	5	0	0	0	0	0	0	0	0
	WDC	4	6	0	4	0	0	0	0	0	0	0	0
	SAC	4	3	3	6	0	0	0	0	0	0	0	0
Shelave	VWSC	7	3	0	0	1	1	0	1	0	1	0	0
	WDC	2	6	0	0	1	1	1	2	0	1	0	0
	SAC	2	7	0	0	1	2	0	1	0	0	0	0

Chart 4.3 Caste wise distribution of the sample



Our caste wise profile for the key functionaries shows us the following- not surprisingly that VWSC president ship (15 out of 114) had largely gone to the open category women. VWSC secretary ship too had gone 100 percent to the open category women. And we must remember that it is the most influential committee. Number of WDC presidents

were divided proportionately into open category, SC, ST as per the size of their population in our database. OBC had a little less representation such as 11.11 percent whereas their proportion was 17.54 percent. The percentages were 44.44, 22.22, and 22.22 respectively. The NT caste did not have representation at all. They live in a separate vasti and hence may be it was not possible to access them for interviews. In fact many of NT women are quite enterprising and have their own saving groups and work on the principles of SHG. SAC presidents were only two and one post went to open category and another to ST woman. Secretary was also one among SAC member, belonging to open category.

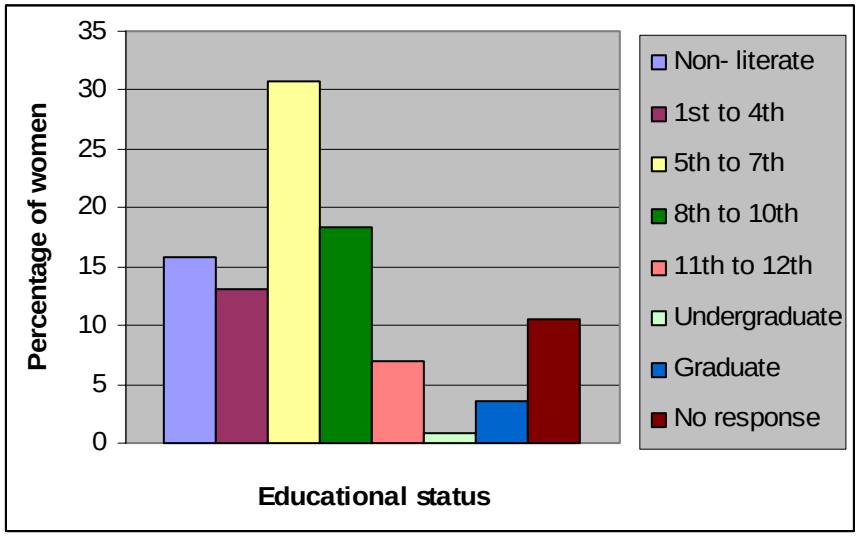
Table 4.17 Caste wise post in the committee

		Caste groups					
Committee	**Membership**	**Open**	**SC**	**ST**	**OBC**	**NT**	**Total**
VWSC	President	100.00	0.00	0.00	0.00	0.00	100.00
	Secretary	100.00	0.00	0.00	0.00	0.00	100.00
	Treasurer	100.00	0.00	0.00	0.00	0.00	100.00
	Member	50.00	6.52	17.39	23.91	2.17	100.00
WDC	President	44.44	22.22	22.22	11.11	0.00	100.00
	Secretary	60.00	20.00	0.00	20.00	0.00	100.00
	Treasurer	100.00	0.00	0.00	0.00	0.00	100.00
	Member	35.29	29.41	23.53	11.76	0.00	100.00
SAC	President	50.00	0.00	50.00	0.00	0.00	100.00
	Secretary	100.00	0.00	0.00	0.00	0.00	100.00
	Treasurer	0.00	0.00	0.00	0.00	100.00	100.00
	Member	54.17	12.50	12.50	20.83	0.00	100.00

Education wise distribution of the sample

Education contributes to empowerment and hence to trace education level of the women in our sample was important. It was surprising to find that 15.79 percent women were non-literate. On the other end graduate women were only 3.5 percent and most women were in the class of 5-7th standard (30.70%) followed by those in 8-10 std (18.42) and then by 1-4th standard (13.16%). So although the overall profile did show high levels of non literate younger women who were educated too did seem to participate.

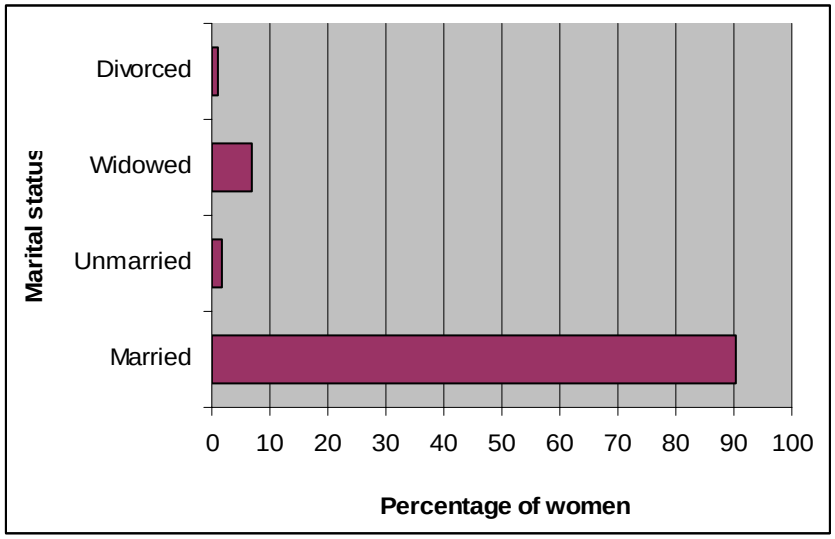
Chart 4.4 Educational status wise distribution of the sample



Marital status wise distribution of the sample

Marriage provides status and post reproductive status for married woman does allow them some mobility. Our sample showed that 80.70 percent women were married and only 1.75 were found unmarried. About 7 percent reported that they were widowed and 0.88 reported that they were divorced.

Chart 4.5 Marital status wise distribution of the sample



Class profile of women

Analysing income is a complex task and requires meticulous data collection procedures over a certain time period. To understand the class status we looked at women's landownership patterns in terms of their own land as well as land owned by their families.

Land in her own name signifies power and hence this too is presented here. We have also looked at whether the women are included under the BPL lists by looking at the ration cards that they hold.

Landownership by the household

If we look at the household wise ownership of land, we see that 42.98 women members come from landless households. This is indicative of increasing percentage of rural landlessness due to a variety of reasons. Increasingly this represents the reality of rural Maharashtra. In a sense, we can say that the project did include women from different classes and castes.

Land holding intervals of 1-3, 4-6 and 7-15 acres had 21.05, 20.18 and 12.28 percent representation from all the caste categories. 16-50 acres class interval had two households and more than 50 acres had two households, which is a real power base.

Table 4.18 Landownership, household owned land

Landownership (in Acre)	No of women interviewed	Percentage
Landless	49	42.98
1 to 3	24	21.05
4 to 6	23	20.18
7 to 15	14	12.28
16 to 50	2	1.75
More than 50	2	1.75
Total	114	100.00

Castewise landlessness was much less among the open category compared to their composition in the sample, such as 34.69 percent compared to 52.63 percent. SC, ST, OBC and NT had much more landlessness among them compared to their proportion in the sample such as 22.45 percent (12.28), 18.37 percent (15.79), 20.41 percent (17.54) and NT 4.08 percent (1.75). Open category was prominent in all the categories 1-3, 4-6, 7-15, 16-50 and more than 50 acres such as 54.17, 65.22, 85.71, 100 and 50 percent. ST had good representation in the categories of 1-3 and 4-6 such as 16.67 and 21.74 percent but SC had very little in the first such as 8.33 and nil in the rest with one exception of 50 percent in the category of more than 50 acres. OBC also had reasonably good representation in the three categories of 1-3, 4-6 and 7-15 acres such as 20.83, 13.04 and 14.29 percent.

Table 4.19 Caste wise landownership, land owned by household

Landownership (In Acre)	Castes					Total
	Open	OBC	SC	ST	NT	
Landless	34.69	20.41	22.45	18.37	4.08	100
1 to 3	54.17	20.83	8.33	16.67	0.00	100
4 to 6	65.22	13.04	0.00	21.74	0.00	100
7 to 15	85.71	14.29	0.00	0.00	0.00	100
16 to 50	100.00	0.00	0.00	0.00	0.00	100
More than 50	50.00	0.00	50.00	0.00	0.00	100
Total	52.63	17.54	12.28	15.79	1.75	100

If one looks at district wise proportion of land ownership by households Jalgaon ranks first (28.57), Jalna comes second (24.49) Sindhudurg (18.37), Chandrapur (16.33) among the landless women members. Pune and Satara had only 6.12 percent women form the landless households. Pune and Satara had evenly distributed households among all the categories except 16-50 acres and above 50 acres. Satara had one household which owned land above 50 acres. Chandrapur and Sindhudurg were characterized by having landowning households in the categories of 1-3, 4-6 acres only. Jalgaon and Jalna had HHs in all the three categories of 1-3, 4-6 and 7-15 acres. Jalna had large number (35.71) in the category of 7-15 acres. We did not ask whether the lands were irrigated or not. Irrigation does bring in prosperity to the household in terms of enhanced production leading to better incomes.

Table 4.20 District wise landownership, household owned land

Landownership	Districts						Total
	Chandrapur	Jalgaon	Jalna	Pune	Satara	Sindhudurg	
Landless	16.33	28.57	24.49	6.12	6.12	18.37	100
1 to 3	12.50	20.83	8.33	8.33	37.50	12.50	100
4 to 6	17.39	8.70	13.04	21.74	26.09	13.04	100
7 to 15	0.00	14.29	35.71	21.43	28.57	0.00	100
16 to 50	0.00	0.00	50.00	50.00	0.00	0.00	100
More than 50	0.00	50.00	0.00	0.00	50.00	0.00	100
Total	13.16	21.05	20.18	12.28	20.18	13.16	100

In brief, Sindhudurg and Chandrapur appear to be very distinct areas geographically as well as socially, which we would take into account while describing their responses for implementation of the scheme. Chandrapur had mainly tribal population and less education. Sindhudurg is closer to Mumbai and has a large migrant population to Mumbai but in close contact with their roots. This is also one district with a strong educational profile of women. Similarly Satara district too with its connection with Mumbai and better literacy has an advantage over other districts. It is also the fertile ground for movements and new political ideas.

Women's self owned land

Table 4.21 Land ownership, self owned land

Landownership (in Acre)	No of women	Percentage
Landless	92	79.82
1 to 3	13	12.28
4 to 6	3	2.63
7 to 15	5	4.39
16 to 50	1	0.88
More than 50	0	0.00
Total	114	100.00

79.82 percent women reported that they were landless. The maximum land owned by a single woman was between the category of 16-50acres and she was an SC. She inherited the land from her parents. 12.28 percent women had 1-3 acres of land and 4.39 percent women had between 7-15 acres of land. Caste wise 51.09 percent women from open category reported that they were landless and the numbers for SC, ST, OBC and NT were as 14.13, 17.39, 15.22, and 2.17. Thus it appears the landless was proportionate to their representation in the sample size. In the class interval of 7-15 acres Open, ST and OBC had proportion of ownership such as 60, 20 and 20 percent. SC did not qualify there. In the two other class intervals 1-3 acres and 4-6 acres Open caste women represented 61.54 and 66.67 percent. OBC percentile was 38.46 in the class interval of 1-3 acres. ST did not have women in the class interval of 1-3 acres, but had 33.33 percent in the class interval of 4-6 acres.

Table 4.22 Caste wise land ownership, self owned land

Landownership	Castes					Total
	Open	OBC	SC	ST	NT	
Landless	51.09	15.22	14.13	17.39	2.17	100.00
1 to 3	61.54	38.46	0.00	0.00	0.00	100.00
4 to 6	66.67	0.00	0.00	33.33	0.00	100.00
7 to 15	60.00	20.00	0.00	20.00	0.00	100.00
16 to 50	0.00	0.00	100.00	0.00	0.00	100.00
Total	52.63	17.54	12.28	15.79	1.75	100.00

On the whole it can be said that ownership of land by women is in negligible proportion and does not constitute a power base to become a committee member.

Poverty line

Ration card in India is used as an identity for many things, such as your residential status, domicile status etc. but its main use is to identify your status for access to subsidized food available through Public Distribution System. The BPL status is denoted by yellow colour of the card and the orange denotes above BPL status and the foodgrains are available at higher price. 24.56 percent women reported having a yellow card, 42.98 held

an orange card and 32.46 did not respond. Among these no responses some were women who did not know their card colour but in most cases data was not recorded correctly. In most poor/rural societies women would invariably know the colour of their ration cards as it is closely linked to their food security.

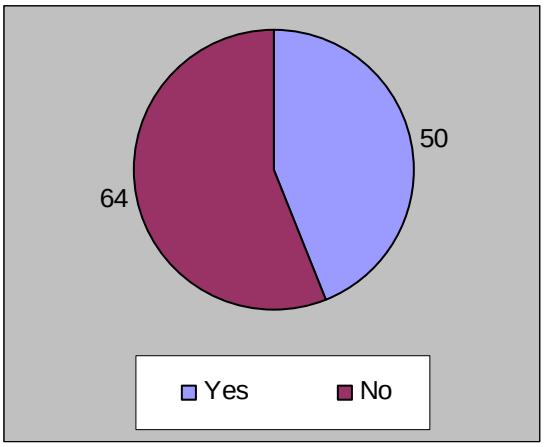
Castewise profile of ration card holding shows that of the total yellow card holders 50 percent belonged to open category, 7.14 belonged to SC, 28.57 belonged to ST, 10.71 percent belonged to OBC and 3.57 percent to NT. Among the orange card holders open category was heavily represented (55%). Similarly among no response also one notices 52.63 percent women are under open category, i.e. they don't know what card they have.

District wise picture is that Jalgaon and Chadrapur had more yellow cardholders 32.14 and 25 percent respectively compared to Sindhudurg, which has lowest (7.14%) along with Pune (7.14%). Satara had 10.71 percent yellow card holders. This picture sounds realistic in the context of the status of districts. Jalgaon has more disparity and Chandrapur has ST population.

Membership of organisations

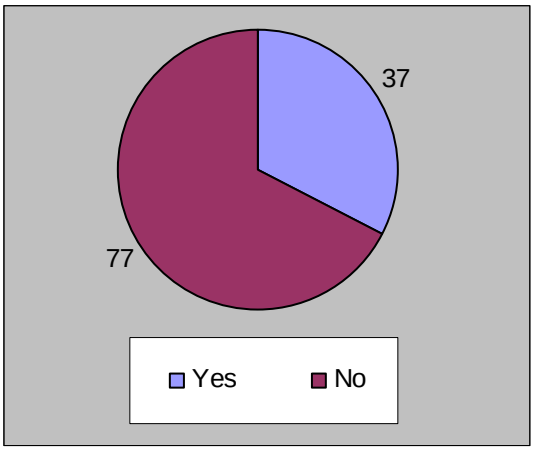
Membership to different organizations and committees is also an indicator of the capability and experience of the women. We asked if women held membership to what we considered as key rural institutions such as SHG, GP, credit cooperative society and anganwadi. 50 women said that they were members of other organizations before becoming committee members. Most of them were members of either SHG and GP.

Chart 4.6 Prior membership of other institutions



We also tried to look at if women have started participating in other institutions after they became committee members in water supply scheme. 37 women responded positively to that. Most of them (24) became SHG members, as a part of mobilization by SO. 9 women reported that they could think of participating in the election of local bodies, either in GP or Panchayat Samiti after they started participating in the water committee meetings.

Chart 4.7 Later membership of other institutions



Status of participation

Selection process

A number of factors determine which women are selected, why they are selected and how far was the process democratic and fair. Do men and certain caste groups dominate the decisions around selection or is it their own initiative. It is a combination of several factors of agency and structure and this is amply evident from our findings.

Our findings show that one of the important reasons for participation for women in the pani samitis was their own interest. 59.65 percent respondents said that they decided to participate because of their self interest. 14.04 percent said that they became willing to participate after influential people in the community persuaded them. 9.65 percent women reported that the villagers suggested names in the gramsabha convened in the beginning of the project. Only 5.26 percent women said that it was their family that showed keenness. Only 1.75 percent women became a part of the committee because of their membership of grampachayat, and it was mandatory.

Table 4.23 Reasons for participation

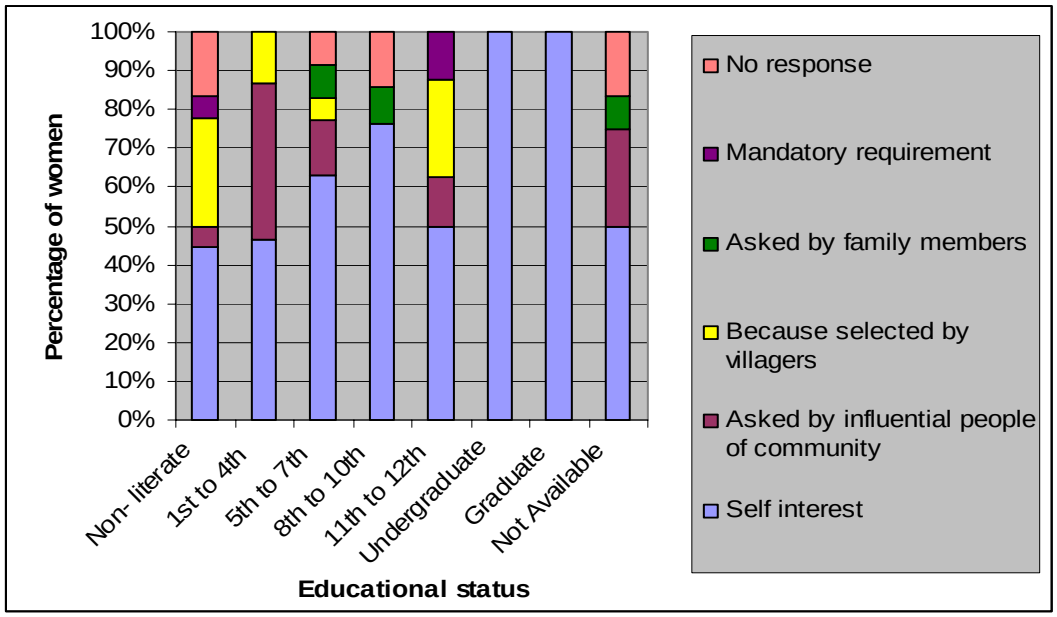
Reasons	No of women responding	Percentage
Self interest	68	59.65
Asked by influential people of community	16	14.04
Because selected by villagers	11	9.65
Asked by family members	6	5.26
Mandatory requirement	2	1.75
No response	11	9.65
Total	114	100

We thought this might vary across districts so looked at the district wise data on participation. Following Sindhudurg (100%) Satara (69%) and Pune (57.14) were the two districts that stood out in terms of their participation through self interest.

Chart 4.8 District wise reasons for participation

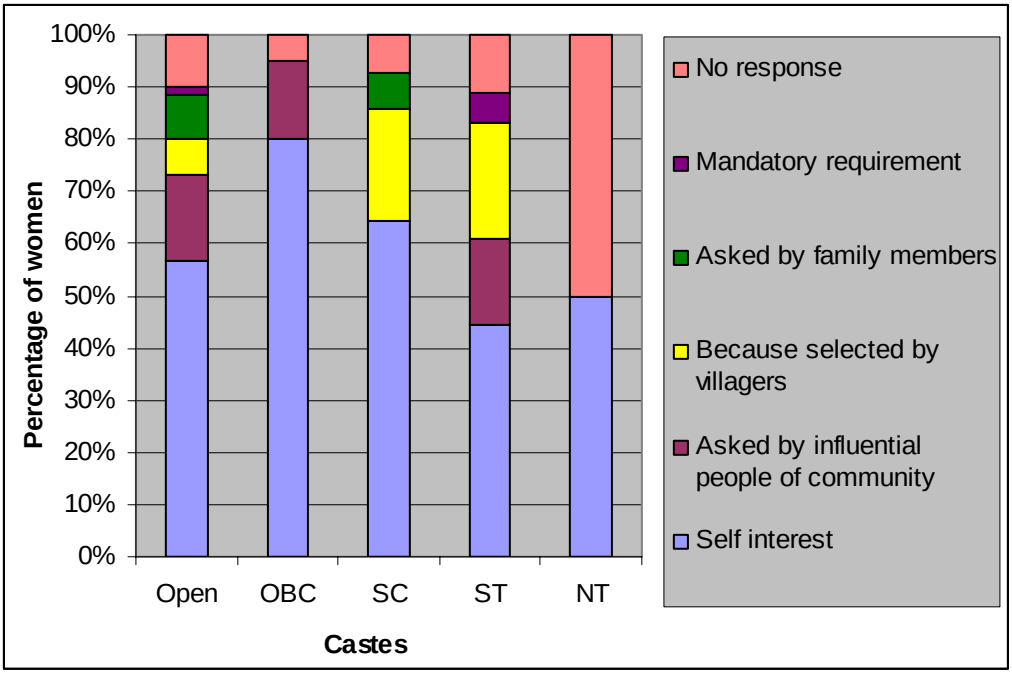
Education too did have a role to play in motivating to participate on their own volition. Our findings showed that graduates and undergraduates answered affirmatively followed by those in the class interval of 8-10th (76.19%) and 5-7th standard (62.86%). The rest showed a low interest.

Chart 4.9 Educational status wise reasons for participation



In our caste wise profiles too we see that a large number of women across dalits and OBCs also said that their own motivation or self interest was the most important factor for their participation. The OBC (80%), SC (64.3%)) and Open category (56.7%) figures do indicate that caste was not a barrier in exercising agency of women. Membership to these committees was important but did not carry any political power. Women across caste also found a space for representation so those having the initiative could participate without much contestation. Many of these women are less likely to have faced opposition from the family as against the upper caste women, who still are governed by norms of seclusion.

Chart 4.10 Caste wise reasons for participation



In the chart 4.11 above we see that although women responded by saying that it was their own self interest that motivated them to participate, only 10% women went ahead and proposed their own names for selection. A majority of the names were finally proposed by villagers in the gram sabha. 20% of the women said that their names were suggested by influential members of the village and only small numbers attributed their presence to SOs or the fact that they were GP members. When we discussed the procedure for final selection of the women, there was an overwhelming response by the women that it was the influential members who made those final decisions on selection processes.

When we look at the preferred characteristics of women on committees the chart below is useful. It shows that articulation, being responsible and capable, active participation, education, having experience, has time for public activities and is active in SHGs were seen as important characteristics in that order of importance.

Chart 4.11 Who suggested your name for the post?

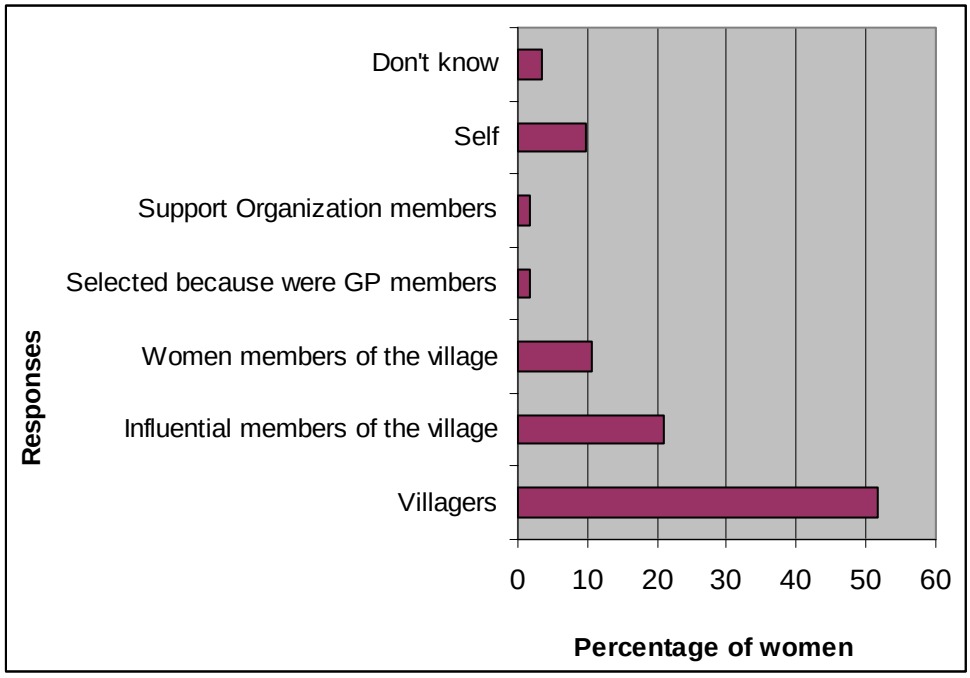
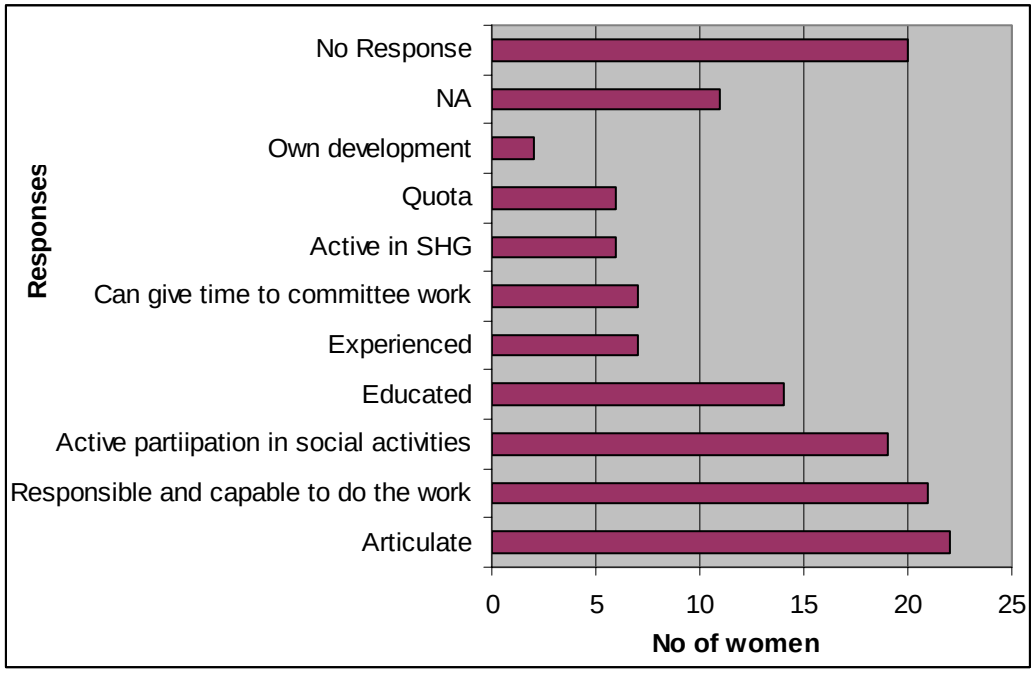


Chart 4.12 Reasons for which name was suggested for the committee

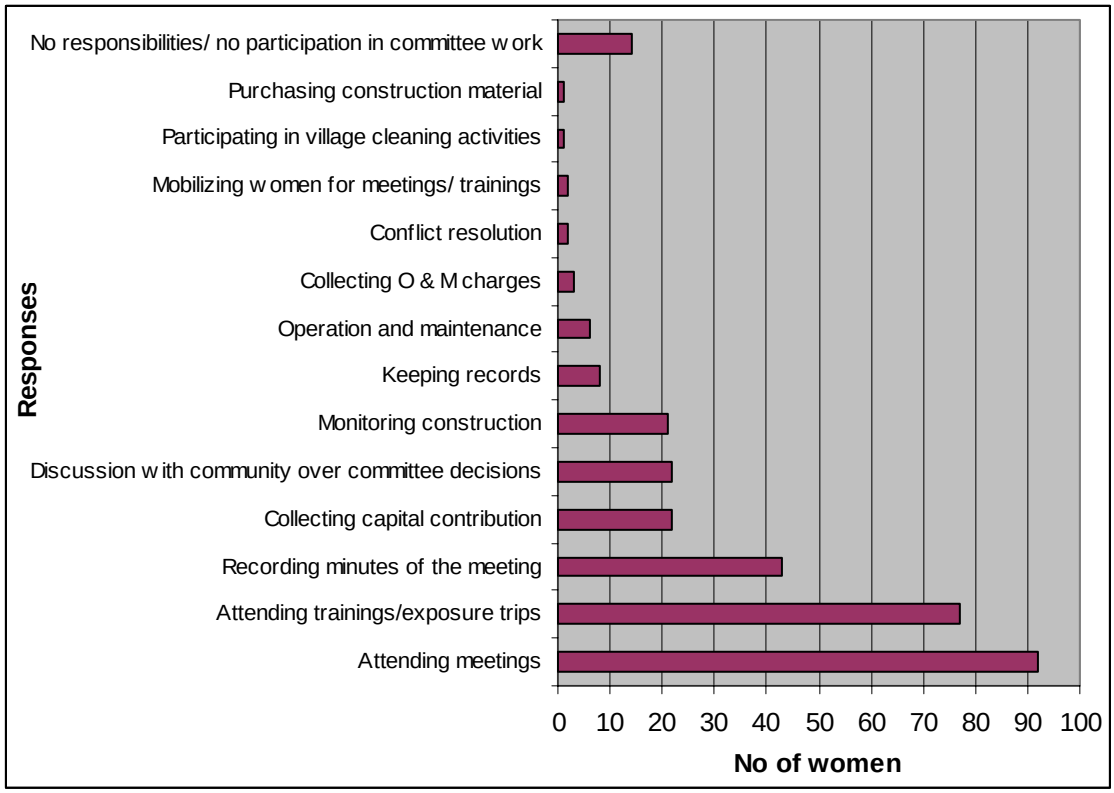


It is was important for us to investigate what motivated women to participate in the process and here the women's responses were as follows : concerned about the water crisis (13.16%) in the village; want to do something for the village (14.04%); help towards reducing women's drudgery (3.51%); develop communication with other women (12.28%); interested in social and public work (9.65%) and interest in water management issues(2.63%).

