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WASMO

Water and Sanitation Management Organisation

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Annual Report
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Working towards drinking water security and habitat improvement by empowering communities to manage their local water sources, drinking water supply and environmental sanitation

Building partnerships and working together

WASMO

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Preamble

The publication of the fourth Annual Report of water and Sanitation Management Organisation (WASMO) gives me great pleasure.

Gujarat, with its enterprising population and committed leadership, has done well in terms of economic growth. As an integral part of development, access to safe drinking water and sanitation facilities are issues of immense priority for the State Government. It has therefore taken multi-level initiatives, one of which was the establishment of WASMO as an independent autonomous body to facilitate community-managed rural water supply and sanitation.

Drinking water is an issue that evokes strong response from the community. WASMO in its four years of operation has addressed this concern and is operational in all the districts of the state with a mission to bring rural community together for achieving drinking water security. WASMO began with a small project in Bhavnagar covering 82 villages, followed by another project covering 1260 village sin the earthquake-affected areas of Gujarat. In 2004 WASMO was appointed the State Water and Sanitation Mission and was charged with the responsibility of managing the Swajaldhara programme. Thus making a modest beginning, WASMO has scaled up the reform process to reach 4500 villages in the state by the end of the year.

The water supply sector in Gujarat is faced with a difficult and constantly changing situation in terms of habitations re-emerging as not covered or partially covered and deteriorating quality of ground water. Realising that facilitating water security is meaningless without safe water, the focus is now also on community-managed water quality surveillance. Significant measures are taken in creating awareness on having safe water and self-testing the quality of water through trainings and capacity development programmes. Such capacity development programmes mainly focuses on village community, school children, teachers and technical personnel's through new strategies devised to speed up surveillance activities.

Capacity building of the community, a well thought out IEC strategy and setting up rigourous procedures and systems, strategic partnerships with a number of NGOs of repute and principally the communities have been instrumental in WASMO's achievement. Encouraged by these achievements the state Government too has envisioned covering all 18,000 villages of Gujarat in the reform mode. This means that all stakeholders have to gear up for the immense challenge, more alliances need to be established,

I am convinced that with continuing support of the community, NGOs organisations in the sector and civil society, WASMO will continue to push the boundaries of its mandate to facilitate community-managed in-village water supply systems.

(V S Gadhavi)
Chairman (WASMO) and Secretary (Water Supply)
Government of Gujarat

Preface

It is with great pleasure and pride that I present the fourth Annual Report of WASMO.

Four years ago WASMO was set-up by the Government of Gujarat as an independent and autonomous organisation to support the decentralisation process in the water supply and sanitation sector. It was visualized to transform the role of governance from provider to facilitator and supporter, particularly by carrying out social mobilization activities and enhancing the capacities of the rural communities. Efficiency of service delivery and implementation, management and operation and maintenance (O&M) by local community through a contributory tariff structure by citizens themselves were the primary reforms envisioned.

This has been a year of great institutional momentum. In 2005-06 the Community-managed Ghogha regional water supply and sanitation project was been completed and commissioned to the community for operation and maintenance, bringing closure to WASMO's initial project. The project in the earthquake-affected areas of Gujarat is more than mid-way and the Swajaldhara programme and Sector Reform Scheme (State) are en route to scaling up to the entire state. As a part of the scaling up exercise WASMO has also been able to initiate a special integrated drinking water and sanitation project in the tribal clusters of the State. By the end of the year WASMO already had an outreach of 4,500 villages in the state.

This has not been easy for WASMO, but persistence and belief in people's strength has helped in scaling up. WASMO owes its achievement to the communities for their interest in the programme, their demand for it and most of all participation at all levels. Rural communities are no longer mere recipients of water supply programmes; instead they demand and obtain facilities.

To establish linkages with the community WASMO had earlier ventured in to partnership with around 30 NGOs working in the water and sanitation sector as Implementing Support Agencies (ISAs). The ISAs intervenes through a planned long-term and sustainable development process that is inclusive of initial meetings, capacity development and IEC. Their involvement has been of great importance, since it is through them that WASMO is able to realise its vision and mission. Last year this partnership was further strengthened when more NGOs were involved in the Swajaldhara and SRS (State), thus increasing the number of ISAs to about 55.

As experience is gained every year WASMO has been able to systemize and make a practice out of a few efforts towards safe water, such as reaching out to all gram panchayats through letters and imparting information of the chlorination, reaching out to all project villages through the newsletter and making them aware of the dos and don'ts for drinking water during monsoon etc.

WASMO is a learning organisation, which believes in increasing effectiveness, through self-reflection and research and evaluation. In the last year WASMO initiated several steps towards internal and external evaluations, in order to monitor where the programmes are heading, assess the state of completed projects and learn from the findings of these studies. The National Conference on 'Scaling Up Sector Reforms: Looking Ahead, Learning from the Past' organised by WASMO provided an opportunity for interaction with other players in the country in the drinking water and sanitation sector and learn by their experience as well as to consolidate WASMO's own experiences of four years.

This Annual Report presents the core issues and interventions, which WASMO has undertaken to ensure sustainability of safe drinking water supply and sanitation facilities and its achievements in the last year.

The last four years have proven that we can be far more effective and see a lasting impact if we work together – and work strategically. The State Government is committed to taking reforms in the drinking water and sanitation sector to each and every village and habitation in a few years. With continued support from all stakeholders, particularly the rural communities, ISAs and civil society, I am convinced that WASMO will be up to taking on the challenge of scaling up

(Dr. Jaipal Singh)
Member Secretary and CEO, WASMO

About WASMO

Water and Sanitation Management Organisation (WASMO) is an independent and autonomous organisation established in 2002 by the Government of Gujarat. It is registered as a society under the Societies (Registration Act), 1860 and as a Public Charitable Trust under the Bombay Public Trust Act, 1950 with the Charity Commissioner of Ahmedabad. WASMO has also been recognised as a State Water and Sanitation Mission for Gujarat.

Vision

- To enable rural communities to have adequate, safe and sustainable drinking water supply and improved habitat by ensuring empowerment and active community management of natural resources, leading to an improvement in their living standard.

Making safe and adequate drinking water available on demand

Mission

- Empowering communities to plan, own, construct, manage and maintain their water supply and sanitation facilities
- Ensuring participation of communities and women in managing their water supply and sanitation
- Attaining drinking water security through a combination of local and bulk water supply systems along with village-level infrastructure
- Encouraging and empowering communities to adopt best practices on local water resource management, including rainwater harvesting
- Bridging the existing information and knowledge gaps among community on water resource management, water conservation, safe drinking water, hygiene and environmental sanitation issues
- Creating a pool of manpower and strong knowledge base in the water and sanitation sector

WASMO as a special purpose vehicle

Water scarcity problems of Gujarat form the backdrop against which WASMO was created. Empowerment of Panchayati Raj Institutions and reforms in drinking water sector for involvement of the community for management and operation of water supply infrastructure at village level, operation and maintenance of such systems by community, users to contribute towards capital cost and a demand driven approach rather than supply driven approach, have been the basis for creation of an SPV for taking up such activities in a mission mode. Capacity building of community through awareness generation and facilitation of process from demand generation, project identification, action plan evolution by community, project implementation, commissions and its further operation and maintenance need a specific task of working together by the villagers. It requires empowering people with a great deal of social inputs in addition to engineering skills. With this view, the SPV in the form of WASMO was created for flexibility in approach, focused role of facilitator, innovativeness, trust building and making the community capable of managing such systems themselves. In this way a paradigm shift has been envisaged for role of governance from provider to facilitator.

Facilitating user communities

It is the empowerment of village user communities that is the primary focus of WASMO's interventions. The Pani Samitis, otherwise known as the Village Water and Sanitation Committees, are sub-committees of the Gram Panchayats through which WASMO works at the local level.

One of the initial meetings with a Pani Samiti

The 73rd Amendment to the Constitution in 1993 urged the state governments to devolve functional autonomy, administrative support and financial resources to the Panchayati Raj Institutions (PRIs). Accordingly, later in 1995, the Gujarat government passed a Government Resolution (GR) on the formation of Pani Samiti as a sub committee of the Gram Panchayat to provide an institutional mechanism for in-village water supply management. However, despite these provisions, decentralisation largely remained on paper and the Samitis were not formed.

After WASMO was established, it has been facilitating the formation and empowerment of the Pani Samitis, the lowest rung of self governance. As a sub committee with financial powers, the Pani Samiti acts on behalf of the village community. WASMO transfers funds along with the responsibility of project implementation to the Samitis. All important decisions of the Samitis are first put up for approval at the Gram Sabha. So far, WASMO has been involved in the facilitation of 5016 Pani Samitis until March 2006.

WASMO programmes

Within four years of its inception, WASMO from being a fledgling organisation has emerged as a key player in the planning and implementation of rural drinking water and sanitation programmes. It is currently involved with four programmes. The fifth project, the Community-managed Ghogha Regional Water Supply and Sanitation Project (the Ghogha Project) drew to a close in June 2005, with the financial closure in December 2005.

1. **Community-managed Water and Sanitation Programme in Earthquake-affected Villages of Gujarat (ERR Programme):** The programme covers 1,260 villages in four earthquake-affected districts of Kutch, Jamnagar, Surendranagar and Patan. It began in October 2002, and has a tenure of five years.

2. **Swajaldhara Programme:** This is a nationwide programme for implementing the community-owned and managed drinking water programme. WASMO was nominated as the state-level partner by becoming the State Water and Sanitation Mission (SWSM) for Gujarat. The programme is being implemented in 13 districts.

3. **Sector Reform Scheme (State):** This programme was a precursor to Swajaldhara and received support from the central government. After Swajaldhara was launched, the state government took up this programme. It is being implemented in 11 districts.

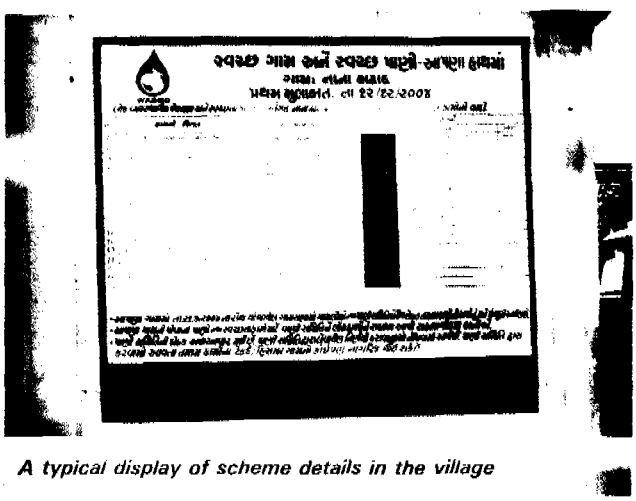
   Thus through various programmes reforms in the drinking water and sanitation sector have reached all the districts of the state.

4. **Water Quality Surveillance Programme:** Maintaining drinking water quality is associated with problems like lack of awareness, inadequate infrastructure for regular and 100 per cent water testing, contamination en-route - in pipelines, village sources and unhygienic household storage and inaccurate monitoring of chlorination. In Gujarat the three tier Catchment Area Approach (CAA) is being followed for Water Quality Surveillance (WQS). WASMO has initiated a community-based WQS programme in its project villages wherein rural masses are made aware of the need for safe drinking water, hygiene and sanitation and trained to test the quality of their own drinking water with the help of field test kits given to them to ensure consumption of safe drinking water.

WASMO: Setting new standards

Several aspects make the functioning of WASMO a SPV different from other organisations. It is governed by the Governing Body and headed by a Chief Executive Officer who is a government officer. WASMO has a multidisciplinary team with professionals from engineering, social work, management and finance, environmental sciences, communication and documentation. The composition is young and drawn from the open market on contract basis. These young professionals are guided by selected very senior professionals most of whom are on deputation and a few reputed retired officers from the government departments. WASMO has been able to attract right persons and these proportions has jelled as efective teams.

Secondly, WASMO demonstrates its commitment to the sector through its rigorous internal monitoring systems. The staff, which is a diverse group of professionals visit the villages, understand the community processes and make allowances for the dynamics and problems that exist in the village and make efforts to solve these. By being professional, setting self targets, putting management systems in place and not serving as bottlenecks, the organisation has managed to work with a large number of stakeholders.



A typical display of scheme details in the village

Thirdly, the processes and systems established are simple, transparent and speedy, for instance, the mechanism for release of fund installments. The first installment is given before launching construction after the community contribution is deposited in the bank. This is a non-negotiable. The Village Action Plan is prepared and the community contribution is fixed. Both are discussed and approved by the Gram Sabha. After this the contribution is collected and deposited in the bank account which is mandatory for all the Pani Samitis. Thus, in the very initial stage immense trust is vested in the communities and they are given 30 to 50 per cent of the capital cost as the first installment. This has helped in eliminiating role of construction work being taken over by a person or group of persons having vested interest and empowering the commitee to get encouraged to manage the construction and O & M efficiently.Moreover, while the actual work is carried out by the respective Pani Samitis, active participation of villagers brings transparency which include discussing details of the project, approval of the village action plan with financial details, accounts, water tariffs and other important decisions in the Gram Sabha; display of scheme details on notice boards at panchayat offices and painting of the WASMO logo on check dams.

Core Interventions

WASMO facilitates demand-driven, community-managed, in-village water supply and sanitation programmes in Gujarat through various schemes and projects. Based on the key themes and needs of the projects several core interventions are carried out in the programmes which include the hardware and software activities. The hardware activities are related to the creation of water supply and sanitation infrastructure, while the software activities include awareness generation and capacity building activities.

1. In-village Drinking Water Systems

Introduction

Having appropriate water supply systems that are best suited to the village is critical to long-term sustainability. All too often, a technology option is thrust upon the community without studying aspects such as people's demand, management capacities, topographical dimensions and recurring costs.

Since villages differ from each other, it becomes necessary to ensure that communities have various technology options to choose from. It is equally imperative that people understand the consequences of their choices. WASMO assists communities through this demanding albeit essential process of identifying the right combination of water supply options for their village.

Ensuring participatory processes during project implementation

At the heart of all of WASMO's programmes is the involvement of the community, which is in line with the sector reform principles. A programme cycle for village community mobilisation and dispersal of funds has been developed to facilitate implementation in an organised manner. The community-managed approach of WASMO typically follows eight sequential stages:

1. **Initiation of dialogue and introduction of project:** The multidisciplinary team of WASMO visits the village and meets the leaders and the citizens. They introduce the concept for community-managed in-village water supply system to the villagers, which leads to acceptance of the programme and Pani Samiti is formed in Gram Sabha.
2. **Participatory Rural Appraisal and community mobilisation and empowerment:** After initiation of dialogue, once demand is made by the villagers, PRA is conducted in the village and a tentative need based plan is prepared involving all the sections of society. A needs assessment is then done on the basis of the water and sanitation status. Potential members for the village level Pani Samiti are also identified.
3. **Meeting of village (Gram Sabha):** A meeting of the entire village is then conducted and the scheme developed is discussed for formal approval from all sections of the village community for wider acceptance.
4. **Village Action Plan:** The Pani Samiti, in continuing consultation with the community develops a Village Action Plan (VAP) for water and sanitation improvements for the village. It makes decisions on technical options, social considerations, and operational and cost responsibilities in consultation with Engineering Support Cell (ESC) and ISA engineers. It is again discussed in the Gram Sabha. Project formulation is then done with active support of ESC and the project is submitted for approval of district level water and sanitation committee. Before approval from the district committee, it is mandatory to collect about 10 per cent of the total capital cost of project as community contribution to ensure participation from all households.
5. **Capacity building and work organisation:** After acceptance of VAP by CMSU, WASMO work is undertaken by the Pani Samiti with the support of the community and includes calculating costs, sourcing material, and arranging for the implementation of the activities. To be able to perform their various roles, on-the-job training is given at regular intervals on different themes concerned with pre-construction, construction and post-construction activities. The village committee is supported throughout implementation for engineering assistance or any other required support.
6. **Community-managed implementation:** The planned works under the project are either contracted out or constructed by the community under the supervision of the Pani Samiti.

7. **Operation and Maintenance:** Appropriate O&M systems are the single-most important aspect for project sustainability. If the community does not manage its assets adequately, it is not possible to achieve water security. Training for O&M is provided in managerial, technical and financial matters so that the people are equipped with the know-how for maintaining the assets.
8. **Tariff system:** For O&M of the infrastructure after commissioning, a tariff structure is formalised in Gram Sabha wherein all the village households contribute for O&M.

The accountability and effectiveness of the Pani Samiti can be influenced and monitored by the presence of a vibrant Gram Sabha. The Gram Sabha is an important tool in raising awareness among the community and eliciting their participation. It facilitates decision making, helps in resolving conflicts and contributes towards building up transparency in the entire process of programme implementation.

WASMO's approach

Facilitating the selection and construction of in-village water systems is the prime focus of WASMO's efforts, such that the user community gets what it wants. While planning the systems several factors are taken into account and options are offered where possible:

Easy access to water collection points are planned

i. The capacity of the water storage and distribution network is based on 70 litres per capita per day for human beings and for the cattle population projected for 30 years, although for the Swajaldhara programme, this figure is 40 lpcd. This is minimum, many villages plan higher capacity by providing enhanced contribution.
ii. A hydraulic statement is prepared for the complete water supply distribution systems so as to ensure an equitable water supply to every household.
iii. The population density and topography of the village are important factors in the scheme design. Villages with a widespread area are divided into zones. Different technical options are presented where and when possible. It is left to the villagers to select what suits them best. Frequently the choice is between cluster storage reservoirs fitted with handpumps and stand posts. The first possibility is suitable for large villages and in cases where the topography is uneven, because it ensures equal water distribution. Household connections are another option, wherever they have assured source for supply. Stand posts have at least two taps; each can serve up to 100 people. It is one of the most viable options for equitable distribution.
iv. Control valves at appropriate locations assure an equitable supply in zonal water distribution systems. Installing U-bends at lower elevations ensures water with sufficient pressure to houses at higher elevations.

Planning for solutions

The design for the pipeline system in Nani Virani village was originally linear, resulting in a lot of pressure problems. The families towards the end of the pipeline had a chronic problem of insufficient water and were at the mercy of those located at the beginning of the line. While planning their project activities, the community decided to replace the linear system with a parallel one as the village was small and a new pipeline design would not involve high costs. Consequently, there are now three parallel lines in the village which are controlled by three valves. Apart from the pipelines, repair works; construction of a cistern of 50,000 litres, a check dam and a rooftop rainwater harvesting structure were also carried out.This village has house connection in each house and regular, adequate and safe water is available. Chlorination at village level is also done regularly. The village has also examplary sanitation conditions and cleanliness.

In-village Drinking Water Systems

Components of in-village water supply systems

The in-village drinking water supply systems are a conglomeration of water transmission lines from external piped supplies to storage reservoirs; pumping machinery; storage structures; distribution networks and water points. The complexity of the schemes depends on several factors and is decided by the people in consultation with project personnel and experts. This portion of the VAP generates keen interest and involvement from the villagers, since this is directly connected to their needs, lifestyles and livelihoods

The broad choices a community makes while choosing a scheme involve having hand pumps, stand posts or household connections for water collection; choosing between cluster-based storage systems, and elevated storage reservoirs for water storage; local water sources or bulk water or a combination of both, zoning of water distribution etc. Decision on the choice of pipes for transporting water from the source to the village storage reservoir, type of the storage, etc. are important decisions taken by the communities which primarily depend on the paying capacity of the villagers.

Developing a cluster-based water storage system

Cluster storage system in Sadai

The women of Sadai had to walk for 2 km to fetch water. The primary sources were the small virdas, which yielded sweet water when there was sufficient water in it. At most other times, the water was saline. Although Sadai was served by the rural group water scheme, the water points were at a distant location and the supply was extremely unreliable.

As part of WASMO's interventions, a large tank of 40,000 litres storage capacity is being constructed to store and distribute piped water in the village under the ERR programme. This tank is connected to a cluster of seven sumps of 5000 litres capacity through a gravity-based system. Water is available to communities from the sumps by means of hand pumps. The construction of the sumps is already complete, and each will serve individual hamlets within the village. A rooftop rainwater harvesting system and a sump has also been constructed at the primary school. After the main tank is completed, the villagers say that there will be enough water in the village to last them for as long as ten days if there is any breakdown or disruption in the supply of piped water.

The task of looking after hand pump and maintaining cleanliness around it belongs to each individual hamlet in which it is located. The women of the hamlet make sure that the sump is cleaned at regular intervals and that no water spills into the lanes when the hand pump is in use.

The Pani Samiti in Sadai maintains a map which gives the layout of the network of the sumps and the main tank. Whenever there is a breakdown in one hand pump and repair is in progress, it is ensured with the help of the map, that the water supply is stopped only for the faulty pump and not the entire network. For major breakdowns, technical expertise is sought from outside the village.

Dual water supply sources

There is a strong emphasis on conjunctive use of water in all WASMO projects to reduce unreliable, irregular water supply and promote water security. Wherever possible, dual water sources are advocated within villages through a combination of local sources and external piped water. In this manner, the communities are encouraged to make prudent use of water by using local sources, and piped water from external sources.

In the Ghogha region, local sources are backed by bulk water available from Mahi pipeline. The Sardar Sarovar Canal-based drinking supply project and other regional schemes support the earthquake-affected, Swajaldhara and SRS villages. For the other about 14,000 villages in the state, the drinking water grid planned by the state government will enable the inter-basin bulk water transfer to facilitate water security.

Beginning of dual water supply sources

Initiating dual water supply system

In the Ghogha project, initially local ground water was to be the main source of water supply in the villages, with external piped water supply systems being planned only for no source villages. However, after many efforts to augment local sources through a well-drilling campaign, it became clear that external water supply system would be a must since the local ground water sources would not be able to provide water security in the villages through out the year. As a result two parallel strategies were subsequently applied, where first optimum use was made of existing local ground water sources, which were complimented by a piped water supply scheme connected to the Mahi pipeline. 34 villages were supplied Mahi water from the Budhel zone, while 48 were supplied water from Tansa zone.

As on December 2005, 32 villages were using dual water supply sources that have been developed during the project. Moreover, there has been significant improvement of ground water quality and quantity due to rain water harvesting in the project area. The communities test their local sources periodically and use this water during monsoons and as long as the source is safe. The Mahi pipeline water is taken in summers when fluoride and salinity levels rise in ground water sources.

Sustainability of in-village water supply systems

For holistic sustainability of village water infrastructure, source, institutional, technological and financial aspects are crucial. The source of water for drinking should sustain itself over a period of time and not get depleted completly. However, ground water sources are likely to get depleted especially if the same acquifier caters to different uses such as irrigation, domestic purposes and drinking water. For drinking water source to be preserved the over extraction of ground water for irrigation purposes needs to curbed or suitable recharge measures have to be carried out to compensate for the ground water extraction. In the WAMSO programmes, augmentation of local and traditional sources is done through various water resource management activities such as recharging the source through appropriate water harvesting/recharge structures. Through intensive awareness generation and IEC activities people are made to realise the need to recharge sources, conserve water and use it judiciously. Roof rainwater harvesting structures are constructed in schools to demonstrate its utility and ensure water availibility to school children throughout the year.

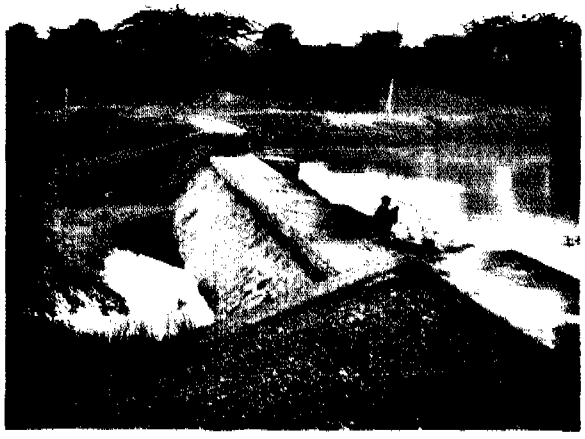
The technological sustainability is addressed by selection and design of appropriate structures which are most cost-effective, easy to operate and maintain at a low O&M cost and The O&M of the created infrastructure is entirely the responsibility of the community. such that a reliable supply of water is ensured throughout the year. Continuity and efficiency of services are important aspects of O&M which can go a long way in ensuring timely payment by the community. Since the very initial phase of the project, issues concerned with the sustainability of the systems are discussed in the meetings with the villagers so that they are ready to assume the responsibility of O&M. As the programme nears completion, the communities are trained to devise appropriate water tariffs and equipped with some basic technical know-how as well.

2. Water Resource Management

It is widely recognised that Gujarat is a water-scarce and dry region with diverse hydro geological conditions. While certain pockets receive excessive rainfall, frequent and cyclic droughts are common to a large part of the state, especially Saurashtra, North Gujarat and Kutch. Moreover, ground water resources are an important and often the main source of water in many parts of the state. These sources cater not only to communities, but also the livestock, which are an innate part of the rural economy. To meet the increasing demand, ground water is being extracted rapidly, well beyond its renewal rate. This has led to dire consequences such as water scarcity and degrading water quality.

The need for WRM

Access to sufficient ground water is a major factor in enabling rural populations to achieve food security and increase their productivity. In this context, water resource management has a crucial place in WASMO's interventions for two main reasons. Firstly, it helps harness water in areas with less favorable hydro geological conditions and secondly, it makes the newly developed water supply systems more sustainable. The conjunctive use of ground water and surface water provide significant water security in dry periods and droughts.



Check dams constitute one of the major WRM interventions

WRM initiatives help harness rain water and recharge ground water. They allow the water to be recovered and saved into surface or subsurface storage structures. The increase in retention time of rainfall, and impoundment in the surface increases both infiltration and percolation of water. The rise in the water table in turn leads to increase in flows to wells and tube wells. The overall impact of WRM is better quality and increased availability of ground water.

Increasing water availability

In Malpar, Avaniya, Mandava, Bapada and Sosiya villages, a series of new check dams have changed the water scenario. After the monsoon of 2005, the cascading impact of stored water is seen on River Malesari, where over four check dams were constructed. On Jaspara River, the three check dams harvested even lean period flows. Where water was a scarcity in previous years, the check dams have ensured that water for domestic use can be obtained from dug wells and stream beds even after March.

The improved availability of water has not only boosted the Kharif crop, but has also helped farmers in growing a Rabi crop. In Mandava and Lakhanaka, the rise in water levels has allowed farmers to draw water with 5HP pumps - something that was impossible before the check dams were constructed.

