COMMUNITY MANAGEMENT OF RURAL WATER SUPPLY

Community Water Plus

Administrative Staff College of India, Hyderabad

Understanding the resource implications of the 'plus' in community management of rural water supply systems in India: users becoming managers through WASMO, Kutch District, Gujarat

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Community Water *plus* is a 20 case study research project managed by Cranfield University, UK, on behalf of the Department of Foreign Affairs and Trade (DFAT) of the Australian Government

Executive Summary

Community Management has long been recognised to be critical for rural water supply services delivery which eventually sustain when appropriate levels of support from government and other entities are provided. The direct and indirect support represents what the Rural Water Supply Network has called the *'plus'* of community water management. In lieu with project objectives and research protocols, the case study of Water and Sanitation Management Organisation (WASMO), Gujarat has been taken up. Gujarat is a state with varying rainfall, desert and drought conditions, it was imperative to adopt a decentralised, community-owned and demand-driven approach for the sustainability of the water and sanitation systems. WASMO has given the communities a centre-stage for planning, implementing and managing their own in-village water facilities.

Government of Gujarat State brought in a major reform in community managed programme in drinking water sector by establishing Water and Sanitation Management Organization (WASMO) as a Special Purpose Vehicle (SPV) in the year 2002 to facilitate the community in development of water supply facilities in rural areas of Gujarat. This change in strategy entrusts the community with powers to *plan, design, own and manage* their own water supply systems. WASMO has strong faith in the principle that a sense of **'Ownership and Pride'** is to be instilled among the community.

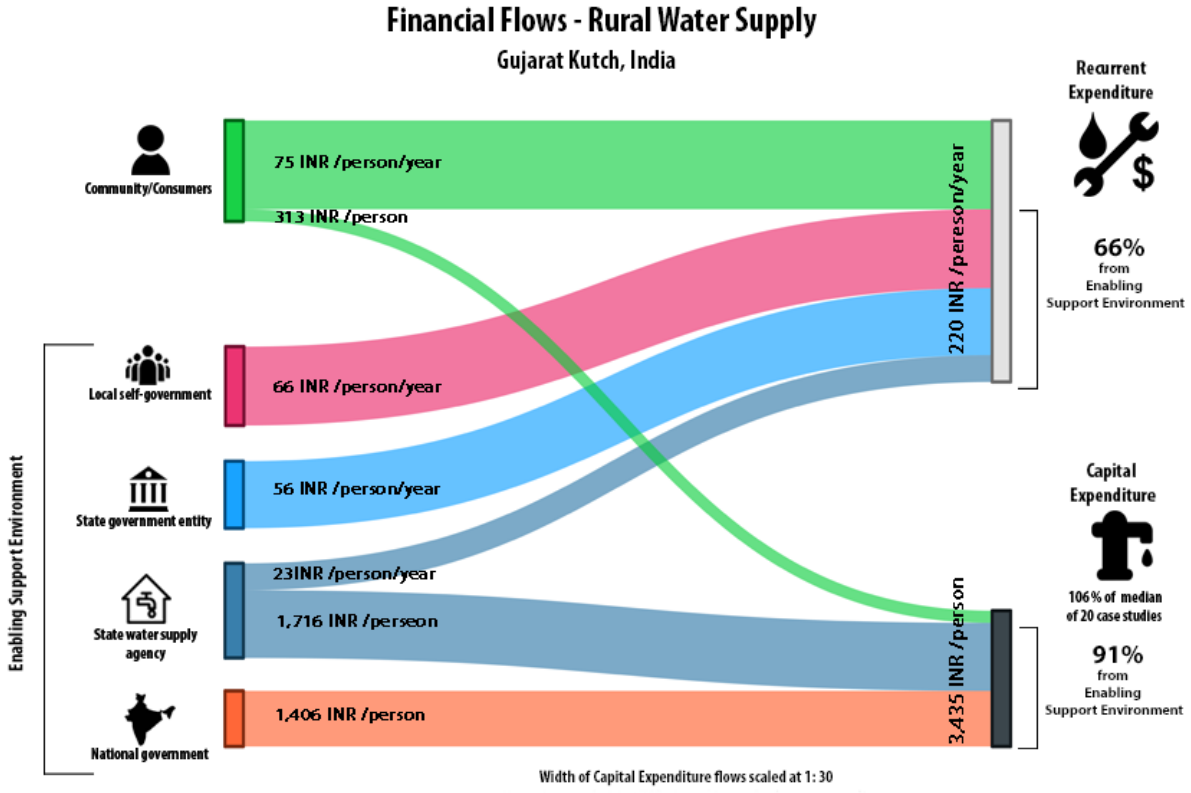
One of the key feature of WASMO is the establishment of *'Pani Samitis'*. Pani Samiti is a standing committee of the Gram Panchayat. The Pani Samiti and community in co-ordination have may responsibilities such as fixation and collection of water tariff including maintenance of tariff records, water delivery services (daily, frequency, duration etc), regulating the use of different local sources, arranging operation of the system, carrying out minor repairs (either through a person in the village or an external paid service), chlorination at village and household level, water quality testing and ensuring proper use of infrastructure, cleanliness near sources.

In Kutch, drinking water security is facilitated through decentralized local water sources. With the help of WASMO, existing regional water supply systems have been strengthened and new water distribution and storage systems have been developed. Following the research protocol the following villages for chosen to carry out the research - Bharasar, Shinay, Kannakpar and habitations- *Jabruvandh*, *Badhuvandh*. Each village is administered and managed by a Pani Samiti. These Pani Samitis were thoroughly assessed through a set of research tools. There are several direct and indirect costs involved in implementation and later during ongoing operation and maintenance. The various costs such as CapEx hardware and software, OpEx hardware and software, recurrent costs at the enabling environment level and community service provider level have been captured. The demand driven approach shows that, the community will always need support in form of finance, technical nuisances, capacity building. WASMO being ten years old now, has to chalk out a roadmap to address the issues of service expansion or enhancement through the building cash reserves of the individual Pani Samitis.

Gujarat Kutch Summary Cost Table - calculated as the average cost per person, that is averaging across the 3 'successful' villages

Source of funds	Use of funds - implementation			Use of funds - annual recurrent					
	CapEx hardware	CapEx software	CAPEX TOTAL	OpEx labour & materials	OpEx power	OpEx bulk water	OpEx enabling support	CapManEx	RECURRENT EXPENDITURE TOTAL
Community/consumers	INR 313	-	INR 313	INR 64	-	-	-	INR 11	INR 75
Local self-government	-	-	-	INR 15	INR 51	-	-	-	INR 66
	-	-	-	-	-	-	-	-	-
State government entity	-	-	-	INR 2	INR 54	-	-	-	INR 56
State water supply agency	INR 1,406	INR 310	INR 1,716	INR 7	-	-	INR 16	-	INR 23
National Government	INR 1,406	-	INR 1,406	-	-	-	-	-	-
NGO national & international	-	-	-	-	-	-	-	-	-
International donor	-	-	-	-	-	-	-	-	-
TOTALS	INR 3,125	INR 310	INR 3,435	INR 88	INR 105	-	INR 16	INR 11	INR 220
Median of 20 case studies			INR 3,231						INR 207
'Plus' %age	90%	100%	91%	27%	100%	-	100%	0%	66%
Median of 20 case studies			95%						57%

The Financial Flow Diagram, below, has been developed as an advocacy and communication tool. It aims to assist policy-makers and programme developers to visualise the 'plus' resource implications necessary for sustainable community-managed rural water supply services.



Acknowledgements

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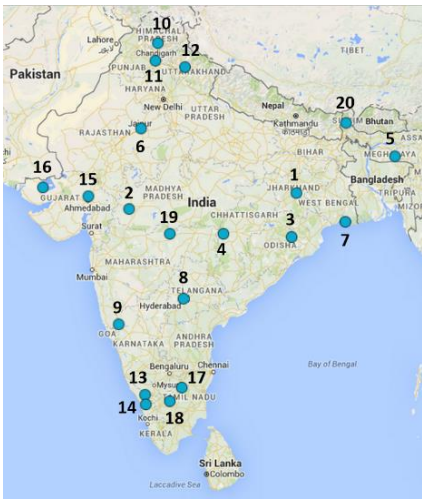
This research project has investigated twenty reportedly successful community-managed rural water supply programmes and approaches across India, from which we have subsequently developed understanding on the support needed to make community-management service provision successful and sustainable. The project has been implemented by a consortium of partners, including: the Administrative Staff College of India (ASCI), the Centre of Excellence for Change (CEC), Malaviya National Institute of Technology (MNIT), the Xavier Institute of Social Service (XISS) and IRC, The Netherlands with overall project coordination provided by Cranfield University, UK. Dr Snehalatha Mekala was the national research coordinator.

The research has been funded by the Australian Government through the Australian Development Awards Research Scheme, Australian Aid, Department of Foreign Affairs and Trade, under an award titled 'Community Management of Rural Water Supply Systems in India'. The views expressed in this report are those of the project and not necessarily those of the Australian Government. The Australian Government accepts no responsibility for any loss, damage or injury, resulting from reliance on any of the information or views contained in this report.



The twenty case studies

1	Jharkhand	11	Punjab
2	Madhya Pradesh	12	Uttarakhand
3	Odisha	13	Kerala (Kodur)
4	Chhattisgarh	14	Kerala (Nenmeni)
5	Meghalaya	15	Gujarat (Ghandinagar)
6	Rajasthan	16	Gujarat (Kutch)
7	West Bengal	17	Tamil Nadu (Morappur)
8	Telangana	18	Tamil Nadu (Kathirampatti)
9	Karnataka	19	Maharashtra
10	Himachal Pradesh	20	Sikkim

The twenty case studies are available also in four page summaries, both in Indian Rupees and in US Dollar (PPP) versions, accessible from the project website. A Policy Brief and a Research Brief There is also a synthesis report available, published by Earthscan, London.

Contents

1 Introduction

1.1 Background to the topic and the Community Water Plus project

Community Management has long been recognised to be critical for rural water supply services delivery. Indeed, community management has contributed significantly to improvements in rural water supplies. However those supplies are only sustainable when communities receive appropriate levels of support from government and other entities in their service delivery tasks. Communities may need easy access to call-down maintenance staff from government entities, they may need support from civil society organisations to renew their management structures and they may need to professionalize—that is, outsourcing of certain tasks to specialised individuals or enterprises. This is what is referred to as the "plus"—the necessary add-ons to sustain community water supply. Without such support, community management rarely performs well at scale and is then not an appropriate management model to achieve sustainable services.