Nature of participation

Women's enthusiasm was evident when we asked them about the various responsibilities that they undertake as committee members. The most important responsibility cited by them was attending meetings of the committees and the mahila gramshabhas. They felt that it was their obligation to attend the meetings once they are selected as a member of the committee. Out of 114 women respondents 94 were positive. 77 of them also participated in training programmes and exposure tours organized by SOs. 32 of them were aware that the minutes were recorded for all the meetings and those who were also executive committee members signed them. 22 of them took initiative to collect capital contribution from the villagers. Dissemination of the committee decisions was another activity, which was undertaken by 22 of them. 21 respondents reported that they had been part of the committee to supervise construction. However, when asked whether any one of them went to purchase the material there was silence and only one woman responded positively. Conflict resolution was another area where nobody had taken responsibility.

Chart 4.13 Nature of participation



Degree of activeness

Pursuing further on self interest and women's agency we asked women the various areas where they take an initiative. Here we found that about 49.12 percent women said that they come forward to take up responsibilities, and 28.07 percent women said that they have not taken any responsibility so far, whereas 18.42 percent said that they only undertake activity, which is assigned to them. This is not very favourable considering that the self interest response was so overwhelming. We were also concerned about

assignment of tasks by men and whether these strengthen gender stereotyping, but most women (63.16%) did not think so. However some women (13.16%) did feel that tasks such as making tea, greeting guests etc were assigned to them while the men would take on other tasks.

How conducive is the environment for women to articulate their concerns was an important area of enquiry since it actually leads us to look at some of the facilitating and constraining factors for participation. As the table below shows us, 55.26% women felt that they were able to articulate their concerns. However, the negative response too could not be ignored sizable, that is around 25%. 13.16% women said that they do not attend meetings in the first place. But 6.14% women said that as they themselves are not able to talk in the meetings they take help from other to do so.

Table 4.24 Ability to articulate concerns in the meetings

Answer	No of women reporting	Percentage
Yes	63	55.26
No	29	25.44
Don't attend meetings	15	13.16
Takes help from others	7	6.14
Total	114	100

This overall positive response in women articulating is encouraging and speaks to some extent about the spaces created by the scheme, which go beyond quotas. Here the role of mahila gramsabhas and separate meetings for women are seen as important.

Further probing about awareness and facility of raising issues around water during the VWSC meetings, we realized that more than 43% answered positively, 23% answered negatively and there was a large chunk of 'no response', i.e. about 32.46%. Among the women with 'no response' SC and open category women contribute a lot compared to OBC and ST. Integration of SC has been found problematic. It appears that SOs had not done extra efforts to encourage them to participate in the empowerment process in a big way.

Table 4.25 Awareness and articulation of women's issues around water

Response	No of women	Percentage
Yes	50	43.86
No	27	23.68
No response	37	32.46
Total	114	100

Our Focused Group Discussions (FGDs) revealed that in Hadsan and Mundkheda Rajput (upper castes) women were well aware of the scheme and also were active, but Bhil women (tribals) were totally unaware. In Mundkheda they explained that almost six months they migrate for work to Gujarat and thus could not keep track of what is happening in the village. But in Shelave three separate meetings in the Leva Patil (upper caste) vasti, dalit vasti and Bhil vasti revealed that all women were reasonably aware of the scheme and gave credit to gender expert, Sunanda Visave from Rashtra Vikas Samiti (SO). Thus it was very clear that the SO's role was important in bringing marginalised

groups like women and especially women from the marginalised groups into the process of participation. In fact all the villages where the women's participation was significant as well as inclusive of all women, we could make connection that it has to do with having a good SO as one of the factors, such as Koye-Chaitanya, Manewadi-Bhumiputra, Nandgane-Shramik Janta, Kanhalgaon-Dilasagram, Parabwada-Siddhagiri, Vabhve-Narayan Ashram

What we see through this data is that caste, class (migrant women find it difficult to participate) and the role of SOs is critical in determining women's active participation that goes beyond presence in the meetings.

Conducive atmosphere in committees

Women require conducive atmosphere for their active participation and it is a duty of the SO and men folk to see to it that encouraging atmosphere is created by providing space, physical and also psychological to them. An attempt was done to capture these feelings. Suitable timing and location was one such factor, which definitely allows more space for women to attend the meetings. Overwhelmingly, i.e. 83.33 percent women responded positively. Not only that but they confessed that their preference for the date and time for the meeting was taken into account. Also, 57.02 percent said that their opinions were sought for and accepted. They could raise some issues as priority issue and it was taken for discussion. (55.26%). Women in Parabwada and Vabhve were very positive and articulate about men's cooperation for their participation. In Parabwada, all the committee members were carrying an information brochure about the facts and figures related to the scheme, so that they could narrate many things in the interview. Some of them also maintained diary to note down the dates of some important decisions. Woman sarpanch and VWSC president being the same person had created positive atmosphere. No conflict of roles was experienced. In Vabhve the male sarpanch had been very supportive and encouraged them to come forward along with efforts done by Narayan Ashram (SO). In Sindhudurg women's educational background had a positive impact but also, men in the committee. In Santose village of Sindhudurg, sarpanch admitted that he could get elected without spending much money because of the unleashed energies of women committee members who supported him and canvassed for him during the election campaign.

Those who did not attend meetings and do not contribute to the process of participation gave following reasons for the same. There were multiple answers. Lack of confidence (15), lack of information about the meeting's timings and venue (10), unable to understand discussions (6), have to go for wage labour and thus cannot spare time to attend (8) and does not feel need to talk (1) were some of the responses from very few women as we would notice here.

Support from the household

Often one of the important barriers for women is the resistance from her own family. Women coming out for public work is therefore a major change both in terms of the household as well as the woman herself. The PRI experience shows that women have to an extent overcome some of the barriers, coped and negotiated through to participate in it. Participation in PRIs has earned a sense of respectability due to the power and prestige

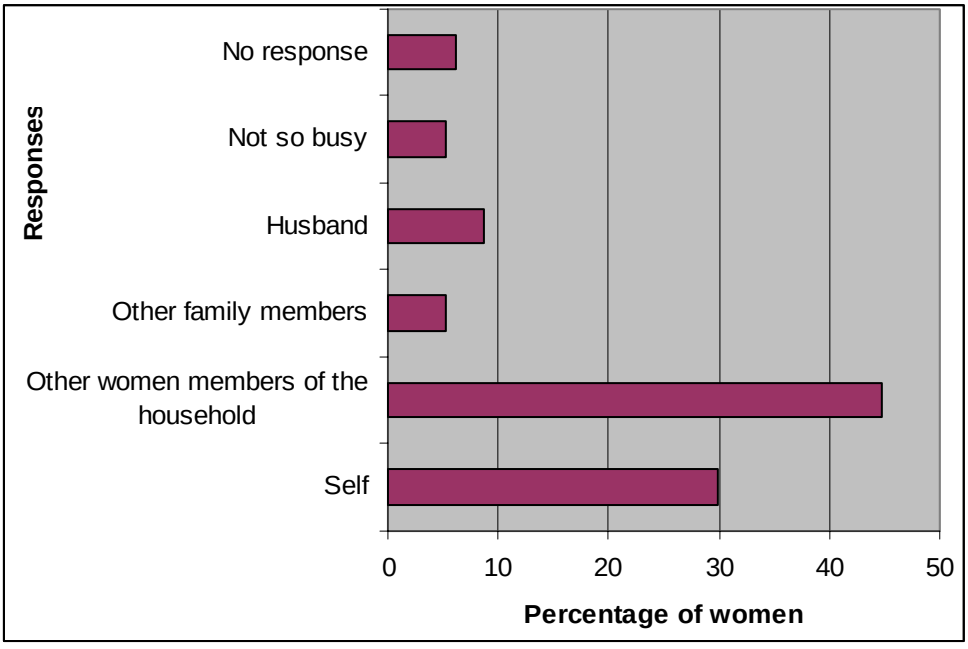
associated with it. Water committees are in a sense new and whether they can be seen as stepping stones for entering into power politics is questionable. From our own assessments across the 17 villages we have seen that the scheme has earned a tremendous amount of importance and therefore respect in the village. Its presence in the village stands no comparison to any other scheme launched in the recent years. This is also because of the large financial inceptives provided with its sister scheme on sanitation. This 'earning of respectability' is what we see as the main reason for such an overwhelming participation from women which has gone uncontested on the family front.

Let us look at women's responses here - 97.37 percent said that there is no opposition from the family for their participation in the committees 93 percent women admitted that the family members showed considerable understanding while the woman is busy with the committee work. Only 4.39 percent women complained somewhat that family members do not understand their role in the committee and hence sometimes create problems. So the response has been overwhelming.

Costs of opportunity

The question of opportunity costs is often difficult to assess as women rarely find an opportunity to go beyond the realm of household work. So opportunity and work burdens can be understood differently by women located differently. For many of these women this was the first opportunity to participate in public matters and hence they did not really see this as a burden or an additional cost. The opportunity of participation was also seen as one converting into a real opportunity of time saving due to the water scheme. How this was negotiated in terms of time can be seen through some of the responses of women.

Chart 4.14 Who takes the responsibility while she is busy in committee work



The most obvious question that follows from here is who then shares work at the household level. Since there is some amount of consent to participate, women obviously did have to negotiate around their housework as well. Here we see a large number of women saying that often these work burdens were transferred to other women members in the family (44.74%) usually the co-sister or daughter-in-law or daughter. Surpanch and president of Parabwada admitted that she could not perform these roles if her co-sister had not taken on these responsibilities.

Although we did not probe into this further in terms of how and why they agree to take on their share of the work, women do accommodate with an understanding that this would be returned in some form or the other. The other issue is also of hierarchy within the family. Rarely did we see a mother in law taking on her work. It was largely women in the family who were lower on the age hierarchy.

In a large number of cases (29.82%), however women said that they did most of the housework and then participated in the committee meetings. Some women interestingly reported that their husbands did share in the household tasks (8.77%).

The important learning from here, is that a) although there are costs of this opportunity, women do negotiate and use this space b) they do not really challenge the division of labour between men and women

Impact of new water scheme on their lives

Impact of water availability

Despite the strict timelines inbuilt into the scheme in most of the villages, delays of different kinds had not actually led to a proper functioning drinking water scheme. In fact, this was one of the major reasons for loss of the initial enthusiasm generated through the IEC. Needless to add that women (50%) could not therefore firmly state their responses on how the scheme had made a difference to them. They innfact complained how delays meant that they still had to walk long distances to fetch water. The responses collated here are from those villages where the scheme was completed and to an extent from anticipations of women in other villages.

Time saving was the main impact cited by most women (46.49%), followed by a positive impact on health of family (45.6%) followed by its contribution to village and home cleanliness (42.9%). Women (35.09%) said that the saved time could be used for other activities and this is shown in the chart below. Of the 38 women who did respond to time saved, said that they were now using that additional time for additional household work (15 women) and agricultural work (16) speaks a lot for how time created is consumed by additional household and subsistence burdens for women.

We also asked women if they were able to find additional uses of the newly created water and 17.54% said that they are using it for their cattle and for kitchen gardens.

Table 4.26 Impact of water availability

	Saving of time	Change in health of the family	Increased cleanliness	New usage of water
Has not received water from scheme yet	50.88	48.25	47.37	49.12
Yes	46.49	45.61	42.98	17.54
No	2.63	1.75	1.75	33.33
no response	0.00	4.39	7.89	0.00
Total	100	100	100	100

Impact on women at household level

Increased participation in decision making processes

We assumed that participation of women for 18 months of intensive activity must have generated some awareness among women respondents of their dignity and independence in decision making. Amartya Sen criticizes the utilitarian approaches, which measure increased well being in terms of 'adaptive preferences', i.e. preferences adjusted to their second class status.(Nussabaum:2003). We tried to go beyond this utilitarian approach to find out whether women have feeling that the milieu where they are situated has changed or not and they are getting sense of it.

Issues such as children's education, health issues and the expenses for children as well as their own parents are most dear to women, where they would like to have say. There were three kinds of responses for each issue. For children's education, one was positive response of change (24), second was that the pre-scheme treatment was bad enough and it has not changed much (48), and the third was that there was somewhat acceptance from the beginning but it has not changed (27).

Table 4.27 Changes in participation in decision making at household

	Children's education (esp. girls)	Health related issues	Expenses (self, parents, children)
Yes it has increased	24	31	20
It is there from before	27	22	25
There is no change	48	48	52
No response	15	13	17
Total	114	114	114

It was interesting to analyse caste wise responses for decision making in the matter of expenses for children and parents. Large number of women did not see any change in their lives at home, which they could attribute to public participation. This response was most prominent among the tribal women from Chandrapur.

Comparatively women from open categories said that there was some change at the household level. Among the dalit and tribal households, we see that there was some decision making power prior to the scheme and this is important from the point of view of the benchmark it provides. For each caste and class these benchmarks differ and this

only confirms the point that attribution of empowerment cannot really be singled out to a particular activity/event.

The response was not positive in terms of decisions around health and it was worse on decisions related to spending money for children and parents. Only 20 women said that there was change in this respect, 52 reported that their earlier bad experience continued and 25 said that they had some leverage in this respect, which continued.

Table 4.28 Caste wise changes in participation in decision making at household (%)

		Open	OBC	SC	ST	NT
Children's education	It is there from before	28.33	25.00	21.43	5.56	50.00
	There is no change	31.67	35.00	35.71	88.89	50.00
	Yes it has increased	26.67	20.00	21.43	5.56	0.00
	No response	13.33	20.00	21.43	0.00	0.00
Health related	It is there from before	16.67	30.00	21.43	11.11	50.00
	There is no change	41.67	30.00	42.86	61.11	0.00
	Yes it has increased	30.00	25.00	21.43	22.22	50.00
	No response	11.67	15.00	14.29	5.56	0.00
Expenses	It is there from before	25.00	25.00	28.57	0.00	50.00
	There is no change	33.33	40.00	42.86	94.44	50.00
	Yes it has increased	21.67	20.00	14.29	5.56	0.00
	No response	20.00	15.00	14.29	0.00	0.00

Respect in the family and mobility

Increased respect among family members got a better response (41%), whereas negative response was (32.46%) and very few thought that they had sufficient respect earlier too (6.14%). As was pointed out in the methodology section we did see that it was difficult for women to respond to abstract questions such as these beyond a point and hence about 25% women did not respond to most of them.

Table 4.29 Increase in respect at household level

Answer	No of women	Percentage
Yes it has increased	41	35.96
It is there from before	7	6.14
No there is no change	37	32.46
No response	29	25.44
Total	114	100.00

Few women thought that their opinions were taken seriously in the household. However increased mobility was seen as a change by 29.82% but 34.21 percent women felt that nothing had really changed in that respect either and 8.7% women said that they were mobile prior to the scheme.

Table 4.30 Changes in acceptance of vies at household level and mobility

Answer	Acceptance of views and opinions		Mobility	
	No of women	Percentage	No of women	Percentage
Yes it has increased	19	16.67	34	29.82
It is there from before	11	9.65	10	8.77
There is no change	41	35.96	39	34.21
No response	43	37.72	31	27.19
Total	114	100	114	100

Impact on women at community level

In assessing this, we used the communities' perception as well as that of women. About 62.28% women said that there was an increase in respect from the community and 48.2 percent women reported that they had a better say in the community decisions. Women (28.9%) also reported that they were now taking interest and visiting other local institutions The important response however was with respect to leadership qualities which significantly a fairly large number of women (40.35%) attributed to the scheme. This was very evident in the group discussions especially in Parabwada, Vabhve, Manewadi, where women asserted that the project gave them opportunity to learn governance aspect of the drinking water facility and procedures required in the process. Many of the women were first time entrants in the public sphere and felt that this did provide them an opportunity to participate.

A few more concerns too were added in the questionnaire such as whether their capacity to articulate women's concerns was increased or not and participation in the campaign against alcohol was motivated due to the increased concern or not. For the first concern of increased in articulation 50.88 percent responded positively and for the second, i.e. of campaign against alcohol only 27.19 percent responded. However, 'no backlash' due to the new euphoria of empowered women was reported by majority of 94.7 percent women.

Economic change

As has been stated earlier one of the important components of the Jalswarjya scheme was the Women's empowerment fund, which mainly disbursed a revolving fund for income generation activities. Several skills based trainings were organised for the better implementation of this fund.

Interestingly a large number of women (78.95%) said that they had benefited economically from the scheme. In fact, 85% said that they could purchase some income generating assets from this fund and this had led to an increase in income, reported by 75% women. Many of them felt confident that they could now access small consumption loans.

This euphoric response can be explained in two ways, one is that committee members were gaining from this process, as they were closest to accessing the revolving fund. The other women we spoke to in the village had not heard much about this fund and were in fact not benefiting much from it. Many of the committee members too on further probing

were a bit vague in their answers and not clear how they had been benefited by this. Several of these responses need to be understood in the way the components are being drilled into the minds of people. So immediate responses often do show positive impacts which on further probing have diluted.

Women's perception

Capital contribution towards the scheme

Capital contribution of 10% towards the scheme is one of the contested issues. From our field work it was evident that somehow people are fully convinced of the need to contribute. Responses from women too echoed a similar feeling with 74.56 percent women agreeing to the contribution. A small number of 2.63 percent said that everybody cannot afford it and 22.81 percent had no opinion of their own.

Knowing that social and economic disparities do exist in a rural context, we wanted to understand what women thought were the appropriate criteria for deciding on who pays and how much. Every village had been given freedom to arrive at this criterion in their own manner, which was in a way dangerous, considering the social and political power the rich hold in the village, which nullifies the effect of formal democratic structures.

In their responses, women gave varied weightage to the decisive criteria- Very few felt that economic condition of the families should be the basic criterion for deciding capital contribution (8.77%). Few (6.14%) could state their opinion on the appropriateness of differential contribution mechanisms

In most of the villages, women said that the criteria used was based on 'per household' contribution (61.40%) and others i.e. mostly in Vabhave village (21.93%) said it was based on 'per capita'. In some villages the criterion was not yet evolved (19.30%) and (7.89%) women did not know what was the criterion followed. Fewer could really judge whether what was decided was appropriate or not.

In our FGDs of course we had very insightful discussions on the capital contributions and in many of the villages men and women were almost certain that there would be a 5% waiver since there were no discussions around it in the subsequent meetings. The first instalment of 5% was tied to the VAPs being prepared and approved for the funds flow to start.

There were large variations in how the 5% was collected in the 17 villages that we visited. In some it was the very rich in the village who paid in some it was differential rates and the poor were paying small amounts, in some villages like Parabwada and Vabhave in Sindhudurg district contributions largely came from the salaried people living in Mumbai. This indeed is a peculiarity of the people in Konkan who despite years of migration still have strong ties with their villages. Chandrapur, being a tribal district only 5 percent contribution was required. In a sense the poverty was shared and disparities few so here we saw that every household had paid some contribution, which was not the case in districts like Jalgaon which have very wide inequities. In this district the tribal vastis of Hudsan and Mundkheda villages, the bhil vastis were completely unaware of capital contribution and how much each of them was expected to pay. None of them had paid towards that and were not even sure if they would get access to water.

Water tariff

In case of water tariff the same criteria, per household and per person were reported by 57.02 percent and 4.39 percent respectively and 19.30 percent women did not know what was decided. Low incidence of reporting is because the scheme is not completed in most villages and water delivery has not yet begun on these villages.

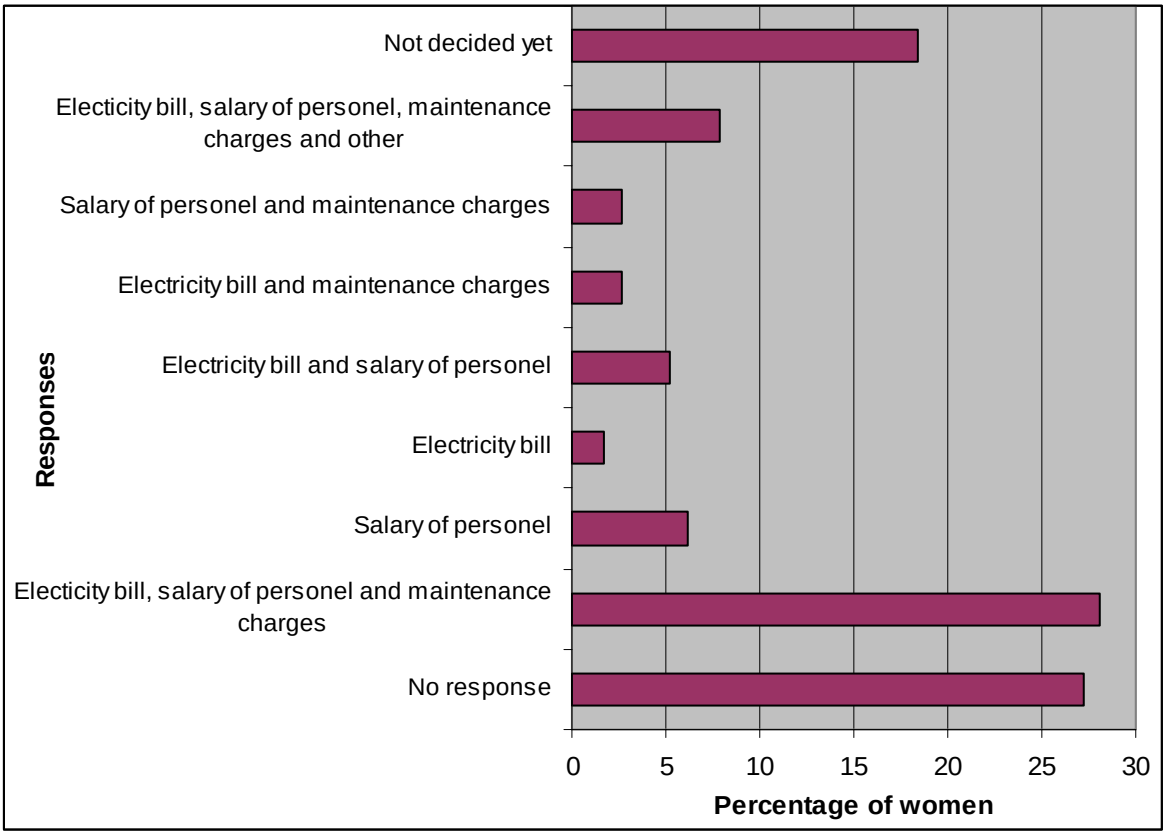
In FGDs it was revealed that Manewadi had already decided about the tariff and has already collected three months tariff so that their scheme could be handed over to them as per the preconditions. In Jambharle village too the scheme had become functional.

Although at the first instance women were usually giving the well tutored response of how O&M by the community was the defining characteristic of a well functioning scheme, on further probing, men and women seemed to show concern on its feasibility. In all the villages women thought that it might be difficult to pay for water on a regular basis. In Koye village the FGD with men committee members was very vibrant and they narrated their story of how lands in their villages were being taken over for an International airport. In this context of being deprived of their very source of their livelihood, people were skeptical abput the viability of schemes such as this. *"What will people eat and how will they pay for the water'* Incidentally, this is one village where the scheme started in 2002 and it is 6 years and still it has not been handed over to the GP and neither has the SO, chaitanya been paid for their work.