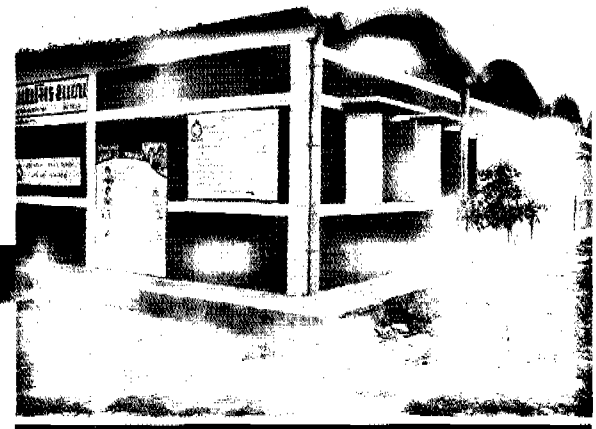
Interventions

WRM activities vary for different regions and depend on local requirements. Broad interventions include water conservation and storage-cum-recharge structures. Gabion structures, gully plugs and small check dams are some of the often-used measures for moisture conservation, while larger check dams, percolation tanks, ponds, shallow bore wells or tube wells in village ponds are the storage-cum-recharge structures.

Evidences in project villages have revealed that tidal check dams have reduced ground water salinity and sea water ingress. The construction of recharge tube wells near percolation tanks have enhanced ground water storage and have recharged depleted aquifers.

Rooftop rainwater harvesting structures

WASMO has actively promoted these structures to ensure the supply of safe drinking water to schools and demonstrate their usefulness to communities at large. They are basically low-cost, durable and depend on existing roofs for water collection. RRWHS have met with encouraging response and communities from many project villages practice the collection of rainwater using their roofs.



Rooftop rainwater harvesting structure in school

Drawing inspiration

Mota Kalawad village in Jamnagar had political factions and due to frequent turmoil, even basic facilities like bank and hospital were shifted to a nearby village. Against this backdrop, when the WASMO programme came to the village, it was difficult to encourage the people to participate. Meetings for a long time were futile and led to negligible outcome. Once the programme began to make headway, the people were taken on an exposure visit to Raj Samadhiyala village. Inspired by its water conservation measures, the villagers decided to initiate work by constructing a RRWHS model. The village now has 30 individual RRWHS systems.

Impact of WRM in the Ghogha project

After the completion of the Ghogha Project, a study was undertaken by ORG Centre for Social Research to evaluate the efficacy of the interventions in connection with drinking water, ground water recharge mechanism, water quality, natural resource management and current agricultural practices. The study also sought to make a comparative analysis between villages where interventions had been implemented and where they had not. The major findings of the study include:

- During the monitoring of 92 dug wells in 18 project villages, and 13 dug wells in the three controlled villages, it was observed that almost 68% of wells indicated very high monsoon impact as a result of the interventions (> 5 m rise in static water level).
- As many as 67% of the villages indicated a rise in ground water levels due to WRM measures. There are indications that villages surrounding intervention villages too experienced improvements in ground water levels and quality.
- Construction of WRM interventions has had a positive impact on seasonal water level fluctuations between pre and post-project situation in all the three talukas of Ghogha project.
- There has been an increase in the utilisable ground water recharge from 37.50 Mcm to 87.50 Mcm. An increase of 50.45 Mcm indicates the change in overall category of ground water potential from dark to white.
- WRM interventions have indicated improvement in the quality of ground water. The range of TDS concentrations improved from 520-5390 mg/l to 470-2764 mg/l in Bhavnagar taluka, 644-3260 mg/l to 430-2660 mg/l in Ghogha taluka and 873-3760 mg/l to 318-2874 mg/l in Talaja taluka.
- In 57 per cent of the villages the key informants said that now the water lasts till summer months, which was not the pre-project situation.

Water Resource Management

- In a few villages the WRM interventions have already started showing impact. Multiple storage structures have led to long term storage of water and ensure ground water recharge thereby making water available months after the monsoon. In these villages, where earlier water was scarce, check dams have ensured domestic water could be obtained from dug wells and stream beds even after the month of March.
- Respondents in 71 per cent of the villages informed that there was improvement in drinking water quality. 60 per cent villages informed significant reduction in the salinity in water, while 40 per cent informed about reduction in the hardness of water.

Women talk about the benefits

- "Earlier we used to spend Rs. 400 on milk and Rs. 600 on water. After the intervention, we only have to pay a nominal price for water."
- "Our drudgery of having to walk 3-4 kms everyday to fetch drinking water has been reduced with water now being available within the village."
- "We can now dedicate more time to diamond polishing, sewing work as well as other economic activities."

3. User Participation for Safe Water

Gujarat is among the three states that experience the most serious problems of water quality. High levels of flouride, nitrates and salinity are largely responsible for making the ground water unfit for drinking. According to the Bureau of Indian Standards (BIS), the permissible limits for nitrates, fluorides and TDS in drinking water where alternate sources are absent are 100 mg/L for nitrates, 1.5 mg/L for fluorides, and 2000 mg/L for TDS. However, in pockets of rural Gujarat the extent of contamination has been found in the ranges of 101.89 to 648 mg/L, 1.51 to 11.60 mg/L and 2008 to 24,150 mg/L respectively.

Excessive contaminants in drinking water take their toll on the body and lead to diseases such as fluorosis, high blood pressure, and kidney stones. The chronic manifestations of excessive fluoride and salinity that brings infirmity at early age especially in women, are often brushed aside as routine aging problems and are seldom attributed to drinking water.

Bringing sustainable solutions to water quality problems

Underground water storage tank at Avaniya

After a project is implemented, its success lies in how the community takes it further. This has been proved by Avaniya village of Bhavnagar, one of the 82 villages of Ghogha project. Avaniya with a population of 2,845 was once a no-source village and had a history of struggle for drinking water for nearly two decades. Over-extraction of ground water, salinity ingress and erratic rains had culminated in acute paucity of drinking water. Although the residents of Avaniya knew that their water tasted different, they did not know that it was laced with fluoride until incidence of fluorosis began to emerge.

Under the Ghogha project in-village water supply systems were developed. Water resource management structures were constructed at strategic locations near drinking water sources to harness rain water and they have recharged ground water sources, which provide water for domestic and irrigation purpose. Local sources were complimented by piped water from Mahi. The capacity of the community was also built for testing of water quality before the commissioning of the scheme.

Villagers are now aware of the importance of having safe drinking water to avoid diseases and the information and knowledge gained from trainings conducted by WASMO is being used by villagers to measure the quality of the water in village wells. These tests are done with the help of the kits provided by WASMO. After a mishap that had damaged the Mahi bulk water pipeline providing water to the village, the community could unhesitatingly use the drinking water from their local sources which they had tested themselves.

In January 2006, the community conducted water quality tests for all drinking water sources. The village was divided into three zones and then the tests were carried out. The results of the test have been sent to Central Ground Water Board, Salinity Control Board and Narmada Water Resource, Water Supply and Kalpasar Department. This unique initiative taken by the community helped boost their confidence and restore faith in their own capacities. The impact of the piped water was also reflected in fewer aches and water-related diseases.

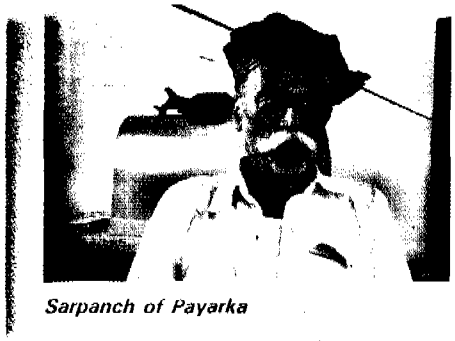
Involving communities

Realising that facilitating water security is meaningless without safe water, all WASMO projects include community-managed water quality surveillance to ensure that drinking water is not only secure but safe.

User Participation for Safe Water

Awareness generation among the community for water quality is accomplished by conducting training programmes and workshops for Pani Samiti/Gram Panchayat members. The increased awareness about the need for safe drinking water in these villages will enable the communities to establish linkages between health, diseases and poor quality water. As a result, they will, of their own accord, generate a demand for safe drinking water and will also be willing to pay for it.

The 'khichdi' test



Sarpanch of Payarka

The water in Payarka village used to be very saline. The villagers could tell the quality of water from the khichdi they cooked. "When the khichdi cooks properly, we know the water is good. Otherwise, the khichdi would smell and taste bad. Because of poor water and sanitation, illnesses were common, and it was a routine matter for villagers to take medicines with their meals," says sarpanch Gabhabhai Kalabhai Hingne.

Today, instead of drinking water from an open well, the people now practice household level chlorination. Some of the common ailments that besieged the village have now reduced significantly.

Domestic drinking water chlorination

Drinking water chlorination is emerging as a regular water disinfection practice among villages. Though village level chlorination generally gets erratic when the stocks of bleaching powder get exhausted, most of the aware villagers continue the practice even at household level. Chlorine tablets for household use are distributed free of cost in PHCs. The Anganwadi workers and primary school teachers, being aware of safe drinking water, avail of these tablets and chlorinate their drinking water at domestic level. They also explain to their wards as well as their mothers that they should crush one chlorine tablet, dissolve it in some water and pour the supernatant in around 20 liters of drinking water. Such water, when consumed after half an hour is surely disinfected and safe for drinking.

Household chlorination

Generating awareness

'Water travels about 450 km from Narmada to the village periphery. It travels 450 m in the pipeline before it reaches the village water point. The trip from the tap to the home is approximately 4.5 m and another 4.5 inches are added before the glass of water touches the lips. During the course of this journey, there are innumerable possibilities for the water to get contaminated.' This is a simple and easy-to-understand demonstration of the importance of protecting water sources and safe water handling. It has been found to have a lot of convincing power among the communities for adopting safe hygiene practices and protecting the water sources, especially when handling water within homes.

One of the objectives of awareness generation activities is to encourage communities to keep a vigil on the quality of their drinking water and identify plausible causes for quality deterioration. After the training, village communities can not only determine the extent of water quality problem in their respective villages but can also take precautionary or remedial measures to ensure safe drinking water, and in turn, better health for the community.

Through these programmes and workshops, the Pani Samiti members are imparted information and education regarding various water-disinfection methods, especially chlorination, and how to monitor it by measuring the level of residual chlorine. The communities are also motivated to ensure optimum chlorination in their villages. To check the effectiveness of awareness generation, samples are randomly collected from villages to measure the residual chlorine level. Field testing kits are also distributed for use at the village level. With the distribution of these kits, the villagers have started testing their drinking water sources. They now appreciate the difference between safe and unsafe drinking water.

Communities reviving de-fluoridation plants

The result of awareness generation in fluoride-affected villages has not only been encouraging but also inspiring. There are 238 de-fluoridation plants within the state that were installed in villages with support from GWSSB. These had become defunct for the last three years ever since the responsibility of operating and maintaining them was transferred to the communities. To tackle the growing problem of fluorosis, WASMO initiated efforts towards resurrecting these plants through mass awareness and community mobilisation campaigns. Today, villages Khodu and Jasmatpur in Surendranagar have already revived their systems, while those villages having de-fluoridation plants in Ahmedabad and Gandhinagar have begun the process of revival.

Sanitary and spot surveys

In order to prevent any epidemic, sanitary surveys of villages are carried out and thereafter, by compiling and analysing the survey results, software activities such as drinking water chlorination, cleanliness and sanitation drives are carried out. The surveys provide information such as village population, VWSS capacity, chlorination dose administered, status of school sanitation blocks, latrines in the village, cleanliness in streets, village health scenario and hygiene practiced at household level by surveying 3-4 houses of different hamlets randomly.

Community getting together to clean their streets

In order to monitor village level chlorination, spot surveys of residual chlorine are conducted by grass roots workers such as ISA members and project personnel. Wherever residual chlorine is not found to be appropriate, the pump operators are urged to perform chlorination with proper dosage. Collaboration is also done with PHCs so that they supply chlorine tablets to the community as and when required.

Lab-testing of water samples

Water samples from all completed project villages are sent to a laboratory twice a year – in the pre-monsoon and post-monsoon period – for chemical and bacteriological analysis. Wherever sources are found unfit, the respective Pani Samitis are informed about the results and remedial actions are taken. Accordingly, either alternate sources are found or the quality problem is mitigated by bulk water transfer. Where neither of the two is possible, the community is informed about ways to tackle the problem.

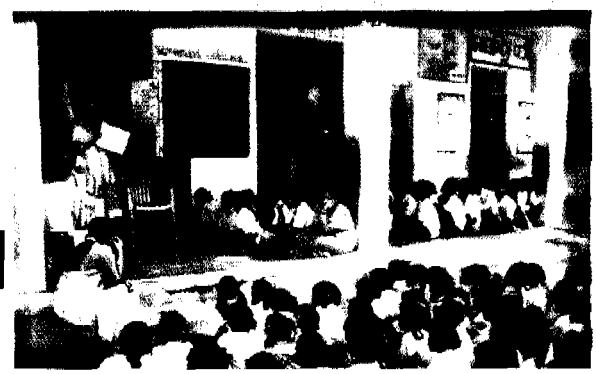
User Participation for Safe Water

Consuming safe water

In August 2004, 101 samples of drinking water from all the Ghogha project villages were tested to ascertain if the water was safe consumption. Test results showed that 11 villages had water that was chemically unfit, while there were 41 out of 99 samples that were bacterially unfit. After one year of intense awareness campaigns, there was a marked change in test results and consumption patterns. The villages having bacterial contamination reduced to 6 due to regular chlorination at the village level. There were only three villages that had water which was chemically unfit. In fact, it was found that the inhabitants of these three villages had discontinued drinking water from local sources and were instead using alternative piped sources that served treated water.

Involving children

School children are also included in efforts to ensure safe water. Simple anecdotes and the importance of personal hygiene are explained to them by teachers. They are urged to use ladles for drinking water, wash their hands after defecation and before meals, brush their teeth, and bathe regularly.



Educating children and teachers about cleanliness

Teaching children the value of clean hands

At school programmes, the children are encouraged to handle water to check if their hands are clean. The ones who believe that they have clean hands are asked to rinse their hands in a bowl and the water from this bowl is poured into a transparent glass. If the hands are dirty, the results will immediately be reflected through the water in the glass. In this manner, the communities are beginning to learn the importance of washing their hands before handling water.

4. Sanitation

As in India, within Gujarat state too, there is a significant rural-urban divide in terms of improved sanitation. The 2001 census revealed that 44.6% of the state population had access to toilets. However, the data for the rural population indicated that only 22% had toilets, and this has increased to about 28% presently. The challenge with sanitation can be illustrated with economics involved in the creation of toilets. Although the cost of building a toilet is not high, even those who can afford to have toilets prefer open defecation. While poverty contributes to poor sanitation standards, it is also a fact that behavioral change needs to be brought about to improve sanitation.

Individual toilet constructed by a community member

As compared to water supply, sanitation requires a different approach in interventions for several reasons. While water is regarded as a community issue, sanitation is perceived as an individual preference, and something more private. Further, sanitation behaviour is ingrained and is often a reflection of the cultural and social milieu. Traditional rural sanitation practices are based on open defecation along the village outskirts. The challenge of safe disposal of excreta lies in not only facilitating the construction of sanitation infrastructure and facilities, but also in bringing about behavioral change where communities are sensitised and demand latrines.

Making toilets an urgent issue

Jenaben Maman Deva belongs to Lakhaniya village. She was the solitary female member in her family and could not ask anybody to accompany her as she trekked her way to a suitable field or behind a bush to relieve herself. The most horrific time for her was when she fell ill and had to limp through the long distance without help. When the WASMO programme came to her village, she ensured that she got a toilet within her home. She thus managed to spare herself the embarrassment of needing to find a secluded corner. Jenaben was also the first to rally the people together and motivate them to construct a toilet in their homes. She was even a source of inspiration for the weaker communities.

WASMO's focus areas

Access to adequate and assured drinking water has a tremendous impact on the health of the community. Yet, when this water is unsafe, it can pose health hazards. As a result, there is a need to link water supply with sanitation and environmental protection. The proper handling and hygienic use of water; the hygienic maintenance of water points and water sources; and safe sanitation practices and disposal are essential aspects that impact health. WASMO's major interventions in the context of sanitation are:

- Awareness generation for personal hygiene and safe disposal of human excreta
- Environmental sanitation with safe wastewater disposal and drainage
- School sanitation

Household latrines

Water scarcity and affordability are the common reasons stated for not having household latrines. Some of WASMO's interventions include constructing demonstration latrines and sanitary marts to encourage the use of toilets. The sanitary marts make the procuring of construction material for toilets easier and more accessible.

Sanitation

No financial support is offered while promoting the concept of sanitation. The demonstration latrines are constructed for needy households, and guidance is provided on request to the rest of the community.

Since most villages have strong patriarchal systems where men make the decisions, the choice of whether or not to have toilets is often made by males and is based on economics. In several communities such as the Darbars and Muslims, there is a strong tradition of women under purdah. Hence, messages on sanitation have been found to carry greater persuasive power when men's sensitivities are addressed and they are explained the benefits of toilets such as increased self-respect, privacy and safety for women and girls.

Need for toilets in Harijanvas

Padampar village provides a unique case where even marginalised communities came forward, demanding their own toilets. The village is largely Patel-dominated, and has a few Harijan families living along the periphery. While all the Patel households have individual toilets, the Harijan families practice open defecation. There are plans to construct a community toilet for the Harijan residents, but the families instead want individual toilets. "We would prefer to have our own toilets even if it means extending the gutter lines from the village to Harijanvas as maintenance is more efficient. If some support is given to us, all the families are willing to contribute in the construction cost of toilets. Currently, we use the cots to shield us when we bathe. For defecation, we have to go in the open, and this is not very pleasant for our girls," says Gangabai Maheshwari, a resident of Padampar.

Environmental sanitation

Poor sanitation and hygiene can directly affect the quality of surface and ground water. It is necessary to have systems and procedures at the rural level to prevent the contamination of water from domestic sewage and fecal pollution by humans and animals.

Domestic sewage: Based on local geographical and economic conditions, different wastewater disposal options are proposed to the villagers before the commencement of water supply to individual households. Soak pits are a popular solution to arrest domestic wastewater flows into the streets. Different design options for different soil conditions are provided to the communities while planning the village works.

Making kitchen gardens

In Chhotapar village, domestic wastewater is used for watering the plants in the kitchen garden that is present in almost every home. Vegetables and fruits such as lady's finger, pomegranate and papaya are grown with the help of this water.

A kitchen garden developed using domestic wastewater

Solid waste disposal: Most agricultural communities consider cow dung as a valuable resource. The cow dung that collects in the village along the streets is later taken to the fields for making manure. Until the time the cow dung and other animal waste lies in the village, it creates unsanitary conditions. In addition to fecal pollution by animals, garbage disposal systems also needed to be revisited in a large number of villages. The villages are explained the need to relocate their garbage disposal sites and dustbins are provided at subsidised rates. Concerted campaigns to convince villagers to keep their village clean have led to regular cleaning schedules in many parts. For instance, certain villages in Surendranagar have engaged tractors to remove garbage. Weekly or monthly holidays, religious festivals and other special occasions see the people unite together for cleaning their village streets.

"Aa Rabari nu gaam chhe" – this is a Rabari village

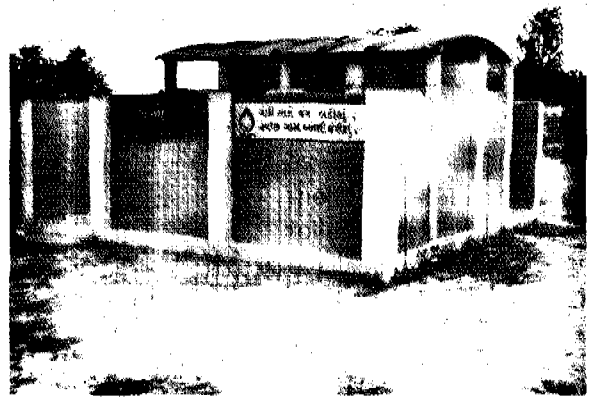
Karmiben in Filon village

This was the common refrain given for the filth that lay in Filon. "People did not believe that it was possible to keep it clean. But, then we thought about it, and decided to clean it up," says Karmiben, a member of the Pani Samiti in Filon.

Filon village in Mandvi block has taken significant strides in adopting safe sanitation practices. The people there belong to the pastoral community, and the population of the livestock is about 500, while that of humans is about 177. Since the animals and communities co-existed in the village, the excreta from the sheep and goats as well as the domestic waste dotted the streets. Now, the animals stay outside the village within small enclosures so that the village does not get dirty. The garbage sites have also been relocated and are now kept outside the village. The houses have either been connected to gutters or soak pits for safe domestic waster disposal.

School sanitation corners

Schools are an important forum for promoting and generating awareness on personal hygiene and sanitary conditions as children are potential change agents within their families and communities. Schools also provide an opportunity for creating enduring improvement in personal hygiene behaviour. Yet, as with the community at large, with children too, encouraging them to use sanitation units requires concerted efforts and follow-up. Behavioral changes take place slowly, and the availability of water near the toilets also determines whether or not the sanitation units are used.



School sanitation corner

There were several reasons why WASMO decided to target children. According to the survey it conducted under the Ghogha project, it found that poor sanitation facilities in schools persisted despite several other programmes that had been implemented in this field. While some schools did not have any sanitation facility, in others that did, they were inadequate or unusable.

To address school children, WASMO has developed and adopted a strategy that ensures that school sanitation and hygiene goes beyond provision of facilities. It also works with teachers and does intensive IEC campaigns so that improved hygiene gains favor with children. Interactive communication, games, songs and competitions are the main methods used to shape children's attitude towards sanitation. Messages are then further backed by constant vigilance by teachers to ensure that hygiene practices are imbibed by children. Some of the major hardware interventions undertaken by WASMO for school sanitation are:

- Provision of adequate number of toilets and urinals with wash facilities separately for boys and girls;
- Repair of existing structures; and
- Linking the schools to the village water distribution network to ensure regular supply.

Impact evaluation of SSHE

Under the internship programme of WASMO, a student from Centre for Studies in Rural Management carried out a study on the impact of the school sanitation programme of WASMO in Kutch district. The study was conducted in 35 schools from five different talukas of the district where both, students and teachers were interviewed. The objectives of the study were to assess the:

- Behaviour change among school children in sanitation and personal hygiene
- Use of the drinking water and sanitation structures and facilities created in the school
- Awareness among the local community related to the health and hygiene of their children

Some of the broad findings of the study were:

- There is a significant improvement in the overall personal hygiene of the school children, with many of them keeping their nails short (96%), keeping their clothes clean (80%) and taking bath regularly (53%).
- Washing of hands after using the toilet and before meals (particularly the mid-day meal at the school) was practiced by 63 percent of the students. For the remainder 37 per cent who have not adopted this practice, the reasons attributed to it are lack of understanding about the issue among school children below six years of age, lack of awareness among the parents and general environment at home.
- In 84 per cent schools the facilities for drinking water were created and were being regularly cleaned by the children on a weekly, fortnightly or monthly basis, with the school teachers monitoring the cleaning activity.

The school sanitation efforts enhance predisposition towards health and hygiene

- All the schools have a RRWHS, which was being used in 13 per cent for drinking water, by 64 per cent schools for watering the plants and other uses. In about 60 per cent of the schools the roof and the underground tank was cleaned before the beginning of monsoon.
- 90 per cent of the schools had separate sanitation facilities for girls and boys, which were being used by the about 74 per cent of the students. These facilities were being cleaned every week to ten days by the children in 90 per cent of the schools and by teachers in the remaining schools.
- There is a marked improvement in the drop-out rate in all the schools. Among the boys the drop-out rate has reduced by about 63 per cent while it reduced by 66 per cent among the girls. There has been an improvement in the enrolment ratio of girls in about 84 per cent of the schools in which the study was carried out.

5. Awareness Generation and Communication

With the paradigm shift in the water and sanitation sector where the communities are centre-stage, intensive IEC efforts are required to make the sector reforms possible. A complete change is needed in the mind-sets and attitudes of the communities so that they can take on the various tasks of creating and managing their in-village WATSAN systems. Technology selection; operation and maintenance; administration; and financial management are all aspects that have to be attended to by the communities. The concept of paying for the systems also has to be internalised by the people.

Within WASMO's larger framework, IEC has been integral to supporting project activities. It is a necessary and cross-cutting component of the project through all its phases and interventions. IEC includes a comprehensive package of communication media and approaches that are participatory, flexible and systematic. Briefly, it involves the dissemination of general as well as technical information; motivation for change or adopting of new behaviour and practices; and capacity building so that communities and other stakeholders make informed decisions.

"The change has been brought through IEC; with WASMO the difference is that from information it has moved into involvement of people and then to implementation. From education we have moved to extension where people are becoming aware of what needs to be done and how to do it themselves. Education has also led to empowerment, especially of women. Communication has been converted into conviction." P.K. Laheri, MD and Chairman, Sardar Sarovar Narmada Nigam Ltd.

The role of IEC has been in the areas of:

- Promoting decentralisation for development of drinking water and sanitation systems and village self-reliance
- Community mobilisation and awareness generation about the project and its activities
- Education and capacity building for making informed decisions about technology options and community organisation through Pani Samitis
- Developing messages and strategies that can generate interest in and willingness to pay for facilities
- Addressing challenges and barriers to sanitation and hygiene practices

IEC target groups

The three broad target groups of the organisation are:

- Pani Samiti members
- Women
- Children

Since communities are never homogeneous, IEC strategy and interventions need to be tailored accordingly. Different messages, approaches and media need to be used for the older groups and children, men and women, higher and lower socio-economic groups, and different occupational and caste groups. Apart from the enlisted primary target groups, WASMO's IEC strategy has also included key opinion leaders such as teachers, panchayat leaders, and religious and caste leaders.

Institutional mechanisms

WASMO has developed its own institutional mechanisms to cater to its IEC needs. In the initial period, certain IEC material, particularly in relation to capacity building, was sourced from other organisations. However, as its requirements increased and became more specialised, it was necessary to create an in-house team that could develop material that was relevant to its projects. The Documentation and Communication (D&C) Unit

that has been set up at WASMO currently develops and disseminates suitable material for different projects and components. The field offices at the district level have D&C members who provide information from the villages, collaborate with the ISAs and also assist in the dissemination of IEC material. The Unit, along with its field counterparts also coordinates and develops material for large, state-level events that call for demonstrations, models and other IEC interventions.

Communication channels

A combination of media is being used to cater to different groups and to reinforce messages. Since indigenous media like folk plays and interpersonal communication are more effective for imparting certain information and messages among rural communities, these are used extensively in addition to mass media. The various IEC activities of the last year are given in Annex - A The major communication channels that are used are outlined below.

Print: A bi-monthly thematic newsletter, 'Lok Samvad' is being published regularly by WASMO. There are 20,000 copies published for every issue for easy access by communities, ISAs and other stakeholders. The distribution of the material is done in close coordination with the ISAs. Various brochures, booklets, manuals, leaflets, posters, banners and stickers have also been developed and distributed among the village community, Pani Samitis, panchayat members, school children, project partners and other stakeholders. While most material has been produced in Gujarati, few have also been developed in English. The introduction of each IEC material, whether it is a poster, a manual or a booklet, is usually done through events and demonstrations so that greater awareness and interest is generated within the communities.