In spite of the existence of success stories in community management, mechanisms for suppport and professionalization have not yet been scaled-up in policies and strategies. Success stories then remain pockets of achievement. The necessary support comes at a price, and sometimes a significant one. Support costs governments and donors additional resources in the short term, but it is likely to deliver better and more sustainable services in the long term. Also the balance between community engagement and support from outsiders differs according to factors, such as the technology employed or settlement size. It is often not clear what the right mix will need to be in promoting and scaling up successful models.

This research will investigate functioning, successful, 'community managed' rural water schemes across India (a necessarily large sample size to find the level of success and involvement we seek to consider across the range of technologies) in order to determine the extent of direct and indirect support required to sustain services with a valid level of community engagement. The direct and indirect support represents what the Rural Water Supply Network has called the *'plus'* of community water management.

The resulting analysis will categorize the different levels of ongoing support (the *'plus')*, as determined by the fieldwork research, required for different technical solutions, at a level of competence and bureaucratic involvement that is indicative of normal conditions across many low-income countries. We expect that this will lead to an understanding of the qualities of *'community partnering'* that will be required to scale up sustainable rural water services. 'Partnering' is described as "the delivery of co-created and co-managed initiatives with an emphasis on building local self-reliance and sustainability. It aims to help create a common language and approach to partnering as well as encourage a focus on good partnering behaviour"[1].

1.2 Overall objectives of the research and research questions

This research will investigate functioning community-managed rural water schemes across India in order to determine the extent of direct and indirect support required to sustain services with a valid level of community engagement. This research will investigate functioning community-managed rural

[1] The Partnering Initiative (www.thepartneringinitiative.org)

water schemes across India in order to determine the extent of direct and indirect support required to sustain services with a valid level of community engagement.

The resulting analysis will categorize the different levels of ongoing support required for different technical solutions, at a level of competence and bureaucratic involvement that is indicative of normal conditions across many low-income countries. There is a great advantage in researching in India where the range of States, and their varying socio-economic conditions, gives a good sample of technologies and approaches which are of relevance to lower-income countries, both now and in the future as they also reap the benefits in their infrastructure development of economic growth.

The expected outcome of the project is to have a better understanding among senior civil servants, policy-makers and international finance institutions, both in India and globally, on the likely resource implications of delivering the 'plus' of successful community management 'plus' and the possible trajectories for institutional development to achieve that.

In order to achieve that outcome, the project focuses on the following main research question:

What type, extent and style of supporting organisations are required to ensure sustainable community managed water service delivery relative to varying technical modes of supply?

This is further broken down in the following specific questions:

- What are the current modalities of successful community management and how do they differ in their degrees of effectiveness?
- What supporting organisations are in place to ensure sustainable water service delivery relative to alternative modes of supply?
- What are the indicative costs of effective support organisations?
- Can particular trajectories of professionalising and strengthening the support to rural water be identified?

1.3 Structure of the report

While Chapter 1 introduces the project andtakes us through the concepts and methodology opted for writing this report. The structure of the report follows the Community Water *Plus* three-tiered conceptual model for rural water supply. The second section is focused on the Enabling Support Environment (ESE) level which is the organisation that provides support to Community Service Providers (CSPs). Following this, the third section focuses on Pani Samiti in each of four villages which is a sub-standing committee of Gram Panchayat which manages and operates the water supply systems in the village. The fourth chapter focuses on the financial data that is required to compute a figure for sustainable community management of rural water systems.

1.4 Concepts and Methodology

Community Water *plus* (community management of rural water supply systems) is a research project that aims to gain insights into the type and level of support and professionalisation that is needed, and the resource implications of this 'plus' (in terms of money, staffing, and other factors), in order to achieve sustainable community management. To achieve this, the research investigates twenty case studies of 'successful' (as initially reported) community-managed rural water schemes across India

where the range of States, and their varying socio-economic as well as hydrological conditions, gives a good sample of technologies and approaches which are of relevance to many lower-income countries. Ultimately, the hypothesis underpinning the research is that some level of external support is needed to deliver on-going high quality water services through a community management model. Key to this support is what this research labels the 'enabling support environment' (ESE) that fulfils both 'service authority and monitoring' functions, such as planning, coordination, regulation, monitoring and oversight, and 'direct support' functions, such as technical assistance and financial contributions (Lockwood and Smits, 2011).

The research focuses on the level of water service people receive so as to validate the degree of success found under the different programmes. The way in which the community are involved in delivering this service is considered through what the study terms the 'community service provider' (CSP), which is the entity that takes on the responsibility for everyday operation and minor maintenance of the water supply service. It is recognised that an effective CSP should reflect both the local community and the complexity of the water system, leading to divergent models of management and participation. However, firstly we investigate the form, function and resource implications of the ESE, along with an analysis of the strengths and weaknesses of this particular model. The study finishes with a detailed consideration of the total cost of providing water services, with a focus on the costs incurred by the ESE – whether directly or indirectly.

Figure 1-1 provides an overview of the different elements, whilst a detailed research methodology and explanation of the underlying has previously been published as part of the Community Water^{plus} project: "Understanding the resource implications of the 'plus' in community management of rural water supply systems in India: concepts and research methodology", Smits, S., Franceys, R., Mekala, S. and Hutchings P., 2015. Community Water Plus working paper. Cranfield University and IRC: The Netherlands; please see http://www.ircwash.org/projects/india-community-water-plus-project

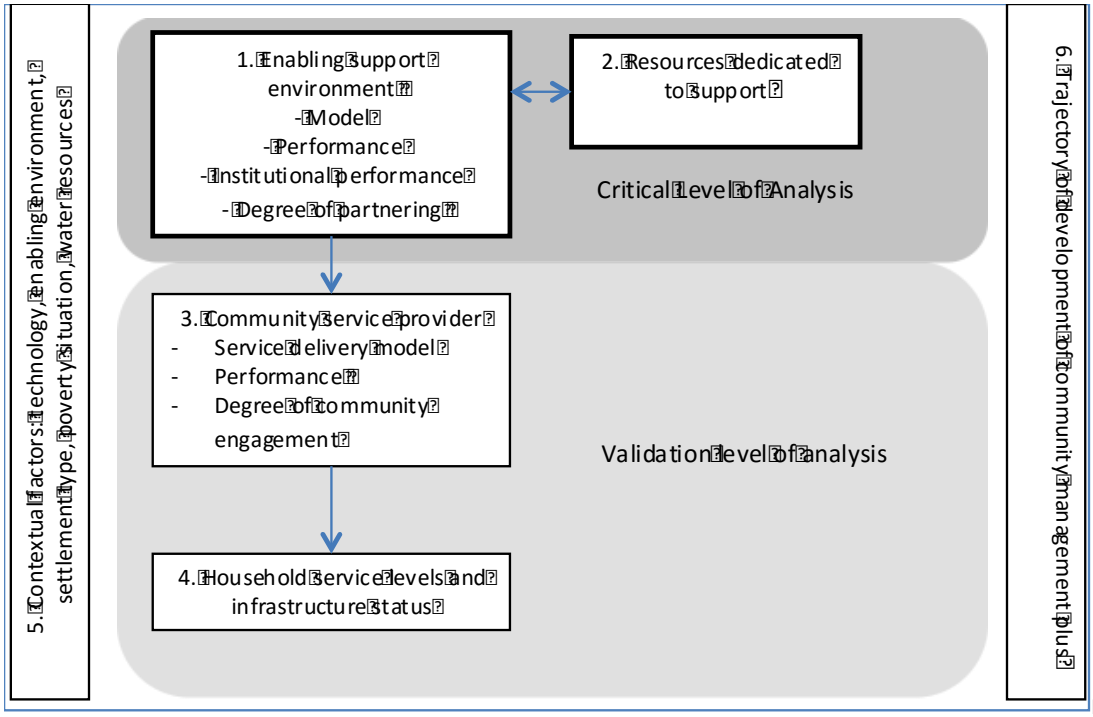


Figure 1-1 Relationship between the research elements

In the case of WASMO in Kutch, the assessment therefore consisted of:

- A qualitative assessment of the functioning of WASMO in general, through interviews and focus group discussions
- Obtaining data on costs and finances, through working sessions with WASMO financial staff
- Validating the performance of pani samities and services levels in three validation and one control village

For further details on the methodology, these have been described in Smits et al. (2015).

The above said data was collected during September 11-27, 2014. A total of 8 structured interviews and 2 Focus Group Discussions were conducted at the ESE Level. One FGD with CSP of each village was conducted and documented. One FGD with the community for each village was also conducted and documented.

Table 1.1 Data Sources

Unit of Analysis	Data Sources
Enabling Support Environment	8 Key Informant Interviews 2 Focus Group Discussions Secondary Information
Service Provider	12 Key Informant Interviews (3 in each village) - Chair, Pani Samiti, Talati (Record Keeper), Valve Man 1 Focus Group Discussion in each village (with Pani Samiti/Gram Panchayat) Secondary Information
Households	30 Household Surveys (in each Village) 1 Focus Group Discussion (in each Village)

From discussions with DWSU staff, the village selection was done. The first being Bharasar (Bhuj taluk), for its 24*7 water supply to the entire village. Second and third being Shinay (Gandhidham Taluk) and Kanakpar (Abdasa taluk) respectively as they won awards from the State Government of Gujarat for "Best performing Pani Samiti" in the year 2012. Lastly, the control village was zeroed upon habitations - *Jabruvandh Badhuvandh*. These habitations were chosen because of their deserted location in the semi-arid region of Kutch.

2 Enabling Support Environment

This section chapter details the working model of WASMO in Gujarat.