In Sindhudurg, women were trying to find out the possibility of meter system, which was going to augment the cost further. But women were convinced that it would help measuring of water and allow the family to decide how much water they can afford. They were afraid that the water may be used for rickshaw cleaning and animal bathing etc. At this point in our data collection different villages were trying out different ideas on water tariffs. Most of them were considering a differential tariff system, but could not discuss this in detail as to how they were planning to do it.

In the chart below we discuss women's responses on what they think should be the criteria for deciding O&M. Four major criteria were discussed with women such as electricity bill, salary of the person managing the infrastructure, recurring costs on repairs and maintenance charges and others such as TCL powder etc. Only 7.89 percent women reported all the four major components 28.07 percent reported three of them, which was quite creditable. 27.19 percent gave no response. On the appropriateness of these criteria 50.88 percent women reported that it was the right way to do it.

Chart 4.15 Factors considered in deciding water tariff



Regarding paying of the tariff, large number, i.e. 64.04 percent women said that people must pay and take the responsibility of maintenance. However, 2.63 percent women were of the opinion that the government should jointly pay with the household, i.e. subsidy should be there.

Public vs. private connections

The other contentious issue was the compulsion on nature of connection. The initial scheme was planned largely with public standposts, however along the way the government realized that collection of water tariffs on public connections would become a difficult tasks and affect the overall recovery. This led to a major drive of the officials to drive the idea of mandatory private connections. Women were divided in their responses- some especially the younger ones thought that private connections were easier (63.1%) as they would get water at their doorstep and they would not have fights with other women on the standposts (however women also have positive stories of seeing the standpost as a point of common interaction platform). Others (17.54%) were keen on public standposts. They (8.77%) also suggested that 10 households could share one standpost rather than the government norm of 40 households per standposts. Some women (35.96%) also thought that three households could share one standpost. 14.91 % were happy with the current planning in their villages.

Water sources

Location of water sources was another critical issue for women; firstly it is for the sake of sustainability and secondly because they have to fetch water, they care for the distance of the stand post. Regarding decision about the source of water 42.98 percent women were positive about the current selected source. The rest had some problems such as 7.89 percent felt that it was not accepted by all. 31.58 percent had no response. 38.60 percent reported that the decision regarding the location of well was taken in gramsabha. 4.39 percent reported that it was basically a decision of the ground water experts (GSDA). Large number did not know how the decision was taken.

Preferences regarding timing of the water were largely dependent on class. Most women were found happy to get water once a day, i.e. in the morning (54.39%), but (18.42%) women opined that it should be twice a day, since some of them did not have enough storage capacity to fill water at a time and that due to their day long labour they could fill water only in the evenings.

Section VI: Summary of findings: implications of decentralized management of domestic water sector for women's empowerment in Maharashtra

An important finding of our study is that decentralization is a process, which cannot be capusled into tight time frames such as the ones we saw in Aple Pani and Jalswarajya especially if it hopes to achieve the goal of people's participation and women's empowerment.

Transfer of funds to VWSC was achieved without much delay. For the first time such large amounts of money was being handled by a local level committee which in fact does not have a statutory status beyond being a sub-committee of the GP. Although there were instances of corruption the scale was minor and most of the people were generally aware of the use of funds. Double entry bookkeeping practice was introduced first time at the village level. The need to keep the water tarrif account separate from the gram panchayat account so that the maintenance of the piped water scheme would never face problem of sustainability, was convincingly communicated.

To maintain transparency the major decisions should get ratified in Gramsabhas was the important message communicated to all the concerned. It was learned that sometimes some villagers used Right to Information Act (RTI) to get the information needed. Although, it was felt that more often it was used to harass the VWSC members rather than the genuine case of information seeking. Thus, all the institutional strengthening goals were achieved in a manner of procedure.

The new structures of management do bring in some enthusiasm but questions about their sustainability remain unaddressed. There is little clarity on how the scheme would be handed over to the GP and who would take on the major task of collection of O&M.

The structures also created tensions over authority and this was translated in a lack of co-ordination especially between the SOs on one side and the DFT and the communities on the other. Within the DFT structure too tensions over authority arose between engineers

and the development persons. The point we try to make here is that often the donor driven discourse manifested as the design of the scheme, which tries to bring in 'apolitical' structures and rules fails due to the strong nexus between local interests and the lower level bureaucrats[58] (Baviskar 2004)

The spaces created for people's participation, often become a victim of the project design itself, which is set in tight time frames but hopes to address some of the historically structured inequities. Our findings point to an overall lack in the area of community mobilization process to involve women, dalits, tribals and the other marginalized sections in a meaningful way. There was little effort on part of either the SOs or the DFT to enagage with these groups to increase their capacity to assert democratic value. There was very little training again in the crucial areas of accountability and transparency. Use of funds and areas of possibilities of corruption were not sufficiently dealt with in the trainings.

Participation of dalit and tribal women was very low as was evident from our 'no response' category, which was primarily of these groups. There could have been systematic training programmes on gender and caste issues, which would have strengthened the conviction of the SOs' cadre about interventions required for integrating women and dalits in the mainstream activities. Several case studies on the factional conflicts, community conflicts, and patriarchal domination could have been prepared as a part of this activity. It would have helped to deepen the process of participation and democracy. We were surprised to notice that none of the SOs had documented any processes of conflict resolutions and also individual empowerment.

Technological choices were limited and people did go in for the highly technical and energy consuming choices of ESRs, pvc piplelines etc. In fact in none of our villages did we see any alternative model of technology emerging. The pattern was set and variations in decision making choices came only in the form of which sources and quality of the material.

The other lacunae were in terms of designing the pipelines according to different levels in the villages. Low-lying areas receive abundant water in a gravity scheme and the outlying areas which often are the dalit and tribal vastis receive water only when the valve in the low lying areas are closed. This has an equity implication which affects the water availability of the dalits and tribals. Special valves, which distribute water with equal pressure, are available to make water available simultaneously to all the HHs in the village. None of the TSPs showed awareness of the same. Alternatively, direct pipelines too can be laid to supply water for these areas for equity. These may be costly options but equity does come at a cost.

Sustainability of the water resource is an important area on which hinges the entire prigramme of drinking water. In none of our villages did we see a very systematic effort at doing yield tests of the sources selected. Most of the technical officials we met in the DFT were of course confident about the yields of the sources and said that they would meet the needs of a growing population for the next 12 years. People in the village (largely committee members) seemed to corroborate this. The bhil and dalit vastis we

[58] This point is made very sharply by Amita Baviskar in her paper on watershed initiatives in Madhya Pradesh

visited in different villages were largely oblivious of these decision-making processes. The question of sustainability can be assessed more meaningfully in the coming few years. Although from our understanding of the water resource we can say that many of the factors that should have been considered before deciding on a source were not seriously considered.

It is in this context that we need to look at and understand women's empowerment.

Our first observations during the data collection phase show that women were euphoric about this scheme and their participation in it. One cannot deny the public euphoria and the presence that this scheme has had in every village that we visited. Women would talk, discuss and come for our meetings as well. Knowledge that this scheme exists had percolated to almost all the women in the village. The details of who knows how much varied significantly across groups. We think the special focus on women through the IEC campaign and the women's empowerment fund has been instrumental in building this enthusiasm. Many of the committee women, were aware of the complex procedures of the scheme than the women panchayat members who do not generally handle such big budget activities.

Our findings from both FGDs and interviews with women clearly show that although quotas have been filled and we do not find exclusion in terms of representation across class, caste and tribe, we do see that the degree of active participation varies widely across these social groups. Even among the upper caste women, who have participated in the public sphere for the first time, we see a limited understanding of their roles in the committees. For most of them attendance in meetings is the only task that they perform, they do not really do anything beyond that. Women therefore did not feel that they had made a major difference to the decision making process although they had attended the meetings. Effective participation is long-term process and cannot be achieved in 18 months time frames. For women to break the structural barriers and participate effectively would require a much longer and informed engagement of not only them but of the larger community as well.

The benefits of the scheme in terms of time saved etc were seen in areas where water had started, but not so in villages which were still completing the schemes.

Presence in meetings and through that participation in public sphere however has not translated into empowerment at home. Most of the women still do all their household duties and then go for the meetings. Some of the women higher up in the age hierarchy of the household are able to transfer the work to the other women of the household usually their daughters in law or the younger co-sisters, but husbands or men of the households rarely co-operate.

Collective activity for women largely begins and ends with the SHG and women's empowerment fund instituted in this scheme. Of course, this is not to deny that informal networks and collectives do not get formed, but there is little that seems to have translated in terms of collective action for better water management or for other social causes such as anti alcohol campaigns etc.

The most important issue is whether we are expecting too much from the women who are moving at a pace granted to them by their contexts. Or are we expecting too much out of

the water focused scheme which has a limited life? The state does mandate participation of all in water management, knowing that the terms of participation are unequal and therefore its meaning would vary for different groups.

Specific recommendations for the sector in Maharashtra

Broader recommendations on gender and empowerment in the context of decentralization are laid out in the final chapter. Here we focus on the Jalswarjya and Aple Pani schemes and their restructuring to facilitate space for women's empowerment.

Our larger context, which we will elaborate as a broader recommendation in the final chapter, is to approach the water sector programme in an integrated manner and not as sectors of domestic and irrigation. Our slogan therefore is to advocate the right to water for livelihood. This will also address the interplay between sustainability, equity and participation.

1. The project needs a better linkage with the water resource development programmes in the village. As part of its source strengthening programme it needs to look at the watershed programme. This also calls for a systematic understanding of water requirements of people for livelihood, which needs to form as part of the baseline survey. PRM[59] kind of methods could be used for these assessments.
2. Second phase of Jalswarajya is likely to start soon. One of the learnings the government officials claim is that the 18 months timeframe for any village scheme to be completed is too short and they plan to extend it. This is a welcome decision, since it would give more time for SOs to educate the people especially women and build their capabilities.
3. The role of the special purpose vehicle is important in the implementation of the scheme, however it needs to be strengthened taking into consideration our findings which suggest a better co-ordination with the ZP, the SOs and the technical teams. There needs to be transparency in the selection of these various components of the special purpose vehicle. Programmes like the Bharat Nirman are not eager to have these structures and this may affect the overall implementation of the scheme.
4. In addition, we would recommend a setting up of a monitoring and evaluation committee, which is external to the state apparatus and performs the role of monitoring and evaluation- like a watchdog. The initiative to set this up however needs to come from the State and this needs to be instituted before getting the district and village level processes started.
5. Capable SOs are important for a genuine participatory process to emerge at the village level. Selection of the SOs has to be a transparent process monitored also by the committee mentioned above. There main role has to be seen in the area of

[59] PRM is participatory resource mapping which is a detailed resource use survey done through people's participation. the method was first developed in Kerala and later modified and adapted to Maharashtra by SOPPECOM as part of the BGVS programme.

ensuring participation of the hitherto excluded groups. They need to be given more training on the issues around gender and marginalised communities.

6. Less emphasis should be placed on SHG activity, which has to be treated as marginal to the project. The measure of women's empowerment has to be their involvement in the VWSC meetings, Gramsabhas etc. rather than in the WDC meetings. Also, they should be made aware of the likely corruption spaces and hence should be able to monitor the money transactions. In fact some of them can be made to participate in the process of purchasing the material. We cannot hold women responsible for 'moral conscience' of the community. However, at present they are not completely immersed in the commercial transactions, public or private and hence likely to possess 'ethical' attitude for public work. It could be invoked.
7. Special components need to be introduced in the project to ensure participation of various sections. IEC can be used effectively for some of these aspects. These groups need to be involved from the outset or else they may remain distant from the ethos of participation, waiting to know how their stakes are going to be taken care of.
8. Capacity building in the areas of choices of technology that link directly to sustainability issues need to incorporated in the trainings. People also need to be educated about the ground water act of 1993 so that they can use it effectively.
9. There needs to be more clarity on the exit policy and also about how O&M would be worked out especially for the poor, dalit and tribal community

Annexure

Table 1 District wise coverage, Jalswarajya

District	NO. of GP selected	NO. of GP dropped	No of GP (Implemented)	No of villages covered	No. of padas covered	Population covered (In lakhs)
Konkan region						
Ratnagiri	141	10	131	262	1454	2.67
Sindhudurg	83	8	75	126	867	2.29
Thane	129	12	117	263	954	2.22
Pune region						
Satara	153	12	141	138	41	2.53
Sangli	130	14	116	116	126	3.67
Kolhapur	127	12	115	116	195	3.5
Solapur	124	21	107	103	405	1.82
Marathwada region						
Osmanabad	150	7	143	164	13	482417
Beed	154	15	139	144	61	2.92
Hingoli	150	12	138	138	37	188605
Jalna	126	8	118	118	41	171500
Latur	150	4	146	23	31	31.47
Parbhani	137	7	131	144	31	3.06
Nasik region						
Nasik	166	33	133	133	133	2.83
Jalgaon	145	11	134	159	0	3.26
Nandurbar	68	10	58	157	579	2.08
Amravati region						
Buldhana	161	19	142	195	0	3.98
Yawatmal	138	12	126	223	82	1.72
Akola	125	26	99	134	0	1.59
Washim	128	16	112	142	0	1.84
Nagpur region						
Chandrapur	126	11	115	243	13	1.52
Wardha	145	35	110	206	6	1.56
Nagpur	146	10	136	335	0	2.44
Bhandara	131	14	117	174	13	2.06
Gondia	107	6	101	149	117	2.7
Gadchiroli	124	44	80	287	65	1.73

Table 2 SHG formation, Jalswarajya

District	SHG Before Jalswarajya	SHG After Jalswarajya	Total SHGs
Konkan region			
Ratnagiri	691	1542	2233
Sindhudurg	429	737	1166
Thane	828	1047	1875
Pune region			
Satara	1015	705	1720
Sangli	1648	2222	3870
Kolhapur	1279	1370	2649
Solapur	479	929	1408
Marathwada region			
Osmanabad	822	1337	2159
Beed	611	1048	1659
Hingoli	592	859	1451
Jalna	481	624	1105
Latur	321	1233	1554
Parbhani	707	915	1622
Nasik region			
Nasik	342	1063	1405
Jalgaon	944	437	1381
Nandurbar	421	910	1331
Amravati region			
Buldhana	616	1991	2607
Yawatmal	900	778	1678
Akola	513	762	1275
Washim	673	803	1476
Nagpur region			
Chandrapur	1465	217	1682
Wardha	765	341	1106
Nagpur	669	646	1315
Bhandara	1324	226	1550
Gondia	979	133	1112
Gadchiroli	594	50	644
Total	20108	22925	43033

Table 3 Overview of financial aspects, Aple Pani

Description of cost	Cost in Rs	
	Lowest	Highest
VAP cost	19.65 lacs (Aurangabad)	52.38 Lacs (Pune)
VAP cost per capita	1180 (Aurangabad)	1806 (Pune)
5% Public Contribution in cash (collection of 1st phase)	27.95 Lacs (Aurangabad)	103.02 Lacs (Pune)

Table 4 Profile of SOs

Name	Background
Shrmaik Janata Vikas Sanstha	The organization was established in 1987 with the initiatives of Mr. Adinath Omble. Since then the organization is working in more than 75 villages of Jaoli, Mahableshwar, Wai and Koregaon regions of Satara district. Since there beginning they have been involved in implementing different programs like women organization and awareness program, adivasi Organization and development programme, village communication program, local leadership development program, educational program, rural health program, agricultural development and organic farming movement, Income generation program, Ideal village program and Watershed development program With their support many organization are working actively. Some of them are: Janata Milk Co-operative production society, Koynamai women rural non agricultural co-operative orgnization, Shramik women rural non agricultural co-operative organization, Venna women industrial co-operative organization, Adivasi social and educational mandal, Semi adivasi fishery co-operative orgaqnization and Shramik women micro credit co-operative organization.
Social work college	It is a social work college based in Jalgaon city. They are active since past 10 years. They found out that their passed out students who had good theoretical knowledge faced problems working on grass root level. So to give their students more field experience they decided to take up such projects themselves. Jalswarajya is one of such projects. They are working on some other projects as well. With help of their students they have been engaged in different programs like awareness campaigns, surveys and preparing reports for government. They take a special theme every year and work according that. They have some work done on women's issues like awareness against female feticide.
Matrubhumi Sarvangin Vikas Sanstha	The organization was registered in 1998 and is one of the earlier NGOs in North Maharashtra. Before Jalswarajya implementation they have been working in the field of Health camps, rural sanitation, Mahatma Phule Jalabhiyan, soil and water conservation, rainwater harvesting. They have also been engaged in providing trainings for young girls (cooking, embroidery etc.) which would help them fulfill their duty as wives
Dnyanjyoti Gramin Vikas Sanstha	The work of organization started with formation of Nehru Yuva Kendra in 2000. They have experience of implemeeenting Ramai Women's Empowerment scheme for MAVIM, which basically includes formation and strengthening of SHG. This work is spread about 23 villages. In the Jalswarajya project they are implementing the scheme in 13 villages, among them 9 are at the level of exit.
Dilasagram Samajkary Kendra	The organization is situated at Ballarpur in Chandrapur district. The organization has been set up in 1985 and since then has been working in 20 villages of Ballarpur taluka and 25 villages of Rajura taluka. They have been working mainly on women's as well as children's issues.

Chapter 5

Gender and Decentralised Irrigation Management in Maharashtra

Introduction

This chapter outlines the key findings from the irrigation sector in Maharashtra. We did a detailed study of five Water Users Associations (WUAs) across different irrigation projects in Maharashtra. These Irrigation projects fell in the categories of major, medium and minor and four of the five are covered under the Maharashtra Water Sector Improvement Programme (MWSIP), which we discuss in detail a little later in the chapter.

This chapter is broadly divided into three sections- the first section is about decentralized irrigation management in Maharashtra. It takes a brief historical overview of decentralization, discusses its present form, and then goes on to discuss our findings on this.

The second section looks at women's empowerment in the backdrop of the decentralization process in Maharashtra and the factors that have facilitated and constrained this process.

The third and the final section of the chapter summarises some of the key findings on decentralization and empowerment and gives sector specific recommendations.

Section I: Decentralized irrigation management: a brief overview

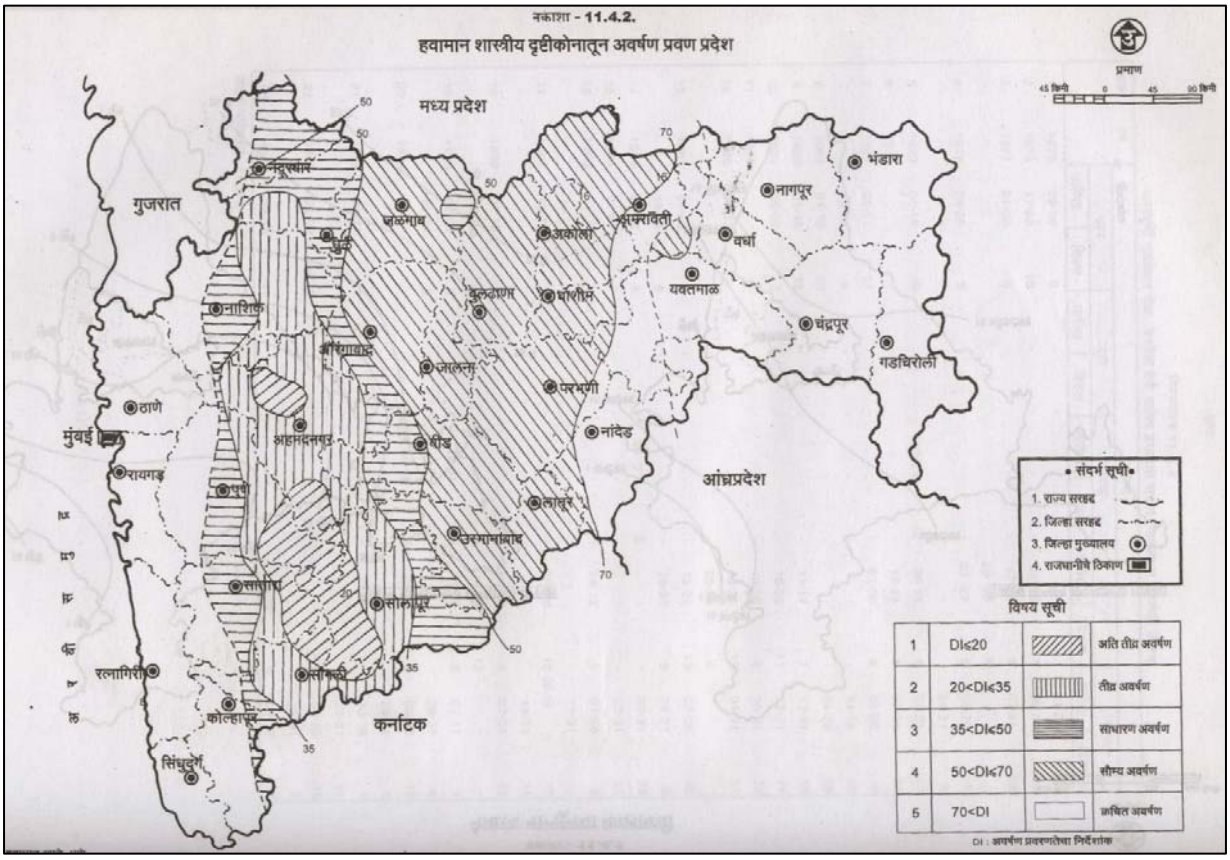
This section gives a brief overview of the nature and form that decentralization process takes in the irrigation sector. Here we trace the history of decentralization in the irrigation sector and the way it presents itself today. We then go onto present our overall findings that provide us the larger picture in which we can then locate women's empowerment.

Maharashtra: irrigation and drought

Maharashtra has around 900 large dams (dams above 15 meters) as compared to 2900 for the entire country. Most of these dams are concentrated in the western and central part of Maharashtra. In irrigated agriculture, groundwater plays a dominant role through 1.51 million wells. Despite this infrastructure in ground and surface water, Maharashtra has an irrigation coverage which is only about 15% of the area under cultivation as compared to the national average of above 35%. In a comprehensive study on irrigation development and management made by the State Irrigation Commission in 1962, the Irrigation Commission had assessed that the ultimate irrigation potential both from the surface and underground sources would be about 7.08 million ha (Mha) out of which 5.26 Mha (5.9 million ha as per revised estimate) would be from the surface sources and 1.80 million ha from underground sources.

The area under irrigation is limited and it is said that even with the full utilisation of its irrigation potential, the total area under irrigation (in the conventional sense) would not cross 30%. Wells – dug wells and bore wells – contribute significantly to irrigation and there are about 1.51 million wells in the state. Currently, 35% of the groundwater resource in Maharashtra is estimated to have been exploited (This section draws largely on Joy and Kulkarni 2006)

Map 5.1 Drought prone area in Maharashtra



(Source: GoM, 2003, Agro-climatic Zones)

If we look at the drought statistics, we see that 52% of the total area is drought prone and there is variation across different regions. For example in Nashik, Pune, Aurangabad and Amravati divisions more than 60% of the area is drought prone whereas in Kolhapur and Latur divisions it is about 40%. The drought prone areas are affected by low and inadequate rainfall, long dry spells and an erratic distribution of rain through peaks and troughs. A very limited part of this area gets the benefit of major irrigation projects. The area under cultivation is very high in drought prone areas.

Agricultural productivity

As per the data from government sources we see that cereals occupied about 44% of the gross cropped area (GCA) in 2000-01 though there is a declining trend in the area under cereals. The proportion of area under pulses and oilseeds shows an increase. There has been an increase in productivity for almost all the crops except for a few crops like Rice

and Tur (Pigeon pea). Area occupied by sugarcane has been steadily increasing. Sugarcane, being a very water-intensive crop, consumes bulk of the irrigation water.

Productivity for most crop categories is below the national average. The only crop that stands above the national average is sugarcane, which is fully irrigated in the state. Maharashtra Human Development Report also highlights the concern over the declining importance of agriculture in the GDP of the state. The share of agriculture has declined from 42.14% in 1960-61 to 27.69 in 80-81 to a drastic decline of 17.445 in 1999-2000[60]. This is generally due to the declining productivity of irrigated agriculture, stagnation in rainfed agriculture, low investments, fragmentation of holdings, skewed preference to certain crops like sugarcane etc. This trend suggests that issues of productivity in both irrigated and rainfed areas need to be addressed urgently. In fact it means restructuring of both water resource management systems as well as agricultural systems

A historical review of decentralized management

Basic concepts and salient features of WUAs

For the familiarity of a different audience, here are a few concepts explained

- WUAs that we are referring to here are formed on surface irrigation projects or what are commonly known as dams or irrigation tanks.
- WUAs are formed at the lowest level of the irrigation conveyance systems which is known as the Minor Canal which branches out of distributory, main canals, and finally these main canals branch out of the main site of the dam.
- At the canal level then a command area or service area is delineated or demarcated. This is a hydraulic unit i.e. based on technical assessments (very often politically determined) to define an area that can be served by the canal. All the land that falls within this service area is land that can be irrigated by this canal and is known as the command area of the project. At various levels below i.e. the distributory, branch or minor a command area is defined. All the owners of this land then become the members of the WUA making the membership limited to land ownership in a service area.

Map 5.2 Command area, Waghad project, Maharashtra

[60] Human Development Report, 2002, GoM

- Until recently entire Irrigation management was done by Irrigation Department (ID) without any consultative process with the users
- With formation of WUAs management at the minor level and with the recent legislation up to the project level will now be transferred to the users
- Before preparing an Agreement / Memorandum of Understanding (MoU) between ID and the WUA a joint inspection of the canal is done to identify repairs and maintenance works to be done by the ID
- Before handing over water management to the WUA, an MoU has to be signed jointly by the WUA and ID. Among other things, the MoU specifies the seasonal/annual quotas, methods of measurement, delivery system, water fees to be paid to the Department, incentives/penalties for early/delayed payments, rights, duties, responsibilities of the concerned parties, etc.
- Water is delivered to the WUA at the Minor head (i.e. in the jurisdiction of WUA) on a volumetric basis. Similarly, rates are based on volume delivered to the Societies. Though the Government fixes volumetric rates for payment to the Department, the WUA is free to determine the rates to be paid by the farmers to the WUA.
- Once the quotas are fixed for each WUA, the Department does not insist on a given crop pattern. In other words, WUA has complete freedom of cropping.

A demand management crisis

Surface irrigation was introduced in the state in the second half of the 19th century. The emphasis then was to address the severe famines by a) providing employment through construction of dams and b) by enhancing food production.