Issues of Lok Samvad newsletter brought out by WASMO

Television and radio: Three years down the line, WASMO projects and programmes that had hitherto been implemented in around one-sixth of the villages of the state, are now being scaled up. The media mix has been expanded to also include 'hot media' such as the radio, television and street plays to reinforce key messages in the written communication. The messages are formulated on the basis of the existing stage in the project cycle and community's needs assessment, and are direct and simple. Several messages have been created for television and radio spots on the themes of:

- Sanitation
- Formation and functions of Pani Samiti
- Community contribution
- Water quality
- Chlorination
- O&M

Street plays: These have proved to be an effective means of mobilizing, informing and entertaining the rural communities. Many of the plays use the traditional folk format, bhavai, and are in the regional dialect, performed by professional media groups. They are usually held on actual prevailing concerns or issues in the village, and are effective in generating participation and discussions among the people. Typically, street plays are staged around three themes during the different phases of the project, and sanitation aspects are included throughout the project tenure. The three themes are:

1. Introduction of the project in the village
2. Encouraging community participation at the time of project implementation, soon after the Village Action Plan has been prepared
3. Importance of O&M after completion of construction activities

Street plays: An effective means for bringing out solutions

Street plays

Patadi is a large village in Surendranagar district. Community contributions were not regular in coming and a solution had to be found. A street play on community contributions was organized just prior to the Gram Sabha that was scheduled that day. This play led to an animated discussion at the Gram Sabha. What emerged was that the people were well aware of the need to contribute, but they did not know where they should make the payments. The large distances within the village necessitated a decentralised system of collection. Matters finally came to a rest and the problem of irregular contributions was solved when it was decided that collections would be done hamlet-wise.

Interpersonal communication: Face-to-face communication including focus group discussions have been found useful when communicating with women and children. It has been seen that these two groups can be better reached and motivated when approached directly. Communication to them is done through organized networks such as schools and health centres, and through community leaders, Pani Samiti members and field workers.

Campaigns, rallies and fairs: Fairs and campaigns are also useful platforms for reaching out to the communities as women and children participate in a big way. Fairs during religious and cultural events are well attended by the rural populace and focused campaigns on cleanliness drives and greening of villages have a great impact.

For example, as part of the Uttrayan celebrations, WASMO distributed kites with short informative captions on water and sanitation. During the Republic Day events, WASMO partnered with GJTI and DECU-ISRO to create a video programme on the theme of 'Water as Life'. The programme was informative as well as entertaining.

Village rally

WASMO at the Tarnetar fair

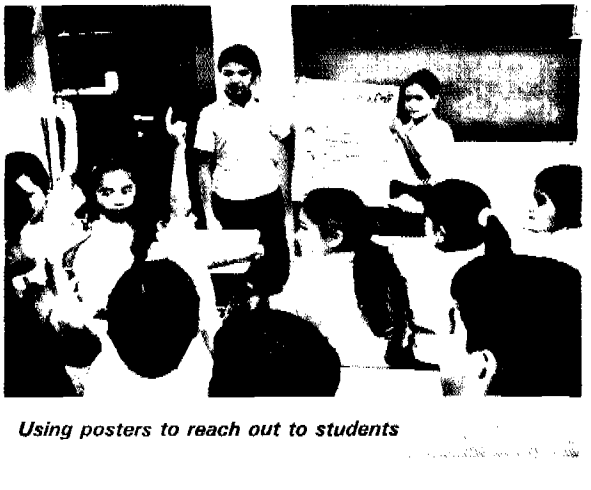
Tarnetar, located in Chotila block of Surendranagar district hosts the popular religious and historica. Tarnetar fair every year. It attracts large crowds, with as many as an estimated nine lakh people visiting the grounds over three days this year. Since the fair is essentially attended by the rural communities, it is an effective forum for generating awareness and disseminating information on key issues that concern them. WASMO had a stall at the fair, and focused on sensitising the communities about water and sanitation. A range of display material including posters and models were put up at the stall on latrine models; roof rain water harvesting; health and hygiene; and village sanitation. Further, demonstration and awareness creation was also done on chlorination and water testing for facilitating the intake of safe drinking water. Audio visual programmes as well as the staging of street plays were among the other methods used to generate interest among the village communities on water and sanitation. During the course of three days, approximately 30,000 people visited the WASMO stall and IEC material and guidelines for sanitation units were disseminated to about 5000 visitors.

Awareness Generation and Communication

Innovations: Several means have been used to target children. Posters and paintings have been specially designed for display at schools, and have been well-received by children. Among the innovations that have been successful are the organizing of painting competitions, debates, essay-writing and quiz competitions and village rallies. In many villages, cleanliness drives have been organized on a large scale and have been very well attended.

Cleanliness is the foundation of good health

A house with clean veranda and a clean courtyard,
Clean is my portico, clean my balcony,
Clean is my face, clean are my hands,
My clean heart holds the lord of this world.
Clean clothes are a pleasant sight to behold,
If the body is clean then disease will not come.
– One of the winning entries by an 8th grade student in Bhuj



Using posters to reach out to students

New Initiatives

WASMO programmes include many levels of stakeholders, from government departments and functionaries, to partnering agencies such as NGOs, down to the communities. While this is an advantage to the organisation as it helps it in meeting its milestones and targets, it also means greater challenges in terms of ensuring adequate stakeholder involvement while scaling up activities. Some of the new initiatives that have been undertaken are highlighted below.

User feedback: To ensure ongoing relevance of the IEC material to stakeholder-needs, efforts have been made to collect systematic feedback. The bi-monthly newsletter, Lok Samvad, includes a section for encouraging reader-feedback. Five questions are asked on content and opinions, and prizes are given as incentives to the winning respondents.

Responding to emergency needs: As the organisation is gaining experience and insights, it is increasingly equipped to respond efficiently and quickly to disaster and emergency needs. Natural disasters and calamities call for focused and intensive IEC interventions to mitigate the adverse effects, and WASMO has begun to shoulder the responsibility of the new demands as the need arises.

Gujarat Floods and emergency efforts

The heavy continuous rains in 2005 had affected Gandhinagar, Vadodara and Panchmahal districts, and played havoc in many areas, leading to floods, damaged infrastructure, water logging and accumulation of garbage for more than two weeks. A comprehensive water quality surveillance programme was carried out immediately as a preventive measure to guard against potential epidemics. In about half of the 400 villages that were visited, incidence of epidemic was suspected due to the lack of sanitation and cleanliness in streets and around water supply sources. A campaign as immediate response to the situation included cleaning, safe disposal of dead animals, cleaning of water sources and chlorination at household was ensured through leading ISAs, and WASMO and GWSSB staff.

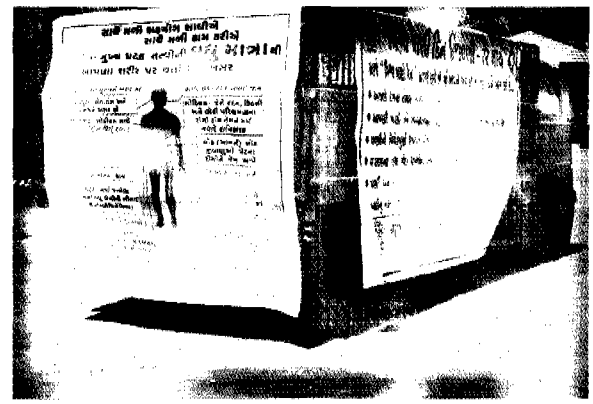
The communities in the affected villages, particularly women and children were educated and urged to keep the villages and drinking water sources clean and follow safe hygiene practices to avoid outbreak of any epidemic. WASMO collaborated with PHCs to survey the diseases and implement damage control. Comprehensive and need-based IEC interventions were implemented in the villages, along with radio and video spots, cleanliness drives and distribution of IEC material. and also simultaneously educated women and children about the importance of drinking water quality and safe hygiene practices. A 45-second video spot was developed for the Doordarshan network to spread messages about chlorination, sanitation and use of safe drinking water to prevent epidemics. The spot focused on various safety measures to avoid water-borne diseases.The result was to be seen, epidemic prevented.

Liaising with government departments: WASMO has forged alliances with Information and Forest Departments for greater outreach. It has developed radio and video spots for the half-hour programme, 'Hariyalo Sopan', which is broadcast through these departments.

Website: A bilingual, user-friendly website in English and Gujarati has been developed to make information and resources available to a large cross-section of stakeholders. The website serves to reinforce the efforts through other media channels by providing a wide array of data and material. Due to this versatile platform, the website has the potential not only to support community-level activities, but also the organisation's advocacy role to influence policy decisions.

World Water Day

Gujarat continues to face water scarcity, and the ongoing challenge is to create more awareness on water conservation, water quality surveillance at grassroot level and strengthening of local water sources by communities. To observe the World Water Day on March 22, WASMO organized week-long activities in villages through its various programmes. The activities were determined for each day and events focused on:



IEC displays during World Water Day celebrations

- **Cleaning of water distribution systems and storage facilities:** Water storage structures such as sumps, ESRs, and standposts were cleaned up and desiltation of traditional water sources was also done by communities.
- **School sanitation:** A total of 8018 students of 362 schools participated on the occasion. Cleaning of school compounds and sanitation corners was done. Safe water handling was also demonstrated to children. In addition, competitions, quizzes, rallies and skits apart from information dissemination were held during the week.
- **Padyatras:** These rallies were held during the week in selected areas to generate awareness about the projects and the role of Pani Samitis.
- **Capacity building:** In 23 districts, 29 training programmes on aspects such as construction management, O&M, and establishing tariff mechanisms were held. Over 4200 Pani Samiti members were trained through these efforts.
- **Programmes with villages of Regional Water Supply Schemes (RWSS):** The GWSSB presently supplies water to more than 7600 habitations across the state through 404 RWSS. To make the regional water supply schemes more effective and ensure that people get water the year round without any major problems, a need was felt to review the present services, O&M practices and collections and identify barriers in providing quality services. It was felt necessary to get GWSSB officials and the Gram Panchayats together on a common platform to address these issues and look at the management of RWSS through participating PRIs. These programmes were held in collaboration with GWSSB staff for 469 villages. Information about the schemes were shared and barriers affecting regular water supply were identified in consultation with communities.

6. Capacity Building and Training

Capacity building is the process whereby a community equips itself to undertake the necessary functions of governance and service provision in a sustainable fashion. Since most of the project activities are directly to be carried out by the Pani Samiti members, it is necessary to build up capacities so that villagers can effectively shoulder responsibilities for matters relating to their day to day affairs. Capacity building is not restricted merely to the communities but also reaches out to the other stakeholders i.e. the ISAs and finally the professionals engaged for the programme

Capacity building is the cornerstone of all decentralised community-managed programmes of WASMO. Along with IEC activities, capacity building is another major tool to engage the communities in the project activities. It includes orientation and awareness programmes mainly on the community-managed approach, water supply, sanitation and hygiene practices as well as skill development for carrying out different tasks in the implementation process ranging from construction and financial management to O&M of established systems. Thus capacity building not only enhances the skill base of the people, but also adds quality dimension to the work.

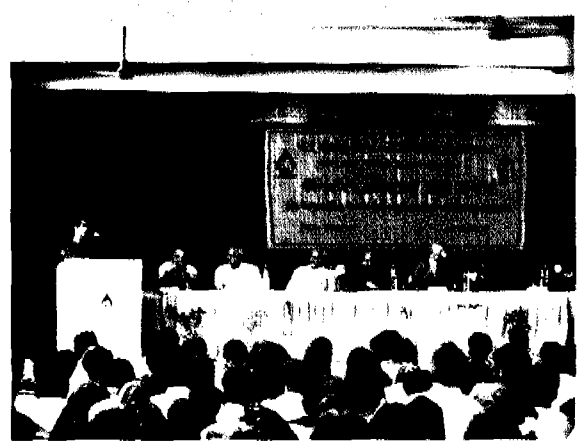
WASMO's training activities mainly focus on following four distinct segments of the village community/ Pani-Samiti:

1. Pani Samiti member and users (Men / women)
2. Skilled and unskilled workers of Pani Samiti,
3. School teachers and children.
4. Community based organisation

Focus areas for capacity building to communities

Some of the major areas where capacity building is done are:

- Encouraging collective action and understanding group dynamics
- Participatory approaches to community-based action
- Technical know-how about the programme
- Construction monitoring
- Financial processes and monitoring, including bank procedures
- Record keeping
- Water quality surveillance
- Personal and community sanitation and hygiene
- Operation and maintenance



Awareness generation through experience sharing

Training approach

The selection of course content is based on target group, their nature of job and training needs. The training approach is based upon the philosophy of adult learning where participants are fully involved. An action learning approach is used to enable participants to work in teams on their own problems in order to identify solutions. The main methods used for training are lectures, group discussions, peer group interaction, demonstrations and case studies. Hands-on training is done for certain topics such as record-keeping to ensure that concepts and guidelines are understood. For instance, the Pani Samiti members are encouraged to do actual exercises in record keeping during the training sessions. After efforts towards capacity building and training in O&M, most communities have been found to be adept at tasks such as regular preventive maintenance, tariff collection, and book keeping.

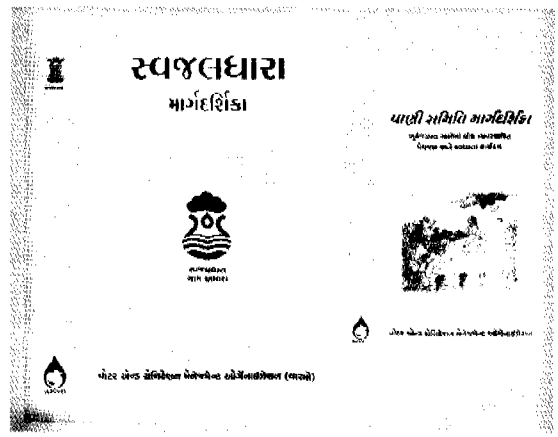
Institutional support and varying community capacities

Project work has been completed in Filon and Pirvadi. Members of both Pani Samitis gained much exposure and their skill base was enhanced. Yet, despite the increased exposure, there is still a vast difference in the capabilities and levels of the two committees, implying the need for ongoing institutional support in the long run.

In Filon, Vankabhai Karamsi is the third Pani Samiti chairman. He replaced the other two chairmen, who went on to take up jobs in the Middle East as better prospects opened up for them. It was the administration and book keeping training they received under the project that led them to more lucrative pastures. By contrast, in Pirvadi, the people saw the bank for the first time when they went to open an account for the Pani Samiti. There is still considerable reluctance within the community to embrace the idea of improved hygiene and sanitation practices. Open defecation is the norm in this village and the use of toilets is by and large an exception.

Manuals developed by WASMO

WASMO has developed several basic guidelines and manuals for various projects and implementation processes which are used by the Pani Samitis/community in vernacular language. These are ready references for them to be able to undertake the community-managed approach at the village level. Some of these guidelines and manuals are:



- Pani Samiti guidelines
- ERR Project
- Ghogha Project
- Swajaldhara Guidelines
- Operation and Maintenance Manual
- Finance and Technical Manual
- Chlorination

Apart from these WASMO manuals and guidelines, WASMO is now in the process of developing training modules and material for ToT on various themes, keeping in mind the scaling up process. The following modules are under preparation:

1. Orientation programme about decentralization approach – Reform programme
2. Capacity building of Pani Samiti members
3. School Health education and sanitation programme
4. Women Involvement in Pani Samiti
5. Pre Construction Training
6. Operation & Maintenance
7. Water Quality Surveillance
8. Water Resource Management

Capacity building thus has been a continuous process of imparting knowledge and skills to the concerned target group, at the required time, sharing of experiences and projection of achievements for motivating the individuals and groups to execute the desired task more effectively and efficiently. The details of the trainings conducted for Pani Samiti/community and WASMO staff, ISAs and GWSSB staff are given in Annex – B and C.

Ensuring Sustainability

Water supply and sanitation systems created under the project are meaningful only if they continue to deliver the benefits after the projects have been completed. Sustainability of projects is brought out through various means. Appropriate institutional mechanisms at the local level through Pani Samitis; community contribution and ownership; operation and maintenance by communities; and transparency and equity all go into ensuring sustainability.

1. Pani Samitis

After witnessing the non-sustainability of top-down, centralised programmes in the water and sanitation sector, emphasis shifted to community-oriented approaches. It was realised that meaningful impact could be achieved with community participation and management in village water supply and sanitation systems. However, to implement community-oriented programmes, it was necessary to abandon bureaucratic habits and devote a great deal of time to direct interaction with the communities. Soon, in a period of three years, this effort by WASMO was rewarded by community ownership of projects and relatively impressive technical results in the field.

One bag of cement

The construction of the 40,000 litre tank was in progress in Sadai village. The cement for construction is procured from a village 6 km away. There was a shortfall of one cement bag. Yusufbhai, made the journey on his motorbike to fetch that one bag so that work did not come to a standstill. He laughs as he says, "Even though I am the chairman of the Pani Samiti, I still have to work as hard as the others! If I didn't get this bag, the work would have to stop."

Yusufbhai in Sadai village

Formation of Pani Samitis

People's participation in projects is brought about through the strategic decision to form Pani Samitis in all project villages. The formation of this village water and sanitation committee also upholds the decentralised democratic process initiated in the country with the 73rd Amendment to the Constitution.

Essentially, the Pani Samitis are a part of the larger village panchayat. They have representatives from all communities in the village, including marginalised communities. The strength of this committee is about 10-12 members, and of these, one-third are women. The membership of the Pani Samitis is nominated and ratified by the Gram Sabha.

S. no.	Project name	Total Pani Samitis formed	Total no. of villages taken up	No. of villages completed	Work under progress
1	Sector Reform Pilot (SRP) project	833	833	833	0
2	Ghogha project	82	82	82	0
3	ERR project	1260	899	380	519
4	Swajaldhara programme	1436	947	346	601
5	Sector Reform Scheme (State)	889	561	110	451
	Total	**4500**	**3322**	**1751**	**1571**

Role of Pani Samitis

The Pani Samitis have responsibility, authority and control over the village water supply and sanitation services. They are formed when the project is introduced and accepted in the village. From then on, the people and especially the committee members take on a gamut of tasks concerning the development of their water and sanitation systems. The members are involved in designing their village water supply scheme, site selection, identification of material suppliers and contractors, construction, fixing and collection of community contribution and tariffs, and operation and maintenance.

Participatory planning by the Pani Samiti

To equip the Pani Samiti members with skills so that they can execute their role, the projects impart extensive training and assistance. Today, there is recognition of the important role the Pani Samitis have to play in the implementation of the project, with them being intimately concerned with the planning and construction activities. The commitment of the members in a large number of villages has set the stage for scaling up of activities. There are an increasing number of instances where many villages not included in WASMO's programmes, are already collecting community contributions in advance so that they can be made a part of the project.

Working with resolve

When Rajpara village in Dwarka, Jamnagar district became part of the project villages, majority of the people extended their whole-hearted support. There existed, however, a small dissenting group which was loyal to the sarpanch, that did not want the project to make any headway. The people and the Pani Samiti members, unwilling to relent to this group decided to join forces and approached the police for help. The police coerced the sarpanch into handing over the files and financial details to the committee, and consequently construction work resumed again.

2. Community Contribution and Ownership

For project sustainability, communities need to have a strong sense of ownership of the new water and sanitation systems. This is because when there is ownership, there is also an acceptance of responsibility towards the asset. Community contribution for structures and assets is one of the major ways to create a feeling of ownership.

The concept of community contribution for capital costs began with ERR programme where communities had to pay 10% of the capital costs. Now, all WASMO programmes mandate that communities make 10% contribution towards the asset and is in fact a pre-condition to any investment made by WASMO. This contribution ensures that the communities not only own the structures, but also participate in the project from the very beginning. Since they are required to deposit their contributions before construction commences, they will ensure that only those structures are created for which they have a need. So far Rs. 15.31 crore has been collected as community contribution by 3322 villages under different projects.

When the Pani Samiti was formed in the village, Lakshmiben was made a member and was given the charge of collecting community contributions. "To collect the contributions, I got the women together and called a meeting of the Mahila Mandal in our village. The other women and I presented the WASMO programme to the members and explained what benefits we would be getting. We explored how we could solve our water problems in the future and instill the habit of cleanliness in our children. It was in this manner, by talking to the women-folk, that I managed to fulfill my responsibilities as a Pani Samiti member and collect the contributions from the people," says Lakshmiben.

As the community bears the cost, every person can question full implementation as well check accounts and procedure at any point of time. Thus, community participation is not merely in contributing towards capital and O&M costs, but also in ensuring that a good quality equitable system is put in place by following proper procedures.

Community contribution in earthquake-ravaged villages in Kutch

Encouraging community contributions sometimes involves complex dynamics. Trust, transparency, politics, all get interwoven and have an impact on the community's willingness to pay. The situation gets more pronounced when disaster also strikes and the wounds inflicted by the calamity have yet to heal. This is illustrated by the experience in the two villages of Varli and Gadhiyalo where considerable efforts had to be made to bring the people under the project's fold although they faced acute water scarcity.

"After the earthquake, the people who had not received any help did not have faith in the system. They were not willing to contribute the 10%. They began by giving only small amounts – ten-twenty rupees – because they were poor and could not afford to have their money wasted. When a person makes his income the hard way, from fetching and selling 'Ganda Bavad' (prosopis juliflora), every rupee is precious for him. As the repair works began, people were able to see the changes and began to contribute their money and labour more willingly," says Ismailbhai Sahu, the treasurer of the Pani Samiti in Varli.

Ismailbhai Sahu in Varli village

The case was similar in Gadhiyalo, where also contributions did not come forth. Nevertheless, the field workers from WASMO and the implementation support agency persisted. "Eventually, a Pani Samiti was formed and an account was opened with Rs. 1000. After about ten meetings,

we managed to collect Rs. 4000. We decided that if the people did not have money to pay, they should at least contribute in the form of labour," says Musabhai Jumabhai Rashipotra, the treasurer of the Pani Samiti.

Owning the programme

In Virpur village of Sabarkantha district, villagers were initially hesitant to contribute ten percent towards a government programme. They had doubts whether the programme would get implemented at all after they had collected the contribution. But the sarpanch gradually convinced the community and the in-village water supply scheme was carried out. The peoplel from the village now express satisfaction and experience a sense of ownership after scheme completion. The experience with Swajaldhara has encouraged them to take on other initiatives such as regular cleanliness drives (not a part of the Swajaldhara programme) in their village as well.

Inspired community takes on the sanitation challenge

3. Operation and Maintenance

Work in many of the project villages is well underway, with it nearing completion or already having been completed. The organisation has now reached a stage that necessitates a renewed focus on operation and maintenance (O&M). Whether or not the rural communities have established sound O&M systems is the ultimate test for the community-managed approach to achieving long-term drinking water security.

Water supply and sanitation systems created under the project are meaningful only if they continue to deliver the benefits over a considerable period of time after the projects have been completed. For the drinking water systems to be able to provide adequate and safe water to the communities, it is imperative that they be well-maintained and endure over time. The dearth of adequate water sources and the accompanying toil experienced by women in fetching water makes it more crucial that the O&M aspects of water supply and sanitation systems are effectively managed by Pani Samitis and supported by communities.

WASMO's approach to O&M

For programme sustainability, O&M requirements are considered during the technology selection phase at the beginning of the project. Further, the O&M systems that are developed by the community not only depend on the water supply system, but also on the involvement and support of the community.

Operation: This involves the day-to-day handling and running of the water supply system and the activities differ from system to system. Various actors include the pump attendants and technicians, as well as the direct users of water. The starting of the pump and controlling of the valve are among the daily activities required before the water becomes available for the communities. The manner and the care with which the different systems such as the hand pumps and stand posts are used determine to a large extent the repairing and maintenance needs.

Maintenance: This includes preventive maintenance with regular servicing, as well as minor and major repairs. Since the repairing and maintaining of systems costs money especially for the larger water supply works, financial management also comes under the purview of the village community. The tariff structure and contributions need to meet recurring costs of salaries to caretakers, repairs, spare parts, transport, etc. The tariff structure for the communities varies from village-to village and depends on many factors.

Calculation of tariffs

The water and sanitation tariff is decided upon by the members of the community and varies from system to system and village to village. The following aspects are considered while fixing the tariff:

- Number of persons to be retained for operating and maintaining the scheme (operator, watchman, valveman, etc.) and their monthly honorarium to be paid.
- Operational charges such as electricity bills.
- Fixed costs like purchase of machinery, fittings, valves, taps, etc. which call for periodic replacement.
- Persons for maintaining village cleanliness and sanitation and their monthly honorarium.
- Surplus amount to be kept at hand for unforeseen expenses.

The tariff that is arrived at is typically the sum of all the components, computed on a monthly basis. It is usually calculated household wise or according to per head costs. The frequency of the collection of O&M charges is unanimously decided by the Pani Samitis and the members share the responsibility of collecting the tariffs from households or hamlets. When the communities devise their own tariff structure, the people's capacity to pay is typically taken into account – the payment schedules and instalment amounts take into

consideration the livelihood patterns of the people. Differential tariffs systems have also been put into practice in certain villages to take into account members of lower socio-economic groups. In villages where a few members do not have the capacity to pay, they are excluded from the tariff system. The following table gives the number of villages contributing O&M as on March 31, 2006 while an indicative table is given in Annex - D.

Number of villages contributing O&M as on March 31, 2006

Project	No. of villages
Ghogha	82
ERR	431
Swajaldhara	119
Sector Reform Scheme (State)	30
Total	**662**

To illustrate village O&M and tariff systems, in Vinchiya, there is a stand post-based water system. Tariff for O&M is charged household-wise at the rate of Rs. 5 per month. The funds are used for minor repairs such as the replacement of valve, taps, and motor expenses. The villagers attend to the repairs and the O&M kitty is only used for component costs. The collection of tariffs is done hamlet-wise by the 10th of each month.

By contrast, Kotda Ugamna has household connections and water charges for O&M have been worked out for domestic as well as commercial uses. Households pay a monthly Rs. 2 per head, while the charge for commercial purposes is Rs. 60 per month. In most cases, the O&M contributions are made in advance, and people make a lump sum payment for six months at a time. Only the poor families, that include about six households, are exempt from the payment. The village has an operator on payroll who receives a monthly salary of Rs. 2500, and a coordinator who receives Rs. 1000 per month for managing the accounts. Funds are raised from the community when there are major expenses or motor breakdown.

Winning the trust of the people

In Nani Virani village, the Pani Samiti has calculated separate O&M tariffs for sanitation and water. These charges have been calculated on a per head basis instead of household basis as members from many families have migrated to Mumbai. The tariffs were proposed by the Pani Samiti and were approved by all the villagers at the Gram Sabha.