2.1 Organisational set-up of WASMO

2.1.1 Background and origins

The community participation approach needed an altogether different kind of governance which would provide an enabling environment for engaging the users in planning, the development of infrastructure and owning up of Operation and Maintenance of service delivery. The traditional approach was not able to engage the citizens in the programme. The feeling of trust needed for community engagement could not be developed and the partnerships with NGOs were not working due to rigid engineering bureaucratic dominance. Due to the above scenario, it was decided at the level of the Government of Gujarat to innovate a new form of governance that would provide an enabling environment to the community in which social process would be of paramount importance. The policy-making and implementation at grassroots level would be interactive and strive for engaged governance. People would be involved at every level of planning and implementation, and in decision-making, and be given full control over finances. In line with the principle of subsidiarity—that anything that can be done at a lower level should be done at that level—functions, funds and functionaries had to be devolved to the lowest level of governance. At policy level, these'3 Fs' may have sufficed but proactive facilitation was envisaged as a conceptual innovation for the decentralised community managed water supply programme. It was also decided to develop horizontal networks with non-governmental organisations, funding agencies and other sector players.[2]

This major reform in community managed programme in the drinking water sector was established as 'Water and Sanitation Management Organization (WASMO)' which is a Special Purpose Vehicle (SPV) in the year 2002 to facilitate the community in development of water supply facilities in rural areas of Gujarat. WASMO is registered as a Society under the Societies Registration Act, 1860 and also as a Public Charitable Trust. Formed in 2002, WASMO is a facilitating organisation working towards drinking water security and habitat improvement by empowering communities to manage their local water sources and village drinking water supply system and services. WASMO embodies Gujarat's institutional commitment to empowering rural communities at the grassroots level for developing their own water supply systems.

In Gujarat, the body which is primarily responsible for Water Supply in state is Gujarat Water Supply and Sewerage Board (GWSSB) which was created in 1979 as an autonomous body. It's main task is sustainable water supply and sanitation services in rural areas of Gujarat. It identifies "no source villages" and develops water resources, implements regional water supply schemes and responds to water supply needs in times of drought. It guarantees water quality, promotes sanitation, oversees filtration, treatment, chlorination and supply of water in villages and towns.

In Gujarat, a state with varying rainfall, desert and drought conditions, it was imperative to adopt a decentralised, community-owned and demand-driven approach for the sustainability of the water

[2] James, A.J., 2011. *India: Lessons for Rural Water Supply; Assessing progress towards sustainable service delivery.* The Hague: IRC International Water and Sanitation Centre and Delhi: iMaCS.

and sanitation systems. WASMO has given the communities a centre-stage for planning, implementing and managing their own in-village water facilities. The strategy and approach of WASMO has been in consonance with the reform principles adopted in the rural drinking water and sanitation sector, where the role of the government is that of a facilitator rather than a provider. Kutch District has been selected for this study.

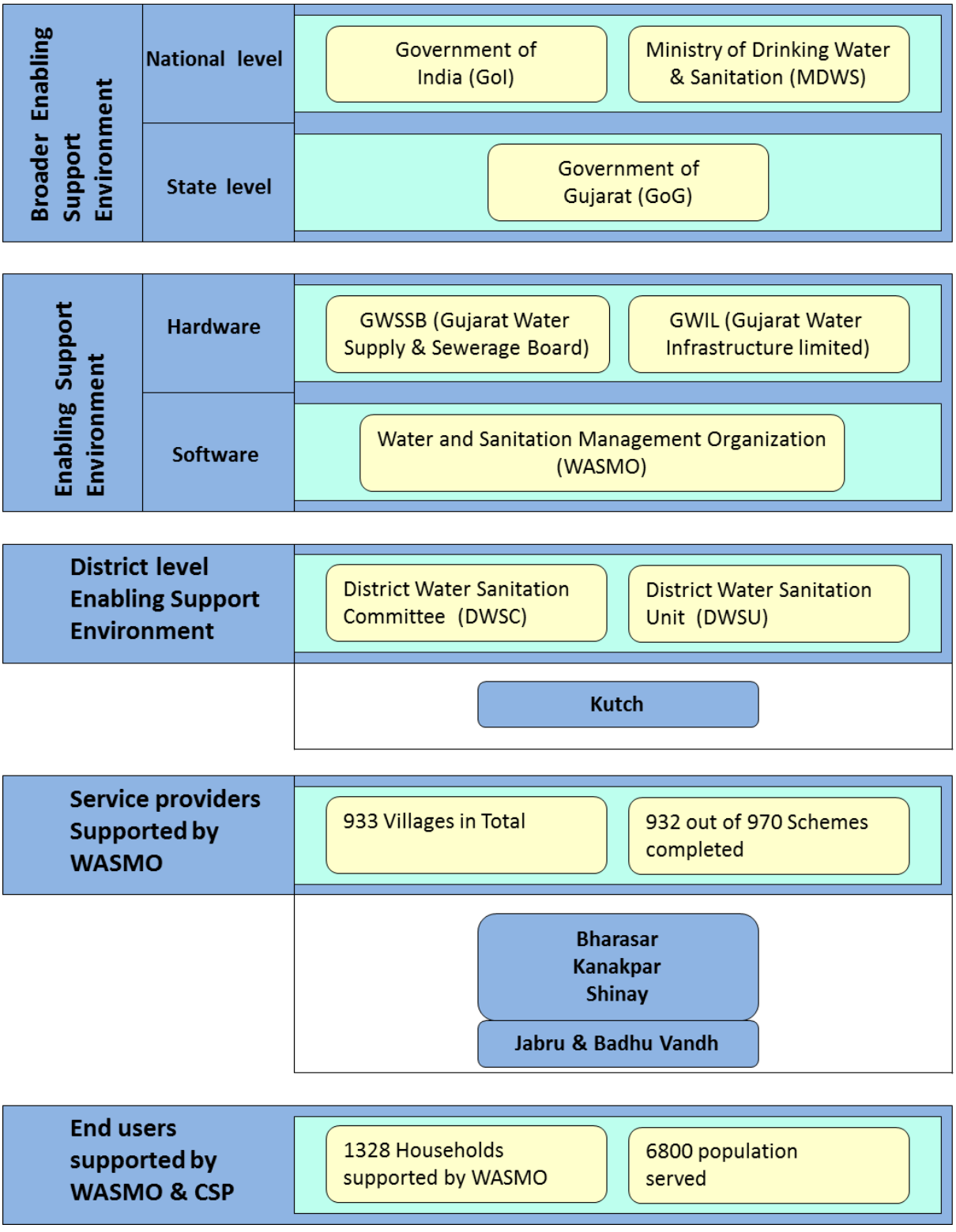


Figure 2.1 Network mapping of WASMO

2.2 Supporting organisations

"The work of Water Supply [in Gujarat is being carried out by the three organizations of the Department. The work of laying [the] main pipeline for transmission of Inter-district Narmada Canal Water in bulk, and its operation and maintenance, is being carried out by Gujarat Water Infrastructure Limited. The work of the distribution to feed potable water to underground sumps of villages getting raw water from the bulk pipeline is done by the Gujarat Water Supply and Sewerage Board. Water from the group scheme and that of local sources is stored in the underground sump of village. Water supply facility at standposts and household connections through laying of distribution pipeline is included under in specific village water supply schemes. This activity is done by WASMO by formation of Pani Samiti through people's participation." (GWSB, Annual Administrative Report 2013-14, 2014)

"GWSSB is a statutory body set up by the State Government for Development, Regulation and Control of the Drinking water sector in the State. The jurisdiction of the GWSSB (Board) extends to the whole state. The Board largely works for putting in place rural water supply system as well as operational management of Rural Regional water supply schemes covering cluster of villages. In this area the main function of the Board is to prepare, execute, promote and finance the schemes for supply of water for drinking purposes. The Rural water supply systems include Installation of hand pumps, mini water supply system, etc. in small habitations and piped water supply system for individual villages including large water supply system covering several villages.

DUTIES AND FUNCTIONS OF THE GWSSB

The duties and functions of the Board as identified by the GWSSB Act No.18 of 1979 are identified as under:

To prepare, execute, promote and finance the schemes for supply of water and for sewerage and sewage disposal.

To review and advise on the tariff, taxes fees, and charges of water supply and sewerage systems, in the areas comprised within the sphere of operation of the water supply and sewerage services of the Board and in the areas of the local bodies which have entered into an agreement with the Board.

To review annually the technical financial, economic and other aspects of water supply and sewerage system of every scheme of the Board or the local bodies which have entered into an agreement with the Board.

To carry out applied research for efficient discharge of the duties and functions of the Board" (www.gwssb.gujarat.gov.in/profile)

In this case study we focus upon the work of WASMO who works directly with communities. An estimation of the level of support delivered by GWSSB and GWIL is included in section four.

2.2.1 Community enabling support organisation

WASMO, the Water and Sanitation Management Organization, formed in 2002 is a facilitating organization working towards drinking water security and habitat improvement by empowering communities to manage their local water sources and village drinking water supply system and services.

WASMO's Vision

To enable 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 standards.

Mission

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

Strategies

- Creating institutions at the village level and strengthening them through continuous capacity building;
- Focus on IEC and software activities before taking up development of infrastructure for water supply;
- Putting entire programme in public domain for seeking strong citizens' engagement;
- Social process based demand driven programme implementation for achieving stakeholder engagement, gaining public confidence, strong community leadership, accountability and efficient service delivery;
- Building strong partnerships based on transparency and trust with community, community institutions and NGOs.

This change in strategy entrusts the community with powers to *plan, design, own and manage* their own water supply systems as opposed to the previous programme design where the whole responsibility lies in the hands of GWSSB. WASMO has strong faith in the principle that a sense of **'Ownership and Pride'** is to be instilled among the community.