Most of these dams were largely constructed in areas where the soils were black and applied water requirements were only in low rainfall years. The main problem of irrigation then was related to a lack of demand rather than its over or misuse. In fact the measures that followed were largely to tide over this crisis of demand. First the British set up several measures some of which laid the basis for participatory irrigation management. In a sense Maharashtra has been the leading state as far as the Participatory irrigation management efforts for the country go. As early as 1938, Vishwerayya, the then senior irrigation engineer in Maharashtra had called for farmer's participation to improve the use of the irrigation system and for better management. One of the measures suggested by him was that the irrigable area under each canal should be distributed equitably by giving each village and as far as possible to each cultivator, just enough land so that s/he can manage irrigated crops properly. This held a great potential to further the goal of equitable access to irrigation.

The Committee recommended the formation of user groups and also recommended that water be measured and given to the users. The idea was to encourage demand for irrigation and leave the management to the users at the village level (Lele, Patil, 1994).

Another measure introduced that provided an incentive for irrigation demand was what is called as the block system. A block system is one where water rights are assured for a

certain area for certain crops and for a certain period of time. Usually these blocks have been around crops like sugarcane, grapes etc. the block periods have been up to six years or more which have often continued after a review. These block systems have been on the Nira-Pravara systems in Maharashtra and are guarded to this day as well. This system encouraged irrigation demand no doubt but laid the foundation for inequities in irrigation access. Unfortunately, this measure was the only one preferred over the other equity oriented and participatory measures suggested by Viswesharayya.

1960s-1990s

In its long history since then there have been efforts to decentralize irrigation management in the state with both political and bureaucratic resistance interchangeably.

Sporadic users co-operatives did come up largely initiated by the sugar factories which wanted a dedicated supply of sugarcane. Often these were caste specific user groups[61]

Several committees and commissions were set up since the early 60s to the present to address some of the problems the sector was facing. None of these commissions until the 90s spoke of the importance of user participation. There were several recommendations related to taxing the well water recharged through canal rotations, fixing ceiling on irrigated area for a more even distribution, different pricing measures which could then improve the revenue of the ID etc. None of these recommendations were really taken in the spirit they were meant to and the sector as a whole was deteriorating.

The first serious efforts to decentralize irrigation management came in the mid eighties when some committed irrigation engineers and social scientists got together to try out different experiments around farmer management. The main aim of this group of engineers and social scientists was better management of the resource leading to enhanced productivity and equitable access to all in the command areas of the projects. This largely meant that a great deal of effort had to go into the fine tuning of irrigation systems, water scheduling to ensure equitable and timely access to all the beneficiaries. Appropriate system of rotations was critical from the point of view of encouraging cropping diversity.

In the early eighties, this team inspired by some of the experiences in Srilanka and California water and irrigation districts, set up committees around the minor canals. These were informal bodies that basically looked into the management of water. It is important to remember here that the World Bank was not actively advocating any of these shifts in the early eighties, but were definitely arousing interest in senior level irrigation officials through supporting lateral learning programmes (Personal interview with S N Lele, Retd. Chief Engineer GoI and architect of PIM in Maharashtra). Some of these ideas did take root in Maharashtra through the efforts of this interdisciplinary team. One of the first experiments was on a Minor irrigation project in the mid eighties where a committee was set up and functioned well for a few years. Then the question of the statutory status arose and there were two options before the advocates of these decentralized bodies, registering it as a charitable trust under the societies registration act

[61] Samvatsara Water users co-operative was one with members from the mali caste (gardener caste) which is a farming community and was initiated at the behest of the sugar factory in Ahmednagar district of Maharashtra.

and the second was that of registering as a cooperative society under the co-operative Societies Registration Act (SRA). In Maharashtra and Gujarat, users went in for Co-operative societies and in other states they went in for registration as charitable institutions under the SRA.

This entire history shows us that efforts of decentralization in the irrigation sector were delinked from the locally elected bodies.

The first pilot at Chanda

The first formal experiment of setting up a WUA initiated by SOPPECOM was in 1989 in Chanda village of Ahmednagar district on the Minor 7 of the Mula major irrigation project. This was the first effort of its kind in PIM (Participatory Irrigation Management) in India. The main idea was to improve irrigation management system from the point of view of equitable access, sustainability of the system and of the resource and enhanced productivity. It was hoped that participation of users through decentralized management would lead to meeting these goals of decentralization. One of the important assumptions on which the entire success of this experiment hinges is the putting in order of the sector, which was on the verge of collapse. Since the first society set up in 1989 through a voluntary effort, Maharashtra has come a long way in participatory irrigation management through the introduction of the State water policy and other legal instruments around water to qualify for a large loan agreed upon by the World Bank. We shall discuss the status of the current phase of PIM in a later section.

Maharashtra Water Sector Improvement Programme 2003- the new era of sector reforms

Our study is located in this context of Sector Improvement. After the initial success of the PIM efforts, there was a move to formalize the process through legislative reform. This is an overall shift that we see at the national level as well, but Maharashtra seems to be leading the way here.

From the different documents of the World Bank on decentralisation as well as water sector[62] we see that World Bank has decided to play a much larger role in the water sector in India as the outlay itself will go up from $ 700 million over the previous four years to $ 3200 million in the coming four years. This is more than a four fold increase annually and would definitely impact on the direction of water sector reforms in India.

In the case of Maharashtra we see that the Government of Maharashtra and the World Bank have been working jointly since 2002-2003 to address some of the challenges of the sector. As part of this the World Bank through the Bank Netherlands Water Partnership programme has been a critical knowledge advocacy partner to the State. The main aim was to establish a more appropriate policy and institutional framework for multisectoral and environmentally sustainable water resource planning, management and allocation and to separate the over all water resources planning and allocation functions from the service delivery functions. It is in this context that the Maharashtra Water Sector Improvement

[62] Refer to the World Bank document on Rural Decentralisation in India and the Country Assistance Strategy papers of the WB outlining the strategy for water sector reform.

programme was launched in 2003 through an agreement with the World Bank with a loan assistance of USD 325million (GoM). The loan brings in with it some of these crucial measures

- Maharashtra State Water Policy 2003 (MSWP)
- Maharashtra Water Resources Regulatory Authority MWRRA 2005
- Restructure the Irrigation Development Corporations (IDC) into River Basin Agencies
- Maharashtra Management of Irrigation systems by Farmers Act 2005 (MMISFA)- to promote more efficient, equitable and sustainable irrigation service delivery through effective involvement of WUAs and to reduce the canal irrigation subsidies, through raised canal water charges to cover the full O&M costs through government order authorsising an automatic 15% increase per year during the period between 2001-2004 and
- Restructuring of irrigation sector institutions including downsizing of the staff.

The rationale for the loan and the subsequent measures is that irrigation coverage will improve by 22% and irrigated crop yields by 5-20%. Farm incomes are expected to increase by 49% and about 33610 farm families who are fully dependent on agriculture will be brought above the poverty line at project closure. It claims that water pricing reforms will improve efficiency on farm while promoting accountability and financial and fiscal sustainability of irrigation services.

The total cost of the project is USD393.77 million of which the bank's support would be USD325 million the GoM would support USD 61.15million and the beneficiaries would contribute USD 7.62 million

It is part of a long term partnership with the state for 12-18 years. The present project is a 6 year one with a strategic focus on creating and supporting an enabling environment for the efficient, sustainable and equitable development and management of the water resources in the state beginning with establishing the appropriate policy, regulatory and institutional framework in the water sector.

Scope and coverage

It will cover 286 irrigation projects in Maharashtra of which 9 are major irrigation, 13 are medium irrigation projects and 264 are minor irrigation.

Project components

- Water sector institutional restructuring and capacity building (US$21.11 million) comprises of institutional reform- capacity building of the Water resources department (WRD), Water and Land Management Institute(WALMI), which is the nodal agency for training and capacity building and enactments of MWSP, MMISFA, MWRRA
- Improving Irrigation Service delivery and management (US$321.35 million) through improved irrigation service delivery and productivity in irrigated

agriculture, increased cost recovery, implementation of water entitlements,. It will improve 286 selected projects covering 670,000 ha of CCA with WUAs contributing Rs500/ha towards the cost of rehabilitation and modernisation of irrigation systems. Of this 200 would be paid upfront in cash and 300 would be paid in kind. All the rehabilitation works would be carried out by the contract management committee (CMC) consisting of representatives from WRD and WUA enhancing the safety of 291 dams supplying water to the project area through rehabilitation and modernization

- innovative pilots (US$4.80million) which would support 4 pilots of user centred acquifer level groundwater management and 4 pilots of innovative irrigated agriculture
- Project management (US$4.02million) this would support the state level PPMU and an IEC campaign to create awareness of the scheme and develop a broad based consensus and support for State water policy and reform programme in the water sector.

It is important to look at some of the key instruments introduced as part of the MWSIP 2003 here in brief.[63]

Maharashtra State Water Policy 2003

Maharashtra is one of the first states to come up with a water policy after the National Water Policy was introduced in 2002. The Maharashtra State Water Policy document is organised around 10 broad themes and some of the important issues discussed include user or community participation in the management of water resources – irrigation and drinking/domestic water, participation of private sector, water auditing, water use priority, water use entitlements and rights, and water pricing. The policy would be reviewed after every five years or as per the requirement.

The policy document talks of user participation and public private partnerships in the same breath. One of the important shifts in the Maharashtra water policy from the national water policy is the change in the priority of water use. The national water policy lays out the priorities as domestic, irrigation, industry etc. the state differs in this respect with industry being prioritized over irrigation.

The policy is pretty emphatic about the participation of private industrialists and commercial enterprises and water service providers in the preparation as well as implementation of river basin plans. The mode of participation of private parties is in the form of what is being called as “private-public (government) partnerships” basically for financing and implementing the projects. However, the policy does not make it clear as to what is the incentive for the private parties to invest in the water sector. In fact this is the crux of the problem and the fear is that probably the private parties would be given certain share in the water as “compensation” on which they would have absolute control in terms of use. Many also interpret this as the window opened for water privatisation.

[63] For a more detailed discussion on this refer to NCAS paper Joy and Kulkarni.

The Maharashtra Water Resources Regulatory Authority (MWRRA) 2005

The second important instrument is the MWRRA which has been set up "to regulate water resources within the State of Maharashtra, facilitate and ensure judicious, equitable and sustainable management, allocation and utilisation of water resources, fix the rates for use of water for agriculture, industrial, drinking and other purposes …". A need for a regulatory authority can be justified only in the presence if multiple players in the planning and utilization of the resource. This is a clear indication of the state withdrawing from the planning processes and instead taking on the regulatory role.

One of the highly contested elements of the MWRRA is the clause around access to water to households having more than 2 children after the legislation was introduced. It said that water charges upto 1.5 times would be levied on such households. This was strongly opposed by women's groups across the state, but the clause stays with small changes brought in.

The Maharashtra Management of Irrigation Systems by Farmers Act 2005

This legislation is the one that directly deals with decentralized management of management at the local level through formation of WUAs. This was one of the few legislations that was debated extensively among the civil society groups. The draft bill was presented in 2002 and after a series of debates, it was enacted in 2005. The new legislation largely follows the same principles that were inherent in the co-operative society's act under which WUAs were registered earlier. The main difference here is the mandatory nature of the new act where only members would be given access to water and all the people who hold land in the designed command areas are deemed to be members. The objectives as before were to increase efficiency in utilization of irrigation capacity, as well as in distribution, delivery, application and drainage of irrigation systems (WB, 2005) as is outlined in the Sector Improvement document.

Some of the important elements of this legislation are as follows

1. Formation of users groups at the minor level, which is the WUA, Distributory, level (DLA), Canal level (CLA) and finally the Project level (PLA). This creates a space for decentralized participation for users to participate in the planning process from the bottom to the top. Earlier there was a strong resistance for this kind of federation up to the project level.
2. Representation of three women from each of the canal reaches i.e. the head, middle and the tail in the Managing committees.
3. Rotation of chairpersonship such as to allow for two turns for a woman in one single term of the WUA

To sum up our discussion on the new sector reform era, we can see that while elements of older proposals and recommendations around user participation are seen, the new legislative framework clearly marks a shift from the previous era in more than one ways. Water pricing reforms and institutional arrangements seem to be the central theme here

with a large investment in improving irrigation infrastructure as well. While user participation is emphasized, political participation is discouraged, participation by private players is also encouraged increasingly under what is termed as the public private partnerships.

Notes on methodology

Before we go onto discussing our findings a brief note on methodology, is described here. It highlights our process of sampling, data gathering and capability building of team. Our team in the field was a mix of senior irrigation experts from SOPPECOM, feminist researchers and young postgraduates from the disciplines of sociology and social work.

- Discussions with the state level irrigation officials on the official list of WUAs in Maharashtra
- Based on this list a one page questionnaire was sent to about 300 WUAs across Maharashtra to facilitate the sample selection process. These carried basic questions on understanding the caste and gender profiles of the committees, formation of the WUAs and its functioning, basic physical features of the system and main problems faced by the WUA. Of these 47 WUAs responded
- A second round of questionnaire was sent to these 47 WUAs getting a little more details on cropping patterns, water quotas, number of wells etc
- A one day consultative meeting was called in Pune where 11 of these 47 WUAs were invited and the final process of selection of the sample was done based on the above two sets of information and the willingness of WUAs to co-operate. Government officers too participated in these meetings
- One day training of the investigating team to familiarize themselves with the irrigation sector and its links with gender.
- Initially 7 WUAs were visited and finally 5 WUAs were selected based on their diversity in caste and gender membership to WUAs and the category of the irrigation project. A profile of these is given a little later in the chapter.
- Key functionaries were interviewed, focus group discussions with the WUAs were conducted.
- In each of these WUAs, we had detailed interviews with women committee members as well as ordinary members both individual and group interviews
- For the first time we also interviewed men in groups belonging to different ends of the canal to understand their problems and their perceptions of women's participation.
- Canal inspections were done and discussions with the farmers in every end of the canal
- Interviews with local level government officials to understand their views on decentralization

- Interviews with landless and farmers outside the command areas were also conducted to understand their view on the command area framework of the ID
- secondary sources of data, available from the WUAs locally as well as on the websites of the ID were studied
- Policy reviews of all the newly introduced policies in the water sector in the state were studied.

Findings in this section as well as in the next one where we discuss women's responses are an outcome of all of these steps followed meticulously.

Map 5.3 District wise locations of selected WUAs

Table 5.1 Project details and location of WUAs

Name of WUA	Name of the project	Type of project	Location of WUA
Shivdas Maharaj Pani Vapar Sanstha	Ujani	Major	Minor 39 of Ujani left bank canal
Pragat Bagayatdar Pani Vapar Sanstha	Mula	Major	Minor 1 and 2 and direct outlet no 2 of distributory No 1 of Branch 2 of Mula left bank canal
Bhairavnath Pani Vapar Sanstha	Mula	Major	Minor 2 and direct outlet no 2 left and 3 left of Branch no 1 of Mula right bank canal
Dr. Babasaheb Ambedkar Pani Vapar Sanstha	Waghad	Medium	Minor 8 of Waghad right bank canal
Bhairavnath Pani Vapar Sanstha	Irrigation tank at Varve	Minor	Irrigation tank at Varve

(For more details about selected WUAs see annexure)

Performance of decentralized irrigation management: Our findings

At present there are about 1500 WUAs in the state, about which there is very little data published in terms of their performance at different levels. Following is an overview of the number of WUAs in the state.

Table 5.2 Present status of WUAs in Maharashtra state (July 2005)

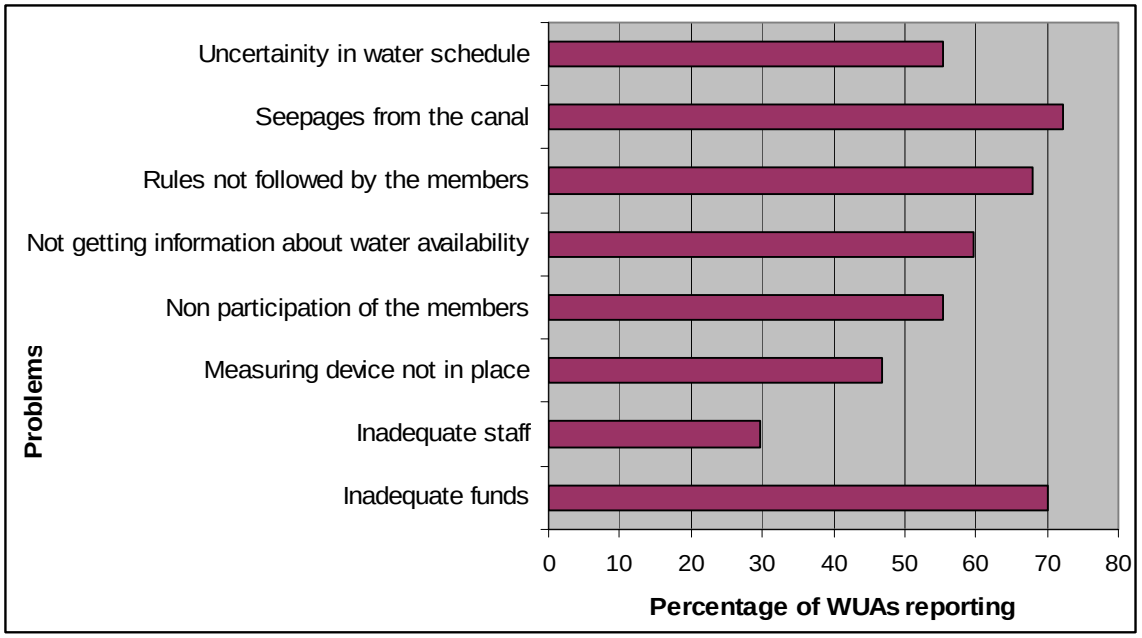
Sr. No.	Project	WUAs functioning		Agreement Signed, yet to Hand Over		Registered yet to Sign Agreement		Proposed		Total	
		Nos.	CCA (Ha.)	Nos.	CCA (Ha.)	Nos.	CCA (Ha.)	Nos.	CCA (Ha.)	Nos.	CCA (Ha.)
A	Major & Medium irrigation projects										
	Within CAD	437	136812	247	83736	626	249218	673	328197	1983	797963
	Outside CAD	227	73214	98	29992	344	114066	680	282496	1349	499768
	Total	664	210026	345	113728	970	363284	1353	610693	3332	1297731
B	Minor irrigation projects										
		110	40495	81	38208	231	70126	297	94255	719	243084
Total (State Level) (A+B)		774	250521	426	151936	1201	433410	1650	704948	4051	1540815

Source: www.mahagovid.org

Historically we see that there never has been a political demand for decentralized management and neither has the demand come from the beneficiaries. The concern has often arisen as a response to a loan conditionality or due to lack of revenue recovery.

The compelling factor often has been from the ID, which has been in a crisis over the recovery on infrastructure that has been set up. From managing lack of demand in the late 19th century to its present form with an emphasis on user participation through decentralized management, the ID has come a long way, but without any evident commitment to equity, sustainability or democratic participation. In the light of this understanding, we can now look at how decentralization has really performed with reference to key principles that we have outlined in our conceptual framework. To reiterate them here, these are principles of equity, sustainability, enhanced productivity and participation. The differences in levels at which these principles are met would also tell us the form this process of decentralization took- whether it was devolution of power, delegation of authority or deconcentration.

Chart 5.1 Problems faced by WUAs, data received from 47 WUAs



The chart on problems faced by the WUAs captures in brief the diverse set of problems that WUAs are facing. This is our data of the 43 WUAs studied in the first round of our investigation. It makes a statement on all of the goals that decentralized management set it self out to do. Some of the problems stated by the WUAs were as follows -lack of participation in planning, lack of access to information on water availability, canal seepages which affect equity, measuring devices, which is central to equitable access to water, not in place etc. We shall discuss how each of these has in fact affected the goals of equity, sustainability, enhanced productivity and democratic participation.

Equity

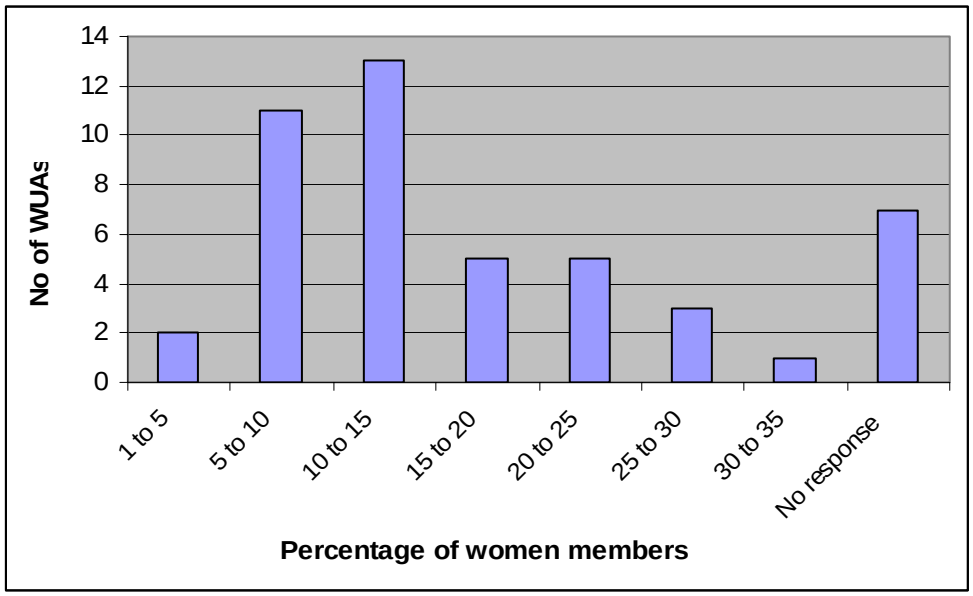
As we have seen in the conceptual chapter, equity is not a fixed concept and it operates at many levels. For example, equity within the command refers to every piece of land

within the command to have access to water. Starting from this simplest form, there are many other levels at which the issue may be posed, for example, that everyone in the command should have access to minimum water irrespective of his/her holding, that women in particular should have access to water, etc.

Politics of exclusion

Our data does point to different ways in which inequities across social groups are manifested in the irrigation sector. At the very first level, we see a politics of exclusion based on land ownership in the command areas of the canal systems. A large number of women belonging to landed families within command areas and men and women belonging to landless families and landed families outside the command area are automatically excluded from the process.

Chart 5.2 Percentage of women members in WUAs, data received from 47 WUAs



The above chart shows us the women's membership across the 47 WUAs. On an average we see that 10-15% women are members of WUAs. These are women who own land for various reasons discussed a little later in the section. In the era of 33% reservations this figure falls far below the mark.

Our data analysed based on a detailed castewise listing shows that dalits or the scheduled castes are rarely land owners in the command areas of irrigation systems. In the three villages where we had access to data we see that the proportion of dalit farmers in the WUAs is not commensurate with the dalit population of that village. This is the first and the primary level of exclusion that needs to be countered if the process of decentralization has to achieve the goals of equity. None of the documents mandate this as the goal of state led decentralization process, as the ID still operates within the established conceptions of the command area framework. This is irrespective of the global recognition of integrated water resource management as a guiding framework, which unfortunately only remained limited to changing the name of the ID to water resources department in Maharashtra.

Table 5.3 Caste wise membership of WUAs and representation in the Managing Committees

Caste	Name of WUA											
	Pragat Bagayatdar				Bhairavnath				Dr. Babasaheb Ambedkar			
	Ordinary Members		Committee members		Ordinary Members		Committee members		Ordinary Members		Committee members	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Open	245	97	5	2	131	41	7	3	495	233	6	3
OBC	95	28	1	1	31	13	2	0			2	0
SC	1	0	0	0					255	162	2	0
ST	4	1	0	0					103	57	1	0
DT	2	0	0	0								
NT					6	5	0	0				
Total	347	126	6	3	168	59	9	3	853	452	11	3
Grand total	473		9		227		12		1305		14	

Source: Based on the membership lists provided by the ID at the district level

The overall picture that the tables present before us is as follows- Kukana village has 10.2% SC population, but if we see their landownership in the command area, it is negligible. In Bhairavnath society of Wadala village we find that SC population is 17.97 and ST is 9.8%, but the representation as members is nil. None of the SC or ST families according to the ID data have land in the command areas of the canal for this village.

In Dindori village the SC population is 10.6% and ST population is 26% and this seems very well represented in the command area, which is evident from the WUA membership.

Representation to managing committees is highly influenced by caste. If we look at the data on women's membership to committees, we see that only one society i.e. Pragat Bagaitdar, Kukana has an OBC woman represented on the committee. In a later discussion we see how her own individual agency, her education and her experience has contributed to her being on the committee.

Equity in the command and deprivation of tail enders

Once we move from the larger inequities where certain groups are excluded by virtue of their landlessness we move towards less complex forms of inequities in the command areas of the project. This is a fairly simple concept to define and it states that every piece of land in the command is entitled to an equitable share of water, usually a share of water proportional to its area. In this kind of a scenario too we find inequities resulting due to location. These inequities are seen both within the command areas of minor canals as well as between different WUAs located at different ends of the Project.

In Babasaheb Ambedkar WUA, Dindori village, Nasik, users have complained of a severe tail end problem. In fact, there is no canal over a two km stretch on the tail side and people directly lift from another dam, which is adjacent to their lands. There is a grape garden on one km of that stretch where the canal should have been. The tail enders therefore do not make a demand for water here. There is a complex set of problems

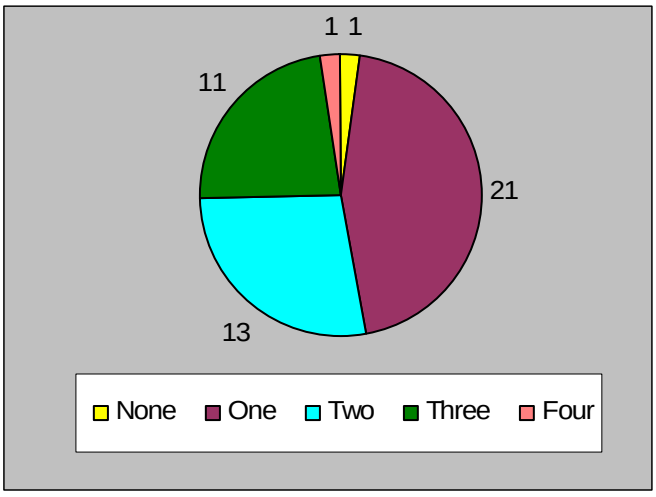
involved here. The tail enders would not only have to face the wrath of the grape garden cultivator who has encroached ID land but they would also have to fight with the WUA functionaries and also take on the ID. None of them are geared to it also because they have found an easier way to resolve their problem by lifting water from an adjacent dam perhaps leading to a different set of problems in that command. In the Bhairavnath society in Wadala, Ahmednagar district farmers reported a serious tail end problem. Here about 60 farmers do not get water. The demand for water is overall poor especially from the tail end as they do not get any water at all. Farmers in the head reach too are not demanding water as they are benefiting from well recharge due to canal rotation.