The village has opened a separate bank account for O&M, and there is a valve man to operate the water system. The accounts and expenses of the Pani Samiti are displayed regularly at its office board. As a result of the transparent systems, there is considerable solidarity and willingness among the people in abiding by the systems laid down by the Pani Samiti.

Pani Samiti members at Nani Virani village

"If someone does not pay on time, then we go and visit them and find out what the problem is," says Vanitaben Deewani, a Pani Samiti member in Nani Virani.

4. A Gender-sensitive Approach to Water and Sanitation

There is now ample evidence in the sector to suggest that sustainable management of water and sanitation systems needs to integrate gender equity into the projects. In fact, sustainability and gender equity reinforce each other and are mutually interdependent. In the Indian context, WASMO's activities are particularly directed at gender issues since water and sanitation is typically the domain of women. If their views and concerns are not factored into the programme interventions, there are greater chances that project activities will not meet their requirements and expectations. For example, aspects such as location of structures, standard of services and timings for water supply need to be determined in consultation with women.

Increased vulnerabilities

Women play a central role in the domestic arena in water and sanitation management. They are involved in fetching water, ensuring its judicious use, personal hygiene of themselves and their family, and cleanliness within and outside their homes. In many cases, young girls are also involved in these tasks.

Women involved in project activities in Kutch

However, as a result of the role they play, they are often exposed to certain vulnerabilities. In water-scarce villages, ferrying water means long excursions on foot to find water sources. As Vibhalbai from Varli recounts, "There were many fights in the days when water was scarce. The children would be left alone at home, hungry and crying, while their mothers were away, busy collecting water. Water was rarely sufficient for bathing and washing, and the vessels would be left dirty for 2-3 days at a time. It was unusual to offer tea to guests, because there was no water to make it. Even when a person died, there was not enough water to perform the last rites."

In the context of sanitation, the widespread lack of toilets in most villages gives rise to various difficulties for women and the aged. The women have to go to the vaadas, or village outskirts early in the mornings to ensure privacy. When there are social functions held over many days in the village disallowing women from stepping out of their homes, they are forced to sneak out. As women from Gadhiyalo village put it, "Hamein chhup kar jaana hota hai - we have to hide and go. What to do? We are helpless!"

Reaching out to women

The challenges faced in involving women have often been formidable. Aspects such as their inaccessibility, limited mobility, language barriers, literacy levels, prejudices and the deep-rooted patriarchal system are not easy to overcome. Recognising the array of hurdles, committed efforts have been made to have women's participation at all levels and stages of project implementation.

"All village women are like members"

Musabhai - Sarpanch of Pirvadi

In the initial days of the project, language was a problem. The women did not understand Gujarati as they spoke only Kutchi. It was thus difficult to get them involved in the activities. Later, as the women continued to attend the meetings and the men explained the project to them, it was easier to collect the funds and enjoy the support of the community. In fact, now, although only about four women are officially members in the Pani Samiti, all the village women attend the meetings. "They are all members," smiles the Pirvadi village sarpanch, Musabhai. "It is difficult to remember who is a member and who isn't."

Water supply systems: Since women are the primary collectors of water, it has been easier to have their participation when messages for drinking water systems have emphasised reduced drudgery and of more quality time. They have been specifically involved in areas such as site selection, preferred standard of services and water timings. Workshops and capacity building is also done extensively so that they are able to performs various tasks such as construction, financial management and water quality surveillance.

Use of toilets: For sanitation and the use of toilets, the women have been encouraged to get closely involved with the project through motivating messages. Since most villages have strong patriarchal systems where men make the decisions, the choice of whether or not to have toilets is often made by males and is based on economics. In several communities there is a strong tradition of protecting women and excluding them from social activities. Messages have been found to carry greater persuasive power when the sensitivities of men are addressed and they are explained the benefits of toilets such as increased self-respect, privacy and safety for women and girls.

Safe water handling: The chance to contract disease is large when water storage and handling for drinking and cooking is not done safely. Project activities aim to generate awareness among women through information dissemination and demonstration of safe water handling since they are the primary agents for handling water.

Hand washing and personal hygiene: Once women become practitioners of improved hygiene, they are able to enforce them even on their children and family. Soiled hands and the practice of not bathing and cutting nails constitute risks to health. IEC activities have identified and targeted these aspects and have sought to bring about improvement in traditional hygiene practices.

Encouraging evidence

There is now encouraging evidence that reveals that women have become very involved in water and sanitation issues in their villages. The following aspects have particularly seen the active involvement of women:

Women are part of village development

Collection of community contribution and water tariffs: All projects stipulate that 10% community contributions have to be made before construction activities commence. When men have hesitated or collections have been slow, it has been the women who have persisted in ensuring that household contributions are made. In most villages, it is standard practice for women to be in charge of collecting the O&M tariffs and contributions. After all, a healthy community kitty is the precipice on which water security and project sustainability is poised and they are only too aware of that.

Women sarpanches rake in contributions

Moti Doldungri, Dandi and Nargol villages in Valsad district have women as their sarpanches. These villages faced water scarcity, with Dandi and Nagrol experiencing salinity problems as well. The sarpanches were keenly aware of the daily struggle the women underwent in accessing water. When the Swajaldhara programme was introduced in their villages, they made sure that lack of contributions from the communities would not stand in the way of obtaining water security.

Saraswatiben in Moti Doldungri helped the villagers keep the benefits of the programme in sight while she garnered the contributions. Eventually, she was able to raise Rs. 68,000 and bring four water schemes in her village. The case was similar in Nagrol village, where the sarpanch, Pushpaben Bariya encouraged the people to contribute and the Pani Samiti collected over Rs. 40,200 from the community.

Dandi village had a checkered past with the programme being introduced and later withdrawn as the people were reluctant to make the contributions. The village sarpanch, Manjulaben Tandel brought the project back with the assistance from government personnel. After a series of meetings and talks with the community, the project was re-introduced. As a mark of her success and perseverance, the Pani Samiti account received as much as an estimated Rs. 1.03 lakhs from the people.

Sanitation and toilets: Village cleanliness, improved personal hygiene and the gradual increase in use of toilets are all issues that have largely been championed by women. It is they who diligently clean their village lanes and persuade their men folk to have toilets within their homes. It is also they who ensure that wastewater from their homes does not flow on the streets. With personal hygiene routines being enforced in schools and increased awareness, it is again the women who make sure that their families are clean.

Reduced drudgery: The planning of water points in a manner that each household has easy access has significantly reduced the drudgery experienced by women in fetching water. As a result, experience and project assessment has found that women have more time for caring for their children and productive work.

In many villages personal hygiene is now a part of daily routine

5. Transparency and Equity

Transparency in implementation and management and equity issues form the foundation upon which the people place their faith in programmes and personnel. Above all, successful financial management and accountability enhances the level of trust within communities. WASMO has consistently assisted and trained Pani Samitis to form effective and efficient financial management systems they can adopt and carry forward even after the project is completed within villages.

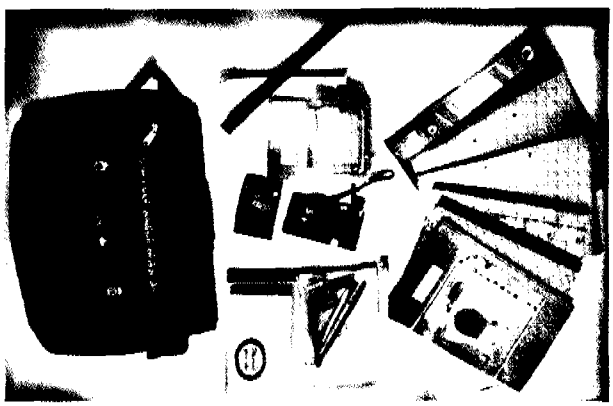
Creating financial management systems

The broad framework within which Pani Samitis ought to be functioning are laid down in the Pani Samiti handbook that has been developed by WASMO. This handbook is given after the formation of the Samiti in the village and has systems for ensuring transparency in financial dealings of Pani Samiti members; proper utilisation of funds; and collection off community contributions.

Some of the basic steps which WASMO has taken to incorporate transparency in financial matters are:

- Maintenance of separate bank account by Pani Samitis;
- Most transactions to take place only through cheque payment;
- Maintenance of register for community contributions by Pani Samitis;
- Receipts to be issued for all cash incomes; and
- Maintenance of a cash book by Pani Samitis to record all income and expenses.

Financial training



Accounting kits help Pani Samitis to maintain records

To enable the Pani Samitis to adhere to these systems, training for financial management along with refresher courses are given regularly. Moreover, care is taken to appoint a suitable person, who is familiar with accounting, to maintain the committee's registers and accounts. Along with the training, accounts kits containing essential items such as cash book, community contribution register, calculator, stapler, punching machine, ruler, measuring tape, bill file, correspondence file and tender file are distributed. This kit is especially useful as it allows the communities to keep all important documents, records and bills in one place. It also helps WASMO and auditors when accounts need to be verified.

Instilling confidence

Apart from transparency in finances, WASMO also takes other measures to gain the confidence of communities. Some of these are:

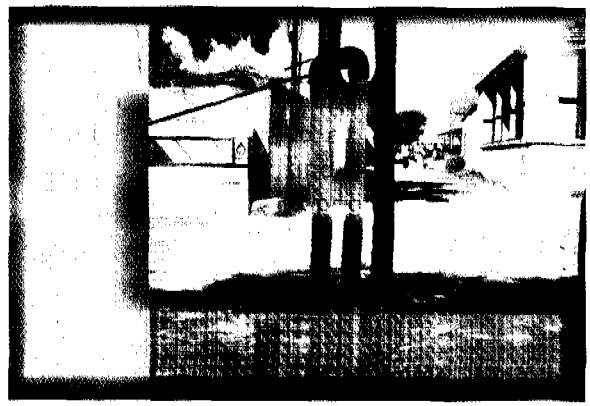
- Displaying the details of the Village Action Plan on a board outside the panchayat office after it has been finalised. Details include the interventions that will take place, the project cost, and amount of community contributions that needs to be raised.

- Inviting of quotations from at least three dealers by Pani Samitis for procuring material for construction.
- Sharing of details such as awarding of contracts, work progress, expenditure incurred and collection of community contribution at the Gram Sabhas.
- Operation and maintenance of all in-village water sources, structures and distribution systems is done by the Pani Samiti.
- Fixing of water tariff charges is done by the Pani Samiti and its approval is obtained in the Gram Sabha.

Equity

Adopting a community-managed, demand-driven approach inherently means recognizing that membership within communities vary, lifestyles vary, and places of residence vary. All these aspects can have an impact on access to water. While some people within the village may have easy access, there may be others for whom it is more difficult.

WASMO, through extensive dialogues with communities, tries to ensure that equity issues are addressed. The VAP is prepared and designed to facilitate equitable access to water to all members within a village. Problems such as lack of access to water because of inability to pay, uneven topography, living on the village periphery, and socio-economic status are addressed. Solutions are found through measures such as technology selection, site selection, tariff fixation, zoning, etc.



A u-bend in the pipeline facilitates water with equal pressure to houses on higher levels

For example, Momaymora in Mandvi block is a mixed-community village with Patel, Rabari and Muslim inhabitants. The village has an undulating topography, and all families have individual tap connections. Pressure problems were common and the houses in the upper regions did not receive water as there was only one valve to control the water supply. In fact, the lack of water in the higher terrain was a regular source of grievance for the residents living there as the houses in the low lying area did not have to face major water problems. Under the ERR project, an additional storage facility of 1.5 lakh litres capacity was built in Momaymora. In comparison to the one valve previously, three valves were installed so that all the regions received equal amount of water.

Water for salt pan workers

Khargoda village has a large population of 14,000 people, 85% of which are salt pan workers, living at the salt pan sites for eight months of the year. Water used to be distributed through house hold connections but because of low pressure, the families seldom got enough. Under the WASMO programme, a bore well and sump of 4.50 lac litres was created. A new pipe line was also laid, in addition to a pump house and sanitation units. Above all, two stand posts have been constructed for the benefit of families who cannot pay the water tariff.

Partnerships

Implementing the reforms, facilitating water security, and involving communities in the water and sanitation are tasks that encompass large geographically areas and have many components. They need combined efforts from various fronts. One of the roles of WASMO as a Special Purpose Vehicle is to act as a platform for partnerships to flourish. It has to identify and seek partners that can provide crucial inputs into its programmes. It also has to nurture these alliances so that each partner can operate in an environment of trust.

Partnerships

At the village level, the most important partners in WASMO's programmes are the primary stakeholders themselves. The communities, represented through Pani Samitis are the village-level partners. Apart from them, there are two other broad groups of partners WASMO works with. These are NGOs, who act as Implementation Support Agencies (ISAs) and state and national level organisation. The latter category includes institutions and agencies such as GWSSB, Water Supply Department, Health Department, Gujarat Jalseva Training Institute, research and evaluation agencies, UNICEF, etc.

Lasting alliances

WASMO's experience with ISAs has meandered through several stages. The journey began with the Ghogha project where it worked with three NGOs. At that time, there was little clarity of roles. The partnerships thus did not yield the intended results in the beginning. What was realised was that committed efforts from both sides would be required for meaningful alliances. Both WASMO and the ISAs had to come to a mutual understanding and a commonality of purpose.

Selection criteria for NGOs were set up by a committee specially formed for the purpose. In several rounds, criteria for selection and attributes along with weight age for each attribute were worked out. The matrix for marking was adopted in which for total 120 marks, 80 marks for allocated for the years and nature of experience of the ISA and 40 marks were allocated for the criteria of personnel. The qualifying cut-off line was 60% i.e. 72 marks. The experience aspect encompassed experience on working in community participation mode, in field of drinking water, hygiene and sanitation, water resource management, working with government sponsored and other programmes, their strength in the area of capacity building etc. After the exercise was carried out, qualifying NGOs were short listed as ISAs on the basis of ranking.

In the present context, WASMO has forged partnerships with as many 32 ISAs in the ERR programme and 28 ISAs in the Swajaldhara programme. Both programmes have developed and laid out the activities of the ISAs during the different project stages. Their roles and responsibilities are clearly enlisted and a formal agreement is entered into by the organisations before the commencement of the project. WASMO has organised rigorous orientation and training sessions and workshops to develop capacities of project staff. These occasions also helped break the ice for participating organisations and led to attitudinal change.

Exposure visits - a part of training of ISAs

Participation in the Krishi Mela

As part of its efforts to work in synergy with the state's efforts, WASMO collaborated with Agriculture Department's efforts and participated in the Balaram Krishi Mela in December 2005. A pavilion on water supply and water resources was developed for the exhibition. Various display materials were produced like static and working models on water conservation methods and a working model on water supply grid showing Narmada master plan bulk pipeline. IEC materials were also developed and distributed to approximately 75, 000 people who visited the exhibition.

Women visitors at the Krishi Mela taking interest in the displays

Partnering with UNICEF

UNICEF has extended strong support to WASMO for its programmes. It has been extending ongoing support to Swajaldhara and SRS (State) programmes and has also been involved with WASMO's other activities such as the organizing of the Fluorosis mitigation workshop and the development of the Ashramshala concept.

UNICEF support for Swajaldhara programme and SRS (State)

- Office in a bag: 500 kits were given to enable the Pani Samitis to maintain their records, accounts and documents.
- Operation & Maintenance Kits: 200 kits having tools and implements for O&M for in-village water supply schemes were given.
- Water quality testing kit: 500 bags were given for Pani Samitis and 77 comprehensive kits for state and district level officials/core team for water quality surveillance.

Development of Ashramshala concept

UNICEF has been involved with WASMO in the development of the Ashramshala concept, in partnership with students of Centre for Environmental Planning and Technology (CEPT), Ahmedabad. It visited about 22 Ashramshalas with the aim to develop architectural plans for extending Anandshala concept to Ashramshala in Dangs district, Kaprada and Dharampur taluka of Valsad district. The aim of the visit was to develop a master plan of an ideal Ashramshala with a special focus on water supply systems and sanitation facilities.

Ashramshala students in Kaprada interact with a CEPT student

WASMO's Programmes

1. Community-managed Water and Sanitation Programme in Earthquake-affected Villages of Gujarat
2. Swajaldhara Programme and Sector Reform Scheme (State)
3. Ghogha Regional Water Supply and Sanitation Programme
4. Water Quality Monitoring and Surveillance Programme in Gujarat
5. Institutional Support to WASMO

1. Community-managed Water and Sanitation Programme in Earthquake-affected Villages of Gujarat

Programme details of ERR project

Component	Details (Amt in lakhs)
Total project provision	17,226.78
Contribution	
Royal Netherlands Embassy (RNE)	2,632
Government of India (GoI) *	12,248
Government of Gujarat (GoG)	1,620
Community contribution	485
Salvage value of existing water supply systems	243
Project period	5 years
Project initiation date	October 1, 2002
Project completion date	September 30, 2007
Expenditure upto March 31, 2005	4329.56
Expenditure in the current financial year	3041.58
Cumulative expenditure upto March 31, 2006	7371.15

* Since April 1, 2004 RNE share of funds has been taken over by the Government of India.

The Community-managed water and sanitation programme in earthquake-affected villages of Gujarat (the ERR programme), is being implemented to restore and develop water supply and sanitation facilities in 1,260 earthquake-affected villages in the districts of Kutch, Jamnagar, Patan and Surendranagar. While it has been the earthquake that led to the launching of the ERR Programme, the programme's mandate seeks to extend beyond the reinstatement of water supply in the affected villages. It also includes facilitating water security with emphasis on quality, as well improved household and environment sanitation. Piped water supply in the programme is sourced from the Sardar Sarovar Canal-based Drinking Water Supply Project and other regional schemes.

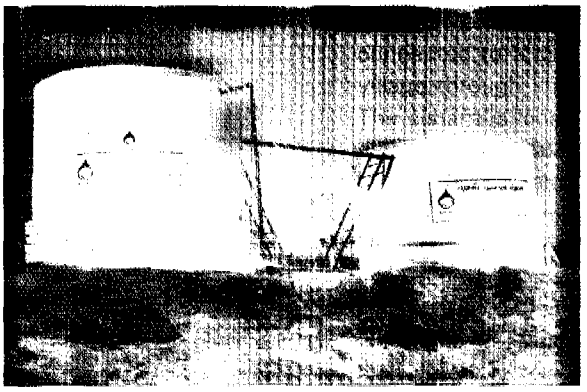
Since the ERR programme covers a large area, the implementation of the programme has been carried out in two phases. The initial period was a pilot phase where activities were planned and implemented for 400 villages. The successful implementation of the pilot phase provided valuable learning and confidence and led to the scaling up of the activities. In the ongoing second phase, partnerships were forged with 30 ISAs, and a well-defined IEC strategy was put in place to launch the ERR programme into a campaign mode.

Objectives

- Restore water supply to all earthquake-affected villages by establishing de-centralised, demand driven, community-owned rural water supply and sanitation systems, planned, approved, implemented, operated and managed by the local community, thus ensuring sustainability;
- Provide drinking water security through an integrated combination of pipe, local traditional water sources and multiple sources for alternative use;
- Conserve water through water resource management that includes rainwater harvesting and artificial recharge, conservation and renovation of traditional water sources;
- Build effective community institutions at the local level by supporting capacity building and empowerment;
- Ensure that all community groups, including women, are able to participate in the decision making processes and benefit from programme improvements;
- Improve household and community environments with sanitation improvement and increased hygiene awareness in communities; and
- Provide implementation support to communities through independent civil society organisations who will function as Implementation Support Agencies (ISAs).

Simple innovations

Filon in Mandvi block receives its water from the bore that is connected to a cistern, which in turn supplies water to the village through stand posts and individual tap connections. The cistern is located at a height in the upper region of the village, thus making it possible to have a gravity-based distribution system. However, the village suffers from quality problems as the local water has high iron content.



Settlement tank system at Filon village

In order to address the water quality problem, the community, as part of project activities, decided to have a dual tank system where the first tank could act as a settlement tank. The people built a new tank adjacent to the old tank, so that the water from the pond is routed to the new tank through the old one. As a result, the slurry settles down in the old tank (settlement tank) first, before being supplied to the taps. With the non-availability of other sources of water, the settlement tank has been able to partially address the water quality problems and bring solutions.

Project Status

The ERR Programme is well underway, with work nearing completion or already completed in about a third of the programme villages. Currently, Surendranagar and Jamnagar districts have almost completed all hardware interventions. Due to its geographical spread, it is Kutch district where concentrated efforts are being made to cover the vast number of villages.

In the previous year, ISAs were inducted and programme villages were allocated to different partners. This year marked the initiation of community mobilisation in all villages where work had yet to begin. Major activities of the year focused on certain key areas. These were:

- **Operation and maintenance:** As work had almost been completed in a large number of villages, reiterating its importance and strengthening O&M was of paramount importance. Apart from training and capacity building, WASMO also explored ways to ensure that O&M systems continued to remain in place and Pani Samitis were able to look after the village water and sanitation systems.

- **Completion of activities:** It was recognized that where work was already nearing completion, special efforts and impetus needed to be given so that all the structures were ready. Attention also had to be focused on areas where progress was slow.

- **Scaling up:** With the large number of villages, scaling up of activities was necessary so that work in all villages could be completed within the given timeframe. As a result, it was necessary to ensure that communities did not take an undue amount of time in adopting the programme, while also ensuring that the programme continued to remain demand-driven and need-based.

  For example, in Dhajala village in Surendranagar, as many as four Gram Sabhas, 16 group meetings and 15 Pani Samiti meetings did not yield results. The community was still reluctant to make contributions and the village was almost dropped off from the programme. Dhajala was given a deadline of a fortnight for gathering a sum of Rs. 1 lac. Eventually, it was only because of a few teachers, who were keen on the programme that they manage to go house-to-house to convince the people and raise even more than the required amount.

Physical progress of the project

Activities	Districts			Total No. of Villages
	Kutch and Patan	Jamnagar	Surendra-nagar	
Introductory meeting	977	146	137	1260
Repair and reconstruction work				
Villages identified	189	5	33	227
Completion of work	189	5	33	227
Sanitation Drive	1958	170	140	2268
Programme with school children	1017	170	136	1323
Conducting baseline survey	876	170	151	1197
Pani Samiti formed and supported by the Gram Sabha	875	167	151	1193
Preparation of VAP	675	149	140	964
Finalisation of VAP with the help of CMSU	639	143	135	917
Implementation mechanism and disbursement of funds	512	142	130	784
(Release of 10% advance)				
Commencement of work	490	128	130	748
Work completed	321	22	56	399
Fixing of water and sanitation tariff	348	13	70	431

The financial progress of the project is given is Annex - E.

Significant changes

The Banni region is a vast area of grasslands with scattered villages that are located at great distances from each other. The area is dry and arid, and the people of the region are dependent on cattle grazing and handicrafts for their livelihood. There are 44 villages in the Banni area, and these are dominated by Muslim and Harijan communities. The Bhirandiara Regional Water Supply Scheme has been supplying water to the Banni villages and suffered damage during the earthquake. WASMO commenced its first phase of implementation in 20 villages. With the new community-based, demand-driven approach, it was the first time that the people began to pay for the development in their village. As a result of the community-managed, demand-driven and decentralized approach, some of the major changes that have been witnessed in the Banni region are:

The harsh climate and vast grasslands of Banni aggravate the drinking water problem

Water tariff: Unlike last year, where no charges for water were paid by the people to GWSSB, this year, the total charges that have been collected stands at Rs. 4.32 lakhs.

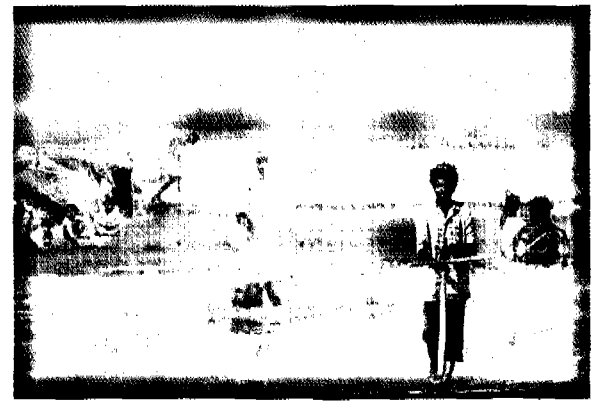
Leadership: For a long time, spanning several decades, traditional leadership in the villages was never questioned. It rested with a village elder who commanded respect and support of the people. With the implementation of the project, this scenario began to change as young leaders emerged. The need to ensure proper implementation of the project activities brought many individuals with innate leadership qualities to the fore. They received training and skills which enabled them to take up work in other villages as well. In villages like Gadhiyalo, it was the first time that a youth had led the village development process.

Inspiration to other villages: The successful completion of the first phase of the project has served as an example to other villages, who also want to be included in the project. Many of the villages have either already collected or are in the process of collecting their community contribution in advance so that they can be made part of the second phase of the project.

New initiatives

Reaching out to salt pan workers

Given the harsh dwelling conditions of the salt pan workers in the Little Rann of Kutch, with little or no access to basic facilities like water and sanitation, WASMO had decided to address this target group on an urgent basis. Since the salt pan workers live at the salt pan sites on a seasonal basis, interventions had to take into account their migratory lifestyle. It was decided to initiate community low-cost dry pit latrines made of simple material such as poles and jute bags. Each unit could be erected at a nominal cost of Rs. 250.



Salt pan workers

Initially, WASMO planned to construct nine demonstration models. With the remarkable response it received from the communities, where they were willing to share 30% of cost in the form of labor, it decided to build another 100 units. So far, 89 units have already been constructed and are used by the communities. The privacy and comfort which the women have experienced have inspired them to make more toilets, especially since their design and construction are extremely simple.

ERR Programme

Sanitation Education Complexes

A unique initiative was launched by WASMO in partnership with other organisations to educate communities about hygiene practices. Certain highly frequented sites were selected for generating awareness about the use of toilets.

The first attempt has been made in Dwarka, an immensely popular pilgrimage centre in Jamnagar district. The lack of adequate sanitation facilities and the inappropriate maintenance of existing facilities has given rise to unhygienic conditions and created a poor image of the city.

WASMO embarked on a joint initiative with Dwarka municipality and Sulabh International to build a Sanitation Education Complex containing a sanitation unit and rooftop rainwater harvesting system. The complex will function on a 'pay and use' basis and will have urinal blocks, bio gas plant, common amenities and a hut for providing water. An exhibition hall, wind mill and solar implements have also been planned under the complex. The total cost is estimated to be Rs. 39.46 lacs, and Sulabh Internation will bear the O&M responsibility for 15 years.