2.2.2 Organisational structure

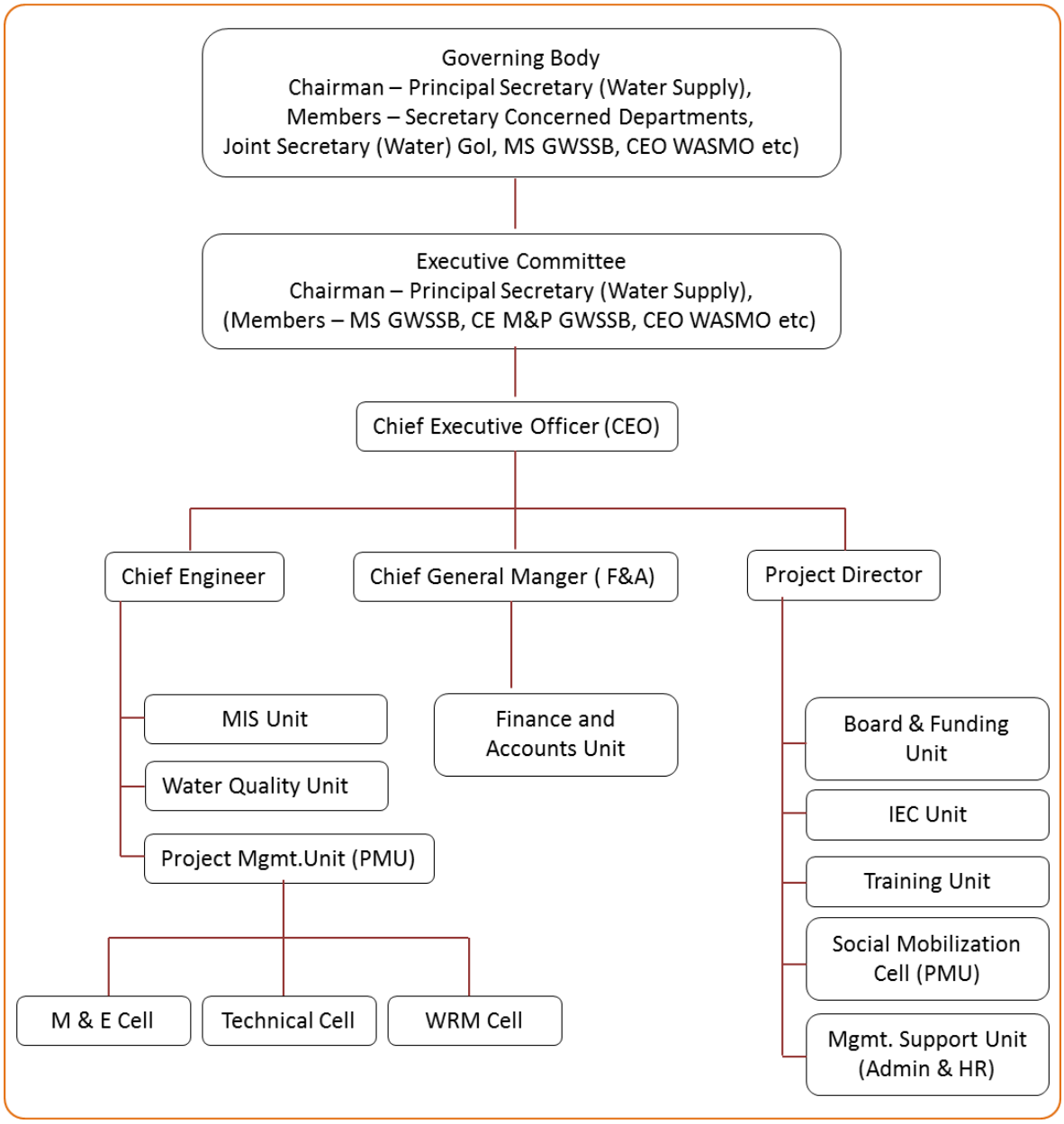


Figure 2.2 Organogram of WASMO

There are a total of 452 people working in WASMO – both at Head Office and Districts. Out of these, 163 are Social Mobilizers and 136 are the technical lot. The admin and finance section is resourced with 49 people. 100 people support the teams in daily activities at office and field level.

WASMO's head office is situated in Gandhinagar, Gujarat. Every district has a designated office which is called as a District Water & Sanitation Unit (DWSU). Th programme implementation is taken up by the DWSU for the respective district. DWSU works with a District Water & Sanitation Committee (DWSC). DWSC is chaired by District Collector. The other members of this committee are Vice-Chairperson, District Development Offficer, Member Secretary, Executive Engineer (GWSSB), District Health Officer, District Education Officer, Project Officer (DRDA), District Social Welfare Officer, District I&B Officer, Unit Manager,DWSU and Technical Officer, DWSU. . The Village Action Plans

(VAPs) prepared during PRAs are presented and discussed in these meetings. The Collector approves the schemes.

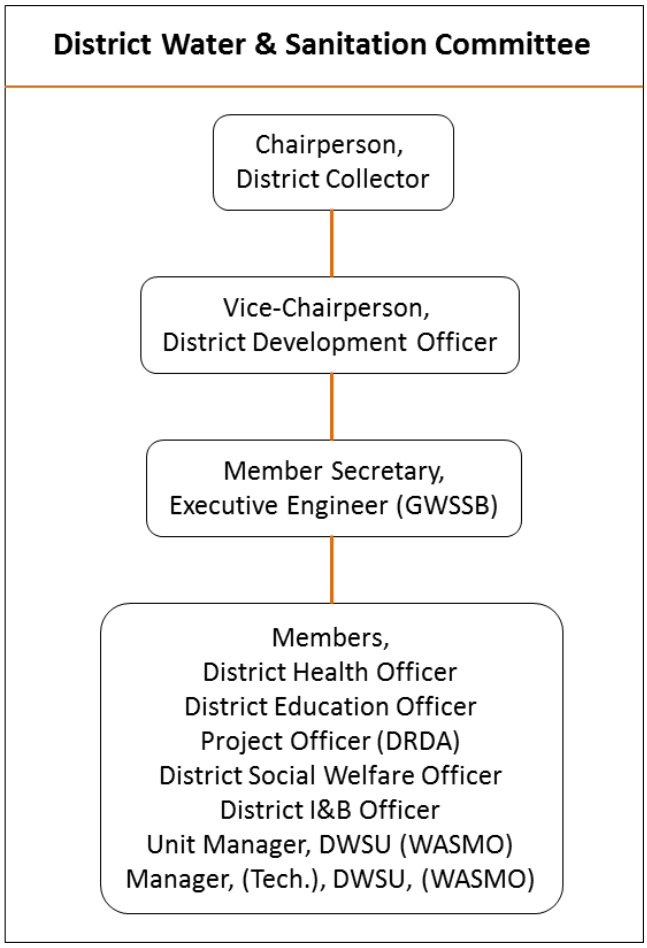


Figure 2.3 Organogram of DWSC

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2.2.3 Project Cycle

WASMO projects are implemented in two cycles, followed by continued post-implementation support. The first cycle lasts from three to six months and involves community mobilization. In this phase, WASMO introduces the programme design to the community. Introduction of the programme in a village is done through workshop/ village meetings. It is in these meetings that, the community is introduced among the about norms of the programme including community participation and partial sharing of cost by the users (normally 10% cost of the scheme; Government contributes the rest 90%). All the decentralised community-managed programmes require a ten per cent community contribution towards the capital costs, and it is in fact a pre-condition to any financial assistance made by WASMO. This contribution ensures that the communities not only own the structures, but also participate in the project from the very beginning. Village leaders with team of WASMO and NGO step in to motivate the community to accept the community-managed approach and appreciate the need to contribute towards the capital costs either in cash or kind.

One of the key features of WASMO is the establishment of *'Pani Samitis'*. The communities in Gujarat are served by a Formal Water Committee – 'Pani Samiti' (which means Water Committee) which is

the sub-standing committee under Gram Panchayat. After the introduction of the scheme in the Gram Sabha, a Pani Samiti is democratically elected in a village meeting which is followed by a formal oath-taking ceremony. It is empowered through a Government Resolution (GR), issued by the Panchayats Department in the year 2002. Formation of Pani Samiti is done in Gram Sabha. The Samiti is normally headed by Sarpanch of Gram Panchayat or by Panchayat member of respective village (in case of Group Gram Panchayat). In case of unwillingness of Sarpanch to head Pani Samiti Deputy Sarpanch or Gram Panchayat member can be elected as Chairperson of Pani Samiti. Talati acts as Secretary of Pani Samiti. It consists of 10-12 members. Pani Samitis also provide an opportunity for women and STs/SCs to participate in the decision-making process. Pani Samiti is formed during Cycle I; by the end of Cycle II, Pani Samiti is expected to take over the responsibility of Operation and Maintenance of the water supply scheme.

The Pani Samiti opens and maintains a separate bank account in nationalised bank for funds flow. The Samiti is responsible to plan, design and implement in-village water supply schemes. It is also responsible for O&M of the village and fix and arrange collection of water tariff for sustenance of system and services. WASMO lays emphasis to discuss in Gram Sabha and form Pani Samiti, which has representation of all sections of society to deliver its roles and responsibilities in letters and spirit.

> The role of women in the management of water in a village is identified as a crucial factor. Women have been provided a platform to voice their issues by making it mandatory to have at least one third women members in the Pani Samiti.

A Village Action Plan is developed and is approved by the Gram Panchayat. After the preparation of the Village Action Plan, the community contribution (10%) is determined and collected.

The second stage lasting twelve months involves physical execution and completion of the project. The Village Action Plan is implemented and a continuous technical support is provided by the District Water and sanitation Unit (DWSU). WASMO also ensures the quality of construction by regular monitoring. Levy of water tariff is fixed in this phase. After the construction, the assets are handed over to the Pani Samiti and from here on the O&M is taken care of the Pani Samiti.

Third cycle is also of 12 months for providing post-implementation support. This phase is more of a handholding support in terms of components such as training and capacity building of the members of Pani Samiti. The Pani Samitis are taken on exposure visits to the best performing villages. Continuous monitoring and auditing support is also lent by WASMO in this phase.