Gender equity in the sector

Interestingly irrigation as a sector was until recently not concerned with gender equity. But for various reasons ranging from pressure of gender advocates, donor agendas PIM programmes now have a gender component and at least they discuss and attempt to create awareness about the general disadvantages under which women labour. However, there is very little serious thought given to involving women in PIM activity [64] and to theoretical treatment of how and what stake women hold in PIM. This tends to reduce genuine concern to lip service (Walmi-theme note).

The lack of serious thought ranges from the very simple things like the timings of PIM meetings that are planned without thought to whether the scheduled time and venue are suitable for women or not to its broader theoretical treatment on women as stake holders in decision making and entitlements to water. This has been discussed in the later section on women's responses to decentralized irrigation management.

Chart 5.3 Number of women on the managing committee of WUA, data received from 47 WUAs



Managing committees are the decision making bodies of the WUAs. The minimum membership to Managing committees is usually 9 and extends to even 11-13 members depending on the size of the WUA membership. In the present act it is now mandatory to have at least 3 women on the MC from each of the reaches of the canal. In the chart

[64] Of course there are isolated cases of women's involvement reported from states like Gujarat, Orissa, etc.

above, we see that 21 WUAs have only one woman as a member on the managing committee and only one WUA has four members on the Managing committee.

This indicates the extent of participation sought from women. The other area is access to water itself and in the irrigation sector it is determined by ownership of land which we have seen earlier is very limited in the case of women.

Participatory planning

Unfortunately, water use planning is not done participatively in most PIM contexts. It is the officials who prepare the plan and the WUAs often are simply implementing bodies with no real control over or participation in the process. It is important that WUAs learn the essential principles of water use planning, even if they get the requisite calculations done by technical people they may consult or employ. Only then can the minor level WUAs and their functioning prepare their representatives in higher bodies to participate in project level planning of water allocation and use. Water resource literacy becomes a pre-condition for informed participation of the users.

Our data shows that water use planning is not done in a participative manner in most WUAs. It is the officials who prepare the plan and the WUAs often are simply implementing bodies with no real control over or participation in the process. In all of the WUAs that we studied, this was pointed out. In Pragat Bagaitdar Society, Kukana for example we saw that there were no records of demand of water, often demand forms were given after water was released. People were under prepared to receive water on their fields. As a result of this they could not plan for crops of their choice. No rules for water distribution were followed. A detailed time table of water release was not prepared before hand, simply because the WUA did not have the information prior to the water rotation.

The WUA did not have a plan of water delivery from the ID on the basis of which a demand is prepared by the WUA. A similar story was shared by Ambedkar society as well as the other three WUAs studied.

Water use planning is not treated as part of the training for WUAs and is considered too complex for them to absorb.

Cropping diversity and productivity issues

One set of motivation for participation of farmers in irrigation sector, or PIM, comes from productivity and efficiency considerations as PIM is meant to improve efficiency of irrigation, ensure economic use of water and increase both productivity and total production. In Maharashtra, the productivity of practically all crops irrigated on canals, except sugar cane, which is also decreasing in the recent years, is very low compared to all India averages and in some cases is less than the most backward states like Bihar, Orissa, MP and UP. Hence monitoring the yields per unit area is still more important to ensure that the irrigation service is improved. The main reasons cited by the farmers for low productivity is low frequency of irrigation. Two or three irrigations in Rabi cannot be considered as good irrigation practice especially when there is practically no rainfall in the season. Similarly, less than 5 to 6 rotations in summer are detrimental to the crop yields. As a number of crops are grown simultaneously and their critical stages are different, irrigation system needs to tune to allow for cropping diversity. The system

needs to provide irrigation with low intensity but high frequency so that most of the critical stages of all crops in different soils will be covered. The farmers need precise information on the exact quantity of water that would be delivered and the periods of the supply so that they can plan the crops, crop areas and arrange inputs. In all our WUAs we find that the number of rotations is not more than 3 in a season, in fact they have largely been limited to 2. The Kharif season does not have irrigation at all in most of the societies. The table below shows us that only in one year did the WUA have four rotations in rabbi. In all the other years, the rotations were not more than three and in some years just two. With such low frequencies of irrigation both cropping diversity is affected as well as is the productivity. A similar scenario exists for the other WUAs as well. The other observation is with regard to lack of irrigation in kharif. This indicates that the farmers are either not aware of the fact that applied irrigation in Kharif can tide over the crisis of a dry spell and increase productivity or that they are not given information on Kharif rotations in advance.

Table 5.4 Number of rotations in past 3 years, Dr. Babasaheb Ambedkar Water Users Association, Dindori,

Season	2004-05	2005-06	2006-07
Kharip	--	--	--
Rabi	4	3	3
Summer	3	2	2
Total	7	5	5

Once the farmers are confident that the assured or agreed quantity of water will be provided they can afford to take more risks in spending on the seeds, fertilizers and pesticides to get high returns. However, if they feel that getting water involves high risk they prefer to go for low risks in other items to minimize the losses due to not getting water on time or in adequate quantity.

Issues of governance

Some of the key areas of governance that we enquired were about the day to day functioning of the WUA and how participatory was the decision making process. In all the five WUAs we found that most of the members were not aware of the Managing committee meetings. In fact in most WUAs they are informal in nature and few and far in between. The Annual general body meeting is once a year and usually the attendance is poor. The only issue largely discussed in the AGM (Annual General Meeting) is the financial audit. Only one of the five WUAs studied had any sort of an annual report prepared and audit reports ready on time. None of the women members attends the AGM as we shall see later.

In all of the WUAs we found that there was an active lead group that took most of the decisions. These were mainly large farmers and politically powerful. Despite the apolitical nature of the WUA, it did not remain isolated from the local power politics. These leaders had largely built a nexus with the Irrigation officers at the lower levels and were establishing their rights.

In Palkhed society where we in fact could not study women's participation, there is a lot of negative feeling for the ID. According to the farmers in some of the WUAs on the Palkhed project, water quotas are being manipulated by political heavyweights and all their efforts of opposing this have been brushed aside for years. Farmers also complained of water thefts, which is one of the main reasons for their reduced water quotas. These issues are pushed under the carpet and there is no clear auditing of the water resource. In such a scenario then WUAs cannot function effectively and a few vested interests from such WUAs manage to push their interests ahead through building nexus with ID and political powers.

Transfer of a sick sector: main reasons for poor performance

Issues of equity, enhanced productivity or efficiency, sustainability and participation are all intertwined concepts and one cannot be present in the absence of the other as is so evident from the discussion above. The reasons for poor performance outlined below also underlines the need for an integrated approach to address some of the problems.

Poor rehabilitation before handing over

There are many factors involved in ensuring equity within the command. One of the most important ones is the issue of adequate *rehabilitation* of the system before transfer takes place. Inadequate rehabilitation only leads to inequitable distribution of across the different portions of the command. Our findings from the FGDs as well as secondary data collected from the WUAs, clearly indicates towards inadequate rehabilitation efforts leading to deprivation at the tail ends of the canal. In all the five WUAs studied, though the rotation was from tail to head ends, we saw that tail enders were complaining of reduced quotas and lesser number of rotations. Continued seepages through canals, poor maintenance of field channels and the minor canal, of main gates and outlet gates, absence of measuring devices are all part of the larger problem of rehabilitation before handing over. These not only affect equity within the command area, but also leads to other failures such as low irrigation performance, unsustainable system, lack of cost recovery etc. (See annexure for detailed discussion on the problems of WUAs)

Volumetric supply- no measuring devices in place

Volumetric supply and pricing is one of the cornerstones of the Maharashtra model in PIM. It was hoped that its introduction would lead to ensuring equitable access to all and relative freedom to the WUA both for revenue collection from its members as well as for deciding on cropping patterns. In all command areas, crop patterns have undergone a drastic change and this departure from crop patterns as they were originally designed is at the root of a host of problems. In fact, this has emerged as one of the main reasons for deprivation/tail ender problem in the irrigation commands as was seen in the tail ender/deprivation study conducted across different states.[65] Volumetric supply ensures that there is an element of stability, a stable reference, for both farmers and system administrators. In all of our WUAs we found that there was resistance to volumetric supply mainly because the canals were not in good shape. Measured water makes sense if

[65] For details refer to the report, "Study of tailender and other deprived in irrigation commands" (2003).

the canals offer better service where seepage losses are minimal and measuring devices are well maintained. None of the WUAs had any of this in order. The tail end users in fact did not have a stretch of canal at that end, so volumetric supply did not make sense to them.

Lack of water use planning and proper water delivery mechanisms

One of the pillars of efficient, equitable and sustainable planning is accurate information of water storages in dams and an appropriate schedule of water delivery and rotation through collection of demand from the different WUAs on the project. Despite the policy commitment of the government to prepare water audits and share information with WUAs, we found a complete lack of this both on field as well as through a thorough scanning of Water Audit reports published by the ID.

This lack of information at the appropriate time only means that farmers are not fully in the know of the water rotation timetable from the ID until just a little before. Internally too, there is little planning within the WUA to discuss water needs and the cropping patterns. A combination of the two only means improper plans leading to inequity and unsustainable use of the water resource.

Rotational water supply or RWS is a water delivery mechanism, which caters to water demands of the users. If done appropriately this can ensure equity in water management

But flawed information flow at one level and vested interest politics at the local level contribute to poor planning processes.

Lack of training and capability building

Whether it is the top-down or the bottom-up approach PIM experience tells us that unless training and capability building of the WUAs is done, very little can be achieved in terms of success. For improving irrigation efficiency, it is necessary for the WUAs to be equipped with some basic understanding regarding crop-water requirements, water balance models. Water resource literacy therefore becomes critical for the optimum use of the resource.

Similarly, democratic functioning of the WUAs is another area where training is essential. Evolving rules for water sharing, decision-making, record keeping, etc., are all crucial for the sustenance of the PIM institutions as well as for enhanced participation of the users.

In the context of equity too training provides critical inputs. As we discussed earlier, the concept of equity varies with the context. However, providing information of different equity options in different contexts (and actual experiences of local communities working out different options) would equip the beneficiaries to make informed choices in their own situations. Providing examples through training of what works and what does not will facilitate the WUAs to make appropriate choices.

Making a transition to the volumetric supply system is no mean task. It calls for a new set of rules in water use, planning and sharing. Here training would be necessary in areas ranging from the very basic operational aspect of monitoring flows to improved techniques in cropping.

From transfer of management to radical restructuring

To conclude our findings on the big picture in decentralization, we feel that there is a need to move from a mere transfer view point to one which talks of a radical restructuring of the water sector. A complete lack of a) precision in measurements b) accuracy in accounting of seepage / transit losses c) Preparing time based distribution schedules and d) regular monitoring of the actual irrigation by the higher officers; the irrigation efficiency is entirely left to the best judgment and efforts of the Canal Inspectors, which still indicates a strong bureaucratic control over irrigation management. These technical failures only aid the interests of the bureaucracy as well as the interests of large farmers and head end users to capture most of the water resources. In such a scenario we see little space for equitable access to water for all and equal voice in decision making.

Our entire discussion points to the fact that PIM has effectively meant delegation of tasks primarily of Operation and Maintenance of the canals and recovery of costs by the WUAs. All the users rarely have found space to effectively participate in the planning process even at the lowermost level. In fact the broader goal of PIM does not simply visualise turn over of the system at the minor level, but sees a progressive federation at every level, from distributary, branch canal up to the project level. Viewed from the point of view of user control, control at the minor level confers very little control and very little discretionary power over the resource. It is only as one goes up higher in the administrative ladder of the project that transfer of control begins to become real (SOPPECOM 2005). So while a large number of irrigation officials see the minor level transfer as a welcome change, it might be difficult for them to accept the new legislative changes that allow a space for power sharing at every subsequent level finally reaching up to the project level.

Section II: Responses of women

It is in this broader context of decentralization that we need to understand women's participation. As we can see that their participation is recent and sought only minimally.

We have five sets of responses from women committee members as well as ordinary[66] women members of the WUA.

The first set of data is basically is about their **profiles** which means where they come from, which caste or religion do they belong to, have they had a prior experience of participating in the public sphere etc. These profiles form our context in which the women are located.

The second set of responses are based on their different **levels of participation** which range from complete absence in meetings, presence in the meetings, to knowledge about the WUA. It covers the entire range of participation understood from physical presence in meetings, speaking up, information and knowledge about the WUA formation and other details to the other end of the spectrum where women are able to articulate their own concerns and vision for management of the WUA.

[66] Ordinary members are beneficiaries of the WUA, but do not have any decision making power

The third set of responses are those which try and understand women's **perceptions on critical aspects of decentralized irrigation management** such as water pricing, equity, cost recovery etc. Responses put forth in this category are perceptions of women's own knowledge and understanding of WUAs and therefore are presented precisely as that. Our effort here is to take women's perceptions for the value that they carry and not to countercheck them with any other 'informed' member. Women's perceptions are shaped by the conditions under which they are forced to choose or because they see a potential for expressing a transformatory perspective. Understanding women's perceptions become important from the point of view of both understanding the context within which women live and function as members of WUAs as well to understand the vision they hold of change.

The fourth set of responses are related to their **perceptions of empowerment** or of changes they see in themselves because of their participation in the WUA functioning. These changes are mapped at individual and community level. Again, these are perceptions which are shaped both by what they are expected to say and perhaps by what change they might like to see in themselves. These are a set of impacts of their participation both at their own personal levels as well as at the level of the WUA. It covers a range of responses from how women have or have not made any difference to the functioning of the WUA, whether their participation has resulted in better entitlements and whether it has translated into change in their relations with men at home and outside.

A fifth set of responses look at the **facilitating and constraining factors**. How women have reasoned the factors that constrain or facilitate their participation in the WUA. These range from the policy level to the social, cultural, economic levels as well as to the very personal level of their own attributes such as skills, education and agency.

Profiles of women

We interviewed a total of 53 women members from different WUAs. Of these 10 were committee members and 43 were ordinary members. The interviews with 43 ordinary members were conducted in groups of 17 and except for the profiles, the rest of the data is presented in groups. Data for committee members is presented for individual women members.

Table 5.5 Spread of the sample across WUAs

Name of WUA	Committee members	Ordinary members	Total
Shivdas Maharaj	0	9	9
Pragat Bagayatdar	2	12	15
Bhairavnath, Wadala	3	9	12
Dr. Babasaheb Ambedkar	3	10	12
Bhairavnath, Varve	2	3	5
Total	10	43	53

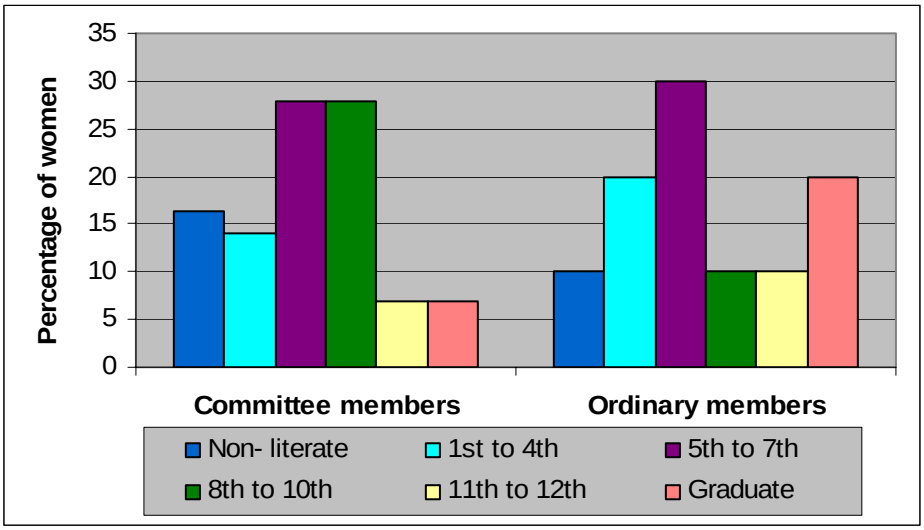
All these women own land in the command areas of these irrigation projects and therefore command membership to the WUA. With the new rule in the MMISFA three women, one from each of the reaches of the canal, i.e. head, middle and tail need to be

elected to the committee. We have tried to interview all the committee members in each of the societies. Among the committee members, nine were members and one was President of the WUA.

Table 5.6 Post of the women committee members of WUAs

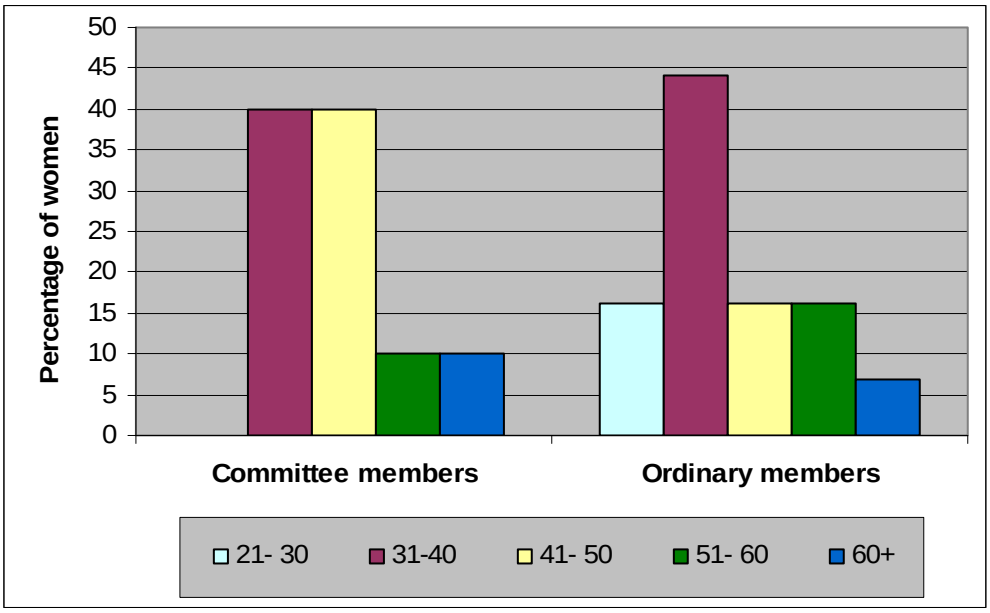
Post in the committee	No of committee members
Member	9
President	1
Total	10

Chart 5.4 Educational status wise distribution of respondents



Of these 43 women, a small number i.e. about 12% have actually crossed 10th grade. The non-literate population is about 16% and so is the primary school educated women. Among the committee members, we see that about 42% of them have crossed the 8th grade level and of the 9.5% of them are graduates. So we do see a slightly higher representation of better educated women in the committee.

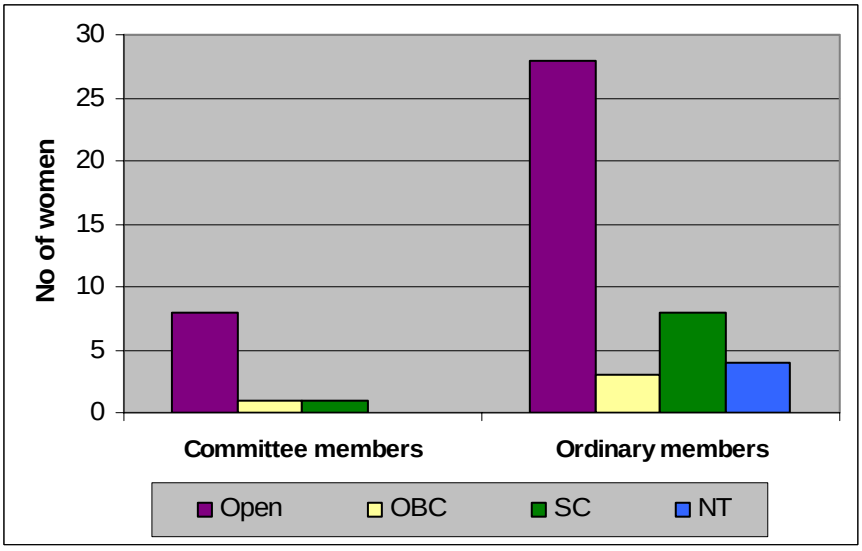
Chart 5.5 Age wise distribution of the respondents



This indicates that women who are in their middle age and also educated are preferred as committee members. For women to be active in public sphere having crossed the child bearing and nurturing stage seems important.

In the marital status we find that 81% of the ordinary members are married and 14 % are widowed and 2.0 % are deserted. Among the committee members 70% are married and 20% are widowed. Marriage is a determiner for being on the committees as well as having membership of WUA. Few widows or deserted women would be able to stake claim to household lands as is evident from the data.

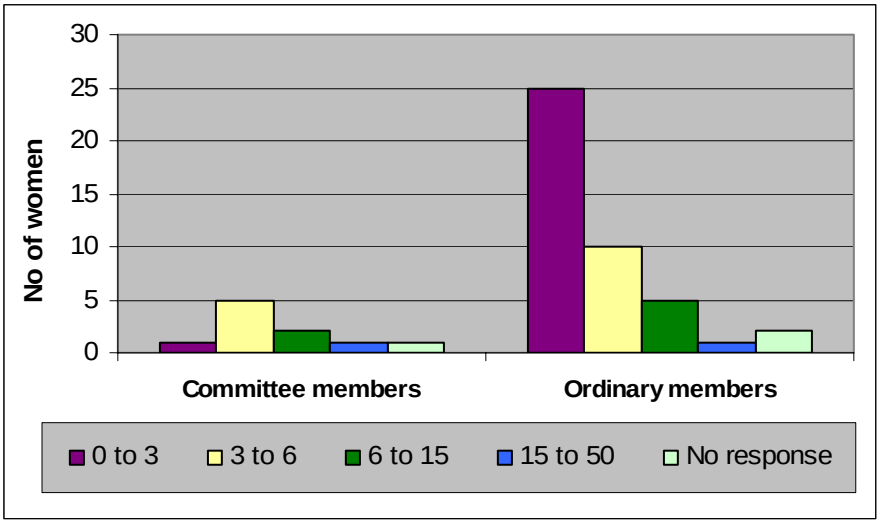
Chart 5.6 Caste profiles of the respondents



A caste wise break up shows that 65 % of the women are from open castes, which is also the majority caste in the village and which indicates that land ownership in command

areas is higher among the open category castes in proportion to their population as is evident from the larger data base on the WUA. There is evidently lower representation of women from the dalit communities in the Managing committees as seen in Table 5.3 where we have analysed data for three societies.

Chart 5.7 Land ownership (in Acre) of respondents



The sample comprised of the following in terms of the land ownership among women- 55% of them come from the land owning class of 0-3 acres and 25% from the land owning class of 3-6 acres. This is of course not indicative of their income class since for most women this is surplus land of the family, which has been transferred in their names.

Chart 5.8 Reasons for land holding reported by respondents

It is generally difficult to find women as landholders and especially so in command areas of large irrigation projects. Therefore, we investigated into this aspect a little more only to find that of our total sample 22.5% women own land because their family saw this as the best way to evade the land ceiling act. Fifteen per cent of the women said that land was transferred in their name because the family wanted to get more shares in the sugar factory nearby. Ten per cent of the women had land in their names as they were widows and they have land as a matter of right. There were also cases of 7.5% women who said that they had received land from their parents households and the same number who said that they had newly bought land in the command area in joint names. Five percent of the women said that they had received land from their husbands and we do not know how this is different from other transfers made to avoid ceiling laws or for other benefits of the family.

Levels of participation

In this section, we look at the different levels of participation assessed largely through their presence in meetings, participation in the different decision making processes and through their knowledge and information about the WUA.

Information and knowledge about the WUA

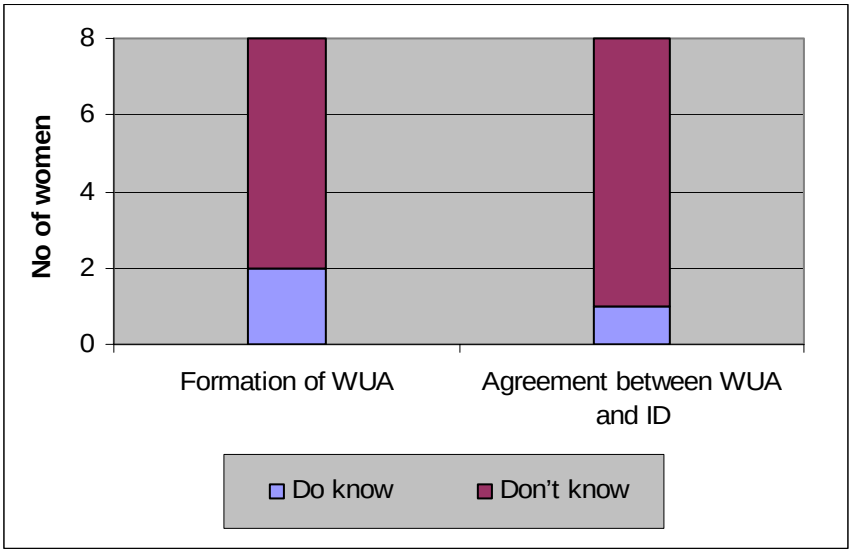
Process of formation of the WUA: year, reasons and agreements with the ID

Committee members

Most of the committee members were not aware of the date of formation of the WUA. Only two of them were certain of the formation date. The main reason for this is that they have only now come on to the management committee after the quota was introduced in the sector reform process. The restructuring has taken place as recently as 2-3 months ago.

Only one of them was aware of the agreement between the ID and WUA and none of them were part of it.

Chart 5.9 Knowledge about formation of WUA and agreement with ID, women committee members of WUAs



As far as reasons for formation were, concerned women felt that better management of the water resource was the main reason for the setting up of WUAs.