A similar sanitation complex for truckers has also been planned at Suraj Karadi in partnership with Tata Chemicals Society for Rural Development. Truck drivers visit this town in large numbers every day and also often make night halts. There is no sanitation facility available for this group of workers. Thus, a systematic plan for a sanitation complex has been worked out with the aim of hygiene education and provisioning of basic facilities.

Other sites such as Samakhyali, Mundra, Kandla, Pandro, Adesara and Kutch have also been identified for such complexes and their viability is under consideration.

2. Swajaldhara Programme and Sector Reform Scheme (State)

Reforms in the water supply sector were initiated in the country in 1999 and were universalised with the launch of the nation-wide Swajaldhara programme in December 2002. In Gujarat, this programme commenced in 2003 and is currently being implemented in 13 districts including Ahmedabad, Anand, Bhavnagar, Bharuch, Banaskantha, Junagadh, Panchmahal, Patan, Rajkot, Sabarkantha, Surat, Vadodara and Valsad. Due to the intensive information and capacity drives carried out under the programme, there has been a considerable demand generated from villages to implement the Swajaldhara. To meet this demand and scale up the reforms, the state government initiated Sector Reform Scheme (State) in the remaining districts with the exception of Kutch, which is being covered under the ERR Programme. With SRS and other projects, all districts are being covered with rural drinking water supply programmes on the basis of reform principles.

Objectives of Swajaldhara programme

- Empowering the rural community, particularly the women, and enabling them to participate in the planning, implementation and operation of water management programmes
- Redefining the role of government agencies from providers to facilitators
- Enabling project village communities to have at least 40 litres per capita per day of safe water
- Establishment of water harvesting structures and revival of traditional drinking water sources
- Partial capital cost sharing and complete responsibility of operation and maintenance for the community involved

Institutional arrangements

The institutional framework for implementing Swajaldhara and SRS (State) includes the villagers, NGOs, GWSSB, Core Teams and WASMO, with each having well-defined roles and functions.

1. State Water and Sanitation Mission (SWSM)

At the state level, WASMO is the SWSM for Swajaldhara, and its responsibilities include:

- Providing policy guidance;
- Monitoring and evaluation of physical, financial and management performance of the water supply and sanitation projects;
- Arranging for independent certification of the quality of construction in Swajaldhara projects;
- Integrating and operating IEC and capacity development programmes for water supply and sanitation; and,
- Interacting with the Government of India and funding agencies.

2. District Water and Sanitation Committee (DWSC)

At the district level, DWSCs have been formed under the chairmanship of the District Collector. The Executive Engineer, GWSSB, is the Member Secretary. The GWSSB has the dual responsibilities of facilitating rural water supply schemes up to the village as well as of the overall implementation of the programme within the village. DWSC is involved in IEC campaigns and capacity building and works closely with Pani Samitis in the execution of the schemes. It is also responsible for monitoring progress.

3. Core Team

To provide implementation support to DWSCs and VWSCs, especially on social aspects of the process, a Core

Team comprising of professionals from the field of water engineering, community mobilisation and documentation and communication have been set up by WASMO in all 24 districts excluding Kutch where the ERR programme is on-going. The focus area of this team includes:

i. Co-ordinations with ISAs for:
- Implementation of social processes in the village, including Participatory Rural Appraisals;
- Sensitisation of the village community about Swajaldhara principles;
- Capacity building of the Pani Samiti in all aspects of the process such as record-keeping, construction management, quality monitoring and control;

ii. Facilitation of the community in scheme implementation.

iii. Support to DWSCs in implementation of the programme.

4. Village Water and Sanitation Committee (Pani Samiti)

Like other WASMO programmes, at the village level, Swajaldhara is implemented through the Pani Samiti. This committee is responsible for planning, designing, implementing and operating and maintaining the systems constructed under the Swajaldhara and SRS (State) Programmes. It is assisted by members from ISAs and DWSCs through their Core Team and GWSSB engineers.

Meeting challenges in tribal belts

Trudging long distances on rocky terrain to fetch water – a routine in tribal areas

The tribal regions of Valsad district have had a long saga of struggle. They are located in remote and hilly areas with negligible infrastructure facilities. Forced migration to fight poverty is a common phenomenon. While this belt receives good rainfall, the undulating and hilly terrain does not allow the water to be captured into the ground. The women from villages like Mohana Kavchali, Nani Korvad and Kastaveri have the double tasks of hard labour in the fields as well as the long trek to collect water.

When Swajadhara was introduced in these villages, the challenge first lay in bringing the construction material even for simple structures. Plans were made to make a well although this was going to be no easy task. The very remote interiors and difficult terrain made the transporting of bricks, cement and sand an arduous process. The Pani Samitis of these villages, however, persisted and met such obstacles head on to ensure that water was available in their villages.

Partnering with NGOs

With geographic expansion of the programmes, it was necessary to partner with NGOs and include them in the programme activities as Implementation Support Agencies. As SWSM, a significant part of WASMO's activities in the year focused on selecting NGOs to implement Swajaldhara and SRS programmes in a scaled-up mode. A nine-member expert committee was constituted to oversee the selection process. An invitation to NGOs to partner in the programme was published in an English daily, and received an overwhelming response, with over 500 applications being received by WASMO. These applications were then ranked on criteria of experience and personnel according to a well-defined matrix.

The selection committee recommended that a minimum qualifying score of 60% was required for an NGO to be considered. Further, each district could have a maximum of three NGOs allocated to it, for the present where two would be given the work and one would be kept in the wait list.

After the selection process, 30 NGOs are now working with the Swajaldhara and SRS programmes. Based on the 'Guidelines on Swajaldhara' issued by the Government of India, NGOs can be included for facilitating activities such as social mobilisation, communication and capacity development, Participatory Rural Appraisal (PRA), Human Resource Development (HRD), training; and implementation of the scheme. Accordingly, the ISAs supporting the two programmes will play a number of roles. They will act as change agents, intermediaries, source of knowledge and process managers. The list of selected NGOs is given in Annex - F.

Training and capacity building

With the induction of a large number of new NGOs and scaling up of activities, considerable capacity building was necessary to bring all stakeholders on a common platform. During the year, project implementation staff was trained in-house and through exposure trips. Some of the major initiatives taken for capacity building are:

- **DWSCs:** Orientation workshops for Member Secretaries and staff of DWSCs conducted at the state level, where the strategy for the process of implementation of Swajaldhara was shared.

- **GWSSB staff:** Sensitisation of members of GWSSB about social processes and their importance.

- **Core Teams and ISAs:** Training of Core Team members and ISAs on thematic topics such as PRA for social mobilisers; technical training for water engineers; and communication strategy for Documentation and Communication personnel.

- **Pani Samitis:** Training of Pani Samiti members on aspects such as record keeping, O&M, community participation and water quality. Under the Swajaldhara Programme and SRS (State) about 200 programmes were conducted on various themes from orientation to post-construction training details of which are given in Annex - B.

Monitoring mechanisms

Village level: As the scheme is implemented through the Pani Samiti, the main responsibility of monitoring and supervision lies with them. For this, they are supported by the engineering staff of GWSSB and Core Team members.

District level: The DWSC is responsible for monitoring with the assistance of the District Collector and Chairman, DWSC. Review meetings are conducted on monthly or bi-monthly basis.

State level: The Secretary (Water Supply) has initiated a system of monitoring Swajaldhara progress by holding a meeting of field teams consisting of the Member Secretary, DWSC, Core Team members, and NGOs every Monday. In a month, progress of six districts are reviewed and issues are sorted out by direct intervention of the policy level officials.

Quarterly review: This is held at the state level and is conducted with Core Team members by the CEO and Chief Engineer, WASMO. The main objective of the review is to understand field level problems and support needed for smooth process functioning. These reviews also help in sensitisation of the implementation staff. Where performance is not up to the mark, consultations are held with the implementation staff of districts by the SWSM to solve practical issues and provide flexibility for effective implementation.

State Water and Sanitation Committee: This committee is chaired by the Chief Secretary and meets once in a quarter to review Swajaldhara progress. The Chief Secretary reviews the progress directly with the District Collector and Chairman, DWSC, through video conferencing as well.

Swajaldhara Programme and Sector Reform Scheme (State)

WASMO

State level review committee: It undertakes social and technical audits of the schemes and provides guidelines for improvement to villagers as well as the district administration. This committee comprises of experienced professionals from the fields of water engineering, community mobilisation, finance and accounts and civil society.

Rapid Assessment

Vadodara and Anand districts: To assess the impact of the programme and to understand the area of improvements, rapid assessment study of all the programme villages of Vadodara and Anand districts was carried out by Swajaldhara unit officials, Gandhinagar in December 2005.

Surat, Rajkot and Mehsana districts: The rapid assessment study of SRP districts including Surat, Rajkot and Mehsana to evaluate aspects of programme management such as completion of work, quality, benefits gained, and maintenance was carried out. This work was commissioned to the Directorate (Evaluation), Government of Gujarat through which assessment of 22 villages of each district was carried out.

Project Status

It has now been four years since Swajaldhara is being implemented in Gujarat. Already, about 460 schemes have been completed and commissioned to the Pani Samitis. The villages that are currently being covered under Swajaldhara programme and Sector Reform Scheme (State) have increased to about 1506 from about 600 in 2003-04.

Activities of the last year also focused on training and capacity building of implementing staff. It was realized that GWSSB was more occupied with the implementation of bulk water supply projects and could not lay adequate stress on the software components of the programme. For instance, O&M aspects in completed schemes did not receive the attention it deserved. To give boost to the social dimensions of Swajaldhara, WASMO not only strengthened its own Core Teams to support GWSSB, but also continued to orient GWSSB members with the community-managed approach. For 2005-2006, the fund allocation for the Swajaldhara programme from GoI and the SRS (State) from GoG was as follows:

Swajaldhara programme			SRS (State)		
Sr. No.	District	Rs. In lakh	Sr. No.	District	Rs. In lakh
1	Ahmedabad	130.00	1	Dahod	65.00
2	Anand	75.00	2	Dangs	80.00
3	Banaskantha	130.00	3	Gandhinagar	200.00
4	Bharuch	50.00	4	Amreli	150.00
5	Bhavnagar	199.00	5	Jamnagar	90.00
6	Junagadh	266.00	6	Kheda	125.00
7	Panchmahal	75.00	7	Narmada	110.00
8	Patan	100.00	8	Navsari	200.00
9	Sabarkantha	135.00	9	Porbandar	90.00
10	Vadodara	100.00	10	Surendranagar	90.00
11	Valsad	35.00	11	Mehsana	300.00
12	Surat	200.73			
13	Rajkot	134.00			
	Total	**1,629.73**		**Total**	**1,500.00**
	Grand Total				**3129.73**

WASMO

Swajaldhara Programme and Sector Reform Scheme (State)

Progress of Swajaldhara

Financial progress: Under Swajaldhara programme, against allocation of Rs. 1629.73 lakh, Government of India has released fund of Rs. 1222.30 lakhs has towards first installment for the year 2005-06. The district-wise financial progress is presented in Annex - G. Cumulative financial progress over the last four years is as under:

Year-wise financial progress of Swajaldhara (in Rs lakh)

Year	Allocation of fund	Fund received from GOI	Fund released to DWSC	% release against fund received	Expenditure incurred by DWSC	% expenditure against fund released
2002-03	167.96	162.53	157.53	96.92	156.46	99.32
2003-04	765.56	765.56	765.56	100.00	765.56	100.00
2004-05	826.42	826.42	826.42	100.00	823.42	99.64
(Regular allocation)						
2004-05	1,173.67	880.25	981.25	111.47	908.24	92.56
(Additional allocation)						
2005-06	1629.73	1222.30	1221.54	99.94	805.11	65.91
Total	4,563.34	3,857.06	3,952. 30	102.47	3458.79	87.51

Physical Progress: Total 945 in-village water supply schemes amounting to Rs. 8091.08 lakhs have been accepted and approved by VWSC/Gram Panchayats and 795 schemes amounting to Rs. 6452.14 lakhs have been approved by DWSCs. Till date, works of 346 schemes have been completed and commissioned and 296 schemes are under progress and 153 scheme are yet to be taken up for implementation. The details of the district-wise physical progress are presented in Annex - H.

Progress of SRS

Financial progress: Under SRS (State), for the year 2004-05 and 2005-06, allocation of Rs. 1500.00 lakhs each i.e. Rs. 3000.00 lakhs have been made and fund of Rs. 3000.00 lakhs have been released to WASMO by Government of Gujarat. WASMO has transferred Rs. 2695.00 lakhs to various DWSCs on the basis of allocation made and these DWSCs have spent an amount of Rs. 1953.31 lakhs (i.e. 72.48%) towards payment to VWSCs. The district-wise financial progress is presented in Annex - I. The cumulative status of fund under SRS (State) is as under:

Year-wise financial progress SRS (State) (in Rs lakh)

Year	Allocation of fund	Fund received from GOI	Fund released to DWSC	% release against fund received	Expenditure incurred by DWSC	% expenditure against fund released
2004-05	1,500.00	1,500.00	1,500.00	100.00	1,438.48	95.90
2005-06	1,500.00	1,500.00	1,195.00	79.67	514.83	43.08
Total	**3,000.00**	**3,000.00**	**2,695.00**	**89.83**	**1,953.31**	**72.48**

Physical progress: Under SRS (State), total 561 in-village water supply schemes amounting to Rs. 5901.30 lakhs have been accepted and approved by VWSC/Gram Panchayats and 477 schemes amounting to Rs. 4273.49 lakhs have been approved by DWSCs. Till date, total 110 schemes have been completed and commissioned and work for 260 schemes is under progress. The details of district-wise physical progress are presented in Annex - J.

3. Ghogha Regional Water Supply and Sanitation Project

Details of Ghogha project

Component	Details (Amount in Rs. lakh)
Total project provision	5,960.41
Project period	7 years, 11 months
Phase I	August 4, 1997 – August 30, 2002
Phase II	September 1, 2002 - June 30, 2005
Contribution	
Royal Netherlands Embassy (RNE)	5,088.06
Government of Gujarat (GoG)	872.35
Expenditure till March 31, 2005	5177.93
Expenditure in current financial year	775.39
Cumulative expenditure till March, 2006	5953.32
RNE share	5082.00
GoG share	871.32

The Ghogha regional water supply and sanitation project was the first attempt of the state government to implement a community-managed approach in the water and sanitation sector. It covered an estimated area of 614 km in the coastal area along the Gulf of Cambay and was implemented in 82 villages of Bhavnagar, Ghogha and Talaja talukas. The Government of Netherlands and the Government of Gujarat jointly supported the project. The water supply distribution systems within villages were based on bulk water transfer from Mahi River and local ground water sources.

Objectives

- Safe and reliable water supply for communities at convenient distances
- Community-based O&M and adequate cost-recovery for O&M from communities
- Improvement in the disposal of human excreta and increase in the coverage of household latrines
- Improvement in environmental sanitation, particularly with respect to waste water and solid waste disposal
- Improvement in household and personal hygiene
- Community involvement and management through strengthening and development of local institutions such as Pani Samitis, and working through existing institutions such as the panchayat, NGOs, and health and education services
- Improvement in village level management of water resources
- Enhancement of institutional capacity in technical, social and management aspects to facilitate and support the project

WASMO

Ghogha Regional Water Supply and Sanitation Project

Physical progress of the Community-managed Ghogha regional water supply and sanitation project

Sr. No.	Item	Output	Remarks
1	**In-village water supply**		
1.1	Total storage capacity created (litres)	1,08,85,000	
	RCC sump storage capacity	66,20,000	
	ESR storage capacity	42,65,000	
1.2	No. of ESR	84	83 ESR 01- HGLR
1.3	No. of storage sump	84	
1.4	No. of household connections	2307	13 villages
1.5	No. of stand posts	956	484 SP – 2 taps 251 SP – 3 taps 221 SP – 4 taps
1.6	No. of washing facilities and snan ghats	149	46 WF – 5 taps 50 WF – 9 taps 53 WF – 13 taps
1.7	No. of cattle troughs	135	
2	**WRM structures/ activities**		
2.1	Large/ medium check dams	25	
2.2	Medium/ small check dams	50	
2.3	Tidal control structures	03	
2.4	Pond repairing	24	
2.5	Construction of Ponds	21	
	Total storage capacity of major WRM structures	123	1.5915 MCM**
2.6	Injection well	10	
2.7	Well recharging	124	
2.8	Well upgradation	83	
2.9	Drainage of water points	147	
3	**Pastureland development**	658 Hectares	36 villages
4	**Environmental Sanitation**		
4.1	Construction of soak-pits	22753	Demonstration soak-pits 312 in 34 villages – subsidised soak pits – 22441 in 75 villages
4.2	Installation of dust-bins	795	In 81 villages
4.3	Demonstration latrines	456	In 81 villages
4.4	School sanitation unit	149	In 81 villages
4.5	Slogan writing	1854	In 82 villages
4.6	Wall painting	509	In 82 villages
4.7	Distribution of water quality testing kits	83	82 in project villages and 01 kit for the chemist

Reference: "Impact of water Resource Management activities in Ghogha regional water supply and sanitation project", Assessment study done by ORG-MARG, January 2006.

Ghogha Regional Water Supply and Sanitation Project

WASMO

Project status

The last leg of the Ghogha Project came to an end, with all activities completed by June 2005, and the financial closure happening in December 2005. The focus of the final semester of the project was on completing all minor works and repairs of the structures, as well as settling accounts with Pani Samitis and contractors. Since the project was in the wrapping up mode, special efforts were made to verify whether the systems developed by Pani Samitis had been institutionalised and whether all the village water and sanitation systems were functional.

The final phase made an attempt to consolidate all interventions made under the project over seven years. A survey was thus done in all 82 villages by the Facility Completion Teams (FCT) to check the project structures and strengthen O&M aspects. The financial progress of the project is given in Annex - K. To complement and sustain the water security that had already been achieved in all villages, water quality, sanitation, pastureland management and capacity building were emphasised to the communities.

Achieving sustainability

Atmarpan - the commissioning and handing over of the project

One of the most far-reaching and important impact of the programme has been the acceptance among rural communities that water can no longer be had for free. This acceptance has led to the creation of cost-sharing arrangements at the village level for the routine O&M requirements. Tariff structures have been defined by the Pani Samitis and are being implemented in all villages.

Over half the project villages have as many as 70-100% of the households making regular annual tariff contributions. There have also been evidences of villages such as Gundi, Kobadi, Kolyak and Ghogha where enough funds have been raised to last for the next 3-4 years. Kobadi and Gundi have both collected more than four times their estimated O&M expenditure.

Impact of WRM interventions

A study on the impact of water resource management activities was undertaken between June and December 2005 by ORG Centre for Social Research. The study covered 21 villages from the three project talukas. Some of the major findings of the study were:

- Increase in utilisable ground water recharge from 37.50 Mcm to 87.95 Mcm, indicating the change in overall category of ground water potential from dark to white.
- Improvement in the quality of ground water in the post project period, with the range of TDS concentrations improving from 520-5390 to 470-2764 mg/l in Bhavnagar taluka, 644-3260 to 430-2660 mg/l in Ghogha taluka, and 873-3760 to 318-2874 mg/l in Talaja taluka.

Beyond the Ghogha project

As the state's first experience in the community-managed approach, the Ghogha project provided a number of lessons on various fronts to all the stakeholders. Technical, financial and social dimensions were constantly refined and modified to make the project truly participatory and demand-driven. Some of the important lessons and insights derived from Ghogha have proved to be valid for WASMO while implementing its other programmes.

Ghogha Regional Water Supply and Sanitation Project

Dual water sources: The choice of water sources in the Ghogha project paved the way for a very fundamental change in strategy in all subsequent WASMO programmes. It was realised that water security could only be had through a combination of dual water sources where local ground water was backed by external piped water. The original strategy in Ghogha Project was to strengthen the local resources and facilitate external supplies only in no-source villages. However, this was found unfeasible as ground water sources seldom had perennial supplies to cater to the village.

Increased and improved ground water – a result of WRM interventions

Construction by communities: For the first time in Gujarat, the Ghogha project brought in the involvement of communities in construction work of water supply systems. Instead of having contractors, communities were eager to construct their own structures and enforce quality standards. WASMO imbibed this lesson in Swajaldhara and ERR programmes where communities have a choice between constructing the structures or hiring contractors.

Water resource management: *It was realised that ground water recharging was necessary for sustainability of* sources. As a result, this component made a belated entry in the project although the other WASMO programmes that followed included WRM activities since the very beginning.

Selection of villages: Although the project was essentially supposed to be demand-driven, there were no provisions made to allow for redefining the project area in case it was found that there was insufficient demand in some of the selected villages. Care was taken by WASMO in the subsequent ERR and Swajaldhara programmes to maintain flexibility in village selection. Both projects have provisions for excluding those villages that give little response to the project, and including those that demonstrate their readiness for interventions.

Clarity of roles: As the task of implementing the new community-managed approach was new, the three ISAs had only a nebulous idea of their roles. This resulted in a sense of ambiguity, delays and slow implementation. The second half of the project saw far more collaborative working and greater trust after efforts were made to build genuine partnerships. These efforts paid off. Now, WASMO has a large number of ISAs working with it in other programmes, and there is a distinct shouldering of responsibility for the tasks that need to be done.

Communities take on responsibility

"It is after 50 long years that the women's need for water has been satisfied. What the men could not achieve after all these years, the women achieved. It is because we value water that we make sure that we look after the structures and also ensure that there is no wasteful consumption of water," said Baghuben, the sarpanch of Ghogha village.

Baluben, a member of the Nesvad Pani Samiti recounted how her village halted the use of mechanised earthmovers by contractors and mobilised the community for construction activity. It was the first instance in the project where the community took on construction themselves. "It was a drought year and the people were desperate for work. We insisted on doing the labor work for laying the pipeline," she said.

Chief Minister's message for World Water Day

On March 22, 2006, the World Water Day, well after the project had officially been terminated, the Ghogha villages were revisited to see how the Pani Samitis were getting along. Chief Minister of Gujarat, Narendra Modi held an hour-long video conference with Pani Samiti members who had convened at Bhavnagar. During this session, the members narrated their experience with the project. As a concluding message to the communities, the CM urged them to make judicious use of water, saying that, "Water is like a gift bestowed by God." He also commented that 15 years ago, nobody could have imagined water as a commodity that could be sold at general stores. The only difference between other commodities and water is that the latter cannot be produced in a factory, but is instead something that is provided by Nature. At the end of the hour, Pani Samiti members were given a pamphlet providing the financial and physical details of the works that had been executed in their village.

Chief Minister Narendra Modi addresses the Ghogha project communities at a video conference on World Water Day

4. Water Quality Monitoring and Surveillance Programme

The Rajiv Gandhi National Drinking Water Mission (RGNDWM) in 1994 had issued an implementation manual for institutionalising National Water Quality Monitoring and Surveillance Programme across all states. In accordance with the manual, an action plan amounting to a total budget of Rs. 823.98 lakh for covering 10,000 villages in a span of 3 years has been prepared for implementing the Water Quality Monitoring and Surveillance Programme (WQM&S) in Gujarat. This programme, conceptualised and devised as per the guidelines, follows a bottom-up, Catchment Area Approach.

Programme mandate

As per the action plan of the programme, the following tasks are required to be accomplished in the State:

- Awareness generation regarding drinking water quality and health among rural community in each district through IEC activities
- Capacity building of Pani Samitis, pump operators and women for sensitising them towards the importance of drinking water quality, hygiene and sanitation, and training them such that they chlorinate drinking water in their villages and maintain cleanliness.
- Empowerment of the rural community by provision of water-testing field test kits and guidance towards their operation such that potability of water is tested at village level by the community.

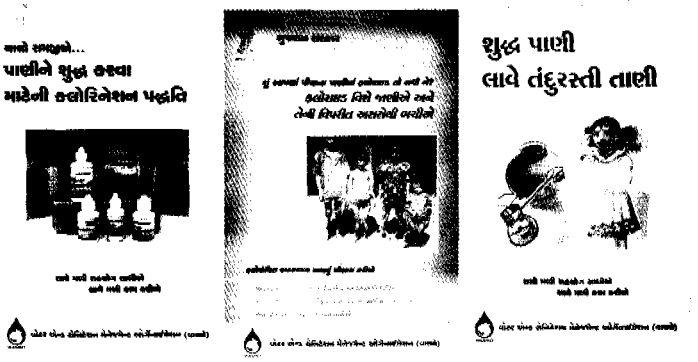
The programme in Gujarat

In anticipation of the approval and release of funds, WQM&S activities have been initiated in the state. The WQS programme was initiated in July 2004 as an activity independent of monitoring through projects implemented by WASMO. The programme aims at awareness generation among the community about the importance of water quality and its effect on the health and well-being of people. Currently, all WASMO projects include community WQS to ensure that drinking water is not only secure but also safe.

Mass awareness generation through IEC

Awareness generation for communities has been done through:

- Appeal through letters were sent addressing all Gram Panchayats of the state undersigned by CEO, WASMO for cleanliness and regular chlorination during monsoons; and for dealing with excessive fluoride in drinking water and fluorosis. The latter appeal was sent to sarpanches of those villages with excessive fluoride in the ground water.
- Brochures and posters giving insight on water quality and health implications of drinking water contaminants, water quality maintenance, chlorination and personal hygiene were printed and distributed among villages.
- A manual on drinking water chlorination was prepared and distributed among village pump operators.
- Note book stickers carrying messages of personal hygiene were prepared and distributed among rural school children in Gujarati and English.



IEC material for awareness generation on water quality

- Messages for creating mass awareness on potable water and prevention of epidemics were spread through All India Radio and Doordarshan just before the onset of monsoon.
- A booklet on fluoride contamination in Gujarat has been prepared for disseminating information among state and district level stakeholders regarding the problem of excessive fluoride in ground water of Gujarat and the state's efforts towards overcoming it.

Capacity building

Training programmes and workshops are held regularly to sensitise the various stakeholders and build their capacities so that the programme is firmly established and the villagers keep a vigil on their drinking water quality. Till February 2006, through 115 training programmes, 9586 stakeholders including Pani Samitis, pump operators, women, teachers, school children as well as district players have been trained and made aware of the importance of drinking water quality, health, hygiene and sanitation.