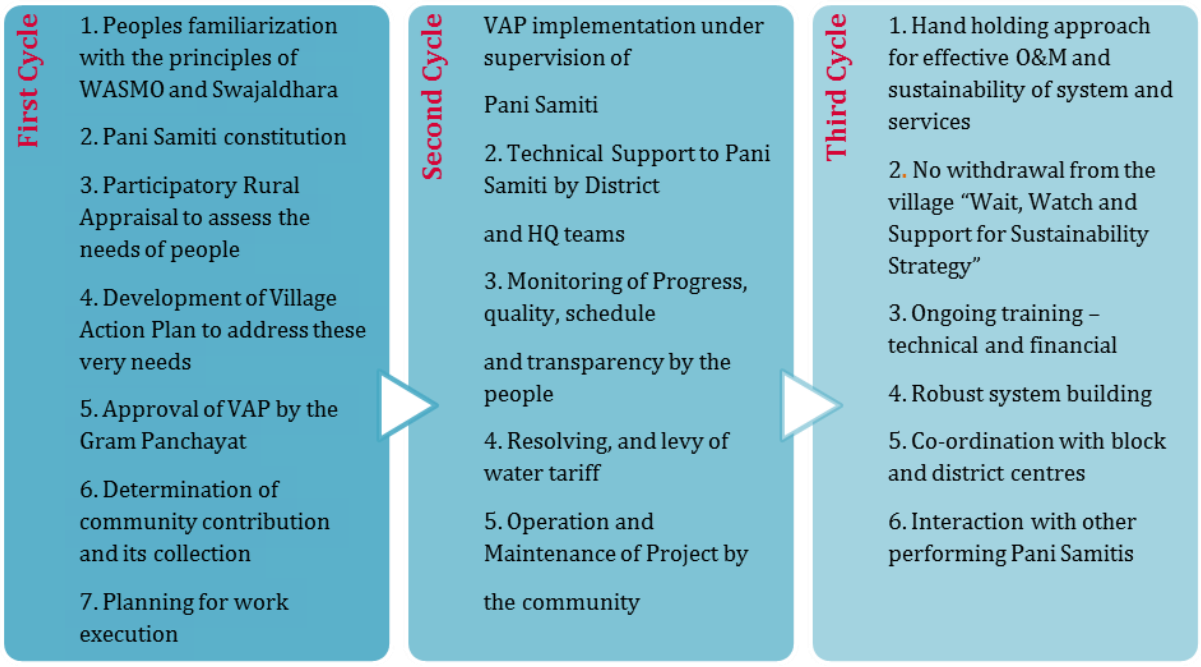


Figure 2.4: Description of Project Cycles in a Scheme

2.3 Enabling Environment Description

WASMO believes that community participation and capacity building need strong social process at village level. Hence, social processes to involve people in water management are taken up intensively. It is the social process that brings "Users demand - users' participation" to plan and implement works. The community is empowered to maintain the assets for service continuity in times ahead.

The ESE has a clearly articulated vision, mission and/or objectives for its support function, which is also supported by a policy mandate.

Professionals of WASMO and Implementation Support Agency (ISA) are tuned to a system by trainings and regular guidance by senior officers to follow in practice:

"Community is planner and implementer and WASMO is supporter to scheme work"

While precautions are taken by the engineers of WASMO to see that the structural design of the important structures is safe and sturdy, the ongoing monitoring and supervision of the works in order to ensure quality, is the responsibility of the Pani Samitis. Holding sensitisation workshops, providing documented material in the form of manuals and lists of approved vendors are some of the means to help Pani Samitis ensure the quality of works that are taken up in the village. Construction training is a part of the capacity building initiatives and helps the community to understand the basics of construction activities and in some cases it has empowered them to prevent substandard work in the village. Also, there are structured mechanisms for tracking information on performance of the Pani Samitis. Their performance is evaluated by the 'Monitoring and Evaluation Cell' of WASMO.

Access to Safe Water is the main objective of WASMO. Some of steps taken up by WASMO to achieve the aim in this connection are:

- IEC activities by adopting all measures including print, audio-visual mass media etc
- Capacity building of all the members of Pani Panchayats
- Provision and monitoring of field test kits
- Water quality testing and remedial measures to bring improvement
- Identification/ registration of safe drinking water sources in all habitations
- Data compilation, updation and sharing with all concerned

Operation & Maintenance and Sustainably of Services and System

Water supply systems created under the project are significant only if they continue to deliver the benefits over a considerable period of time. The community therefore has a role to play in aspects such as:

- Fixation and collection of water tariff including maintenance of tariff records
- Water delivery services in the villages
- Regulating the use of different local sources and reserving drinking water if required
- Arranging operation of the system
- Carrying out minor repairs (either through a person in the village or an external paid service)
- Chlorination at village and household level
- Water quality testing and mapping of different sources, potable and non-potable.
- Ensuring proper use of infrastructure, cleanliness near sources

Table 2.1 Understanding the support received by Pani Samitis from ESE

Type of activity	Modality of support	Explanation
Monitoring and control (auditing)	Both (On request and supply based)	• A separate cell in WASMO – 'Monitoring and Evaluation' helps in assessing the performance of the Pani Samitis and status of service delivery. • Pani Samitis are also trained to monitor their own workThe first audits of Pani Samitis are done by WASMO.
Water quality testing	Both (On request and supply based)	• WASMO provides Water Quality Testing Kits on supply basis to Pani Samitis. • The records of these results are available in the office of Pani Panchayat. • WASMO also does testing independently twice a year
Water resources management	Both (On request and supply based)	• Activities such as development of infrastructure for water storage or distribution in villages, construction of sanitation and washing facilities, rain water harvesting structures, school drinking water supply infrastructure, soak pits, water resource management structures, etc are taken up.

Community Water Plus

Technical assistance	Both (On request and supply based)	• Engineers provide understanding & develop sustainable scheme on the basis of population, available water and future requirements considering the norms prescribed by the Govt. • Due weightage is given for the revival and use of traditional water sources. • Local know-how and community water wisdom is used. • Survey and designing of the scheme are done with technical support by WASMO. • VAP contains details of work structures planned with their estimates.
Conflict Management	On request	• Regular training, discussion and regular guidance by competent professionals of WASMO help them to achieve the capacity to implement scheme works in effective manner. • In case of emergency situations, such as conflicts, the improved communication channels come into aid.
Support in identifying investments needs	Both (On request and supply based)	• Participatory Rural Appraisal (PRA) which includes social mapping, resource mapping, transect walks, interviews, etc are taken up in the village including its hamlets. • WASMO's tools and methods are applied in a systematic manner & aim at having the complete demography and topography of the village. • Water sources and existing water supply assets and service delivery are assessed. It also considers sustainability of water sources including their all-time efficiency/ drying up in summer. These activities help in identifying the investment needs.
(Re)training of service provider	Supply based	• Every effort is put to stimulate the necessary skills into the community and trainings are also imparted to villagers addressing a wide array of issues from project planning to post implementation operation & maintenance.
Information and communication activities	Supply based	• WASMO gives high emphasis to IEC activities and generation of public awareness and a feeling of responsibility towards water related issues. These "Software Activities" include various activities like Gram Sabha, publications, folk media, electronic media, rallies, campaigns and workshops. • These activities are undertaken to generate awareness, share knowledge and create an enabling environment and promote a behavioural change.
Fund mobilization	Both (On request and supply based)	• the fund is directly transferred to the Pani Samitis, thus bringing in a bottom-up approach. • The Pani Samitis are expected to manage the funds and maintain all sorts of records, cash books, bank accounts, receipt books, etc.

		• The accountability and effectiveness of the Pani Samiti can be influenced and monitored by the presence of an effervescent Gram Sabha.

2.4 WASMO Performance Indicators

This section provides an assessment of the degree of professionalization, institutional performance, and client satisfaction of WASMO.

Table 2.2 Understanding the ESE performance indicators

Indicator	Score	Explanation
Formality of the mandate for support	100	The ESE has a clearly articulated vision, mission and/or objectives for its support function, which is also supported by a policy mandate
Working methods	100	The ESE has tools and methods for all of the areas of support it provides and applies those in a systematic manner
Information management	75	The ESE has one or more tools to track the performance of the service providers it supports and uses that to plan its work, but not monitor its own impact
Communication between service support authority and service providers	100	The ESE has a number of communication channels that are well used for contact with the service providers it supports.
Client satisfaction	75	The ESE monitors client satisfaction, and more than 70% of the service providers attended last year, indicate satisfaction with the support received

The organisation has a strong and formal mandate with a clearly articulated vision, which is also supported by a Government of Gujarat. WASMO has also been awarded the Prime Minister's Award of Excellence in service delivery.

The atmosphere of WASMO is young and energetic and builds on strong sense of commitment. There is a prevalence of healthy organisational culture which was clearly captured in the team work among various cells in the office. Interviews with the CEO, WASMO and other senior officers exhibited that he was able to provide a clear sense of mission that was shared and respected by other team members.

WASMO's success is also attributed to the working model and use of professional tools which are used throughout the project cycle. The base of the organization is set on good organization values and is set as a good example for success in past and continues to do so even in the present. The service from staff working at the field level is praiseworthy. The ease at which the staff interacts with the members of Pani Samiti demonstrates the high level of trust the community has towards WASMO. Though the communication systems are really strong and well developed, there is still a chance of improvement in the area of addressing grievances. Multi-channel feedback mechanisms

could be developed, including the opportunity for the communities to provide feedback directly to head office via established mechanisms, such as a central phone number or website.

2.5 Institutional assessment of WASMO

An assessment was also made of WASMO's institutional performance, against 7 indicators (see figure 3.4) on a scale from 1 to 4

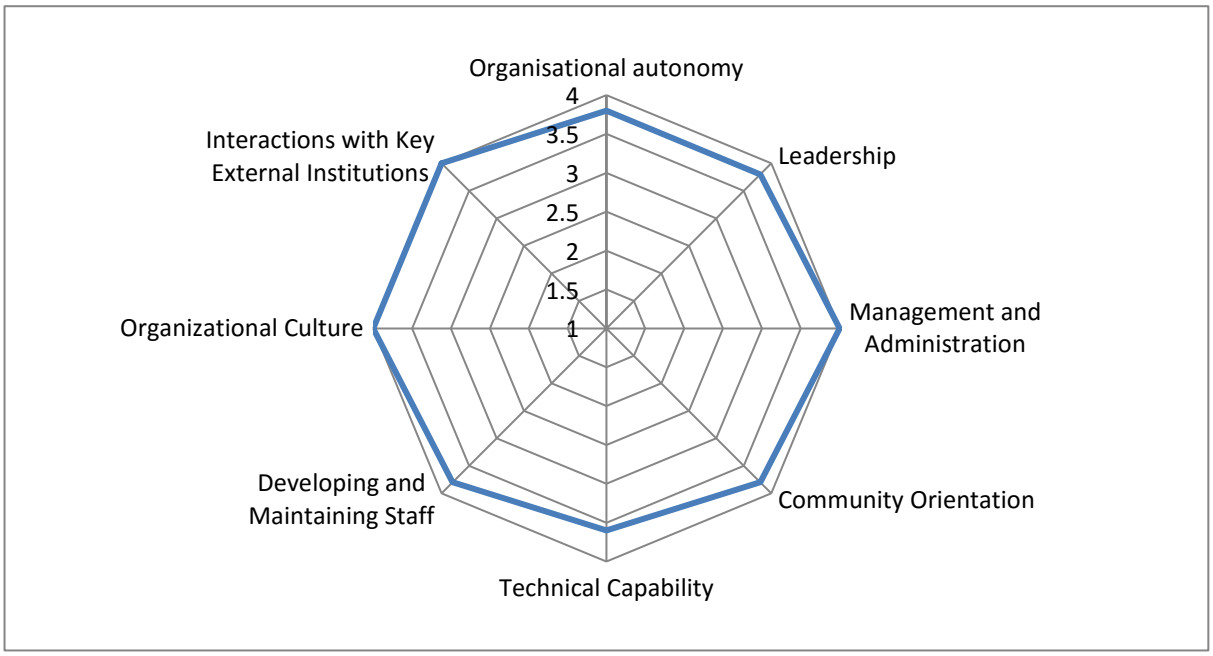


Figure 2.5 Institutional Assessment

A short explanation for each of the score is given (whereas the detailed scores per question can be found in annexure.