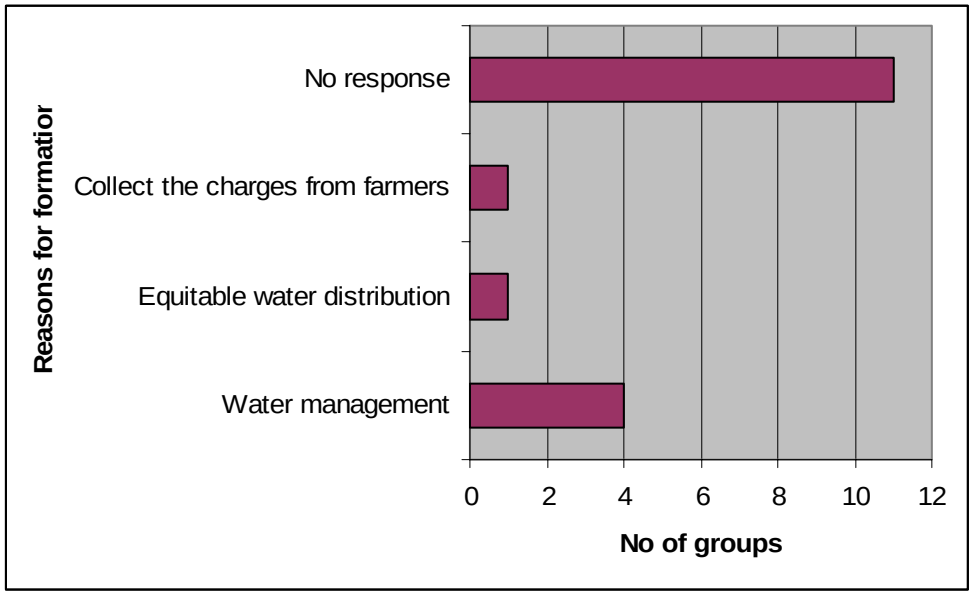
One of them however had an additional reason, which brought in the role and responsibility of the ID. She said, *"The ID could not manage the WUAs and thought that the farmers would manage their water resources better and therefore they promoted the formation of WUAs"*. Two of them were completely unaware of the reasons.

Ordinary members

None of the women was very certain of the time when the WUA had started. Of the 17 groups that we interviewed, seven of them said that they did not know anything about the formation of the WUA.

Women had interesting responses for the reasons for formation of the WUAs. In the group interviews, some specifically said that the WUA started for conflict management. There were conflicts around water management issues and hence the farmers felt the need for a water management group and that was the main reason for the formation of the WUA.

Chart 5.10 Reasons for formation of WUA, ordinary women members of WUAs



Role and functions of WUAs

Committee members

A range of functions of the WUAs came up as responses from the women- One of them thought that the main function was to receive the demand for water from the members in their words *"fill in forms of water demand and fulfill the demands, proper distribution and understanding the problems of the farmers"*.

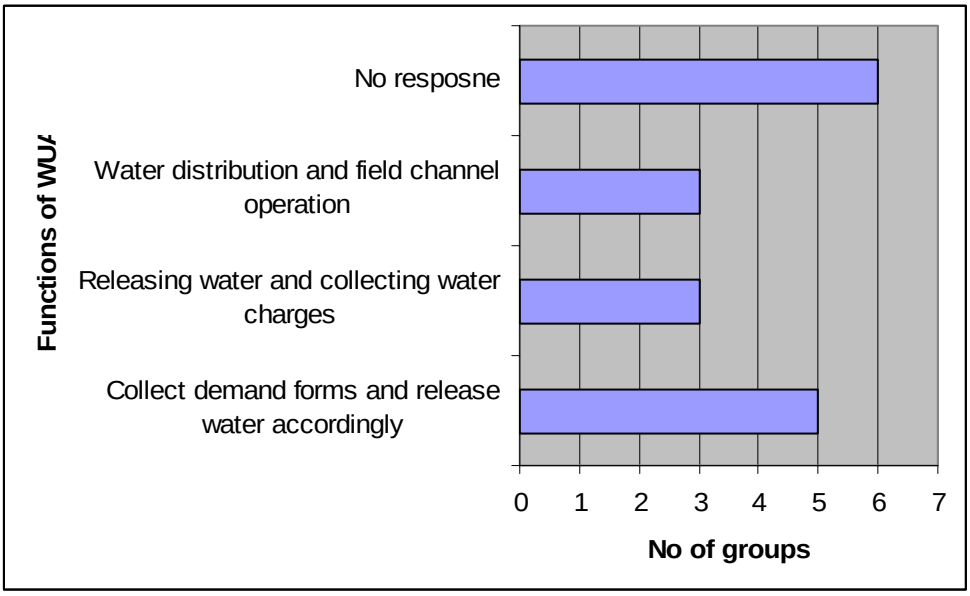
There was a varied response on what they thought were the rules and regulations of the WUA.

Ordinary members

Ordinary members gave a range of responses. Six of them said that they did not know anything. Among the others, five of them felt that the main function of the WUA was to collect demand forms and release water as per the demand

Three of them said that collecting water charges and releasing water was the main function of the WUA. Three others said that field channel operations and water distribution together are the main functions of the WUA

Chart 5.11 Functions of WUA, ordinary women members of WUAs



Rules and Regulations

Most did not know about the rules and regulations and those who know commented on criteria for membership to WUA as being limited to landowners in command areas of the canal. The other part of the rules and regulation was that a landowner was bound to paying water charges on time

On quotas for women

Committee members

There were interesting comments that women had on this issue. One of them said that *"quotas have been introduced so that women get the opportunity to go out of house, fight for their rights. I think there is 30% quota for women. This quota has also been introduced because women know the value of water"*. In general, women felt that quota was introduced for increasing women's participation. One of them said *"I do not know, but nowadays it has become common practice for women to be there with men everywhere so perhaps that is the reason"*

Overall, all of them knew how many women have to be there and why they need to be there. It has now become mandatory for three women from the different reaches of the command area to be on the committee.

Ordinary members

Only one woman was aware of the women's quota on the committee. Her interpretation was that there are three women in the committee and they have half of the rights. On the reasons for quota women said *"because women can save money they have been brought on the committee"*. Others said that the main aim is to improve the participation of women so that they get new information and are able to develop themselves.

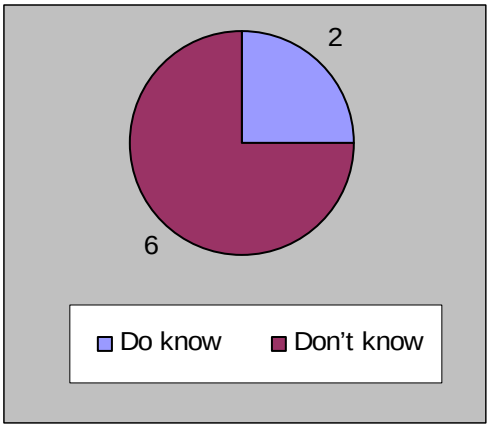
One woman felt that quotas were introduced to dump certain kinds of activities on women "women must be on the committee to be given the task of writing records rather they must have been forced to do these kinds of jobs".

Term and selection process

Committee members

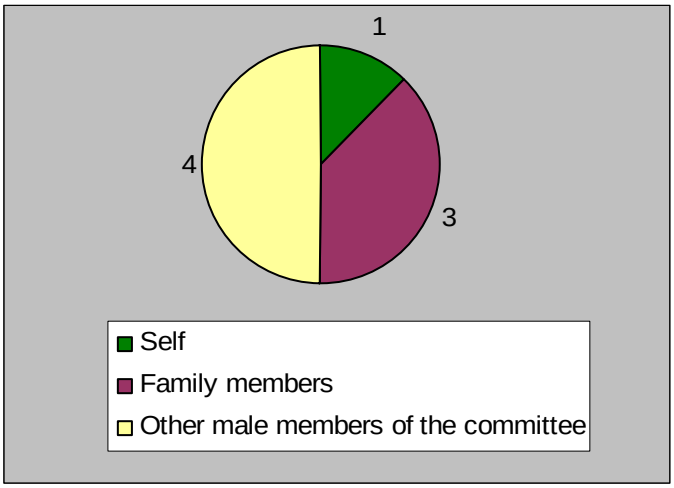
Only two of the eight-committee members were able to say that the term of the committee was for a period of five years the others did not know much about this.

Chart 5.12 Knowledge about term of the committee, women committee members of WUAs



In all these WUAs all the members were selected unopposed. The typical procedure was that some one suggested their name and they were selected after a discussion which usually went unopposed. This was followed by the fulfillment of some legal procedures which included affidavits to the effect that they were not defaulters and that they did not have more than 2 children after the MMIFSA was introduced in 2005 and that they were members of the WUA. In three of the cases where the women's family members had suggested their names women reported that they neither were consulted before suggesting their names nor were they informed after their selection.

Chart 5.13 Suggestion of the name for WUA committee, women committee members of the WUAs



Ordinary members

Seven of them knew the term of the committee. Others were not aware of what this duration is.

Election of the committee members is something that none of the women knew.

We asked them if the selection of the women committee members was done in a fair manner, women from the dalit community said that no women members from the dalit community were selected and all are from the upper castes. The others did not know so did not respond.

Frequency of meetings

Committee members

Of the seven responses, four of them knew that meetings are to be held once a month and that in a year there are 12 meetings. The other three did not know this rule and those who knew it also said that they did not attend it because they cannot.

About the General Body meetings, the same four, committee members said that they were held once a year, but again they cannot attend these for various reasons that they discuss in a later section.

Ordinary members

We asked them if they knew how many committee meetings take place in a year and three of them said it was one meeting per month. The others did not seem to know. These were among the more articulate and active groups that we spoke to.

None of the other women knew about the existence of committee meetings

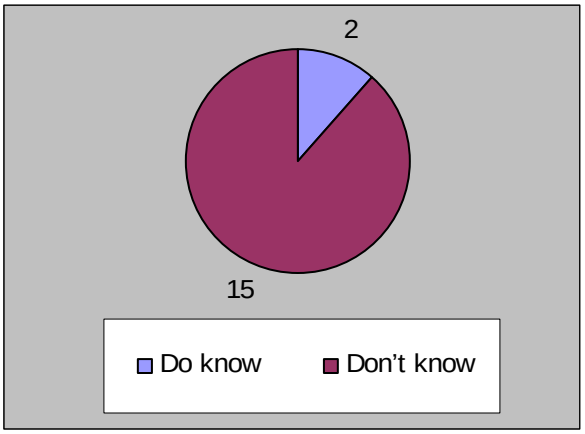
One of them said *"Only men meet. Not all members ever come together. It is only today that so many women members are coming together"*. If we were to compare women's knowledge with that of men, men would know about the frequency of the meetings, but participation of ordinary men members too is very little.

Functions of the Managing Committee

Ordinary members

Women did not respond to this question indicating they did not really know much about the functioning of the committee. Decisions of the MC are usually not conveyed or women were not aware of them if they were conveyed. The 2-3 active women said that the decisions are recorded in the minutes and this record is available in the WUA office and they could go and find out.

Chart 5.14 Knowledge about functioning of the managing committee of WUA, ordinary women members of WUAs



Conflict mechanisms

Ordinary members

Obviously, women were not aware of the existence or non-existence of the mechanisms for conflict resolution in the WUA. The few who responded said that the directors of the WUA, or the surpanch[67] or the chairman of the WUA came and resolved the conflicts. Some times these were left unresolved.

When asked if members breach the rules they said that usually this does not happen.

However, many of them did not respond at all. When asked what should be done if there is water theft and breach of rules none of them answered except one who felt that if poor people would steal water they should not be punished because they do so for their survival.

Nature of participation

Role of women members in WUAs

Neither the committee members nor the ordinary members seemed to be clear of what their roles were as members. No specific tasks were assigned to them.

[67] Elected head of a Village gram panchayat

Surprisingly the committee members too were not aware of any separate tasks that were allotted to them. Except one, none of them attended committee meetings and only signed the register that came home.

Articulation in meetings

Since attendance itself is so low articulating and speaking up in meetings rarely happens. None of them speaks about any issues in the meetings even if they do attend, but as we can see from our data, none of the women actually attends any meetings.

When we asked if she takes any other person's help to articulate her problems, just two of the women responded. One of them said that she takes her son's help and the other said that she takes the help of women who are articulate.

Involvement in decision making process

Women are also not consulted regarding the timing and location of the meetings. For many of these women middle of the day is a more suitable timing. Just one of the groups said that evening would be a preferable time.

Women also reported that they were not involved in any manner in the decision-making processes around allocation of water, water-pricing, preparing annual budgets etc.

Informal channels of participation

On this whole area of informal channels of communication, we spoke to women at length. Women said that they did not discuss these issues with other women in any informal forum. Irrigation and the decisions around it are still seen to lie in the male domain and women therefore do not see the need for any alternative channels to lobby with other women. The other reason, which is perhaps an important one, is that unlike the domestic water sector, which has a public nature to it, irrigation still very much within the private realm with concerns, revolving around "my land getting water". Women's land ownership is rarely delinked from household landownership as we have seen in the profiles section. There need to lobby with the men of their households is more relevant than doing so with other women landowners.

The other area of informal channels used by women to influence the opinion of men so that they could articulate their own household level concerns is an area that can be investigated through ethnographic studies.

Women's perceptions on critical aspects of decentralized management

This section looks at different views and opinions of women on some of the key aspects of decentralized water management. Our thrust in this section was to understand if formation of decentralized water institutions had lived up to its mandate of equitable access to water for all at affordable rates, sustainable use of the resource, better recovery of water charges etc. We have also discussed here women's views on the new elements of the sector reform process that include cost recovery and quotas for women. Obviously, these are women's views and perceptions and although they were not counterchecked

with any other sources, we already have a section which discusses our own observations on the impacts of decentralization gained through discussions with men and women through FGDs, studying of the documents, field visits and discussions with the government officers.

Access to water

Committee members

Of the seven respondents, five of them said that water was not really a problem and they do get sufficient water. Two of them said that they did not really need water as they had a well and one did not respond. This response also shows us how the demand for canal water is determined by the resources you may have in hand. A well in the command area automatically reduced the direct demand for water on canals, which means that as an indirect user you are not paying for the water used. A form of inequity, which we have already discussed in an earlier section.

Ordinary members

We had varied responses from women in this section, which ranged from how much better the earlier system was when the ID managed the canals to those, which said that there was a marked improvement in access, and assured supply after the WUAs were formed. These responses were very context specific. In areas where the efficiency of canals had deteriorated at present, women's responses went against the WUAs, but in systems where technically there were lesser problems women's responses were in favour of WUAs. In Kukana village almost all of the women felt that the situation has improved considerably now. Only one group felt that they had better access to water earlier and now get less water.

Rotations and timings

As far as rotations of water are, concerned women's observation was that the rotations were far more regular earlier than after the management of the WUAs. This is also because the canal efficiency has gone down over the years and therefore the interval between two rotations has increased. This affects the kind of crops you can take and also the quality of the growth.

Almost all the women both committee members and ordinary members felt that rotations were not timely and the intervals[68] were too large. However, in some WUAs a few women said that in comparison to the earlier situation the rotation intervals were better.

Most of them felt that the intervals between two rotations were very long. In most cases, it was not less than 21 days and sometimes even as long as 30-45 days. Women pointed out that if cropping diversity had to come in then the rotations cycles had to be better monitored. For example one of the women who has been cultivating land for a number of years said that for vegetables and certain short duration crops the interval between two rotations needs to be shorter. It has to be less than 15 days. Since that is not so she has to

[68] Timeliness of rotations and appropriate interval between two rotations are critical from the crop growth point of view. Long intervals between tow rotations essentially mean that crops would be deprived of water and the growth would be affected.

go in for perennials or other longer duration crops that can take water stress. Women also said that a large number of wells have come up in the command areas mainly to cater to a water stress period.

Demand for water

Almost all the women knew the method of putting forth a demand[69] for water. Both the ordinary members and the committee members however said that women never went to the office to fill demand forms. The men always did this. They did know however, that this was a critical procedure that had to be followed if water access was to be ensured.

Entitlements: perceptions of water allocation and use

Ordinary members

None of the women were aware of whether entitlements have been created and how water rights had been created except the fact that each has access to water proportional to their land ownership in the command area and as per the demand form that is filled. There obviously was no conceptualization of equity even within the command area.

Committee members

Of the seven committee members, three of them feel that water rights should be held by those who own land and one woman did not respond and one of them felt that water rights should not be based on land ownership. In fact, she belongs to a large land holding family and is only a primary school educated woman, but appeared as one who has a strong sense of justice for all.

Conflict management

On the question of conflicts women said that there are conflicts around water. One of them said that these conflicts are less now that the WUA is there, but one of them also said that they have increased after the formation of the WUA. Five of them either did not respond or did not know since they did not participate.

Cost recovery and water pricing

Recovery of water charges

Women did not really have anything to say on the whole issue of revenue collection. In fact, universally this has been the response as far as questions related to water pricing and water charges are concerned. *"It is the men who manage the money, we do not know the rates nor do we know how the WUA is recovering money"* was the standard response of most women

[69] This is a formal application to be made by each beneficiary to the WUA stating the area and the crop to be taken. In the absence of this no water would be delivered to the field.

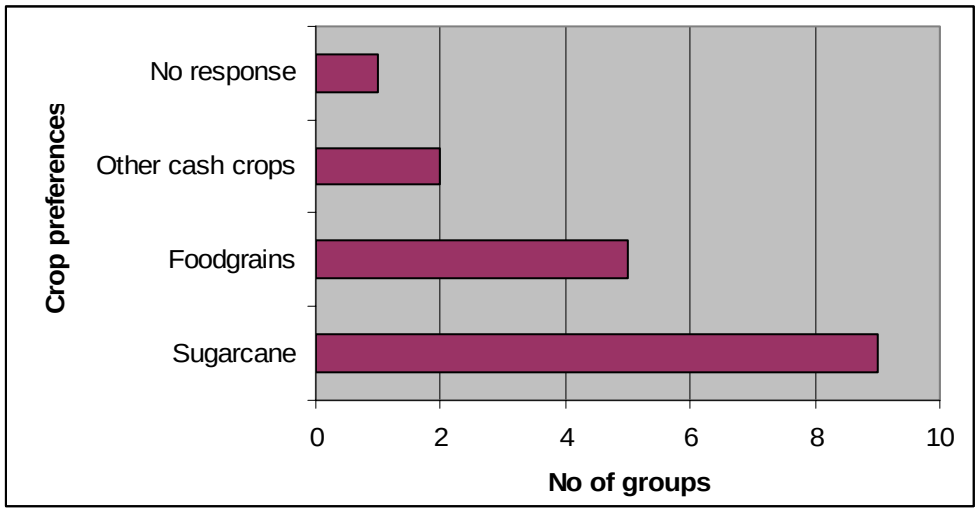
Cropping patterns and preferences

All the women had a great deal to say when asked on cropping patterns and preferences. This is evidently so as women are intensely involved in agricultural operations. Women mapped the changes in cropping pattern from before canal irrigation to the present times when the WUAs are around. The older women did recollect with nostalgia how Jowar and Bajra were the prominent crops before canal irrigation, and how sugarcane then took over.

In an irrigated area the cropping preferences between men and women do not seem to differ much. Although when we had a detailed discussion with women, they did talk of cultivating food crops for self-consumption, and how they would prefer food crops if the markets were not very oriented towards cash crops. However, as of today they do prefer sugarcane, bananas, onion and similar crops that would bring in assured income to the households. They did realize that this was often at the cost of nutrition at home and health if the soil.

In nine cases women said that they would cultivate sugarcane if they were given assured water. In eight other cases women said that they would prefer diverse cropping which includes some cash crops like tomatoes and onions and food grains for self-consumption.

Chart 5.15 Preferences of crops, ordinary women members of WUAs



Decision making

There were no responses to the question of whether women are participating in the present decision making processes. Except a few who attend meetings all our data shows that decision-making and women are nowhere connected in this sector.

Water pricing and willingness to pay more

Knowledge about the charges -none of the women knew exactly what water charges were being paid by their households. However, they knew the basis on which the water charges were decided for each of the farmers. 11 of them said that it was decided on a crop area basis, which means that charges are based on both the kind of crops taken and the area

over which it is taken. We asked them if they thought this was the right way of doing it or if they could suggest an alternative. Many of them felt this was fine but there were variances in opinions where one of them felt that water should be affordable for all and the same charges had to apply for all. One of them also felt that water charges should be reduced and access to water should be improved according to crops and area.

Eight of them felt that the water charges had increased in the last 3 years, but they felt it was justified as things have become more expensive and the WUA has to manage everything within meager resources.

As far as increasing water charges is concerned, 11 of them felt that they would be willing to pay more if the services improve and if they are assured a water supply. This would lead to increased yields and they could then afford to pay more for that.

Effectiveness of Managing Committee

When we asked the ordinary members if they would like to become committee members 11 of them showed a lot of enthusiasm. One of them added a caveat of *"if my family agrees to this proposition."*

Regarding the functioning of the present women committee members the ordinary members had the following to say "they never go for the meetings- someone comes and takes their signature at home" "they do not do anything do not use their position and power to do anything for women" and a few said "they are functioning well"

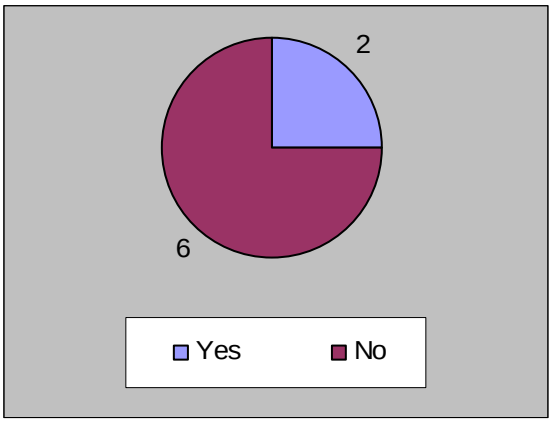
On being asked if men were involving women in the decision making process, women overwhelmingly gave a response that no such thing was happening. The rules set by the men are final. The dalit women had a very strong statement to make on this as they said that the committee members belong to a particular upper caste and hence they do not interact with us and therefore we are not able to articulate our concerns.

It is interesting to see how caste does matter when it comes to an initiative in participating- dalit women have throughout their interviews shown interest and initiative in participating in the processes of the WUA. Their main complaint has been that they are not being sufficiently involved in this process.

Levels of inputs: trainings or exposure trip

This appears as a major gap in the decentralized management of irrigation. Only one of them said that they had undergone any training on water management issues. None of them had ever stepped out of their villages for any training or exposure trip on water management issues.

Chart 5.16 Attending trainings, women committee members of WUAs



Both these women who attended the trainings said that the training was about irrigation and had in fact nothing to do with women's participation in Irrigation.

The overall response is that as far as access to water is concerned the situation is better than it was earlier. On most other aspects of decentralized management especially on pricing and recovery of water charges, women had little information to comment conclusively.

Women did have a lot to say on aspects related to water distribution like timings of rotations and intervals between rotations both, which are critical from the point of view of agricultural operations. On both fronts women felt that changes had to be brought in as the functioning was not proper.

As far as participation is concerned, it was evident that women did not participate in any of the decision-making processes and in fact, there was little physical attendance as well.

Here the lack of inputs in information and knowledge, timings of meetings and nature and culture of meetings are critical areas apart from of course the socio-cultural context that prevents women's participation. We shall look at each of these in detail when we discuss their responses in the section on facilitating and constraining factors.

Perceptions on empowerment

In this section, we look at how women perceive the changes in and around themselves because of their public participation, in this case the WUA. Here we look at the changes their participation has brought about in the WUA functioning itself and those that have resulted in changes in themselves and the way the community and their own family perceives them.

Most of the responses in this section were more general and representative of how things have changed or not changed over time and cannot necessarily be attributed to the WUA membership. Their participation in the WUA has been at a very minimal level and hence it is unlikely that that may have led to any change at the household community, or for that matter at the individual level.

Nevertheless, over the last few years there has been an overall improvement in women's presence in the public sphere either through participation in panchayats or SHGs etc and

this leads women to believe that WUA membership too has contributed towards empowerment. What perhaps we need to read into these perceptions is that women do see the need for change and are not happy where there are no changes taking place.

Change in WUA functioning due to women's participation

As we have seen in the earlier section on participation, women have not really even attended meetings so articulation and speaking up has been almost absent except in the case of a few. So the impacts on WUA functioning are commensurate with the responses in the earlier section.

Timings and location of meetings

Only one of the groups said that there was change in the WUA functioning due to women's participation. This is indicative from the timings of the meetings and the regularity. Earlier the meetings were late in the nights, but now meetings are at a reasonable time and they are also more frequent now.

Accountability and transparency

Two of the women felt that there has been a change and the WUA is more accountable and transparent after women have come onto the committees and also as members.

Most of the others did not have anything to say and one of them said that corruption is still there in the collection of water charges.

For one of the committee members transparency is there in the functioning because of women's participation. However, all the other six women said that they did not know or they did not see any difference from before.

Rotation practice and timings

When the women were asked as to whether the rotation timings had changed because of their presence in the committee, they said nothing had changed and everything is just as before. Three of them said they are not aware of any change as they do not attend any meetings.

The ordinary members also did not perceive any change in this aspect, but as they reasoned they had not really voiced anything about it until now.

Culture of the meetings

Women do have knowledge of how the meetings occur and in fact, this is one of the main constraining factors. All the committee members said that they have not seen any change in the culture of meetings despite the quota introduced for women. Meetings take place at the convenience of men and are male dominated.

Two of them reported that the meetings are of an informal nature so they do not feel constrained to attend it.

Difference in decision making process

One of the active committee members from the Kukana village said that she had actively spoken on behalf of the tail end farmers on how they do not have access to water. She herself is a tail end farmer. This was taken seriously and repair works were done on the field channels at the tail end. On another occasion the same woman had raised an issue around a faulty electricity line and that too was solved immediately and the water rotation started immediately. These are concrete examples given by Ashatai one of the active committee members in Kukana village.

Changes at the household level-decision making

Ordinary members

When we asked the women as to how decisions are taken at the farm level and who takes these decisions. There was a mixed response. In four of the cases women said it is their husbands, in four of the cases women said they themselves take decisions, in five cases they said it is other men in the family and in one case women said it was her husband and her sons who take the decisions. Two of the widow respondents said that they have been taking the key decisions anyway, but there is interference from the household. One of them interestingly said that she changed the decision of taking sugarcane as a crop to taking cotton. This was heard and the family has benefited a great deal out of that financially.

When asked about the decisions regarding children's education six of them said they do participate. Seven of them did not respond at all, one of them said that it was because of her that her daughter could go in for higher education. But for many others it was the husband or the family taking the decisions and not allowing the mother to participate.

Most of the women choose not to respond to certain uncomfortable questions regarding the decision making processes within the house. When we asked if women took decisions in the expenses of the household eight of them did not respond. Four of them said that it was the husband who takes all the decisions and one of them said that she takes her own decisions. But things have not really changed considering that women choose not to respond.

However, interestingly when asked if women have any authority over income, three of them said they have the rights and three of them said that they have an equal right over the income. As usual, the no responses were eight and those who had no authority were three.

Eight of them responded by saying that there has been an increase in their respect at the household level, but eight do not respond and one says that respect has always been there.