S. No.	Target audience	Total no. of trainings	Total no. of participants
1	Pani Samitis/pump operators: for chlorinating drinking water and monitoring with chloroscopes	44	3616
2	Teachers/women: for chlorination of school drinking water and sanitation in schools	22	1505
3	School children: for maintaining personal hygiene and cleanliness	15	3085
4	ISA members: for their role in the programme and strategies for implementation	10	497
5	Health workers	1	5
6	Suppliers (GWSSB staff): for regular water quality monitoring and optimum chlorination of the supplied water	14	523
7	DWSC and CMSU staff: for their role in the programme and strategies for implementation	15	355

State-level workshop on fluoride contamination

One state level workshop had been organised in September 2005 with support from UNICEF to sensitise the water supply and health department officials about fluoride contamination in ground water and fluorosis in Gujarat. Renowned fluorosis expert, Prof (Dr.) A.K. Susheela had been invited to enlighten the participants on the ways to overcome the problem and relieve Gujarat of fluorosis. Concerted efforts are being made thereafter in Gujarat towards ensuring that the community consumes safe drinking water. Some of them are:

- DDOs of 15 districts of the State have been urged to revive the defunct defluoridation plants in their respective districts with funds from the 12th Finance Commission.
- Gram Sabhas were held in villages having defluoridation plants, and villagers, especially women, were sensitised towards the importance of running these plants for their health and well-being. They were also explained the detailed cost of running these plants to counter their misconception that running the plants would prove to be very expensive. As a result of this, the community has started making efforts towards reviving these plants and are making strategies for the distributing filtered water.
- A fluorosis mitigation programme is being devised to be implemented in all fluoride-affected villages (4,187 habitations identified) across the state.

- Field visits are made to endemic villages to investigate the present quality of their drinking water sources and magnitude of fFluorosis in these villages. After these visits, coordination is done with the Health Department to exchange information on cases of dental and skeletal fluorosis in order to complement the water quality data with health data and finalise the course of action and thrust of IEC activities to be taken up.

Water quality testing in district laboratories

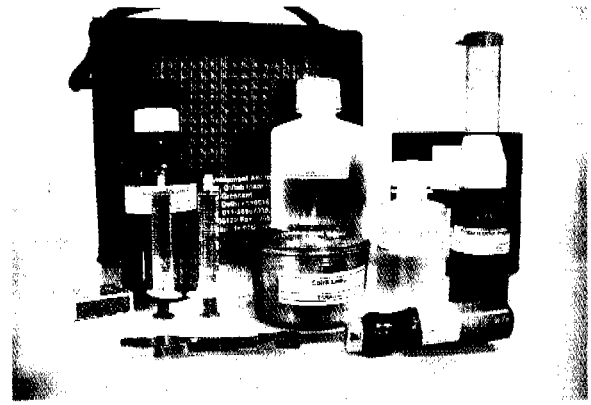
Water samples are tested for chemical and bacteriological contaminants in the eight district and one state laboratories across Gujarat. Depending on the level of contamination, opinion on their potability is given.

In villages where drinking water sector reforms are being implemented by WASMO through its various programmes, water samples are sent for laboratory testing in the pre-monsoon and post-monsoon period. As per the test results, preventive/remedial measures are taken collectively by the DWSCs, CMSUs and Pani Samitis. Laboratory testing of around 800 water samples from these programme villages has been carried out in 2005-06. In order to make the community of these villages more aware of their drinking water quality, the following measures have been taken:

- Letters are sent to the Sarpanch of the respective villages intimating them about their water testing results
- Rain water harvesting is promoted to ensure safe water for drinking and cooking purposes
- Community is motivated to find safe alternate sources for procuring at least 10 LPCD water for drinking and cooking

Water testing at village level: Distribution of field test kits

Distribution of water quality field test kits was initiated in the programme villages of WASMO with the objective of empowering the communities to test their water sources on their own and judge the safety/potability of their drinking water. 280 field test kits were purchased in August 2005 on a pilot basis. By November 2005, 82 kits were given to all project villages of Ghogha project. Kits have also been distributed in February 2006 among 64 completed project villages of Surendranagar with training to the Pani Samitis and school teachers for operating them.



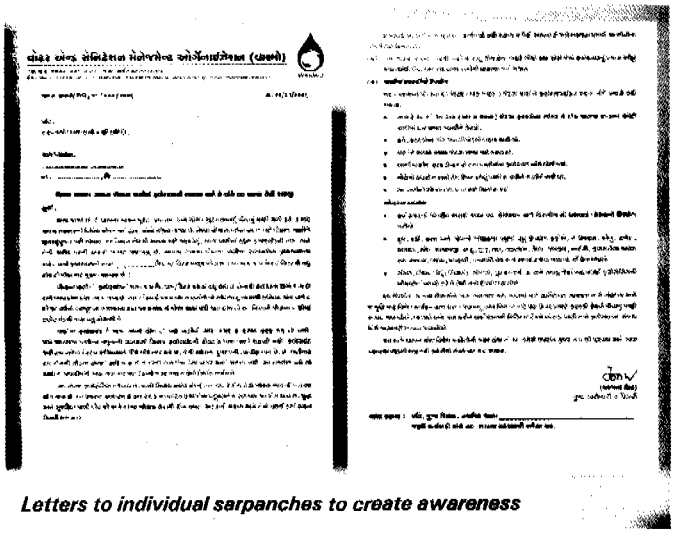
Water quality field testing kit

Another 577 kits have been procured with support from UNICEF in February 2006, out of which 26 kits comprising of 9 water quality parameters have been distributed among the district core teams of Swajaldhara and Sector reform programmes and chemists working in Surendranagar and Jamnagar CMSUs. The remaining kits will be distributed among ISAs, division offices and the completed villages.

Water Quality Monitoring and Surveillance Programme

State-wide launch of water quality monitoring and surveillance programme

In February 2006, first installment of funds for IEC and HRD activities pertaining to NRDWQM&SP during the year 2005-06 had been sanctioned by the GoI, Ministry of Rural Development, Department of Drinking Water Supply. The installments for IEC and HRD activities amount to Rs. 102.57 lakh and Rs. 88.72 lakh as against their provisional allocations of Rs. 230.68 lakh and Rs. 441.68 lakh respectively.



Letters to individual sarpanches to create awareness

WASMO as the State Water and Sanitation Mission (SWSM) will be coordinating the programme with Water Supply Department, State level referral institute (GJTI), and efforts will also be made towards establishing linkages with state Health Department, Education Department and NGOs in the state. Water quality monitoring, being the responsibility of the supplier, will be done by GWSSB through the chain of water testing laboratories across the State. Since surveillance is to be done targeting the user community, efforts of WASMO focus on empowering the communities towards keeping vigil on the quality of their drinking water.

Programme objectives

- Monitoring and surveillance of all drinking water sources in the State by the community.
- Decentralisation of water quality monitoring and surveillance of all rural drinking water sources in the State.
- Institutionalisation of community participation and involvement of PRIs for water quality monitoring and surveillance
- Generation of awareness among the rural masses about the water quality issues and the problems related to water borne diseases.
- Building capacity of Panchayats to own the field test kits and take up full O&M responsibility for water quality monitoring of all drinking water sources in their respective PRI area.

Building capacities of communities to test their water sources

With mobilisation of funds, the WQM&S activities will now gain momentum. For meeting recurring costs of field test kits and other expenses, the community will be urged to contribute at least Re. 1 per family per month and deposit in the VWSC accounts with separate ledger. This way, the community will be motivated towards shouldering the responsibility of O&M and it will thus be ensured that the programme is sustainable in the longer run.

5. Institutional Support to WASMO

The Institutional Support to WASMO project aims at making WASMO a functional and effective organization. The project was launched in September 2002, and has tenure of five years. It is being supported by the Government of Gujarat and Government of India, although formerly, Government of Netherlands extended support in place of the central government.

Details of Institutional support to WASMO project

Component	Details (Amount in Rs. lakh)
Total project provision	549
Project period	5 years
Project initiation date	September 1, 2002
Project completion date	August 30, 2007
Contribution	
Royal Netherlands Embassy (RNE)*	146
Government of India	274
Government of Gujarat (GoG)	129
Expenditure upto March 31, 2005	265.10
Expenditure in the current financial year	148.78
Cumulative expenditure upto March, 2006	413.88

Growing as an organisation

WASMO plays multiple tasks in the water and sanitation sector. Its repertoire of activities is expanding and its current direction lies in scaling up to eventually cover all villages in Gujarat. As a result, it needs to continually strive to strengthen itself as an institution so that it can effectively implement its mandate. Institutional strengthening will also help WASMO to take on further programmes and meet the growing demands in the sector.

WASMO works with a wide range of stakeholders of varying capacities, from village communities to funding partners and research institutes. Interacting with them requires different skills. In its working methods, WASMO needs to have a flexible approach to deal with village problems and a preparedness to work with diverse groups. It also needs to have capacities to develop strategies, create implementation schedules, delegate duties, and monitor activities. To carry out these tasks, sound systems and procedures need to be in place. For example, there needs to be a simple and efficient system for collection of information, which can then be used for planning budgets, facilitating O&M plans, and procuring material and equipment. For all these aspects, regular meetings, workshops and training are organised internally and also with partner organisations.

Institutional development activities

Human resource planning

There is a focus on procuring services of highly qualified and motivated personnel from diverse fields to cater to the hardware as well as software dimensions of the sector reforms. WASMO has a multi-disciplinary team with post-graduates from the diverse fields of social sciences, management, engineering, environmental sciences, environmental planning, development communication, graphics and designing etc. brought in from the open market. To ensure quality personnel, an external team with experts from the respective fields interviews the

Institutional Support to WASMO

potential candidates. Further, services of superannuated government officials with considerable specialised knowledge and experience are also procured. At the end of 2006 WASMO had 212 personnel in the managerial and supervisory positions with 65 people providing support services.

Training and human resource development

As a part of human resource development, activities such as orientation programme for new staff, training of existing professionals, and workshops were held. The activities of the year include workshops and training on the themes of water, sanitation, hygiene promotion strategy, drinking water and sanitation problems of urban areas, urban rainwater harvesting and communication strategies etc. details of which are given in Annex – L.

Monitoring and review of projects

In order to develop as a centre of excellence, it is necessary to open up the organisation's activities for public scrutiny. Therefore, apart from WASMO's own monitoring and evaluation systems, there is also first-hand appraisal of work through third party monitoring and social auditing of works through external review teams.

Zone-wise review committees for inspection of schemes/projects taken up under the Swajaldhara programme and Sector Reform Scheme (State) were formed. After a day long orientation followed by a field visit for the members the review committees visited villages in 10 districts to review the implementation process, management systems being followed, participation of community and the quality of physical works. Their feedback and recommendations are conveyed to the concerned authorities and corrective measures are taken.

Apart from the external review committee, at the state level, the Secretary (Water Supply) has initiated a system of monitoring Swajaldhara and SRS (State) progress by holding a meeting of field teams consisting of the Member Secretary, DWSC, Core Team members, and NGOs every Tuesday. In a month, the progress of six districts is reviewed and issues are sorted out by direct intervention of the policy level officials.

WASMO plans to develop an in-house project monitoring and evaluation (M&E) cell, which will be responsible for continuous monitoring of ongoing and completed projects/schemes. Regular review meetings will be held with project units to discuss the results of monitoring and evaluation based on which corrective actions can be taken.

Various committees of WASMO

The inclusion of members of the civil society in the different committees ensures that the organisation promotes a work culture that encourages accountability. The Governing Body, Steering Committees, and the State Water and Sanitation Mission include members not only from the government, but also prominent figures working in the sector.

Development of new proposals

During the year, three proposals were prepared. These were:

1. Community-managed water, sanitation and natural resources management programme for improving living standards of people in tribal districts of Panchmahals and Dahod
2. Community-managed water and sanitation project in villages of Jamnagar, Kheda and Mehsana districts
3. Drinking water security in coastal areas of Amreli and Junagadh
4. Project for comprehensive village development in backward tribal clusters of villages through development of community-managed water supply and sanitation systems *and livelihood* improvement programme in Gujarat.

Institutional Support to WASMO

The final project received sanction and partial funds from the Government of India towards the end of the financial year. This project will cover about 100 villages in the backward tribal clusters in Kaprada and Dharampur talukas of Valsad district and the Vansda taluka of Navsari district. The process of setting up a Coordination Monitoring and Support Unit, selection of staff, coordination with the ISAs, awareness drives and meetings with the community for mobilisation etc. have been initiated.

Performance evaluation of Regional Water Supply Schemes

In Gujarat there are about 400 Regional Water Supply Schemes which cater to about 7000 villages. WASMO has initiated the Performance Evaluation of three such schemes namely the Dharoi RRWSS in Mehsana, Eight RRWSS in Banaskantha and the Sanghi de-salination plant in Kutch. The work for the former two has been commissioned to ORG-MARG, and the latter to WAPCOS (I) Ltd., Gandhinagar after a meticulous process of inviting offers.

External Advisory Services

An External Advisory Services or EAS team was provided by the Netherlands government to fill the gaps and meet specific needs of the organisation. The team assisted WASMO in effective policy and strategy formulation, strengthening of organisational and institutional structure and development and facilitation of community managed rural water supply and sanitation programmes. The EAS team supported the documentation and communication efforts of WASMO particularly in conceptualising the newsletter of WASMO 'Loksamvad', preparation of manuals, brochures etc. It also supported the development of financial management systems and the water resource management and environmental sanitation components of WASMO programmes by continuous monitoring of projects through field visits and providing inputs for necessary changes. The EAS support to WASMO came to an end in December 2005. Some of the important activities supported by the EAS were:

National Conference – 'Scaling up Sector Reforms: Looking Ahead, Learning from the Past'

A two-day National Conference was held during 28-29 April, 2006 at Gandhinagar with the support from Royal Netherlands Embassy on 'Scaling up Sector Reforms: Looking Ahead, Learning from the Past'. The objectives of the conference were to share WASMO's experience and examine the methodology that it has followed; to learn about alternatives from experiences of other movers and actors in the water and sanitation sector in the country, to reinforce the concept of dual water supply and development of local sources; and to explore the potential of village level institutional framework to promote overall development.

The National Conference – an opportunity for mutual learning

The conference brought together experts of water and sanitation sector, government officials, state representatives, partner NGOs, researchers and grass roots workers on a common platform. There were sessions on institutional mechanisms and partnerships, community empowerment, assuring safe drinking water in villages, technological options and alternatives, sanitation challenge and scaling up: lessons from the past. The EAS team made a very significant contribution in conceptualising the conference and publishing a compendium of papers on different themes.

Development of a Project Water and Sanitation Education Park

Under the EAS, a team of four international consultants from Royal Haskoning had visited Gandhinagar in October, 2005. They were invited to make a conceptual design of a water and sanitation education park related to the conditions of Gujarat. The Indroda Nature Park of the GEER Foundation, Gandhinagar has been selected as the site for establishment of Education Park. The team, in consultation with officials from GEER Foundation and other experts have prepared a concept and outline of the different components, their locations and estimation of cost.

Internship programme

WASMO's internship programme allows on the job training for students undergoing post-graduate courses in the field of engineering, environmental management, social science and other relevant fields. It provides an opportunity to the students to understand the water sector in a holistic manner and get a real life experiences in WASMO's area of operation and how it functions. During internship, the students learn the realistic aspects of programme management by community; from planning, communicating to implementation. Annex - M. gives the details of the students who did their internship with WASMO in the last year.

Programme Management and Organisational Structure

Programme Management and Organisational Structure

WASMO has developed a unique need-based organisational structure to achieve its objectives. The head office is based at Gandhinagar. In addition, there are various field offices known as Coordination, Monitoring and Support Units (CMSUs) that have their own technical support cells known as Engineering Support Cells (ESC). Apart from the Technical unit, all the other units are headed by a senior manager/ coordinator/ manager level officer.

I. Technical Unit

The Chief Engineer (CE) heads the Technical Unit, responsible for organising participatory planning, design, approval and implementation of water supply, environmental sanitation and water resource management schemes. This unit adds value to the in-village systems for cost-effectiveness in capital investment and operation maintenance. The unit is also responsible for researching and documenting new technological options and exploring best practices. There are various cells within this unit.

1. Water supply cell

It handles technical matters relating to water supply schemes and projects. Activities include research, design, estimates checks, documentation, technical sanctions and approval, implementation, monitoring, inspection and quality control.

2. Water resource management cell

This cell is responsible for designing, technical sanction, appraisal and implementation of schemes/ projects related to water resource management, including traditional water harvesting structures. It also looks at documentation, research, quality of material used and construction supervision.

3. Environmental sanitation cell

Responsibilities of this cell include design, approval, management, quality control, monitoring, construction and supervision of sanitation schemes. The cell networks with other organisations to integrate their experiences and innovations so that knowledge is transferred during the project implementation. It is also responsible for research and documentation.

4. Water quality cell

The unit focuses on generating awareness regarding water quality amongst rural communities and disseminates information that enables them to decide whether the drinking water used by them is safe or not, and the repercussions of consuming unsafe water. It empowers them so that they can test the water quality themselves, check chlorination levels and give appropriate chlorination doses so that the water is bacteriologically safe.

II. Project Management Unit - I (Ghogha project)

This unit is responsible for coordination, planning, implementation, monitoring, evaluation and reporting of the Community-managed Ghogha regional water supply and sanitation project. It provides sectoral and operational support to CMSU, Bhavnagar and ensures that all activities are implemented within the given time frame. This unit also coordinates with ISAs, Pani Samitis and other agencies to facilitate the project.

III. Project Management Unit - II (ERR project)

This unit is responsible for the coordination, planning, implementation, monitoring, evaluation and reporting of the Community-managed water and sanitation programme in earthquake-affected villages of Gujarat. The programme is monitored for both, software and hardware components and the unit reports progress to various concerned agencies.

IV. Project Management Unit - III (Swajaldhara)

This unit is responsible for the implementation, coordination and monitoring of the Swajaldhara programme and for coordination with the District Water and Sanitation Committees (DWSCs), State Water and Sanitation Mission (SWSM), Government of India and the State Government. The unit is also responsible for the Sector Reform Scheme (state) funded by the state government for community-owned and managed rural drinking water supply.

V. Documentation and Communication Unit

This unit is responsible for the development of a suitable information, education and communication (IEC) strategy, IEC material generation, documentation, dissemination of information, implementation of the IEC strategy and other related activities. The unit collects information from the field, and documents activities for widespread dissemination. It produces brochures, pamphlets, posters, stickers, and other documents in Gujarati as well as English, and also uses other media such as radio and television, exhibitions and special events.

VI. Community Mobilisation Unit

This unit is responsible for community mobilisation and capacity building and developing participatory community development techniques. The unit provides support to ISAs on community management issues, liaises with CMSUs and ESCs and lends assistance for training programmes related to community management, which include general awareness as well as specific skill development, both managerial and technical.

VII. Board and Funding Unit

This unit is responsible for matters relating to the Governing Body, Executive Committee and other board meetings. It communicates with Government of India, the state government and donor agencies. It develops projects and programmes for sourcing funds. Institutional development, annual planning exercise and preparation of annual report are part of its responsibilities as well.

VIII. Finance and Accounts Unit

The finance and accounts unit is responsible for financial management, maintenance and auditing of accounts and other related issues. This unit also acts as an internal financial controller and financial adviser to the organisation. It provides guidance and trains ISAs and Pani Samitis, liaises with CMSUs, and ensures compliance of the financial management systems.

IX. Management Support Unit

This unit is responsible for providing management support to the organisation. It has following cells:

Programme Management and Organisational Structure

1. HRD and establishment cell

The HRD and Establishment Cell looks after hiring the services of personnel, orientation programme, human resource management and development, training, performance appraisal and rewards, welfare, leave, medical issues, attendance, service matters, transfer, posting, short-term contracts, disciplinary action and inquiry. It also undertakes and arranges activities for human resource development to build the capacities of WASMO staff. During the year, 153 WASMO personnel were given opportunity to participate in various training programmes, workshops and exposure visits.

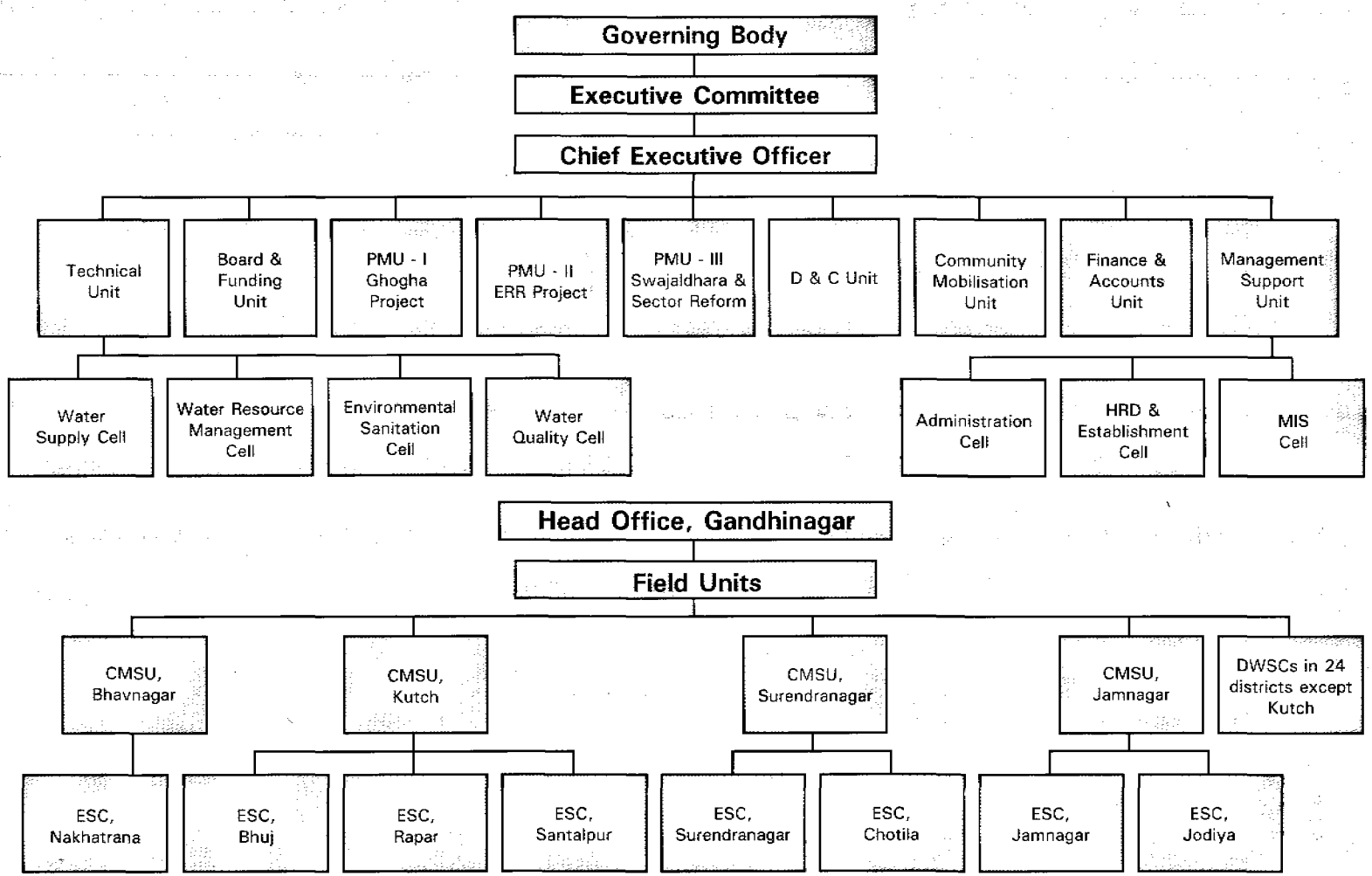
2. Administration cell

The Administration cell is responsible for overall administration and provides administrative and logistical support for smooth functioning of the organization. This Cell arranges meetings, workshops and other events. Responsibilities include general cleanliness of the premises, maintenance, vehicle management, travel arrangements, bill payment and maintenance of dead stock, files and records.

3. MIS cell

This cell is responsible for maintaining computers, software and hardware and internet services for WASMO. It also prepares specific need-based computerised MIS programmes and systems. The objective of management information system (MIS) is to provide information for decision making on planning, initiating, organising and controlling organisational operations and for synergy. During the year several such MIS systems were developed and operationalised and included IEC – Stock Management System; Address Book Management System; Library Management System; Project Monitoring System for Swajaldhara programme, etc.

Organogram


Governing Body
Executive Committee
Chief Executive Officer
Technical Unit
Board & Funding Unit
PMU - I Ghogha Project
PMU - II ERR Project
PMU - III Swajaldhara & Sector Reform
D & C Unit
Community Mobilisation Unit
Finance & Accounts Unit
Management Support Unit
Water Supply Cell
Water Resource Management Cell
Environmental Sanitation Cell
Water Quality Cell
Administration Cell
HRD & Establishment Cell
MIS Cell
Head Office, Gandhinagar
Field Units
CMSU, Bhavnagar
CMSU, Kutch
CMSU, Surendranagar
CMSU, Jamnagar
DWSCs in 24 districts except Kutch
ESC, Nakhatrana
ESC, Bhuj
ESC, Rapar
ESC, Santalpur
ESC, Surendranagar
ESC, Chotila
ESC, Jamnagar
ESC, Jodiya

Finance and Accounts

Finance and Accounts

WASMO is an independent and autonomous State Government Institution registered as a Society and also as a Public Trust. The organisation is authorised to receive grant-in-aid from the state government, the central government, as well as national and international funding agencies. With a view to support its various ongoing activities, during the current financial year 2005-06, WASMO received funds from the Government of Gujarat, the Government of India, GWSSB and UNICEF for various purposes.

Grants received by WASMO

WASMO is implementing two externally aided projects i.e. "Community-managed Ghogha Regional water supply and sanitation project" as well as "Community-managed development of water and sanitation programme in earthquake-affected villages of Gujarat". The Government of Gujarat released Rs. 6,048.23 lakh during the financial year, which also includes the Netherland Government share of funding for Community-managed Ghogha regional water supply and sanitation project that ended financially on December 31, 2005. Rs.197.00 lakh was also received under Institutional Support to WASMO from the State Government. The community-managed, demand-driven drinking water programme in the state, is also implemented by WASMO which in known as the Sector Reform Scheme (State) under which the State Government also made available Rs.1,500.00 lakh during the year.

At the state level, WASMO functions as the State Water and Sanitation Mission for the Swajaldhara programme. Rs. 2,553.61 lakh under this programme were received from the Government of India. Similarly, GWSSB made available Rs. 166.00 lakh under the 11th Finance Commission for roof top rain water harvesting under augmentation of traditional water sources.

In addition to the above WASMO has also received Rs.191.29 lakh as grant-in-aid from Government of India for IEC and HRD activities under Water Quality monitoring and Surveillance programme. Similarity Government of India has also released Rs.425.70 lakh to WASMO as a special central assistance for tribal sub-plan programmes. Both the grants are for newly implemented programmes by WASMO.

UNICEF is also assisting WASMO in the ongoing decentralization process and support is being provided to strengthen the reform process. Assistance is being given for establishing core teams in identified districts, training, capacity building, exposure tours, etc. During the financial year, UNICEF provided Rs. 41.61 lakh on actual reimbursement basis. RNE has given the grant of Rs. 23.97 lakh to WASMO for organising national conference on 'Scaling up Sector Reforms: Looking Ahead, Learning from the Past' which was held in April, 2006.