Organizational Autonomy: WASMO has defined organisational policies and goals. Every year the team sets internal goals and works towards achieving them. The team secures sufficient funds from appropriate sources to meet organisational goals. The action plans that are prepared aim at meeting the expected long-term demands on the institution. Every person's role is clearly defined in WASMO. After recruitment, each individual is trained by a senior. The Human Resource Cell looks after assuring that each official is aware of his/her roles and responsibilities. However, the employees fear job insecurity as most of them are recruited on contractual basis.

Leadership: There is an amicable atmosphere in the organization and the officials work in harmony. This can be attributed to an able leadership that involves people with the mission so they get a sense of ownership. There is an evidence of a disciplined leadership in a philosophical environment which enriches the rate at which the officials are able to render their services. The teams are dynamic and are service oriented. Their performance is evaluated on regular basis which paves a way for career growth and improvement. During various interviews, it is also observed that the people demonstrate personal integrity.

Management and Administration:. Top management is responsible for framing policies, development of plans and objectives of the organization. The team-leaders/managers directly support the top level and are aware of their roles and responsibilities. They communicate the objectives to the rest of the team and the work is designed in a systematic manner with each and every person's roles and responsibilities clearly defined. People work in a team to get a task done and each one of them is accountable to complete a given task on scheduled time. All the systems that were developed to tract the administrative work have been in sync with the work done and used are used on regular basis. There is a separate section which manages all the finance related work. Documentation of various accounts and budget is done stringently. At the district level, each office is provided with a Finance Officer. The accounting and budgeting from the DWSU are all summarized at the head office. Both at the head office and at various DWSUs, personnel are recruited on need basis. Everyone's role is clearly defined and at present there is no dearth for human resources. Information is managed systematically and communicated to various channels with the team as well as with external people.

Community Orientation: WASMO's core competency is established by building strong relationships with the community. Various tools and methods are employed to interact and have a two-sided interaction with the communities. 'The involvement of social mobilizers allows for a positive interface between both the parties. Both the social mobilizers as well as technical experts work towards progressive success. Emphasis is laid in consideration of equity and involvement of people from all the communities. All corners of the village and all the communities including the most marginalized are considered while planning for the project. Communities are always provided with proper channels of communication to have conversation of any important matters. The DWSUs also respond to complaints, emergencies, and suggestions which community members or the Pani Samitis make. Usually, the DWSUs aim at addressing any complaints/emergencies within 24 hours. Communities are trained in all the three stages of project cycle. By doing so, the communities are empowered to manage their own services and requirements.

Technical Capability: The officials of WASMO possess the technical capabilities to efficiently plan and implement the projects in a stipulated time. The teams are trained for taking sound technical decisions and also render effective management by conducting technical studies and planning as requested and when requested by the communities. In the process, the teams also ensure of the quality in each and every assignment that is taken up. Various PRA exercises that are conducted during Cycle One (pre-implementation stage) help the social mobilizers and technical experts to design the project schemes that are suitable for the specific needs of the village. All the officials are trained and their skills are groomed to a good extend whenever required. The organization has access to all the technical expertise and also sub-contracts consultancy services for important subject areas such as ground water geology, etc. One area of improvement for better provision of services is to strengthen practical research and experiments to improve existing uses of technology for local conditions and needs.

Photograph: Field Exposure to the newly recruited technical and social mobilizers.

Developing and Maintaining Staff: Competency development is the crucial driving force for the success of WASMO and in increasing its employee effectiveness. The research indicates that employees most often make use of training initiatives and, in particular, the in-field training methods and tools to develop their competencies. There is an existence of clear process for determining skill needs and the training programmes are designed on need-basis. Hence, training still forms an important part of competency development. With regard to the role of the organisation in competency development, employees indicate that their organisation supports them in their learning activities. However, incentives to sustain staff needs have to be strengthened. Lack of job security (as the jobs are contractual) enables the employees to perform better. But, this is also one of the drawbacks in retaining the trained and experienced staff.

Organizational Culture: The work culture among the teams is one of the assets that boost the performance of the organization. It contributes immensely to the productivity of the employees. There is clear cut existence of a team spirit among the teams. Employees have a sense of ownership and also have a pride about the work that is being done. WASMO has achieved great success in provision of water to every nook and corner in the state. In Gujarat, some of the areas are nearer to the country's border and establishment of a piped water network is extremely different. Various problems such as distance, terrain geography, and cultural differences make it difficult to achieve the water supply through piped network. But, WASMO has accomplished in supplying water by overcoming all these problems. Employees take stride in such achievements and also these successes keep them motivated to put in best efforts in future too. The organization has always managed to have continuity in the organizational culture even within the varying levels. The staff is provided with good physical infrastructure and this is also aided with good maintenance. Overall, the office is clean and well maintained.

Interactions with Key External Institutions: To bring a significant recognition of the organization at central and state level, it is important to establish and maintain contacts with some of the national and state level agencies. By doing so, there is a two way benefit - one the organization is benefitted

from the latest policies and funding; two- the organization's model can be set as an example for a successful case study that can be replicated in other states. The top level management stays well informed about external policy, financial, and regulatory issues and actions. The management also maintains good contact relations with all the key individuals related to a respective project. The project's goals are articulated with framing specific strategies that are formulated to influence policies, legislation, and other activities to obtain necessary approvals and resources. The programmes are always designed with an objective of community involvement in achieving the programme's success. The post-implementation support is given to the Pani Samitis which are always kept informed about monitoring. The various support services aid in the monitoring and in O&M of the project schemes at a village level.

WASMO is a professionally-run organisation, with strong leadership and community orientation. It also has all of its technical, financial and administrative systems in order. The outlook of WASMO towards water service delivery is sought out to be highly locally relevant and effective. Involvement of Gram Panchayats to sustain community participation is also commendable. The success of WASMO can also be attributed to the motivation levels of senior bureaucrats and involvement of politicians in the programmes. The support provided by external funding agencies has added to the positive results. Finally, the key factor for the success of this programme is the willingness of communities to take on responsibility for the full O&M of their water supply systems.Enabling Environment Partnering Assessment

Public service delivery often requires a partnership between professionals, service providers, and community residents.. Also between Pani Samitis (service providers as well as communities) and WASMO a partnership has been established, making it possible for them to accomplish much more than they can perform on their own. . In this research, it was critical to understand the relationships between various stakeholders on how well a partnership develops and moves forward.

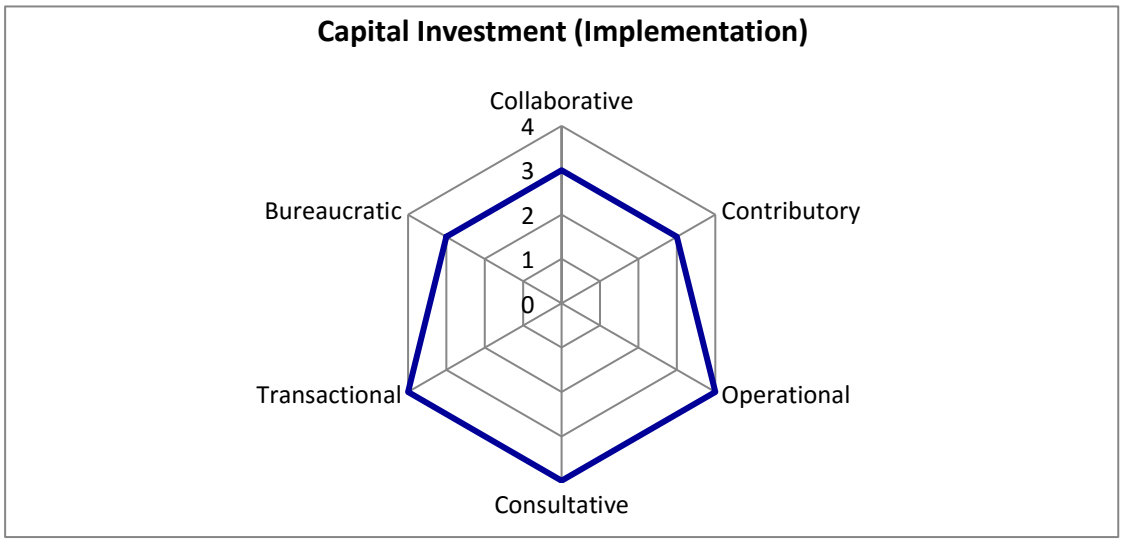


Figure 2.6 Partnering Assessment during capital investment phase.

The partnering assessment is understood to be different in various stages in a project cycle, from initial capital investment (implementation), to the service delivery, and asset renewal phases. The partnership is assessed against the criteria by Demirjan (2005), who identifies different types of partnerships. It must be noted that these types are not mutually exlcusive, and many partnerships employ elements of the different types of aprtnerships, as defined by Demirjan.

In the Capital Investment (implementation) phase, the relationship is collaborative when both WASMO and Pani Samitis share responsibility for decisions regarding hardware (e.g. infrastructure) and software (e.g. capacity building) development. Both WASMO and Pani Samitis come together for preparation of a Village Action Plan (VAP). The relationship is contributory during the sharing of implementation costs. Both ESE and CSP pool financial resources to meet the costs of capital investment in hardware. WASMO and Pani Samitis work together in contributing labour and/or resources to deliver hardware and software provision during implementation. Such partnership is more 'operational' in nature. Consultative partnership is established during various Participatory Rural Appraisal meetings and before preparation of VAPs. In this type of partnering, WASMO and Pani Samitsi communicate regularly during implementation with structured opportunities for feedback and dialogue. The partnership is transactional in the initial phase when WASMO and Pani Samitis initially negotiate an implementation plan (VAP) that is then delivered by the ESE. The bureaucracy type of partnership is evident when WASMO provides Pani Samitis with a standardised model of hardware and software provision during implementation.