Seven of them feel that there is an increased mobility after being members.

Only four of them said that some amount of household work is shared by their family members, all the others said that there was no sharing of work.

When asked about the physical violence meted out to them women said that this did not happen in their families.

Committee members

Three of the women said that they do feel there are some changes at the household level especially as far as decision making at the farm level is concerned. One of the women said that she was actively involved in organizing labour for weeding in her farm the previous year. The other two women said that they too were able to take some decisions at the farm level especially regarding cropping preferences.

As far as children's education is concerned women feel that they need to send their daughters for higher education. In fact, one of them has taken a decision and is sending her daughter to another town for higher school.

As far as deciding on expenses at home are concerned, things have not changed for them. One of them is of course actively involved in everything and takes many decisions for the family. She in fact motivated her husband to purchase land in her name.

Of the seven women, two said that they have been always handling income and that continues. One other said that she is aware of the financial transactions but does not have any authority. For the rest things have not changed from before.

Five of the women clearly said that their own family members had started respecting them after their membership two of them did not respond.

Four of them feel that their mobility has increased a little bit. Three others have not changed at all. Even the one or two times they may have gone out women have felt that things have changed for them.

At the community level

Ordinary members

Women felt that there is some level of change in respect at the community level. When asked if any difference was made to decision making in community issues, eight of them did not respond and most of the others except two felt that there was no change and in fact they were not involved in decision making processes. The two who felt so were involved in SHG activities.

On improved skills in collective mobilization, two of the 17 groups felt that there has been a perceptible change and women do come out in the public and organize for larger issues. However, a majority of them did not see any major change that can be attributed to the membership in WUA.

Committee members

Only two of them felt that respect in the community has increased. One lives away from the village and hence interacts very little with the village. The others do not feel any change also because they hardly have a presence in the community. Yet three of them feel that they can make a difference to decisions at the community level.

Being a member of the committee has been beneficial for two women since they have better access to water and rarely have to face problems.

One however felt that there is no difference despite the fact that she is the President of a WUA.

None of these women are active in issues of violence against women. One of them from Kukana is active as she has also been a GP member and active in other fora as well.

At an individual level

Neither the committee members nor ordinary members feel that they have gained much from their membership to the WUA, largely because they never felt that they had a role to play and that they could contribute. As a result, they have never participated in any meetings. In Dindori for example the women said "*now that we know we have a role to play, we will actively do so. But people like you should come and train us, how will we become empowered otherwise?"* These are voices of women who are keen on participating and making a difference to their own lives as well as to the WUA functioning.

For a few women who have been active for many years, the self-confidence is evident and the participation in WUA has added to that.

Section III: Summarizing the findings: decentralisation and empowerment in the Irrigation sector

Performance of decentralisation: the larger context

This has been discussed at length in the first section where we have looked at men's views as well. We have also looked at the performance of decentralisation through women's views. Based on these sets of data we argue that the poor performance of WUAs is one of the major reasons for lack of democratic participation in decision making process. A combination of technical and social factors have led to the weak functioning of decentralization in this sector. What set out to be success stories in the early nineties through good gains in recovery of water charges has not sustained to be so. Vested interests and nexus with the irrigation officials have led to the weakening of what held potential for good governance.

Quality of participation is also affected by the overall lack of space for the larger (whether male or female) beneficiary group to participate. In almost all the WUAs that we visited, farmers complained of lack of information flows and democratic decision making. They complained that ID has left very little space for the beneficiaries to plan and manage their resource at the local level. In most of the WUAs therefore a standard response for lack of women's participation has been that men themselves lack the space to participate meaningfully what then are the women going to do here. *'The situation… they tell us 'is so complex that women will never be able to deal with it. Imagine if a woman is a chairperson of a WUA, which has problems of canal seepage, water shortage, water theft what kind of things she would have to deal with. Will she be able to go out at midnight and resolve the conflicts that arise out of these shortages and inequities? Of what use then is a woman chief functionary".*

Design issues: policy and programme

Apart from quotas, the present sector reform process does not introduce any other incentives for women to participate in the functioning of the WUAs. Unlike the domestic water sector we do not see any participation in either decision making or trainings or related campaigns. There is no special fund in the irrigation sector to facilitate women's trainings and exposure to different activities.

As discussed earlier the MWSIP, states in only one single line that a gender strategy would be separately worked out. No such strategy which is in the public domain is available and there is no financial commitment to ensure women's participation in the irrigation sector. Here the sectoral differences become evident.

Quotas

Introduction of quotas in the committee of the WUA is certainly a facilitating factor as is evident from the numbers in the managing committee. As per the new legislation every WUA will have to have 3 women representing the three canal reaches on the committee. As a result of this legislation as we have seen earlier over 4000 women would be entering the public sphere in what is otherwise a male dominated sector. For these quotas to translate into meaningful participation women would need support at various levels. This is the first time that quotas for women have been introduced in the irrigation sector. However there is need to go beyond quotas and a combination of various factors become important in this context.

Numerical strength of women in WUAs

Some said that women have to become members first for better participation. Almost all of the women we spoke to said that more numbers of women on the committee and the WUAs would make a difference to their levels of participation. The main constraining factor here is that women lack land titles and that is the key qualifier for membership. Unless the Act is amended to this effect, it is very unlikely that larger number of women would actively participate.

Trainings

We reviewed some of the training manuals and documents developed by WALMI along with the WRD. All of these documents are in the nature of explaining the various legislations in the water sector. None of them are specifically addressed to women or cater to their needs. There has been no training needs assessment programme yet and in fact, the one that was planned is yet to take off due to administrative hurdles. This was a training needs assessment especially to understand the training needs of women and tribals. Lack of well targeted programmes and financial commitment to them is one of the major lacunae of the MWSIP in advancing gender rights.

Information and knowledge

The other major lacuna is the lack of useful information channels. The Domestic water sector has launched several IEC campaigns through which posters are put up and the

whole village is aware of a programme and how they could participate. Despite its limitations, it has created an ethos for participation and women have been able to come out in large numbers there. Women gave very interesting responses to this question. Some of them said that there should be rule of women's participation and that women should have the information and knowledge about the various activities from the men and the officials.

One of them said that if she gets the invitation and information she would like to participate. However, she added a caveat saying that this has to be accompanied by a proper environment for women to participate.

As we have seen only one of the women on the WUA has attended a training programme organised by WALMI, the nodal agency for capacity building appointed by State Government. Most of the women were generally aware of why WUAs, but knew little about their functioning, rules and regulations or the financial matters. Unless women are encouraged to participate and are given information their effectiveness in the public sphere would not improve.

Culture of the sector

Our findings show that the single most important reason that we can identify for women's lack of participation in the irrigation sector as compared to the domestic sector is related to the social norms that define which tasks women should perform and which remain in the male domain. These social and cultural norms define how men and women should interact in the public spaces. Public expectations of women's role goes well with their participation in the domestic water sector and also working on the fields irrigating them, whereas participating in meetings related to water for production does not go too well with their public roles and expectations. They therefore are fit to participate in the domestic water sector, which is so closely connected to their present roles of household welfare. The irrigated land is a symbol of monetary gains, prosperity, markets and hence becomes the male domain.

In fact, these expectations differ depending on the class and castes that women come from. In the dominant castes and the upper class we found that women rarely would go out in the field to irrigate it during canal rotations. Moreover, they hardly engage with the question of irrigation even in an informal way. Whereas women from the lower class and scheduled castes (if they do own land in the service area) do engage with the irrigation schedules, rotations and access in at least an informal way, through discussions with their men. In village Yeoti in Solpaur district of Maharashtra women were aware of most of the practices in WUA functioning, except perhaps the rates of water.

Importantly the culture of meetings is what matters and WUA meetings are very male dominated and the issues discussed are also very male in nature as most often they are about resolving conflicts around allocation or about pricing and water charge collection.

Women do not see it as their domain. In the final analysis, this would be compared with the drinking water scenario which is quite different and where a culture for women to participate is being created. Why certain sectors seek to attract women and certain others keep women away. The challenge here is to redefine roles and expectations within the

sector. Needless to add that these images and expectations of women are related to the larger structures of inequity and patriarchal exploitation.

The village context: from the women's point of view

Women were asked a series of questions regarding their perceptions on the village context- whether they think their village is progressive in terms of women's issues or not. Ten of the 17 groups reported very high incidences of violence against women. Two of them said that they do not know because they do not step out of the house.

These responses of women on how they perceive their village actually helps us build our village context, which shows how facilitating or constraining the village scenario is. The main argument in favour of decentralization working for women is that governance is brought to the village where women live.

All of our villages had economic prosperity by virtue of being irrigated villages. Prosperity does bring in vices such as alcohol and these were really the main reasons cited by women for violence against them. In none of these villages did we see women in the public sphere and this context definitely provided a constraining environment for women's participation.

Participation in other public sphere activities

But as there is violence there is also another side to the story and mushrooming of SHGs which have brought women into the public sphere though in a very limited way and we do see some positive impacts of these.

A large number of SHgs have been formed in these villages and they have largely remained in the domain of savings and credit. Women have looked at these as providing positive spaces for them to come out of their homes.

Mahila gramsabhas are not held in these villages because none of them are Jalswarjya villages where mahila gramsabhas are mandatory. However, none of these women attend gramsabhas either. This already builds a background of these women who are not for various reasons involved in larger village development activities.

Among the committee members we have two women who have been active in the Gram Panchayat earlier. One of them is working in a school and is therefore familiar with public activities. The other has been working with the women's front of the CPM, ie. All India Democratic Women's Association (AIDWA). Although these cases are rare they do provide us insights into what works and does not work.

Education and skills

In the section on profiles we see that education is not an important variable qualifying women to membership of WUAs, although it does add value if women were to qualify for committee membership. But beyond the qualifying potential for committees we do not see any role that education has played in enhancing participation. Capabilities to participate need a different set of skills along with other facilitating factors that we discuss in this section. In the absence of that, education has very little role to play in enhancing participation.

Land ownership

This is one of the most critical factors that qualify women to become members of WUAs. It is therefore one of the major constraints in bringing more numbers to the WUA. Unless these numbers increase, it is unlikely that women can bring about any change in the functioning and the culture of irrigation sector. Our larger database for 47 societies shows that of the 47 WUAs only one had membership of women that ranged from 30-35%. Most of them were in the range of 5-15%

This is bound by a legislation, which needs to be amended in Maharashtra. One of our recommendations has been to dissociate landownership from access to water institutions and to water rights.

Caste and economic factors

Our findings clearly showed a caste bias in selection of dalits to the Managing committee. In one of the villages there was an active group of dalit women who would have liked to participate in the committee. This was a dalit group of women members and they were both widowed and were managing their own fields so had a clear stake in participating. Women from the other two groups were young and enthusiastic and were interested in participating in the meetings. An interesting response from two women from the dalit community was that if one of their women came on the committee of the WUA other women from their caste would be motivated to participate. We have discussed this at length in an earlier section

Individual agency

Despite the several constraining factors some women still go out and participate. One of the committee members from Kukana village is one such example. Her prior history and participation has been a major facilitating factor but her own enterprise and interest in being involved in the public sphere contributes a great deal to her active participation.

Of the 17 groups, only two groups showed any interest in participating in the meetings. When we asked the reason for their participation if they do two of them said that they are interested in participating in the public sphere and hence would like to know more from what happens in these meetings. Thereby indicating an interest that needs to be nurtured through different incentives and inputs

In our interviews women also said that unless women decide nothing can change thereby indicating at one level individual agency as well as collective agency.

Support from the household

Cutting across all the interviews was the need to address the family level resistance.

In our interviews with ordinary members many of the women were quiet when we asked if there was support or opposition from the household. Many of them did not respond because this was an area, which they thought that they do not need to be involved in anyway. There silence in a way indicated that there was no encouragement from the family, but they also said that if they were to attend meetings there would be no overt

opposition but there is no encouragement either. Thereby indicating subtle ways of resistance. When women try to argue they said, “We are asked not to interfere in these matters”.

As far as the committee members are concerned all the 8 members said that they did not face any opposition from their households in becoming members of the committee. They also added that they never attend any of the meetings and therefore are not so busy in the committee work, but were eager to say that their families do support them.

The few women who do go for meetings said that when they are participating in the committee meetings then it is either their daughters in law or their daughters who help them. Only one of them said that her sons help her. Here we see that the cost of participation is largely transferred to other women of the household.

In the domestic water sector we see that women’s participation is seen as respectable by the households as well. The ethos of participation is well created.

Support from the community

In some villages women reported that men do understand hence women can speak up, however in many of the villages women may not be heard at all. A few of them would be heard. But importantly women also need to be present for the meetings. They often are not even present for the meetings.

Committee members reported that there were no other men from any castes who have opposed or resisted their participation. Again, this needs to be seen in the light of the caste from which these women come. All of them except one come from the Upper Maratha caste and hence are unlikely to be opposed. This also needs to be seen in the light of the nature of participation, which still is of a passive nature where they probably have not even attended meetings of the committee or of the general body.

Since such kind of opposition is not faced by women they have not yet developed strategies to resist.

Public expectations of women and costs of opportunity

Women’s workloads at the domestic level as well as at the farm level, leave them with little time and energy to engage with other tasks. Sitting in meetings, applying ones minds and engaging with conversations, rule making processes etc needs a mental space, which women rarely have. Coming out of this cycle calls for a larger process of change, which challenges the patriarchal system and the roles and tasks that come along with it.

In most cultures women are also expected not to speak in public or speak in softer voices or perhaps just echo what the dominant voice is saying. Women have tried to find ways out of these situations by couching their radical agendas in what is acceptable feminine behaviour. Public expectations of women participating in certain public spaces also constrains women’s participation. Often the WUA meetings are held in the small WUA offices or in the Gram Panchayat office or in some of the credit co-operative society offices. These spaces are inhibiting for women and women would rarely attend meetings in these spaces.

In this regard, women have indicated that a few changes could contribute to their participation. One of them is to have all women's meetings either in the school or in the anganwadis or simply in some woman's home. This gives an informal nature to the meeting and creates a more conducive and uninhibited environment for women to participate. It also makes it easier for women to decide on time that would most suit all of them.

Costs of opportunity was a hypothetical question in the case of WUAs, as women were in fact dissuaded from participation. We asked women if they did decide to participate would their work loads increase and what they would do in that case. Women from one of the groups did say that if they were to participate, their workloads will definitely increase and this will affect their life at the household level. Their suggestion to resolve this problem was that as far as possible women above the age of 40 be allowed to become members of the WUA as they do gain some experience around that age and also because many of their household obligations are reduced by that age.

Finally to conclude this section on Irrigation we say that although opportunities have come by way of quotas, it would take several necessary steps to realize quotas into meaningful participation. One of the major areas that needs to be addressed in this regard is to allow for a better performance of decentralization itself. The WUAs have proved to be better than centralized irrigation management as is evident from the responses of women as well as through our other data sets; however it cannot be denied that the sector is beset with numerous problems which are at multiple levels ranging from technical inefficiencies to institutional and socio-economic ones. It is often debated whether people really do have the power to decide in irrigation. Rules are laid and accountability structures which demand upward accountability rather than downward leaving very little space for people to intervene meaningfully. Addressing these would in a sense be the first necessary step to create a meaningful space for women and the other poor to participate.

But we cannot conclude that addressing this would automatically lead to women's participation as we have seen from our discussion of the various other constraining factors that women have to face. Altering the current form of decentralization will no doubt lead to a certain extent at least to changing its culture in favor of women, but very conscious efforts will have to be made in the policy and programmes, which provide incentives for women to come out and participate. Like Jalswarajya the sector has to change its image and make it respectable for women to participate. It is important that women's organizations and other civil rights groups participate in this process. Unless there is a thrust from the grassroots there will be little incentive for the state to reorient the image of the women.

The other important area to be addressed is at the family level. Democratic values have to first be instilled at the level of the family (Joy Deshmukh). If the idea of the normative women is not challenged at the level of the family there is very little hope that women would be allowed to participate in a meaningful way. Altering our mindsets and ideas of the normative woman therefore become central to our process of change. It is here that the role of civil society organizations and particularly women's organizations becomes critical. The civil society that is being cocneptualised by the state to implement these programmes is not capable of instilling these values and making the change process progressive. They leave women at a stage of euphoria with public participation but do not

equip them with tools to challenge patriarchy. The tools lie in providing an understanding of exploitation and building a perspective to challenge that.

Annexure

Table 1 Demographic features of the villages of location

Name of WUA	Village	Total population	SC population (percentage)	ST population (percentage)	Literacy Rate	child sex ratio
Shivdas Maharaj Pani Vapar Sanstha	Yeoti	3003	14.2	2	75.4	916
Pragat Bagayatdar Pani Vapar Sanstha	Kukana	6646	10.6	1.4	75.1	858
Bhairavnath Pani Vapar Sanstha	Wadala Bhairoba	5326	17.9	9.8	76.7	812
Dr. Babasaheb Ambedkar Pani Vapar Sanstha	Dindori	15330	10.2	26.5	82	902
Bhairavnath Pani Vapar Sanstha	Varve	1651	8.6	0.5	76	1109

Table 2 Land use pattern (in hector)

Name of WUA	Village	Total land	Forest	Irrigated area	Unirrigated area	Culturable waste	Area not available for cultivation
Shivdas Maharaj Pani Vapar Sanstha	Yeoti	1386.00	0.00	504.35	384.47	55.00	442.18
Pragat Bagayatdar Pani Vapar Sanstha	Kukana	566.00	0.00	410.00	86.00	49.00	21.00
Bhairavnath Pani Vapar Sanstha	Wadala Bhairoba	872.00	0.00	562.00	220.00	66.00	24.00
Dr. Babasaheb Ambedkar Pani Vapar Sanstha	Dindori	2597.00	0.00	510.40	926.00	584.80	392.14
Bhairavnath Pani Vapar Sanstha	Varve	694.00	184.13	52.00	271.00	0.00	206.30

Table 3 Season wise crops

Name of WUA	Village	Kharif	Rabi	Summer	Perennial
Shivdas Maharaj Pani Vapar Sanstha	Yeoti	Sunflower, Sorghum Cotton	Wheat Sorghum Gram	Groundnut, sunflower	Sugarcane, Fodder corn
Pragat Bagayatdar Pani Vapar Sanstha	Kukana	tur, cotton, soyabean	wheat, Gram sunflower, potato, cereals	Groundnut, corn	sugarcane
Bhairavnath Pani Vapar Sanstha	Wadala Bhairoba	Soyabean, Bajra	Wheat, groundnut, tur	Groundnut	Sugarcane
Dr. Babasaheb Ambedkar Pani Vapar Sanstha	Dindori		Wheat Gram Onion		Sugarcane Grapes
Bhairavnath Pani Vapar Sanstha	Varve				

Table 4 Membership

Name of WUA	Village	Total Members	No of women Members	Percentage of women members to total number	Men members on committee	Women members on committee
Shivdas Maharaj Pani Vapar Sanstha	Yeoti	236	24	9.13	10	1
Pragat Bagayatdar Pani Vapar Sanstha	Kukana	473	126	23.47	6	3
Bhairavnath Pani Vapar Sanstha	Wadala Bhairoba	227	59	27.20	9	3
Dr. Babasaheb Ambedkar Pani Vapar Sanstha	Dindori	1305	452	23.56	11	3
Bhairavnath Pani Vapar Sanstha	Varve	117	9	7.75	11	3

Table 5 Formation and transfer of management

Name of WUA	Village	Year of formation	Year of transfer
Shivdas Maharaj Pani Vapar Sanstha	Yeoti	1994	2002
Pragat Bagayatdar Pani Vapar Sanstha	Kukana	1994	2000
Bhairavnath Pani Vapar Sanstha	Wadala Bhairoba	1998	1999
Dr. Babasaheb Ambedkar Pani Vapar Sanstha	Dindori	1997	1997
Bhairavnath Pani Vapar Sanstha	Varve	2002	

Table 6 About the area of WUA

Name of WUA	Village	Total command area	CCA	ICA	No of wells in command area
Shivdas Maharaj Pani Vapar Sanstha	Yeoti	281	281.58		Not available
Pragat Bagayatdar Pani Vapar Sanstha	Kukana	484	485.11		300
Bhairavnath Pani Vapar Sanstha	Wadala Bhairoba	204	248	204	Not available
Dr. Babasaheb Ambedkar Pani Vapar Sanstha	Dindori	1161	860	602	660
Bhairavnath Pani Vapar Sanstha	Varve	167			

Table 7 Key issues/problems identified by WUA

Name of WUA	Issues/ Problems
Shivdas Maharaj	• Even after repeated correspondence with Irrigation Department they have not received any attention about the repair work which was supposed to be done according the agreement between ID and the society • Main gate of the Ujani LBC which branches into minor is not functioning and every time rotation starts society has to take responsibility with its own expense to lift the gate. • The entire stretch that branches from Ujani LBC up to where society's minor starts is in a very bad shape with growth of grasses and bushes which obstruct the flow of the water. It causes increase in water level and water overflows and there is wastage. • At the point where area of the society starts there was SWF constructed. But it is not functioning anymore. And so the intention of volumetric supply is not achieved. • In the minor as a result of the black soil there have been several damages to the walls and floor of the canal. These are lined walls which have eroded the entire distribution system. The flows are affected and damage increases as a result of that. • There are no doors on the outlets from distributory. So every time the water is released, they have to use large sacks to block and release water flow. • Until 1987 the society used to get water from Ashti tank and not from Ujani dam. One of their major demand is that they have a right over the water of Ashti tank and as the distribution system of Ashti tank is far better the water should be distributed from there. • Some farmers are lifting water from Ashti tank and this is affecting the society as the demand for water decreases.
Pragat Bagayatdar	• At some places there are no gates at the channels. Where there are gates, many of them are not functioning. So they have to use sacks to control the water flow. • Measuring device is not functioning. • They have not yet received copy of joint inspection report. • There are tail ender problems. So farmers at tail end do not receive enough water. • Water losses are very high
Bhairavnath, Wadala Bahiroba	• Need of some repair work e.g. gates, field channels etc. • There is no participation of WUAs in planning meeting of advisory committee meeting. • There is no system in place to measure water. So water flow is stopped only after farmers have finished irrigating their fields. And the idea depends on the farmer. As farmers know that they are going to receive only 1/2 rotations, they tend to take more water. Further there is lot of water seepage from gates, so there is water available until it is there in main distributory. Many farmers take water from this extra flow.
Dr. Babasaheb Ambedkar	• Though the society has taken over the management and there was a contract between ID and the society, they have not received copy of the contract yet. • Main canal needs repairing. And it has to be done from expenses sanctioned by the government. It will reduce the water loss by percolation. • ID says that there is 68% water loss. But that is mainly due to the practice of lifting water with pipes. ID is not giving attention to this problem because some officials are involved into it along with the farmers. • People feel that though farmers from Dindori taluka have given their lands for the Waghad project, but they are not receiving benefits. Societies from Ozar region are benefiting from the water. 2 societies from Ozar take water from reserve quota for NA lands? • Office of the federation is at Mohadi. Women members of the WUA are demanding that the office should be shifted to Dindori instead. Because of the lack of transport facilities they are not able to attend meetings there.

Chapter 6
Learning and Recommendations

Our study has shown that the water sector reforms discourse is dominated by the management transfer view rather than one that proposes radical restructuring of the sector, i.e. delegation and deconcentration as opposed to devolution of power in both the states of Maharashtra and Gujarat. Governed largely by multilateral agendas, water sector improvement moves towards water commodification brought out through the various economic and institutional reforms proposed in both the states[70]. Interestingly in both these states different stakeholders tend to agree on the need for improving water resources through such reforms and most would even agree that decentralisation is the best form to achieve this. For the hitherto excluded groups, decentralisation raises hope to redress their historical exclusion from accessing water and making decisions around it. Claims for representation in the decision making process therefore becomes critical for these groups. For local vested interests this often hold a promise for strengthening their political base[71]. For multilateral agencies (e.g. the World Bank in Maharashtra) and often the government as well, it holds meaning in terms of reducing state expenditure on both management as well as infrastructure and for private parties it opens up spaces for making economic profits in the event of clear entitlements getting institutionalized[72].

Given these diverse set of interests, which often appear like a win-win situation, it is not surprising that there is little struggle or debate over the new reforms in the sector. The state too has to straddle between supporting and advocating neo-liberal reform on the one hand, and bowing down to its own political constituents on the other. The impacts of these reforms unfold only gradually or if the state is pushed to the corner by private interests or multilateral agencies. What is important to understand is that decentralization cannot be wished away as a donor driven discourse as we see how historical inequities are used to occupy the spaces created by decentralization, thereby defeating the very purpose for which decentralization was introduced.

For most stakeholders, particularly the socially excluded, therefore the question is not as simple as whether to oppose or engage with the state; rather, a combination of the two may be necessary if the restructuring view point has to gain currency over the transfer view point.

We felt the need to outline some of these broader concerns at the outset or else our study findings may be seen only as an effort to identifying gaps in decentralization and their implication for women's empowerment and not questioning of the model itself. Not surprisingly, then the recommendations would follow from these gap identification

[70] Different legislative reforms in Maharashtra are already talking about private public partnerships, contract farming and tradability of water rights for example. For a detailed discussion on policies see Joy and Kulkarni, 2006)

[71] Shelawe Budruk in Jalgaon district of Maharashtra is a classic example of how the local leader climbed the political leader by bringing in the Jalswarajya scheme in an otherwise not water scarce village.

[72] The push towards going in for private connections over public standposts is clearly a move towards facilitating cash collections. Similarly, in irrigation we see that clauses for both creating individual entitlements as well as tradability of water rights have been introduced.

exercises and aim at interventions to close these gaps rather than question the paradigm itself.

The tendency to comment on the divergence in implementation from the mandated policy goals has largely been avoided by us in this section. Along with a critique of the decentralization process we have tried to outline an alternative view on water that is located in a context specific understanding of water norms and power relations that constitute water rights scenario. Having said that we now look at some of the key learning from the two states, which broadly discuss the different aspects of decentralization and how they relate to women's empowerment. We go back to some of our research questions in our discussion of learning and recommendations.

The next section outlines some of our key findings on aspects of decentralization in the sector and its relation to participation and empowerment of women. We end by underlining the fact that although positive performance of decentralization would facilitate women's meaningful participation it is not sufficient to ensure change in gender and social relations. This understanding leads us to address broader socio-economic inequities that set the stage for unequal terms of participation. It is argued, that these historically structured inequities are further aggravated by the neo-liberal reform agenda in the water sector.