Income and expenditure of WASMO for 2005-06

(Amount in Rs. Lakh)

No.	Project/ Programme	Amount Received	Expenditure Incurred
1	Rural Water Supply Programme	6,048.23	3,447.20
2	Institutional Support to WASMO	197.00	129.99
3	Sector Reform Scheme (State)	1,500.00	1,268.13
4	Swajaldhara Programme	2,553.61	2,702.14
5	Water Quality Programme	191.29	-
6	Tribal Sub Plan	425.70	-
7	National Conference Grant (RNE)	23.97	-
8	UNICEF support	41.64	41.61
9	GWSSB - 11th Finance Commission	166.00	166.00
	Total	**1,11,47.44**	**7,755.10**

Cash and bank balance

As on April 1, 2005, the opening cash and bank balances of WASMO were Rs. 303.42 lakh. WASMO receipt during the year including grant-in-aid and interest in the balance has been Rs. 11,147.44 lakh. As against this an expenditure of Rs. 7,755.10 lakh was incurred after adjusting the committed liability of previous year of Rs.384.06 lakh. The closing balance as on March 31, 2006 was thus Rs. 3,877.68 lakh.

Financial management system

A software package for Management Information System, Financial Management Systems (FMS) and Management Accounting and Reporting Systems (MARS) was developed with the support of EAS team and has also been installed at the head office and all field offices. This user-friendly system has made it possible to monitor daily transactions and physical and financial progress of every project and CMSU, from the head office, making monitoring extremely effective. Training in financial management was also provided to WASMO as well as CMSU staff for the effective implementation of the system.

Financial reporting

Monthly as well as quarterly financial formats generating component-wise and funding agency-wise reports have been developed. Accounts maintained by ISAs and Pani Samitis are checked by CMSUs and are also reviewed by the WASMO head office.

Audits

Audits were carried out for the Pani Samitis, ISAs DWSCS, VWSCS, CMSUS and WASMO by the WASMO, CMSU audit parties and the Chartered Account firms appointed by WASMO & DWSCs as under

Audit of Pani Samiti and VWSCS

Major works are executed by Pani Samitis and VWSCS to whom financial assistance is provided by WASMO. Internal audit teams consisting of experienced personnel in this field have been created in each CMSU for auditing the books of accounts of Pani Samitis. The role of this team is to verify collection of required public contributions and books of accounts, reconciliation of bank statements, proper utilisation of WASMO fund, verification of procedures adopted for material procurement and payments relating to contractors etc. This system has proved beneficial in developing the capacity of Pani Samitis in maintaining books of accounts.

Audit of ISAs

Up to March 31, 2006, 35 ISAs were engaged to provide project implementation support services to different projects implemented by WASMO. Their annual working plans with allocated budget are scrutinised and approved by WASMO, subsequently, 90 per cent of the quarterly budgeted grants are released as an advance against a bank guarantee. Optionally, quarterly reimbursement of the actual expenditure is also possible. WASMO has developed its own audit system and created audit parties, which conduct half yearly propriety audit and performance audit of all ISAs to release 10 per cent of the remaining amount. An internal audit system has been developed by WASMO for keeping checks on fund utilisation.

WASMO's auditors

WASMO accounts for the year 2005-06 are being audited by an internal auditor as well as a statutory auditor. For this purpose M/s. J.G.Shah & Co. as internal auditor and M/s. Amal Datt & Associates as statutory auditor were appointed. The EAS team has also provided valuable financial expertise services to WASMO by engaging a Chartered Accountant as a financial expert. Controller and Auditor general of India has also audited the WASMO accounts through Accountant General Gujarat (Audit.2) Rajkot for the year 2002-03.

Bankers

WASMO maintains a saving account with the Punjab National Bank, Gandhinagar for the funds received for its projects from the State Government. Saving accounts have also been opened with Punjab National Bank at Bhavnagar and Bhuj offices and State Bank of Saurashtra at Surendranagar and Jamnagar for the smooth and speedy transfer of funds to Unit offices and Pani Samitis. A separate savings bank account with the State Bank of India, Gandhinagar has been opened for Swajaldhara programme and water quality activity as per the Government of India guidelines. Sector Reform Scheme (State) funds are also operated from this bank account.

Annexes

Annex - A

IEC activities conducted during April 2005 to March 2006

No.	Type of IEC activity	No. of activities
1.	Campaigns and rallies (Environmental sanitation, health and hygiene, village cleanliness, solid waste disposal, 'Clean Village Day' Pani yatra/Prachar Yatra/Pad Yatra etc.)	2642
2.	Post card campaign	318
3.	Slogans painting	2061
4.	Focus group discussions/Vichar Goshtis	2140
5.	Women's mela	139
6.	IEC stalls at local fairs/training/events	83
7.	Street plays/Bhavai/Plays staged by community/Folk theatre	337
8.	School competitions	1636
9.	Performance of skits in schools	140
10.	Mobile exhibition tours in village	62
11.	Communication to Sarpanches	660
12.	Others (Pls. specify)	
	1. Lok Dayara	2
	2. Painting of messages on bus stops and other public places	43

Audio-visual IEC during April 2005 to March 2006

No.	Audio-visual messages	Frequency/Duration	Transmission
	Messages on AIR		
1.	Mass appeal measures for safe drinking water	Thrice a day/1 week	July 2005
2.	Chlorination spot	Twice a day/15 days	July 2005
3.	Radio talks during 4 episodes of Hariyalu Gujarat on – in-village water supply facilities , sanitation and health, chlorination and fouride		May and July 2005
4.	Sanitation, people's participation and community management	Once a day/10 weeks	July - Oct , 2005
5.	Swajaldhara community-managed approach (Ahwa-Dangs)	Twice a week/ 10 weeks	Jan – March, 2006
6.	Water quality awareness for safe water	Twice a day/ 1 week	March 2006
	Messages on DD		
7.	Chlorination spot	Once a day/1 week	July 2005
8.	Spots on Pani Samti and Panchmanatra in the programme Hariyala Sopan of the Forest Dept.	Once a week/ 6 weeks	July-August 2005

Annex - B

Details of trainings conducted for Pani Samitis and communities during April 2005 to March 2006

No.	Particulars	Programmes								Total	
		Ghogha		ERR		Swajaldhara		SRS (s)			
		Covered 82 villages of Bhavnagar district		Covers four districts (1260 villages)		Covers 11 districts		Covers 11 districts			
		No. of trainings	No. of partici-pants	No. of trainings	No. of partici-pants	No. of trainings	No. of partici-pants	No. of trainings	No. of partici-pants	No. of trainings	No. of partici-pants
1	Orientation workshop of Pani samitis	-	-	84	562	40	4229	19	1698	143	6489
2	***Pre construction***	-	-	58	1004	100	3016	17	677	175	4697
	• Work organisation										
	• Implementation procedure										
	• Accounts and records maintenance										
	• Construction management and supervision										
3	**Post Construction (O&M)**	3	120	58	1517	34	909	8	306	103	2852
	• Tariff calculation										
	• Water quality surveillance										
	• Management of O&M										
	• Its importance in sustainability										
4	Environmental Sanitation	-	-	10	215	3	330	5	84	18	629
5	School Sanitation, Health and Hygiene	-	-	355	9415	244	26128	161	19689	760	55232
6	Women's Empowerment	-	-			29	692	5	237	34	929
7	Masons' training	-	-	5	70	-	-			5	70
8	Exposure visits	-	-	74	1604	2	46			76	1650

Annex - C

Details of trainings conducted for WASMO staff, core teams, CMSU, GWSSB and ISAs during April 2005 to March 2006

No.	Particular	Programmes							
		Ghogha		ER		Swajaldhara/SRS(S)		Tot	
		Covered 82 villages of Bhavnagar distri		Covers four districts (1260 villages)		Covers 24 district			
		No. of trainings	No. of partici-pants	No. of trainings	No. of partici-pants	No. of trainings	No. of partici-pants	No. of trainings	No. of partici-pants
1	Orientation for WASMO staff/CT/CMSU/GWSSB	-	-	2	29	8	270	10	299
2	Orientation for ISAs	-	-	18	166	1	43	19	209
3	PRA exercise and social mobilisation	-	-	22	58	-	-	22	58
4	Technical training for all partners	-	-	31	237	1	33	32	270
5	D&C training for ISA/CT/CMSU	-	-	1	30	-	-	1	30
6	**Training of trainers** • *On drinking water security & sustainability of drinking water sources for* ISA /CMSU/ GWSSB • On CEC for ISA /CMSU/ GWSSB	-	-	10	146	-	-	10	146
7	**Other trainings** • On team work for ISA/CT/CMSU	-	-	5	105	-	-	5	105

WASMO

Annex - D

Indicative table on yearly calculated O&M contribution

Sr. No.	District	Taluka	Village	Per year/household
	Ghogha			
1	Bhavnagar	Bhavnagar	Thalsar	600
		Ghogha	Kuda	600
		Talaja	Manar	500
	ERR			
2	Kutch	Anjar	Maringana	600
		Mandvi	Nani Undoth	900
		Mandvi	Pipari	
3	Jamnagar	Jamjodhpur	Sidsar	144
		Kalavad	Manvar Khiodiya	410
		Bhanvad	Banakwad	200
4	Surendranagar	Dasada	Dasada	240
		Wadhwan	Kharva	360
		Chotila	Sanosara	360
	Swajaldhara			
5	Sabarkantha	Talod	Kherol	720
		Talod	Mahekal	1080
		Talod	Javanpura	840
6	Junagadh	Besan	Mendpara	180
		Keshod	Pankhan	240
		Vesavdar	Moti Monpari	250
7	Anand	Anand	Bedwa	75
		Anand	Adas	100
		Borsad	Ranoli	75
8	Bharuch	Amod	Nahiyer	17.35
9	Banaskantha	Palanpur	Kotada	120
		Palanpur	Bhatamal Moti	200
		Palanpur	Vasana	150
10	Valsad	Valsad	Untadi	200
		Valsad	Bhagdavada	1200
		Valsad	Magadh Mandir	250
11	Vadodara	Sinor	Tarawa	240
		Sinor	Puniyad	200
		Karjan	Kandari	150

Sr. No.	District	Taluka	Village	Per year/household
12	Patan	Enanasina	Dhinoj	160
		Enanasina	Mervada	100
		Enanasina	Sojitra	100
	SRS (State)			
13	Amreli	Sararkundla	Kerada Dhar	500
		Lilia	Dhangala	500
		Sararkundla	Dhajadi	500
14	Gandhinagar	Mansa	Rampura	120
		Mansa	Vijaynagar	180
		Mansa	Motipura (Veda)	130
15	Jamnagar	Kalavad	Balambhadi	200
		Kalavad	Napania Khijadia	300
16	Narmada	Nadod	Mangrol	200
		Dediapada	Kabri Pather	170
		Nado	Pati	200

WASMO

Annex - E

Component-wise expenditure details of the Community-managed water and sanitation programme in earthquake-affected villages of Gujarat (in Rs)

Component		Project Provision	Cumm. Exp. upto 31st March, 2005	Expenditure during 2005-2006	Total Cumm Exp upto March 2006	Balance provision as on March 2006
Earthquake Project						
In-village Water Works						
3.1.1 VWSS		557,665,000	233,774,777	186,386,166	420,160,943	137,504,057
3.1.2 WRM		378,000,000	81,320,275	41,515,944	122,836,219	255,163,781
3.1.3 Sanitation		252,000,000	23,537,250	17,874,994	41,412,244	210,587,756
3.1.4 Pani Samiti		55,680,000	1,444,359	1,792,277	3,236,636	52,443,364
3.1.5 Initial O & M		89,320,000	1,230,152	13,500	1,243,652	88,076,348
	Sub Total	1,332,665,000	341,306,813	247,582,881	588,889,694	743,775,306
NGO Facilitation Cost						
3.2.1 NGO Salaries		128,640,000	31,114,425	13,936,205	45,050,630	83,589,370
3.2.2 NGO Travel		21,612,000	3,245,193	3,764,030	7,009,223	14,602,777
3.2.3 NGO Training		12,000,000	8,318,275	1,879,649	10,197,924	1,802,076
3.2.4 NGO Overheads		12,900,000	6,229,326	4,357,546	10,586,872	2,313,128
3.2.5 NGO Specialist		16,080,000	19,870	3,063,030	3,082,900	12,997,100
3.2.6 NGO Capital requirement		3,600,000	0	167,800	167,800	3,432,200
	Sub Total	194,832,000	48,927,089	27,168,260	76,095,349	118,736,651
CMSU Operational Cost						
3.3.1 CMSU Salaries		28,659,000	6,786,464	8,311,060	15,097,524	13,561,476
3.3.2 CMSU Travels		4,154,000	1,139,936	2,638,598	3,778,534	375,466
3.3.3 CMSU Training		2,628,000	1,389,273	1,238,727	2,628,000	0
3.3.4 CMSU Overheads		2,877,000	2,873,753	3,007	2,876,760	240
3.3.5 CMSU Specialist		4,405,000	225,330	3,548,966	3,774,296	630,704
3.3.6 CMSU Capital Req		6,000,000	5,981,654	18,346	6,000,000	0
	Sub Total	48,723,000	18,396,410	15,758,704	34,155,114	14,567,886
ESC Operational Cost						
3.4.1 ESC Salaries		17,280,000	3,982,929	6,627,567	10,610,496	6,669,504
3.4.2 ESC Travel		2,340,000	1,375,971	964,029	2,340,000	0
3.4.3 ESC Overheads		3,960,000	2,944,530	1,015,471	3,960,000	0
3.4.4 ESC Outsourced service		6,240,000	1,217,288	5,022,712	6,240,000	0
3.4.5 ESC Capitalltems		3,600,000	3,596,323	3,677	3,600,000	0
	Sub Total	33,420,000	13,117,041	13,633,456	26,750,497	6,669,503
Repairs & Reconstruction						
3.5.1 R&R Salaries		1,980,000	1,894,147	0	1,894,147	85,853
3.5.2 R&R Travel		900,000	847,539	0	847,539	52,461
3.5.3 R&R Overheads		108,000	108,000	0	108,000	0
3.5.4 R&R Vehicles		2,400,000	1,793,109	0	1,793,109	606,891
3.5.5 Labour		2,250,000	2,217,219	6,000	2,223,219	26,781
3.5.6 Material for repair		4,500,000	4,349,234	9,000	4,358,234	141,766
3.5.7 Contingency		100,900,000	0	0	0	100,900,000
	Sub Total	113,038,000	11,209,248	15,000	11,224,248	101,813,752
	Total	1,722,678,000	432,956,601	304,158,301	737,114,901	985,563,099

Annex - F

Implementation Support Agencies (ISA) for Swajaldhara programme and SRS (State) are as under:

(a) Swajaldhara programme

S. No.	District	Name of NGOs to be allotted villages
1	Ahmedabad	i.) ACIL – Anarde Foundation, Ahmedabad
		ii.) Adesh Charitable Trust, Ahmedabad
2	Anand	i.) Medhavi, Ahmedabad
		ii.) Centre for Rural Care, Anand
3	Banaskantha	i.) Aga Khan Planning Building Services
		ii.) Naisargik Trust , Banaskantha,
		iii.) Cohesion Foundation
4	Bharuch	i.) INRECA, Narmada,
		ii.) Vikas Bharti , Mehsana
		iii.) Trimurti, Ahmedabad
5	Bhavnagar	i.) Utthan, Ahmedabad
		ii.) Medhavi, Ahmedabad
		iii.) VRTI, Bhavnagar
6	Junagadh	i.) Aga Khan Planning Building Services
		ii.) Sardar Development Foundation, Amreli
		iii.) TECH, Amreli
7	Panchmahal	i.) Anandi, Panchmahal
		ii.) Sarthi, Panchmahal
		iii.) Samanvay, Panchmahal
8	Patan	i.) Aga Khan Planning Building Services
		ii.) Naisargik Trust, Patan
		iii.) Vedhiyat Niketan, Patan
9	Sabarkantha	i.) VIKSAT, Ahmedabad
		ii.) Manav Kalyan Trust, Sabarkantha
10	Vadodara	i.) Shroff Foundation, Vadodara
		ii.) Trimurti, Ahmedabad
11	Valsad	i.) Rajiv Gandhi Foundation, Surat
		ii.) Dhruva, Navsari
12	Surat	i.) Rajiv Gandhi Foundation, Surat
		ii.) Adesh Charitable Trust, Ahmedabad
		iii.) Sumul, Surat
13	Rajkot	i.) Cohesion Foundation, Ahmedabad
		ii.) Saurashtra Gram Vikas Charitable Trust
		iii.) Manav Kalyan Trust, Rajkot

Annexes

(b) Sector Reform Scheme (State)

S. No.	District	Name of NGOs to be allotted villages
1	Amreli	i.) Sardar Development Foundation, Amreli
		ii.) TECH, Amreli
2	Dahod	i.) Anandi, Panchmahal
		ii.) Eklavya Anusuchit Adijati Mandal, Dangs
		iii.) Sarthi, Panchmahal
3	Dangs	i.) Eklavya Anusuchit Adijati Mandal, Dangs
		ii.) Rajiv Gandhi Foundation, Surat
		iii.) Dhruva, Navsari
4	Gandhinagar	i.) Adesh Charitable Foundation
5	Jamnagar	i.) Saurashtra Voluntary Actions, Jamnagar
		ii.) JV Narriya Edu. & Charitable Trust, Jamnagar
6	Kheda	i.) ACIL – Anarde Foundation, Ahmedabad
7	Mehsana	i.) ACIL – Anarde Foundation, Mehsana
		ii.) Vikas Bharti, Mehsana
8	Narmada	i.) INRECA, Narmada
9	Navsari	i.) Dhruva, Navsari
		ii.) Cohesion Foundation, Ahmedabad
10	Porbandar	i.) SAVA, Jamnagar
11	Surendranagar	i.) SWATI, Ahmedabad

Annex - G

Swajaldhara - Cumulative district-wise financial progress (in Rs. lakh)

Sr. No.	District	Allocation of fund	Fund released to DWSC	Expenditure incurred by DWSC	% Expenditure against fund released
1	Ahmedabad	404.56	347.06	312.35	90.00
2	Banaskantha	455.00	422.50	420.03	99.42
3	Bharuch	310.00	227.50	215.96	94.93
4	Bhavnagar	494.00	405.25	389.33	96.07
5	Junagadh	535.00	535.00	558.22	104.34
6	Kheda	30.00	30.00	30.00	100.00
7	Narmada	26.00	26.00	26.00	100.00
8	Panchmahal	146.67	127.92	92.91	72.63
9	Patan	330.00	305.00	303.35	99.46
10	Sabarkantha	585.18	506.00	480.06	94.87
11	Vadodara	341.33	296.33	231.77	78.21
12	Valsad	395.74	252.63	196.61	77.83
13	Anand	259.13	220.38	214.29	97.24
14	Surat	150.73	150.73	147.06	97.57
15	Rajkot	100.00	100.00	88.97	88.97
	Total	**4,563.34**	**3,952.30**	**3,706.91**	**93.79**

WASMO

Annex - H

District-wise physical progress under Swajaldhara programme

S. No.	District	Schemes sanctioned by VWSC		Schemes sanctioned by DWSC		Status of schemes		
		No.	Cost (in Rs lakh)	No.	Cost (in Rs lakh)	Work initiated	Work completed	Work under progress
1	Ahmedabad	44	557.23	44	557.23	26	13	13
2	Anand	49	361.66	41	358.96	37	18	19
3	Banashkantha	110	1,130.00	95	910.11	75	43	32
4	Bharuch	40	383.58	39	372.63	37	12	25
5	Bhavnagar	80	1,492.26	38	615.91	38	5	33
6	Junagadh	83	728.19	83	728.19	68	46	22
7	Kheda	4	42.63	4	42.63	4	4	0
8	Narmada	4	29.41	4	29.41	4	4	0
9	Panchmahal	41	169.00	41	157.00	30	24	6
10	Patan	98	735.5	58	415.21	58	46	12
11	Sabarkantha	130	694.13	115	655.38	105	65	40
12	Vadodara	65	481.00	65	481.00	43	24	19
13	Valsad	115	389.15	115	389.15	76	42	34
14	Rajkot	59	597.51	30	439.50	18	0	18
15	Surat	23	299.83	23	299.83	23	0	23
	Total	**945**	**8091.08**	**795**	**6452.14**	**642**	**346**	**296**

Annex - I

SRS (State) - Cumulative district-wise financial progress (in Rs. lakh)

Sr. No.	District	Allocation of fund	Fund released to DWSC	Expenditure incurred by DWSC	% Expenditure against fund released
1	Dahod	150.00	150.00	122.36	81.57
2	Dangs	139.00	109.00	43.82	40.20
3	Gandhinagar	330.00	280.00	220.68	78.81
4	Amreli	250.00	250.00	224.19	89.68
5	Jamnagar	185.00	160.00	132.12	82.58
6	Kheda	307.00	267.00	188.69	70.67
7	Narmada	204.00	204.00	199.22	97.66
8	Navsari	315.00	260.00	173.90	66.88
9	Porbandar	165.00	135.00	78.08	57.84
10	Surendranagar	255.00	230.00	133.47	58.03
11	Mehsana	700.00	650.00	612.47	94.23
	Total	**3,000.00**	**2,695.00**	**2,129.00**	**79.00**

Annex - J

District-wise physical progress under the Sector Reform Scheme (State)

S. No.	District	Schemes sanctioned by VWSC		Schemes sanctioned by DWSC		Status of schemes		
		No.	Cost (In Rs lakh)	No.	Cost (in Rs lakh)	Work initiated	Work completed	Work under progress
1	Dahod	58	1124.63	16	224.67	16	4	12
2	Dangs	9	71.84	9	71.84	9	6	3
3	Gandhinagar	59	554.00	54	468.05	37	20	17
4	Amreli	57	775.01	36	433.86	35	5	30
5	Jamnagar	37	422.71	29	318.09	18	1	17
6	Kheda	45	478.92	41	449.23	28	10	18
7	Narmada	38	305.56	38	305.56	38	13	25
8	Navsari	47	583.45	43	417.01	39	8	31
9	Porbandar	18	204.41	18	204.41	14	6	8
10	Surendranagar	51	265.55	51	265.55	45	29	16
11	Mehsana	142	1115.22	142	1115.22	91	8	83
	Total	561	5901.30	477	4273.49	370	110	260

Annex - K

Component-wise expenditure details of Community-managed Ghogha regional water supply and sanitation project (in Rs)

Component	Project Provision	Cumm. Exp. upto 31st March, 2005	Expenditure during 2005-2006	Total Cumm Exp upto March 2006	Balance provision as on March 2006
GRWSSP					
Hardware Activities					
2.1 VWSS	155,638,106	155,638,106	0	155,638,106	0
2.2 WRM	125,112,650	72,295,810	52,816,840	125,112,650	0
2.3 Mahi	230,066,743	222,108,000	7,405,102	229,513,102	553,641
2.4 Sanitation	30,014,816	21,727,419	8,264,246	29,991,665	23,151
2.4.4 Handling Fees of (2.1,2.2 & 2.4)	6,733,815	6,169,004	564,811	6,733,815	0
Sub Total	547,566,130	477,938,339	69,050,999	546,989,338	576,792
2.5 Staff cost	11,700,000	10,517,055	1,182,945	11,700,000	0
Sub Total	11,700,000	10,517,055	1,182,945	11,700,000	0
Additional Investment Cost					
2.6.1 Computer/printer	300,000	299,530	470	300,000	0
2.6.2 Communications	50,000	49,487	513	50,000	0
2.6.3 Furniture	100,000	99,788	212	100,000	0
2.6.4 Vehicles	500,000	498,034	1,966	500,000	0
2.6.5 Office Rehabilitation	50,000	49,857	143	50,000	0
Sub Total	1,000,000	996,696	3,304	1,000,000	0
Running Cost					
2.7.1 Office rent	600,000	341,078	258,922	600,000	0
2.7.2 Stationery	1,500,000	1,480,011	19,989	1,500,000	0
2.7.3 Transport	900,000	869,840	30,160	900,000	0
2.7.4 Allowance	900,000	874,384	25,616	900,000	0
Sub Total	3,900,000	3,565,312	334,687	3,899,999	1
Community Participation					
2.8.1 ISA contracts	17,038,726	11,127,993	5,843,810	16,971,803	66,923
2.8.2 External consutant IEC	500,000	450,002	49,998	500,000	0
2.8.3 Travel stay Ext consultant	300,000	230,621	69,379	300,000	0
2.8.4 Reports	100,000	85,930	13,705	99,635	365
2.8.5 Print material	700,000	627,760	72,240	700,000	0
2.8.6 Video Footage	1,000,000	960,451	39,549	1,000,000	0
2.8.7 Folk Media	200,000	153,500	46,500	200,000	0
2.8.8 Administration expenses	150,000	140,639	2,755	143,394	6,606
Sub Total	19,988,726	13,776,897	6,137,936	19,914,833	73,893
Institutional & HRD					
2.9.1 National workshop	300,000	130,398	149,830	280,228	19,772
2.9.2 Regional workshop	500,000	487,597	12,403	500,000	0
2.9.3 Workshop reports	100,000	36,244	63,756	100,000	0
2.9.4 Training ISA	500,000	452,323	43,611	495,934	4,066
2.9.5 Training Govt staff	500,000	472,698	27,302	500,000	0

Component	Project Provision	Cumm. Exp. upto 31st March, 2005	Expenditure during 2005-2006	Total Cumm Exp upto March 2006	Balance provision as on March 2006
2.9.6 Training project staff	500,000	450,339	49,661	500,000	0
2.9.7 Public relation material	700,000	694,732	5,268	700,000	0
2.9.8 Public debates	200,000	118,591	81,409	200,000	0
2.9.9 Meetings	100,000	99,307	693	100,000	0
2.9.10 Press briefings	100,000	45,596	49,075	94,671	5,329
2.9.11 Travel project staff (outdoor)	700,000	690,827	8,173	699,000	1,000
2.9.12 Travel external consultant	400,000	349,720	40,647	390,367	9,633
2.9.13 Exposure visits	400,000	390,090	9,350	399,440	560
2.9.14 Meetings & consultancies	200,000	199,108	892	200,000	0
2.9.15 Design sanitation	1,650,387	1,642,890	234	1,643,124	7,263
2.9.16 WRM external consultant	1,500,000	1,479,693	12,000	1,491,693	8,307
2.9.17 Monitoring & Evaluation	800,000	792,619	7,381	800,000	0
2.9.18 Capacity building	1,200,000	1,139,601	60,399	1,200,000	0
2.9.19 Administration	150,000	147,689	0	147,689	2,311
Sub Total	10,500,387	9,820,062	622,084	10,442,146	58,241
2.9.20 Handling fees (5% of 2.8 & 2.9)	1,385,869	1,179,000	206,869	1,385,869	0
Sub Total of Software Activities	31,874,982	24,775,959	6,966,889	31,742,848	132,134
Total	**596,041,112**	**517,793,361**	**77,538,824**	**595,332,185**	**708,927**