Photograph: Infrastructure built from the 90-10% contribution

All in all, this means that the partnership has elements of most of types of partnering in it, with bureaucractic being the least developed element. This makes the partnership rather complete.

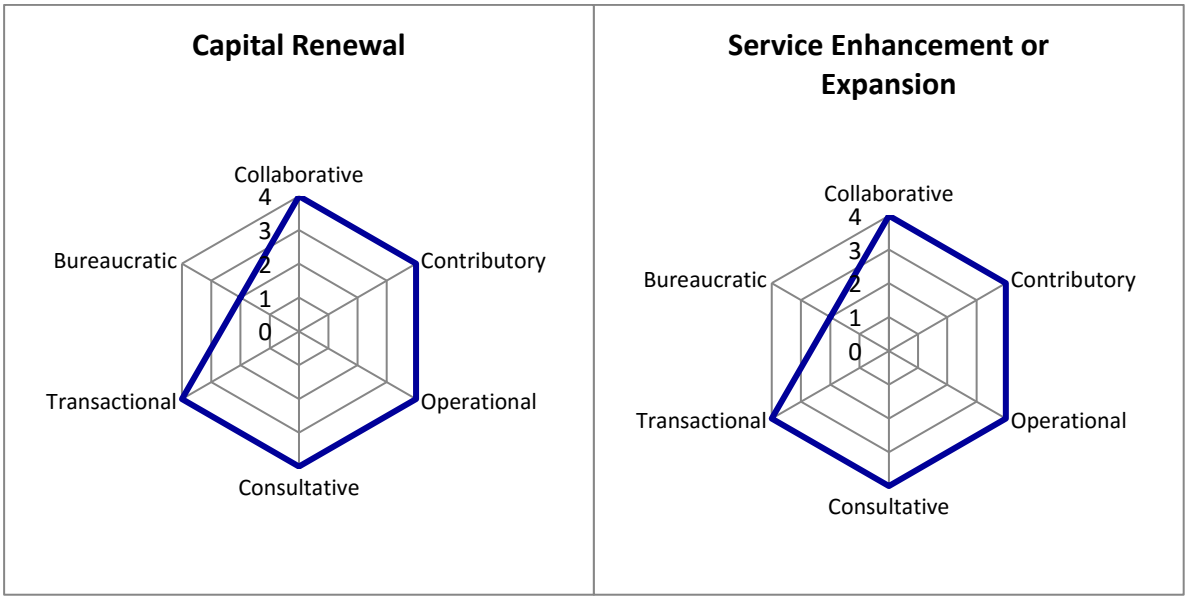


Figure 2.7 Partnering Assessment during capital renewal and service expansion phase

Both the phases of Asset Renewal or Service Enhancement/Expansion mimic the Capital Investment Stage. Both WASMO and Pani Samitis work hand in hand during these stages. In short, the whole Project cycle repeats again from Cycle 1 where the social processes progress with an establishment of constant interaction with community and key stakeholders. Action plan is prepared in cycle 1. In cycle 2, infrastructure is created with efforts and monetary contribution from both WASMO and Pani Samitis. In the cycle 3, the post-implementation support is given and slowly the property is handed over to the CSPs. Hence, in these phases, all types of partnerships exhibit a strong relation. However, the bureaucratic type of relationship takes a backseat in these phases as asset replacement, expansion or renewal is (at the moment) not dependent on generic programme timelines (e.g. every X years and/or with every X% of population increase).

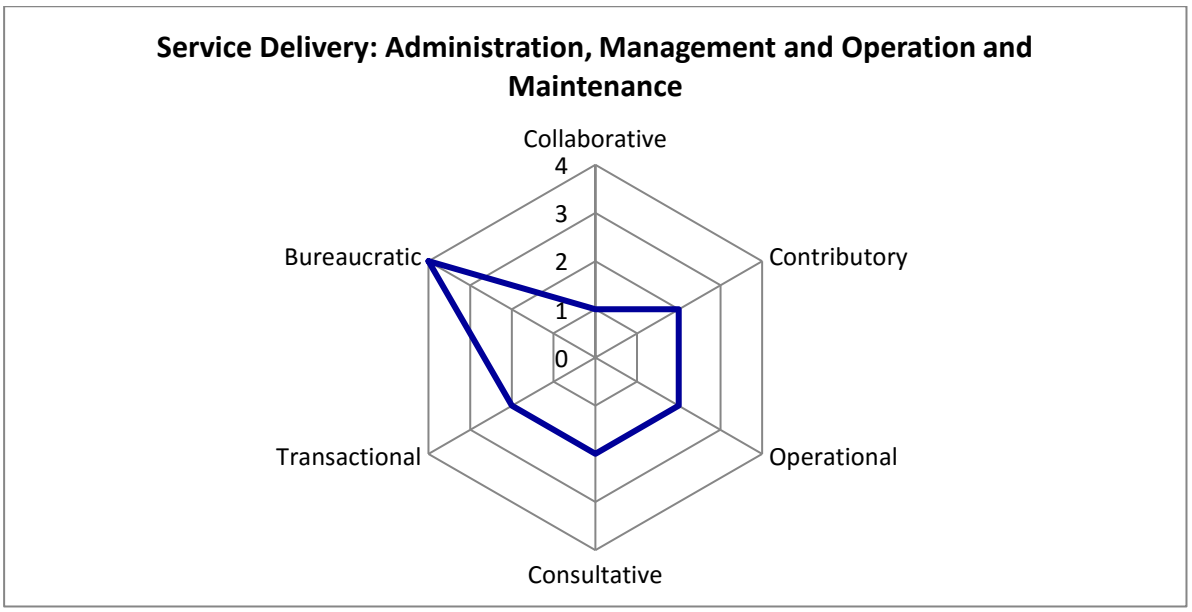


Figure 2.8 Partnering Assessment during service delivery phase

After that hardware construction, the Pani Samiti takes over the responsibilities for on-going Operation and Maintenance. At this juncture, the collaborative partnership almost becomes nil since only the Pani Samitis is responsible for decisions regarding administration, management and operation and maintenance. Even the Contributory type of partnership is inactive here as the costs are mainly borne by the Pani Samitis. These costs are recovered from the monthly/yearly tariff collection from households. When it comes to the system for sharing information regarding administration, management, and operation and maintenance, it is sole responsibility of the Pani Samitis. In this, the role of ESE is minimal and hence the consultative relationship is not much strong. The operational role of contributing labour and/or resources to support administration, management, operation and maintenance is also done by the CSP in this phase. The transactional partnership is also hardly seen as the administration and management is carried out by the Pani Samitis. Pani Samitis have yearly audit and the costs for the audits are also borne by them.

3 Community Service Provider Level

3.1 Context

Kutch district is located in a crescent-shaped peninsula in the Gujarat state of Western India. It is the largest district in Gujarat and has an area of 45,612 sq km constituting 23 per cent of the state. Kutch is like an island as it is bound by the sea in the South and West and by the Ranns (salt marshlands) in the East and North. Kutch has 933 inhabited villages with a rural population of 13 lakhs.

A semi-arid district, Kutch is known for its water scarcity. Rainfall is erratic and variable. The average annual rainfall is 388 mm. Kutch accounts for 60 per cent of the semi-arid tract in Gujarat. Temperature ranges from 45 degrees centigrade in the summer to two degrees in winter. Kutch is considered to be a drought-prone district as droughts take place every two to three years. Described in some government reports as “a museum of environmental hardships”, Kutch’s geology, climate and topography are intriguing, making it a fascinating and challenging place to study on water supply sustainability through the community.

In Kutch, drinking water supply is facilitated through decentralized local water sources. With the help of WASMO, existing regional water supply systems have been strengthened and new water distribution and storage systems have been developed. To assess the enabling support (in this case - DWSU, Kutch), four villages were selected based on a few indicators. The pre-requisite was three villages where the water supply scheme by DWSU has been successfully sustainable and one village where the support has not yet been extended from the enabling entity. Over a few discussions with DWSU staff, the villages selection was done. The first being Bharasar (Bhuj taluk), for its 24*7 water supply to the entire village. Second and third being Shinay (Gandhidham Taluk) and Kanakpar

(Abdasa taluk) respectively as they won awards from the State Government of Gujarat for "Best performing Pani Samiti" in the year 2012. Lastly, the control village was zeroed upon habitations - *Jabruvandh Badhuvandh*. These habitations was chosen because of its deserted location in the semi-arid region of Kutch.

Table 3.1 General characteristics of the four villages

Characteristics	Bharasar	Shinay	Kanakpar	*Jabruvandh Badhuvandh*
Population	2900	3500	400	700
Households	558	700	70	62
Main Occupation	Agriculture, livestock	Agriculture, livestock, business	Agriculture, business	Agriculture, pastures
Water resources	Borewell (groundwater)			Predominantly dependent on openwells

Bharasar village with a total population of 2900 is located 17kms from Bhuj district headquarters. The primary occupation of the village is agriculture followed by livestock rearing. Many residents have emigrated to the United Kingdom and some have to Kenya. Bharasar every year receives funds from these NRIs. Bharasar village has 24*7 water supply.

Photograph : Bharasar Village

Shinay with a population of 3500 is located in Gandhidham taluk of Kutch. The villages has 700 households who are mostly engaged in agriculture, livestock rearing followed by business. Shinay village is surrounded by a huge pond on the east side. Almost ten years ago the villagers of Shinay faced huge water crisis. Water was fetched from a pond nearby. It is 0.5km from the centre of the village. Women went in the wee hours of the morning to fetch water. The neighbouring village was reaping benefits from WASMO's intervention. In 2007 Shinaya panchayat members approached WASMO for enabling support to achieve equitable water supply.