Aspects of decentralization

Local/non local sources

Decentralisation in the domestic water sector has typically meant the decentralization of responsibility for the distribution and management of water systems and services in villages whereas the source of the water is not always local, i.e. village based. In Gujarat, for example, although there was a commitment to find and develop local, *in situ* water sources, the prestigious Narmada-Mahi pipeline was often the main source for providing drinking water in the Ghogha project and today even extends to villages as far as Kutch under the Earthquake Reconstruction and Rehabilitation project. However, in principle WASMO has now accepted the need for dual water supply systems and drawing on multiple sources as necessary. In Maharashtra, the Jalswarajya project has an explicit commitment to develop local sources where available. Most village communities prefer local sources as they are able to maintain them – ensure source sustainability – and have more control about water use decisions, rather than these being decided by the water bureaucracy.

In surface irrigation the question of local versus non-local resource has a different meaning as the very nature of the source is a dam which conveys water to a very large expanse of land across different villages and depending on its size to different *talukas*/districts/states/nations as well. Here the need for nested institutions becomes very important, as use at one level will be affected by use at another level in the command area, a discussion that we shall do a little later.

Role of technology

The use of appropriate technology and physical infrastructure that is well maintained becomes an important condition for participative planning to take place. Institutional restructuring can therefore not become a sufficient condition for the success of the programme in the absence of well functioning water infrastructure, which of course in turn, does depend on good management functions too.

In the case of drinking water, for example a well laid out network of pipelines and valve systems that ensures distribution of water with sufficient pressure to all and timely availability of electricity to pump water[73] were seen as important preconditions for people to take interest in sustaining the scheme. In both the states, people showed reluctance to pay the water tariff if schemes were not functioning well, if there was no power supply for pumping and if they were not getting adequate water.

Inappropriate methods of testing the yields of wells was another technical issue about which the VWSC (Village Water and Sanitation Committee) members in Maharashtra were not comfortable. This would lead to source failure and ultimately to the failure of the scheme itself.

In irrigation the case of technical failure was very glaring. In almost all the WUAs (Water User's Association) that were studied there seemed to be a sense of urgency in handing over the management to the users at the minor canal level. This went against the agreements made between the WUAs and the ID (Irrigation Department) and the WUAs were left to manage canals, which were in a very bad shape, and economy that was in the doldrums. Farmers did not want to go in for volumetric supply and pricing, which in a way forms the basis for equity, mainly because canal seepages would not allow for equitable access.

Equity

We have already discussed the various meanings of equity in the water sector in our conceptual chapter and if we were to look at the programmes in the two states, from that lens, then they leave a lot to be achieved. Equity as a concept is very closely linked with sustainability - institutional, financial and ecological, so in that sense our understanding of equity transcends the discourse of equity as a matter of individual right (fair entitlement) and enters the arena of equity for the sustenance of the resource itself.

On the face of it, we can say that in the domestic water sector no particular group has been excluded from accessing water or participating in its planning at the village level. But what we witnessed in both the states is that this is easier said than done largely because of the structural constraints of class, caste and patriarchy. These in a sense are 'non sectoral' issues and therefore not necessarily a concern of the State, but they have a significant bearing on who participates in the planning processes and gains as a result of that participation.

[73] Load shedding was cited as an important barrier in all the villages in Maharashtra for water distribution as well as towards collection of O&M charges.

An example of shifting to private connections over public connections in Maharashtra can be cited in this context. Not only does this divide women and men on caste and class lines, it actually opens up spaces for private players to enter the welfare arena of water service provision. In fact, the logic for this shift was to facilitate easy collection of O&M and it was stated in so many words. On the other hand, there was only one village, Dador in Kutch, where the pani samiti had decided not to give private connections because there was no way they could check on water use in the absence of metering.

A consideration for equity was stated when it came to the collection of the capital contribution of 10 percent – in some cases villages waived this contribution for the very poor, but there was no way of understanding the underlying dynamics of how this would be 'recovered' from them later. In contrast, there was little thought given, by either women or men on water committees to the collection of water tariff based on differences in income levels.

As far as access to water is concerned, we did not see exclusion, but the shift to private connections did signify that the poor may remain out of the ambit. Private connections are also a marker of eliminating any possibilities of inter-caste or inter-faith interactions or women's interactions which often did/does take place at public standposts. Without overstating the virtues of public over private, we would like to say that it does foreclose all the past efforts in these two states to create conditions for communities to build solidarities across class, castes religion and gender[74].

The irrigation sector thrives on inequities of the kind mentioned in the previous chapter. Water access is tied to ownership of a commodity such as land and not to people. Needless to add that this rule eliminates all the landless people from being associated with the WUAs. A large number of women are landless and therefore not eligible for membership. Dalits in almost all the WUAs studied except one do not own land in the command areas. Within landowners too there is a divide of those within the command area of the project and those outside it. Needless to add that where membership itself is exclusive, representation in the decision making bodies is even more distant. Apart from these key areas of exclusion, we found that equity within the command too was not addressed and deprivation faced by tail-enders was more than evident.

Equity in the manner that we conceive is not part of the framework of the decentralization project and therefore received no attention in any of the training programmes organised. Not surprising, since this would mean challenging the vested interests at all levels and in fact spells problems for the decentralization project in the manner that it has been conceived.

Sustainability: Institutional, financial and ecological

The question of sustainability needs to be seen in the light of institutions, resources and finances. We discuss here each of these areas:

[74] Here we can look at the Ek gaon ek panavtha (one village one source) campaign launched in Maharashtra in the early 70's basically to launch an anti caste struggle. For details see Adhav)

Institutions

Institutional sustainability is a vast area covering institutional structures that range from the state level down to the village level. For the domestic water sector, new institutional structures were set up at the state, district and the village level and we may not comment on all these structures in detail here.

The newly instituted institutions at the district level were parallel bodies to the Zilla parishad i.e. the district level tier of PRI. These held the power to execute the scheme. These were also outside the usual government apparatus used for the drinking water schemes like the Maharashtra Jeevan Pradhikaran or the zillha parishad in Maharashtra. This did create tensions between the newly created institutions and the old guard institutions as those mentioned above. A reflection of this is seen in the way the old guard seemed to favour the ambitious Bharat Nirman scheme of which drinking water is an important component and does not deploy new institutional set up for its implementation. Whether the structures deployed for the sector reform schemes, specifically in Jalswarjya, are justifiable or not and need to continue, we are not in a position to comment with limited data in hand. Our observations do seem to indicate however that Special Purpose Vehicles of the kind launched in the two states (WASMO and RSPMU) did manage to push the schemes in a time bound manner, if that can be considered a measure of success. Implications of time-boundness on other aspects of decentralization have of course been discussed elsewhere in this chapter.

The VWSC or pani samiti is a sub-committee of the gram panchayat in both the states, although it has received prominence over the other sub-committees due to the launch of these programmes. In a sense it has also gained prominence over the gram panchayat since this scheme alone brings in a large amount of money to the GP. In almost all the villages the process of selection of the VWSC was seen as problematic. Every gram panchayat is supposed to constitute a sub-committee for water and sanitation out of the elected members. Some of these members become part of the VWSC but invariably new members are selected through the gramsabha to make the process more participatory. To avoid political conflicts and to patronize different sections very large VWSCs are seen to be constituted. The VWSCs are also bound by the scheme to bring in 50% women in Maahrashtra and 33% only in Gujarat, and a proportional representation of dalits and other marginalized communities. It is likely that the VWSC will not exist in the form it does once the scheme is completed and handing over done to the GP The VWSC draws it power from the fact that it can establish a separate bank account, which has signatories, who are not necessarily elected representatives of the GP. Sarpanch does not necessarily have the powers to sign nor does he/she necessarily head the VWSC.This has led to conflicts in some of the villages. The gram sevak or the village level worker representing the Block development office was also kept out of the ambit of this scheme thereby creating some tensions between the PS and the VWSC. The other unstated aspect is the exit policy- who takes over the different roles of the committees once the scheme is completed and handed over to the GP. In the present context it is the gram sevak who collects property and water tariffs (for the old schemes). There was a lot of voluntarism associated with the scheme while it was still in process, especially women's time was seen as important for this, but after completion, whether people would be willing to give

time for the management is still to be ascertained. This ambiguity may lead to jeopardizing the institutional sustainability of the schemes.

In case of irrigation, we see that institutional sustainability hinges on how well the process of federating at different levels succeeds and how well a link with the PRIs (Panchayat Raj Institutions) can be established on matters of water allocation. At present WUAs are legal bodies registered under the new MMISFA or the Cooperative societies act, with defined powers. There is no ambiguity with reference to their powers and functions. They are delinked from the PRIs with an alibi that these are users groups and can do without political interference. That this does not happen in the manner it is conceived is evident from ground experiences. Whether they should be linked and in what manner are issues that we discuss a little later on the section on interlinkage between NRM committees and PRIs.

Finance

Like institutions, financial sustainability too has many dimensions and levels to it, but here we restrict ourselves to the local scheme level financial sustainability in terms of the pricing and cost recovery issues and their meaning for the communities. In the Jalswarajya project our data showed that of the 10 per cent public contribution only the first installment of 5 per cent could be collected from the community, in fact only some sections of the community contributed. The next five percent it was assumed would come from the contractor implementing the scheme.

In fact, collection of capital contribution could form an area of independent study as it had an interesting politics emerging around it. Some of the needy villages dropped out of the scheme because they could not collect the required amount. It is said that the 10 percent collection is also a measure to assess the capacity of the village to collect water tariff for O&M. This actually eliminates villages and populations who perhaps may not be able to manage the required resources to bring in water into their villages and lays the basis for inequity. We already see here the interplay between the various aspects of decentralization, in this case equity and financial sustainability. As far as O&M is concerned, there is a lot of ambiguity in government policy. While there is an effort to work out differential tariffs through village level participation, the process has not been initiated so far although many villages are at a stage of scheme completion.

In Gujarat, there were also delays in collection of the 10 percent contribution in the Ghohga project, which delayed the scheme. Where village water works have been completed and handed over, questions of O&M have begun to surface because of the poor functioning of schemes as discussed earlier, and villages are reluctant to pay O&M. This becomes a vicious circle – when people don't pay, water services dependent on external sources (Narmada-Mahi pipeline) are cut.

Irrigation is a much more complex sector as it falls in the productive sphere where financial returns are expected out of the water provided. Like the domestic water sector, in the irrigation sector too, sector reform process has brought in elements of cost recovery on improvement of irrigation infrastructure. This is to the tune of Rs 500/hectare. We found a lot of resistance to this clause across WUAs. They argued that they are already left with managing a poorly maintained system on which their annual expenditures are

substantial. This additional cost burden therefore cannot be levied on to the farmers. The ID however had a similar argument of instilling sense of ownership through financial contributions and this saw a strong resistance in the irrigation sector unlike the domestic water sector. The other contentious issue here is the pricing of well recharges due to canals. Although introduced in the law, this has yet to materialize and this has serious impacts on the sustainability of water.

WUAs are statutory bodies and have been in existence for longer than pani samitis, their rules are fairly well laid out, but recovery of charges is a matter of concern for almost all the WUAs we studied. Many of them have not audited their accounts for two years and have internal defaulters as well. But by and large they have not defaulted the ID and that is the reason why WUAs are still functioning.

Water resource

Sustainability of water as a resource hinges on whether its use and management is planned in an integrated manner. In neither the domestic water sector nor in the irrigation sector do we see this dialogue happening. Implementation of the domestic water scheme moves at its own pace and so does the logic of surface irrigation. Neither looks at the strengthening of the local resource and the common pooling of water. Drinking water schemes are not taken up in irrigated areas and hence the interface between the two cannot really be assessed in our case. But domestic water schemes definitely do not combine with the watershed based programmes that exist in the villages selected.

Source strengthening component through water resource management – was built into the drinking water programme in both the states, albeit later in Gujarat. In many of our study villages, we saw that some kind of an effort had been made towards this end. However, in the Maharashtra context we saw that source sustainability was not seriously discussed in the gramsabha meetings. It did not form an important component of the women's empowerment programme either. Yield tests to assess the sustainability of the source were not done systematically, there was no awareness built around the 1993 Ground water regulation act for drinking water which prevented the sinking of borewells in the vicinity of 500 mts near a drinking water source. As a result gramsabhas and the men and women we spoke to were uncertain that the source would not dry up for the next 12 years and would be sufficient to meet the requirements of a growing population with increasing water needs.

In the WUAs, our observations show that unsustainable agricultural and irrigation practices are in fact leading to irrational use of water. Lack of understanding around crop water requirements, poorly maintained canals and field channels and large numbers of wells in the command areas are all contributing to the unsustainable use of water.

Transparency and accountability

An important dimension of participation and democratisation is the issue of accountability of larger or supra local structures and agents to the local community and vice versa. Since water is at the same time a local and non local resource it calls for several nested institutional arrangements which range from the community level institutions such as the pani samitis or the WUAs to the larger institutions which

administer these local institutions. This calls for a two way accountability mechanism as well.

In the case of the pani samitis, although the source is local in most cases (however where the situation demanded the source has been non local as well) its sustainability often depends on upstream and downstream uses which will have to be monitored through linking with other water resource bodies, a point made later in detail. What we need to state here is that accountability of use often has a bearing on issues of sustainability of source.

The other meaning of accountability here relates to governance and in this case we found a complete lack of downward accountability. We did not see mechanisms of the bureaucracy being accountable on its expenditures etc. to the local communities, though local communities had to be accountable to the water bureaucracies.

The second aspect is that of transparency in governance. Information related to funding sources, the quantum of money that is coming in and also the way the money is going to be spent at a macro level also needs to be shared with the communities. Keeping the account open for public scrutiny can ensure financial transparency and accountability. For the first time large sums of 30-40 lakhs were being handled at the gram panchayat level by the pani samiti. Despite that, our findings showed that incidence of corruption was modest due to the constant process of monitoring, and warnings of compliance to time frames which was tied to the process of reimbursement of funds in installments. This did vary across villages, but the general tendency was towards reduced financial corruption.

As far as transparency is concerned, one could see a display of all processes on the village walls and certain sections of the village were often well informed about the different processes that were taking place around the scheme in Maharashtra and in Gujarat.

In the irrigation sector however this was not really the case, as there seemed no incentive to bring in transparency. Most of the meetings were not held in public places, the audit reports were discussed in the Annual general meeting which was held once a year, but attendance in these meetings was indeed very poor and most members we spoke to did not have a clue of what was happening vis a vis the decision making processes in the WUAs.

Linking political institutions to water committees

For rural men and women, citizenship is exercised through livelihoods agenda. Questions of primary concern to them would be around allocations and use of natural resources. For the state however citizenship rights are largely in the arena of political and civil rights (Vasan 2007, Krishna 2007). So although vested with political rights to exercise their vote, this limited idea of citizenship is often not sufficient to constitute democratic citizenship or in fact remove the poor out of poverty or women out of patriarchal exploitation An expanded notion of citizenship therefore calls for seeing linkages across state and non state institutions.

If we look at the various committees instituted in the water sector alone they are numerous. We have the watershed committees, water users associations, the pani samitis and none of them speak to each other (Manor). We also have committees around credit and forest management. A large number of institutions that range from resources to political participation exist at the village level. Each of these institutions plays a crucial role in the lives of rural poor. For integrated planning around water and natural resources towards meaningful livelihood agendas, it might be important for these institutions to be linked to each other.

For example we see here a possibility of linking the PRI with the water users groups- Increasingly we see that service provision is being separated from the allocative and distributive functions of the state. The private sector in Maharashtra is being invoked for service provision and the state retains the control over the allocative functions. There is often a lingering threat that allocations too start getting compromised in favour of the private players to make the service provision functions more profitable. Here we envisage a scenario that the allocative functions remain with the PRIs through the gramsabhas, but service provision and management can be done through users groups. For example deciding who gets access to how much water should remain in the arena of broader political decisions, but distribution of water and recovery of water charges can clearly be seen as a function of user groups. So although each serves a separate function they are still organically linked with each other.

Training and capacity building

In the domestic water sector, trainings and capacity building is seen in a limited framework of Information education and communication or IEC[75]. It also focuses on skill development in income generating activities through a special fund. However, capability building is more than information and skill building. It is knowledge building by igniting a critical thinking process. This definitely did not happen in these projects. Neither the bureaucracy was keen about it nor did the NGOs/SOs (Non Government Organizations/ Support Organizations) use this space effectively.

However, despite the limited framework in which IEC functioned we found that women were fairly well informed about the scheme. Capacity building importantly needed to cover an important area of unpacking the different components of decentralized management and women's empowerment. Issues of water rights, equity, sustainability and participation needed to be discussed and a perspective development around it was important from the point of view of informed participation.

The irrigation sector has anyway missed out on gender and empowerment. All the training modules we assessed focused only on functioning of WUAs and did not go into preparing water schedules and planning for rational and sustainable water use. Gender is addressed only through organizing trainings for women, using the same training content mentioned above.

[75] Refer to the study done by Prayas in Thane district of Maharashtra evaluating the IEC component of the Jalswarajya programme. It critiques the programme and attributes the failure to SO's a stringent time frame and lack of resources.

Role of NGOs/civil society

In both the sectors in Maharashtra there appears to be an overall disregard for the role of the outsider. Intermediaries between the State and the CBOs are not seen as welcome and come in to fulfill conditions outlined in the World Bank document. They are seen as implementers of the scheme rather than meaningful partners in the process of change. This was reflected very sharply in our interviews with the NGOs/SOs. None of them felt that had a decisive role to play in either the overall process or in the women's empowerment. In fact we felt that in Maharashtra, the state through these structures has created its own captive civil society as against a critical one. While in Gujarat, in contrast, civil society has had a very strong role in the success of the WASMO-Ghogha and ERR projects, though this is more limited in the case of Swajaldhara schemes per se, which we did not look at.

What does this mean for gender politics?

At the outset, it may be important to state that decision making process especially in the domestic water sector does come closer to certain sections of the community and at least brings in a language of ownership among these sections. In fact, the idea of ownership has been instilled rather well and has become a symbol and a political imperative to advance the interests of this reform process. This has been internalized in both the states particularly in Maharashtra, however not always without resistance by the communities.

While introduction of quotas have created a space for women we can see from the above discussion on performance of decentralization how difficult a terrain it is for them to participate effectively. Despite this overwhelming constraint, women in the domestic water sector still seem to be coming out and seeing a perceptible change in their own selves as significant stakeholders in village politics.

Notion of representation and participation in public sphere has served women who did not otherwise possess a public voice and identity to demand that their points of view be heard. The right vested through public participation allows them a space to demand for change. PRIs are a good example of how despite the debates around male proxies women have come out and utilized that space to their advantage, overcoming structural constraints. The idea of them as a significant constituency when politicians or bureaucrats make plans does empower women. Such new ideas instituted through spaces of such a kind do contribute to changed perceptions about one self even in the wake of added responsibilities. This is evident through the discussions we had with over 200 women from both the states. It is a slow process and also highly differentiated across caste, tribe and class lines and change may come through gradually if the systems are strengthened in different ways. It assumes of course that the commitment to decentralization is not abandoned with the completion of the scheme.

The process of empowerment of women gets a push wherever there is a strong initiative from either the civil society, local NGOs, or in some cases even an active and committed

bureaucracy. As mentioned earlier we see empowerment and participation as a process and to that extent the domestic water sector in both the states does hold some hope[76].

The irrigation sector has completely missed out on the agenda of women and this largely comes from its acceptance of the dominant narrative of the normative woman who can go far enough to participate in welfare/health and hygiene oriented sectors of sanitation and drinking water but no further. This image dominates and reflects in the lethargy of the ID to provide any active policy or programmatic incentives for women to participate.

Caste, class, tribe and gender- the politics of exclusion

Inclusion and participation in sector reforms process is critical from the point of view of ensuring that the hitherto excluded sections like women, dalits and the poor participate and benefit from water use planning. The influence that these sections can exert over decision making processes seems to be limited in our study areas. As we know that although the effort is to include, there are several non sectoral aspects of human life that have already created unequal terms of participation.

In both the domestic water sector and in irrigation we found that caste was a major barrier in participation. Although proportionately represented in the pani samitis, they were the least vocal. Most of the 'no responses' category in our interviews largely had dalit and tribal women in it. A formal ability to participate across caste, class and gender in the domestic water sector, could not be realized due to their inability to negotiate and articulate on equal terms due to historical conditions of structured inequalities. So women did not speak up in these meetings or usually ratified what men said, or dalits and tribals did not speak or attend the meetings. The very goals of decentralization then need to be questioned if they fail to address some of these non- project terms of inequity.

The state takes the position that once handed over to the community, it will not be involved in the micro-management of the scheme where decisions regarding which people or which women participate and why? These questions are best left at the mercy of local moralities and how the vested interests deal with it. We have already seen this reflected in our interviews with pani samiti functionaries and women members where there was a reification of the leaders' 'goodness' to have a differential capital contribution regime. In Gujarat, in some villages, pani samiti members even questioned the participation of others – the broader community - in decision-making on water, arguing that they (the others, or non PS members) were not interested and therefore did not need to be involved, also implying the moral superiority of PS members.

Gender relations and the family

Addressing patriarchy through the water sector becomes an even more contentious issue and the State does not see a role for itself there. Most democratic institutions including the pani samitis and WUAs are of a public kind and do not really engage with, affect or attempt to influence domestic and familial life. However if gender relations are understood as part of a larger understanding of social relations of production, and water is

[76] This is evident from our discussions with both the government officials as well as with the women themselves.

seen as a means of production and a source of life then the state cannot evade its responsibility of addressing inequities in the relations of reproduction. In the water sector it means not only including women, landless, tribals and dalits in improving access and participation in decision making, but also addressing the public private divide and women's roles (gender division of work) that need to straddle across these two.

Opportunity costs

Women in the domestic water sector felt euphoric about participating in public decision making processes. They did not see attending meetings as additional burdens and in fact said that they had to complete their domestic work to 'earn' a space in the public sphere. These are opportunity costs but not seen as an additional burden by women themselves. Often these have been borne by other women of the household who are lower in the familial hierarchy – daughters and daughter in laws.

Reconceptualising women and water: water for livelihoods approach

Categorical thinking about domestic water and irrigation and men and women is common place now and affects among several things how policies and programmes are shaped. Spaces are divided on what is masculine and what is feminine- the home and the outside world. Men's identities therefore are linked to the public sphere, money and power while women's identities revolve around the home, nurture and subsistence. These identities transmit in exactly the same manner in the water sector and the sectoral divide is proof to this. It can be argued, that such categorical, dual thinking has worked to the advantage of women, in so far as it has given them space to participate in decision making around drinking water. However, we cannot overlook the fact that these very advantages in fact can be counterproductive and distance women from entering other spheres of work, which in this case is the irrigation sector. Nor do they question women's continuing role in water collection and maintaining household hygiene through careful water use at home.

Alternatives lie in re-conceptualising women and men's work on the one hand and also creating a new understanding of water. We then go back to our normative understanding around water and the need to visualize a water paradigm within those broader concerns, albeit informed by local contexts and concerns. The vision of water for livelihoods captures in a sense the positive interplay between equity, sustainability and democratic participation.

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List of Acronyms

AGM	Annual General Meeting
AKRSP (I)	Aga Khan Rural Support Programme, India
ARWSP	Accelerated Rural Water Supply Programme
BJP	Bhartiya Janta Party
BPL	Below Poverty Line
CAD	Command Area Development
CBO	Community Based Organization
CCA	Culturable Command Area
CEE	Centre for Environment Education
CEO	Chief Executive Officer
CMC	Contract Management Committee
CMSU	Community Management Support Unit
CSO	Civil Society Organizations
CST	Cluster Storage Tank
DAMT	District Appraisal and Monitoring Team
DFID	Department for International Development
DFMT	District Financial Management Team
DFT	District Facilitation Team
DPMU	District Project Monitoring Unit
DRDA	District Rural Development Agency
DWSC	District Water and Sanitation Committee
EC	Executive Committee
ERR	Earthquake Rehabilitation and Reconstruction
FGD	Focus Group Discussion
GCA	Gross Cropped Area
GDP	Gross Domestic Product
GHDR	Gujarat Human Development Report
GoG	Government of Gujarat
GoI	Government of India
GoM	Government of Maharashtra

GP	Gram Panchayat
GR	Government Resolution
GRWSSP	Ghogha Rural Water Supply and Sanitation Project
GSDA	Groundwater Survey Development Agency
GSDA	Ground-Water Survey and Development Agency
GSDWICL	Gujarat State Drinking Water Infrastructure Co. Ltd.
GWSSB	Gujarat Water Supply and Sewerage Board
HDI	Human Development Index
ID	Irrigation Department
IDC	Irrigation Development Corporations
IEC	Information Education and Communication
IECB	Information, Education and Communication Bureau
INR	Indian National Rupee
IRMA	Institute of Rural Management, Anand
ISA	Implementation Support Agency
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
KMVS	Kutch Mahila Vikas Sanghtana
Lpcd	Litres per Capacity per Day
MJP	Maharashtra Jeevan Pradhikaran
MMISFA	Maharashtra Management of Irrigation Systems by Farmers Act
MNP	Minimum Needs Programme
MoU	Memorandum of Understanding
MSWP	Maharashtra State Water Policy
MWRRA	Maharashtra Water Resources Regulatory Authority
MWSIP	Maharashtra Water Sector Improvement Programme
NC	Non Covered
NGO	Non Government Organization
NT	Nomadic Tribes
O & M	Operation and Maintenance
OBC	Other Backward Castes
PC	Partially Covered

PDS	Public Distribution System
PHC	Public Health Centre
PIM	Participatory Irrigation Management
PIM	Participatory Irrigation Management
PIP	Project Implementation Plan
PPMU	Project Planning and Monitoring Unit
PRA	Participatory Rural Appraisal
PRI	Panchayat Raj Institutions
PS	Pani Samiti
RGDWM	Rajiv Gandhi Drinking Water Mission
RNE	Royal Netherlands Embassy
RSPMU	Reform Sector Project and Management Unit
RWHT	Roof Water Harvesting Tank
RWS	Rotational Water Supply
RWSS	Regional Water Supply Schemes
SAC	Social Audit Committee
SC	Scheduled Caste
SEWA	Self Employed Women's Association
SHG	Self Help Group
SO	Support Organization
SPV	Special Purpose Vehicle
SRA	Societies Registration Act
SS	Sankalan Samiti
ST	Scheduled Tribe
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Child Environment Fund
USSR	United States of Soviet Russia
VAP	Village Action Plan
VWSC	Village Water Supply and Sanitation Committee
WALMI	Water and Land Management Institute

WASMO	Water and Sanitation Management Organization
WB	World Bank
WDC	Women’s Development Committee
WMU	Water Management Unit
WRD	Water Resource Department
WRM	Water Resource Management
WSSD	Water Supply and Sanitation Department
WUA	Water User's Association
ZP	Zilla Parishad

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