Annex - L

Trainings/ workshops/ conferences attended by WASMO staff

No.	Description	Organisation	No. of participants	No. of Days
1.	Water, sanitation and hygiene promotion strategy	Uttaranchal Academy of Administration, Nainital	10	3
2.	Drinking water and sanitation problems of urban areas	Indian Water Works Association, Ahmedabad	3	2
3.	Urban rainwater harvesting (2 groups)	Centre for Science and Environment, New Delhi	8	4
4.	Observation study tour for community managed water and sanitation project (2 groups)	Uttaranchal Academy of Administration, Nainital	13	3
5.	Conference on water conservation	Confederation of Indian Industry, Ahmedabad	15	2
6.	Communication strategies (2 groups)	Indian Institute of Management, Ahmedabad	64	4
7.	Orientation programme on water and sanitation systems for rural Gujarat	Sulabh International Academy of Environmental Sanitation	40	3
	Total		**153**	

Annex - M

Internship students/volunteers from April 2005 to March 2006

No.	Name	Subject/Project work	Duration	Place
1.	Vijay Vihol, MSW, North Gujarat University	Documenting case studies of programme villages in Jamnagar	April 28 – June 8, 2005	CMSU, Jamnagar
2.	Nilesh Parmar, MSW, North Gujarat University	Documenting case studies of programme villages in Surendranagar	April 28 – June 8, 2005	CMSU, Surendranagar
3.	Jagdish Patel MSW, North Gujarat University 2005	Documenting case studies of programme villages in Surendranagar	April 28 – June 8,	CMSU, Surendranagar
4.	Bharat Makwana, MSW Department of Social Work, Vallabh Vidyanagar	Community participation in regional water supply scheme/Swajaldhara project	June, 2005 (one month)	Swajaldhara, Anand
5.	Jignesh Bhoi MSW Department of Social Work, Vallabh Vidyanagar	Documenting case studies of programme villages in Kutch	June 7 – 30, 2005	ERR, Kutch
6.	Priteshkumar Patel, MSW Department of Social Work, Vallabh Vidyanagar	Documenting case studies of programme villages in Kutch	June 7 – 30, 2005	ERR, Kutch
7.	Nishant Joshi, MCA, GLS Institute of Computer Technology, Ahmedabad	• Query based map display system, Java platform • Leave management system, .NET platform	September 1 – January 31, 2006	WASMO, Gandhinagar

No.	Name	Subject/Project work	Duration	Place
8.	Kartik Brahmbhatt, MCA, GLS Institute of Computer Technology, Ahmedabad	• Query based map display system, Java platform • Leave management system, .NET platform	September 1 – January 31, 2006	WASMO, Gandhinagar
9.	Jalpa Baraiya, MRM, Gujarat Vidyapith, Ahmedabad	Impact evaluation of Swajaldhara programme in Sabarkantha and Ahmedabad districts	January 1 to March 31, 2006	Swjaldhara
10.	Pratapsinh Jadeja, MRM, Gujarat Vidyapith, Ahmedabad	Impact evaluation of school sanitation component and IEC activities in schools of Kutch under ERR project	January 1 to March 31, 2006	ERR, Kutch
11.	Vibha Dubey, M.Plan, CEPT, Ahmedabad	Exploring the tourism development potential of an underdeveloped area, rich in natural resource wealth – a case study on Wilson Hill area of Dharampur taluka, Valsad district	January 1 to June 30, 2006	WASMO, Gandhinagar/ Wilson Hill
12.	Vandana Nair, MCS Faculty of Journalism, MS University, Baroda	Assisting in generating content for newsletter and documentary film production	February 22 to March 31, 2006	

Annex - N

Component-wise expenditure details of Institutional Support to WASMO (in Rs)

Component		Project Provision	Cumm. Exp. upto 31st March, 2005	Expenditure during 2005-2006	Total Cumm Exp upto March 2006	Balance provision as on March 2006
Institutional Support to WASMO						
Staff Cost						
1.1 Staff Cost		46,200,000	20,567,355	13,679,733	34,247,088	11,952,912
	Sub Total	46,200,000	20,567,355	13,679,733	34,247,088	11,952,912
Additional Investment Cost						
1.2.1 Computer/Printer		300,000	264,943	29,762	294,705	5,295
1.2.2 Communications		50,000	37,670	0	37,670	12,330
1.2.3 Furniture		100,000	99,826	0	99,826	174
1.2.4 Vehicles		1,000,000	402,804	124,040	526,844	473,156
1.2.5 Office Rehabilitation		50,000	46,210	0	46,210	3,790
	Sub Total	1,500,000	851,453	153,802	1,005,255	494,745
Stationary & Operations						
1.3.1 Office rent		900,000	396,000	181,200	577,200	322,800
1.3.2 Office Stationery		3,000,000	2,711,121	288,879	3,000,000	0
1.3.3 Transport		1,800,000	1,140,687	299,332	1,440,019	359,981
1.3.4 Allowance		1,500,000	844,165	274,618	1,118,783	381,217
	Sub Total	7,200,000	5,091,973	1,044,029	6,136,002	1,063,998
	Total	**54,900,000**	**26,510,781**	**14,877,564**	**41,388,345**	**13,511,655**

AMAL DATT & ASSOCIATES

Chartered Accountants

AUDITORS' REPORT

To
The Members of the Governing Body
Water & Sanitation Management Organisation
Gandhinagar.

We have audited the attached balance sheet of Water & Sanitation Management Organisation (WASMO) 31st March 2006 together with Income & Expenditure account for the period ended on that date and annexed thereto. These financial statements are the responsibility of the management of WASMO and our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Auditing Standards generally accepted in India. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of any material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

We report that:

1. We have obtained all the information and explanation which to the best of our knowledge and belief are necessary for the purpose of our audit.
2. In our opinion looking to the present quantum of activities, proper books of accounts have been maintained so far as it appears from our examination of these books.
3. The Balance Sheet, the Income & Expenditure Account dealt with by this report are in agreement with the said books of accounts.
4. In our opinion and to the best of our information and according to the explanations given to us, the accounts read with and subject to notes attached to accounts and our observations, give a true and fair view.
   I. In the case of Balance sheet, the state of affairs of WASMO as at 31st March 2006.
   II. In the case of Income and Expenditure account of the surplus/deficit for the period ended that date.

Date: 21st July 2006
Place: Ahmedabad

For Amal Datt & Associates
Chartered Accountants
Sd/
(Amal Dhru): Proprietor

THE BOMBAY PUBLIC TRUST ACT, 1950 Schedule VII [Vide Rule 17 (1)]

NAME OF THE PUBLIC TRUST

WATER AND SANITATION MANAGEMENT ORGANISATION

REGISTRATION NO. F/861/GANDHINAGAR

(Also Registered under Societies' Registration Act, 1860)

SOCIETY REGISTRATION NO.: GUJ/904/GANDHINAGAR

Amount Rs.in '000

BALANCE SHEET AS AT March 31 , 2006

Funds and liabilities	Annex	Amount as on March 31, 2006	Amount as on March 31, 2005	Properties and Ass	Annex	Amount as on March 31, 2006	Amount as on March 31, 2005
Trust Funds or Corpus	I	2	2	**Immovable Properties**			
Balance as per last Balance Sheet				Balance as per last balance sheet			
Adjustment during the year (give details)				Addition during the year			
Other Earmarked Funds				Balance			
(Created under the provision of the				Less :Sales during the year			
Trust deed or scheme or out of the income				Depreciation up to date			
Depreciation Fund				Investments			
Sinking Fund				**Furniture and Fixtures**			
Reserve Fund				**(Other Fixed Assets)**			
Any Other Fund : Earmarked Fund	II	**32,235**	29,756	Balance as per last balance sheet	VI	**24,077**	22,874
Capital Donations				Addition during the year		**1,474**	1,203
Capital Reserve				TOTAL		**25,551**	24,077
Loan (Secured or Unsecured)				**Less :Sales during the year**		-	-
From Trustees				Balance		**25,551**	24,077
From others				Less :Depreciation up to date		-	-
				Balance as on 31-Mar-2006		**25,551**	24,077
Liabilities				**Loans**			
For Expenses	III	**3,075**	38,406	(Secured or Unsecured)			
For Advances(Grant-in-aid in advance)	IV	**429,599**	85,779	Loan Scholarships			
For Rent and other deposits				Other Loans			
For other Liabilities	V	**36,077**	28,948	**Grant-in-aid Receivable**		-	
Income and Expenditure Account				**Advances**	VII	**87,668**	128,471
Balance as per last B/S				To Trustees			
Less : Appropriation, if any Surplus				To Employees			
Add : As per Income & Expenditure Account				To Contractors			
				To Lawyers			
				To Others			
				TDS on Interest			
				Income Outstanding			
				Dividend			
				Rent			
				Interest			
				Other Income			
				(I) Cash and Bank Balances	VIII	**387,768**	30,342
				Income and Expenditure A/c			
				Balance as per Balance Sheet			
				Add : Deficits / Less Surplus			
				As per income and expenditure account			
TOTAL		**#REF!**	**182,891**	**TOTAL**		**500,988**	**182,891**

As per our report of even date attached.

Refer notes on accounts attached in Annex - IX.

FOR AMAL DATT & ASSOCIATES
CHARTERED ACCOUNTANTS

DATE : July 21, 2006	**[AMAL DHRU]**	**[S. J. Joshipura]**	**[Dr. Jaipal Singh]**
PLACE :- AHMEDABAD	PROPRIETOR	Sr. Manager (F&A)	Chief Executive Officer

THE BOMBAY PUBLIC TRUST ACT, 1950 Schedule VII [Vide Rule 17 (1)]

NAME OF THE PUBLIC TRUST

WATER AND SANITATION MANAGEMENT ORGANISATION

REGISTRATION NO. F/861/GANDHINAGAR

(Also Registered under Societies' Registration Act, 1860)

SOCIETY REGISTRATION NO.: GUJ/904/GANDHINAGAR

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDING MARCH 31 2006

Amount in Rs. '000

Expenditure	Amount as on March 31, 2006	Amount as on March 31, 2005	Income	Amount as on March 31, 2006	Amount as on March 31, 2005
To Expenditure in respect of Properties			By Rent		
Rates, Taxes, Cesses			**(accrued) / (realised)**		
Repairs and maintenance			**By Interest**		
Salaries			**(accrued) / (realised)**		
Insurance			On Securities		
Depreciation (by way of			On Loan		
provision or adjustments)			On Bank Account		
Other expenses			**By Dividend**		
To Establishment Expenses			**By Donation in Cash or Kind**		
To Remuneration to Trustees			**By Grants**		
Salary Exp			Grant-in-aid from Government of Gujarat for	**12999**	7,087
Bank Charges			*setting up of WASMO*		
To Remuneration					
(in the case of a math to the head of the			**By Income from other source**		
math, including his house-hold			Handling Fees	**2479**	3370
expenditure, any)					
To Project Expenditure (Annex - A)	**12,960**	7,052	**By Transfers from Reserve**		
To Legal expenses					
To Audit Fees	39	35	**By Deficit carried over to Balance Sheet**		
To Contribution and Fees					
To Amount written off					
(a) Bad Debts					
(b) Loan Scholarships					
(c) Irrecoverable rents					
(d) Other Items					
To Miscellaneous Expenses					
To Depreciations					
To Amt. transferred to Development Fund	**2,479**	3,370			
To Expenditure on objects of the trust					
(a) Religious					
(b) Educational					
(c) Medical Relief					
(d) Relief of poverty					
(e) Other charitable objects					
To surplus carried over to Balance Sheet					
TOTAL	**15,478**	**10,457**	**TOTAL**	**15,478**	**10,457**

As per our report of even date attached.

Refer notes on accounts attached in Annex - IX.

FOR AMAL DATT & ASSOCIATES
CHARTERED ACCOUNTANTS

DATE : July 21, 2006
PLACE :- AHMEDABAD

[AMAL DHRU]
PROPRIETOR

[S. J. Joshipura]
Sr. Manager (F&A)

[Dr. Jaipal Singh]
Chief Executive Officer

Water and Sanitation Management Organisation
Jalsewa Bhavan, Sector 10,Gandhinagar
Annexures to Balance Sheet (As on March 31, 2006)

Annex - I

Trust Funds or Corpus

Particulars	Amount Rs.	Amount as on March 31, 2006	Amount as on March 31, 2005
Opening Balance	1,501.00		
Additions during the year	-		
Deduction during the year	-		
Closing Balance		**1,501.00**	**1,501.00**

Annex - II

Earmarked Fund

Particulars	Amount Rs.	Amount as on March 31, 2006	Amount as on March 31, 2005
1.Equipment Funds :			
For Equipment purchased from Grant in aid from			
Government of Gujarat			
i. for Setting up of WASMO			
Opening Balance	11,125,728.00		
Additions during the year	-		
Deduction during the year	-		
Closing Balance		**11,125,728.00**	**11,125,728.00**
II. for water and sanitation programme /project			
Opening Balance	12,951,548.00		
Additions during the year	-		
Deduction during the year	-		
Closing Balance		12,951,548.00	12,951,548.00
2. Development Fund			
Opening Balance	5,678,483.94		
Additions during the year	2,479,397.00		
Deduction during the year	-		
Closing Balance		**8,157,880.94**	**5,678,483.94**
Closing Balance		**32,235,156.94**	**29,755,759.94**

Annex - III

Committed Expenditure

Particulars	Amount Rs.	Amount as on March 31, 2006	Amount as on March 31, 2005
Opening Balance	38,406,013.00		38,406,013.00
Add: Provision during the year	3,075,000.00		-
Less: Payments during the year	38,406,013.00		-
	3,075,000.00	3,075,000.00	
Closing Balance		**3,075,000.00**	**38,406,013.00**

Annexes

WASMO

Annex - IV

Grant-in-aid

Particulars		Amount Rs.	Amount Rs.	Amount Rs.
[I] Grant-in-aid for setting up of WASMO(in advance)				
Opening Balance		41,574,644.00		26,401,241
Add : Amount Received during the year		19,700,000.00		15,000,000
Interest Accrued on grant balance with bank		566,819		173,403
			61,841,463.00	41,574,644
Less : Amount utilised for project				
Opening Balance		25,183,639.00		17,672,193
Project Expenditure during the year - Gandhinagar		12,999,245.19		7,087,011
Total Equipment purchased		-		424,435
			38,182,884.19	25,183,639
Grant-in-aid for setting up of WASMO as on 31/03			**23,658,578.81**	**16,391,005**
[II] Grant-in-aid from Govt of Gujarat for Water and Sanitation Programme/ Projects				
A) Grant in-aid received from Govt of Gujarat for Water and Sanitation				
Programme/ Projects		1,718,398,212.00		961,152,957
Interest accrued on unspent grant balance with bank		2,104,320.00		2,422,255
B) Grant in aid received for Swajaldhara and Sector Reform Scheme during the year		426,785,272.76		171,065,942
Interest accrued on balance amount of grant of swajaldhara		410,475.42		357,331
Misc Income		63,942.00		
D) Grant in aid from GOI for Water Quality		19,129,000.00		-
E) Grant Received from Tribal		42,570,000.00		-
F) Grant received From 11th Finance Commission		21,600,000.00		5,000,000
GIDB -				325,250
UN Children Fund		6,052,905.50		840,809
Unicef - Training		-		1,047,599
Total		**2,237,114,127.68**		**1,142,212,143**
Total Grant for Programmes/Projects				
Less:				
Project Expenditure				
[A] Community Managed Ghogha Regional Water Supply and Sanitation Project				
Opening Balance		448,304,476.00		312,550,076
Add : Project Expenditure during the year		84,015,173.25		135,668,024
Equipment purchased during the year		-		86,376
	Total	532,319,649.25		448,304,476
[B] Expenditure incurred during the year for Community Managed Water Supply and Sanitation Programme for the Earthquake Affected Villages of Gujarat				
Opening Balance		432,956,600.00		292,408,295
Add : Project Expenditure during the year		260,551,632.39		139,856,176
Equipment purchased during the year		154,332.00		692,129
	Total	693,662,564.39		432,956,600
[C] Swajaldhara				
Opening Balance		100,476,103.00		26,245,103
Add : Amount utilised for project during the year		270,214,897.00		74,231,000
	Total	370,691,000.00		100,476,103

Particulars		Amount Rs.	Amount Rs.	Amount Rs.
[D] Sector Reform Scheme				
Opening Balance		86,087,000.00		
Amount utilised for the Project during the year		126,813,000.00		86,087,000
	Total	212,900,000.00		86,087,000
[E] Grant of 11th Finance commission				
Opening Balance		5,000,000.00		
Expenditure incurred from Grant of 11th Finance commission		16,600,000.00		5,000,000
	Total	21,600,000.00		5,000,000
Total Project Expenditure		1,831,173,213.64		1,072,824,179
Grant-in-aid from Govt of Gujarat from Programmes and Projects as on 31/03/2006			405,940,914.04	69,387,965
Total Grant in aid			429,599,493	85,778,970

Annex - V

Other Liabilities

Sr. No.	Particulars	Amount as on March 31, 2006	Amount as on March 31, 2005
1	Deposits	9,132,761.00	5,589,849.00
2	Unpaid Professional Fees	-	-
3	Unpaid Audit Fees	39,284.00	35,000.00
4	Amount Payable towards Project expenditure incurred by	-	-
	Gujarat Water Supply and Sewerage Board	18,084,469.00	18,084,469.00
	Indian Institute of Rural Management	-	-
5	Tax payable	519,890.00	519,890.00
6	Employee Deposit	816,500.00	180,500.00
7	Duties & Taxes	-	(27,703.00)
8	Community Contribution for WRM Works	-	766,148.00
9	Other Liabilities of *CMSU's	4,538,554.00	3,800,109.00
10	Advance for National Conference	2,397,237.00	-
11	Security Deposit	548,166.00	-
	Total	***36,076,861.00***	***28,948,262.00***

Annex - VI

Other Fixed Assets

Sr. No.	Particulars	Amount as on April 01, 2005	Additions during the year 2005-06	Amount as on March 31, 2006
1	Computers from grant for setting up of wasmo	52,982.00	294,082.00	347,064.00
2	Computers from programmes or projects	3,671,474.00	606,511.00	4,277,985.00
3	Furnitures & Fixtures & office equipments from program or proj.	5,248,604.50	7,800.00	5,256,404.50
4	Furniture & Fixtures (Office Infrastructure) WIP for Setting up of WASMO	10,546,652.00	82,232.00	10,628,884.00
5	Furniture & Fixture from grant for setting up of WASMO	134,548.00	-	134,548.00
6	Office equipment from grant for setting up of WASMO	766,762.00	11,400.00	778,162.00
7	Office equipment from grant for program or proj.	-	1,820.00	1,820.00
8	Vehicle from Programme/Project Grant	3,656,253.00	470,246.00	4,126,499.00
	Total Fixed Assets as on March 31, 2006	**24,077,275.50**	**1,474,091.00**	**25,551,366.50**

Annex - VII

Current Assets, Loans And Advances

Sr. No.	Particulars	Amount as on March 31, 2006	Amount as on March 31, 2005
1	Advance to **DWSC for Swajaldhara Project	87,404,970.00	127,955,717.00
2	Advance to Staff	31,982.00	134,692.00
3	Salary Deductions	86,217.00	350,393.00
4	Loans & Advances	12,359.00	12,359.00
5	Deposits	-	18,000.00
6	Others	132,899.00	-
	Total	**87,668,427.00**	**128,471,161.00**

Annex - VIII

Cash and Bank Balances

Sr. No.	Particulars	Amount as on March 31, 2006	Amount as on March 31, 2005
1	State Bank Of India	43,895,704.18	4,371,379.00
2	Punjab National Bank,Gandhinagar	339,115,142.44	6,537,707.00
3	Cash on hand, Gandhinagar	7,986.59	6,301.00
4	PNB of CMSU Bhavnagar		17,005,945.00
5	PNB of CMSU Bhuj	947,809.00	285,898.00
6	SBS of CMSU Surendranagar	1,269,697.67	594,278.00
7	SBS of CMSU Jamnagar	2,531,878.21	1,540,561.00
	Total	**387,768,218.09**	**30,342,069.00**

Annex - IX

Income & ExpenditureAccount for the period ending on March 31, 2006

Particulars	Amount Rs.	Amount Rs.
Expenditure on Setting upof WASMO		
Staff Cost	10,104,953	
Rent	161,200	
Operational Cost	1,570,670	
Audit Fees (Provision)	39,284	
Travelling Exp.	430,033	
Allowances	693,105	12,999,245
Total		**12,999,245**

Annex - X

NOTES ATTACHED TO AND FORMING PARTS OF ACCOUNTS FOR THE YEAR 2005-06

1. Significant Accounting Policies

(a) Accounts are maintained on the mercantile basis of accounting except,
   i) In respect of insurance premium expenses are booked as and when paid.
   ii) Advances given to employees for project expenses are accounted for as and when bills for respective expenses are submitted by concerned employees.

(b) i) The assets acquired out of grant-in-aid, were earmarked separately under "Equipment Fund" (Annexure – II) of Balance Sheet till 2003-04. On identification of the source grant, the assets acquired after 2003-04, are to be so earmarked.
   ii) Depreciation has not been provided for on fixed assets as they have been acquired out of grant received from Government of Gujarat.
   iii) Movable Assets are accounted for at their acquisition cost.

(c) Any Interest received from Banks during the year on unspent balance of grant, is transferred to grant account, as per guideline on accounting for grant in aids.

(d) A liability for expenses represents outstanding commitments on project expenditure as per Annexure-III to the Balance Sheet.

2. Grants–in-aid received for different Programmes / Projects:-

Grant in aid received for different Programme/ Projects and utilized, are shown in the balance sheet as under: -

(a) Grant in aid for setting up of WASMO

- During the year 2005-06 WASMO has received a grant-in-aid of Rs. 1,97,00,000/- from Government of Gujarat for setting up of WASMO.
- A sum of Rs.1,29,99,245/- has been utilized during the year for day-to-day expenditure of WASMO, has been treated as utlilisation against revenue grant and appropriately shown in the income and expenditure account.

(b) Grant-in-aid for Water Supply and Sanitation Programme

- During the year 2005-06 WASMO has received a grant-in-aid of Rs. 60,48,23,000/- from Government of Gujarat for implementation of projects/ programmes.
- A sum of Rs. 34,41,91,764/- has been utilized as operational expenditure after adjusting the committed liability created during the year 2003-04 of the projects/ Programmes.
- Furniture and Equipment worth Rs. 1,54,332/- purchased out of the grant-in-aid has been capitalized. The balance is treated as grant-in-aid receivable and reflected in the Balance Sheet accordingly.

(c) Swajaldhara

- During the year 2005-06 WASMO has received a grant-in-aid of Rs. 25,53,62,000/- from Government of India under Swajaldhara Programme.
- WASMO has utilized Rs. 22,02,79,000/- by releasing fund to different DWSCs and they have utilized Rs.27,02,14,897/- for the programme expenditure and it has been treated as utlilisation against grant. The balance of the grant is treated as grant received in advance and reflected in the balance sheet accordingly.

(d) Sector Reform Scheme(State)

- During the year 2005-06 WASMO has received Rs.15,00,00,000/- as grant-in-aid from Government of Gujarat for Sector Reform Scheme (State).

- WASMO has utilized Rs. 13,00,00,000/- by releasing fund to different DWSCs and they have utilized Rs. 12,68,13,000/- for the programme expenditure and it has been treated as utlilisation against grant. The balance of the grant is treated as grant received in advance and reflected in the balance sheet accordingly.

(e) 11th Finance Commission Grant

- During the year 2005-06 Rs. 1,66,00,000/- has been received by WASMO for the construction of Rainwater Tanks (Cisterns) under 11th Finance Commission Grant from GWSSB. The amount has already been paid to ISAs and the same has been shown as project expenditure.

(f) National Rural Drinking Water Quality Monitoring and Surveillance Programme:-

- During the year 2005-06 WASMO has received a grant-in-aid of Rs.1,02,57,000/- for IEC activities and Rs. 88,72,000/- for HRD activities from Government of India under National Rural Drinking Water Quality Monitoring and Surveillance Programme (NRDWQM&SP).
- The total Rs. 1,91,29,000/- of above grant received in March 2006 is shown as balance of the grant and is treated as grant received in advance and reflected in the balance sheet accordingly.

(g) Special Central Assistance for Tribal Sub-Plan:-

- On March 31, 2006 i.e. during the year 2005-06 WASMO has received a grant-in-aid of Rs.4,25,70,000/- from Government of Gujarat as Special Central Assistance for Tribal Sub-Plan for the programmes of ITDPs, MADA, Cluster, Dispersed Tribals and primitive Tribal groups. This grant is shown as balance of the grant and is treated as grant received in advance and reflected in the balance sheet accordingly.

3. Development Fund from handling fees income of GRWSSP

As per the agreement between Royal Netherlands Embassy and the Government, WASMO is allowed to charge handling fees 2.5 % of cost incurred on Financial Assistance component and 5% on Technical Assistance Components under the 'Community Managed Ghogha Regional Water Supply and Sanitation Project' ended physically on December 31, 2005. The amount thus calculated comes to Rs. 24,79,397/- and is shown as income of WASMO in the Income and Expenditure account. Further, it has been decided to create "Development Fund" (Annexure – II to the Balance Sheet) for meeting the future development expenditure for the purpose of the society / trust, as sanctioned by the Narmada, Water Resources, Water Supply and Kalpasar Department (Water Supply) Government of Gujarat on September 20, 2003.

4. Accounts with Gujarat Water Supply and Sewerage Board are under settlement, balances will be transferred to / from on settlement with necessary adjustments, if any.

5. The trust / Society has got registered for exemptions of its income from income tax U/s 12AA of the Income Tax Act 1961, hence no provision for income tax has been made in the accounts.

6. Annexures to Balance Sheet have been regrouped / rearranged as per the requirement, and previous year's figures have been regrouped so as to make them comparable.

7. Amounts are rounded off to the nearest thousands of rupees.

Date: July, 2006
Place: Gandhinagar

[S. J. Joshipura]
Sr. Manager (F & A)

[Dr. Jai Pal Singh]
Chief Executive Officer

FOR AMAL DATT AND ASSOCIATES
CHARTERED ACCOUNTANT

Date:
Place: Ahmedabad

[Amal Dhru]
Proprietor

The involvement of rural communities in the planning, creation and management of drinking water supply and sanitation facilities has provided a learning ground and road map for scaling up

Building partnerships and working together

WASMO

Water and Sanitation Management Organisation

3rd Floor, Jalsewa Bhawan, Sector 10 - A, Gandhinagar - 382 010
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