Kanakpar village with a population of 400 is located in Abdasa taluk of Kutch. The villagers of Kanakpar are predominantly into agriculture followed by business. The village is surrounded by a pond at one end. Villagers fetched water from the pond. The pond is 0.5 km from the centre of the village. Ten years ago panchayat supplied from a borewell but with erratic supply. Water being supplied by tankers was a common scenario until ten years ago. At present the village enjoys 24*7 water supply. Water tankers have been completely disappeared from the water supply scenario.

Jabra Vandh which comprises 70 households, is a village in Abdasa Taluka in Kachchh District of Gujarat State, India. It is located 93 km towards west from District head quarters Bhuj. It is near to Arabian sea. There is high chance of humidity in the weather. The village is divided into two habitations namely *Jabravandh* and *Badhuvand*. The habitations are constituted entirely by Muslims.

A population of 700 persons reside in both the habitations. The men folk from the habitations are mostly into dry agriculture and pastures while almost all the women folk are home-makers. Illiteracy is highly prevalent in both the habitations. The only amenity present for both the habitations is the *Jabravandh* primary school.

3.2 Community service provider descriptors

The communities in Gujarat are served by a Formal Water Committee – 'Pani Panchayat'(which means Water Committee) which is the sub-standing committee under Gram Panchayat. The Sarpanch of the Gram Panchayat is also the chair of this Samiti. After the introduction of the scheme in the Gram Sabha, a Pani Samiti is democratically elected in a village meeting which is followed by a formal oath-taking cermony. Pani Samitis also provide an opportunity for women and STs/SCs to participate in the decision-making process. Pani Samiti is formed during Cycle I; by the end of Cycle II, Pani Samiti is expected to take over the responsibility of Operation and Maintenance of the water supply scheme.

For developing the capacities of those involved in the programme, particularly the village communities, Pani Samiti members and the field workers, regular workshops, training sessions, exposure visits and seminars are organised. Training by national, state and district level resource persons and institutions are held on themes such as preconstruction; operation and maintenance; water quality surveillance; finance and accounts; environmental sanitation and personal hygiene; and water resource management. As a result, areas such as quality control, maintenance of records and technical aspects are now not alien for village. So Pani Samiti members are provided with training on finance, bookkeeping, construction monitoring and supervision, operation and maintenance, and water quality monitoring. Through building capacity of the community to own and operate systems, WASMO ensures that the community will be able to manage the water supply system efficiently.

In the case of WASMO, *'Pani Samiti'* forms the Community Service Provider for each scheme. The descriptors take a broad outlook of the staffing of Community Service Provider, coverage vis-a-vis the individual household connections and tariff structure.

Table 3.2 Descriptors of Community Service Providers

Characteristics	Bharasar	Shinay	Kanakpar	*Jabruvandh Badhuvandh*
Population	2900	3500	400	700
Households	558	700	70	62
Staffing of CSP	16	17	17	2 (from the control village)
Coverage with HH connections	100%	99%	100%	-
Tariff Structure	INR3/Head/Month	INR12/Head/Month	INR8/Head/Month	INR100/Month
Connection Costs	INR 2,500	INR 2,500	INR 500	-

The Pani Samiti's in Bharasar, Shinay and Kanakpar are established as formal water committees. Besides the members of the Pani Samiti, the committee is supported by bore operator, book keeper etc., Bharasar Pani Samiti has 15 members who are unanimously selected. Shinay Pani Samiti has 12 members where one person per caste is unanimously selected. Kanakpar Pani Samiti has 12 members where two persons per street are unanimously selected. In the case of *Jabruvandh Badhuvandh,* the habitations fall under Jakkau panchayat. So there are two members from these habitations as part of the Pani Samiti.

Photograph : Kanakpar Pani Samiti

In the three villages of Bharasar, Shinay and Kanakpar there is almost 100% coverage with household connections. Bharasar village has approximately 50 SC/ST households which are covered with household connections. In Shinay and Kanakapar there are 40 and 35 SC/ST households respectively, which are covered with household connections. In the habitations of *Jabruvandh Badhuvandh* there is no SC/ST population. These habitations access water from four standposts which means there are no households with individual household connections.

The tariff structure in Bharasar, Shinay and Kanakpar is fixed and collected per individual per month. Whereas in the control village, a bulk amount is collected every month. The tariff structure varies for every Pani Samiti. The tariff structure is fixed in such a way that it can cover the annual operation and maintenance expenditure. The income from tariff collection for Bharasar is INR 1,04,400, for Shinay is INR 5,04,000 and for Kankapar is INR 38,400. There is no water metering done in any of the villages. Besides that, tariff collection per individual distributes the cost equally across the villagers. New connection costs are charged and collected by the Pani Samiti. In all the three villages, the new connection costs the provides connection from the main line. . The applicant will bear the cost of getting the water line from the main line until the household.

3.3 Community service provider indicators

The performance of the CSP in its functions of governance, financial administration and operation and maintenance are assessed using indicators that were developed by the research team.

Governance

Pani Samiti is a sub-standing committee of the Gram Panchayat and the members are elected in the Gram Sabha. Gram Panchayat is a legal entity (Government Resolution (GR), issued by the Panchayat Raj Department in the year 2002). Government of Gujarat issues a certificate on 'Formation of Pani Samiti'. This document also clearly mentions the roles and responsibilities of Pani Samiti. In general, the selection of new board takes place once in every two years. There is no formal document describing how elections should take place, but the community has a general understanding of how it would work. In all the three villages, the members of the Pani Samiti are selected unanimously. *Jabruvandh* and *Badhuvandh* habitations have two pani sami members representing each habititon in the Jakkau Pani Samiti.

Table 3.3 Performance indicators for Pani Samiti under Governance

Indicators	Bharasar	Shinay	Kanakpar	*Jabruvandh Badhuvandh*
Selection of board of service provider	Informal procedure was followed for last election where the members were selected unanimously.			-
Information sharing and accountability mechanisms	Pani Samiti's have several mechanisms to provide information and provide accountability to users. These are used regularly.			-
Total number of members of the governing body	15	12	11	2
Number of women in the governing body of CSP	8	6	11	0
Number of support staff	1	5	2	0

In Bharasar, Shinay and Kanakpar, there is evidence of several mechanisms to inform and provide accountability to users and these are all used regularly. There are several mechanisms used by the Pani Samitis to keep the community informed such as information is put up on the notice boards, dhol announcements in the entire village and gram sabhas. In *Jabruvandh* and *Badhuvandh*, there were no clear channels of communications and information sharing mechanisms and users are not updated on constant basis.

WASMO, from the beginning has stressed the importance of women in water management. In this line, the organization has laid down a mandate of having at least 33% of women in the Pani Samiti. In Bharasar there are 15 Pani Samiti members of which 50% is constituted by women. The same holds good for Shinaya apni samiti where 50% of the 12 members are only women. Kanakpar Pani Samiti comprises of 11 women members. In the three villages, on an average women constitute 50% of Pani Samiti administration. *Jabruvandh* and *Badhuvandh* has two male members who are a part of Jakkau Pani Samiti.

Bharasar Pani Samiti has a bore operator, to take care of the daily water supply provisions. The bore operator does the chlorination once in every fifteen days and also looks into any small repairs. The main job of the bore operator is to make sure the over head tank is filled everyday at a particular time. Shinay Pani Samiti has employed a bore operator and two valve men to care of the daily water supply provisions. The bore operator does the chlorination once in every fifteen days and also looks into any small repairs. The main job of valve men is to make sure the over head tank is filled everyday at a particular time. The Pani Samiti has appointed one person (female) for finance and accounts. The daily expenditure including petty cash are all recorded and computerized. There is a cleaner for clerical purposes. Since Shinay is a big village, the Pani Samiti has has 5 members as support staff who are salaried. Kanakpar Pani Samiti has employed a bore operator. The bore operator does the chlorination once in every fifteen days and also looks into any small repairs. One person in the position of mantri maintains the financial records. He takes care of the bill collection and transparency in the expenditure. Hence these two members support the Pani Samiti in their daily activities.

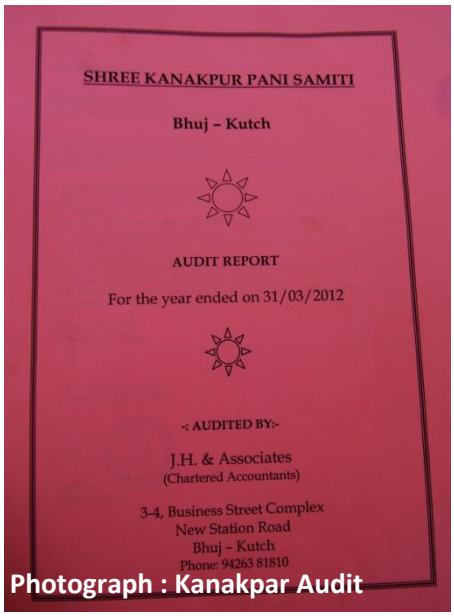
Finance

In the WASMO Model, the initial infrastructure costs are shared in the ration of 90-10%, where community's contribution is the 10%. Post the construction phase, WASMO handovers the responsibilities of O&M to the Pani Samitis. Pani Samitis are also trained on tariff collection and setting of tariff structure which enables them to collect enough money for regular O&M and for major repairs. Based on number of households, the water tariff is fixed. It is a pre-requisite for Pani Samitis to open a separate bank account in a nationalized bank. All the cash flows are usually maintained in their respective bank accounts.

Table 3.4 Financial status of the villages

Indicators	Bharasar	Shinay	Kanakpar	*Jabruvandh Badhuvandh*
Water Tariff (INR) (per person/month)	3	12	8	100 (**per HH** per month)
Annual Income (INR)	1,04,400	4,68,000	74,000	-
Annual Expenditure (INR)	84,000	4,02,000	48,000	-
Annual Savings (INR)	20,400	66,000	26,400	-
Book keeping	Pani Samitis maintain a record of user payment, accounts of handling of daily petty cash, receipt book, audit statement etc., for transparency.			-
Non payment rate	0	0	0	

The Pani Samitis in Bharasar, Shinay and Kanakpar have savings every year which are building up in their cash reserves. At present these cash reserves are used for motor replacement and minor repairs. There has been no deliberation on utilising the cash reserves for service expansion or enhancement. This is also related with the roadmap of WASMO's future steps.


SHREE KANAKPUR PANI SAMITI

Bhuj – Kutch

AUDIT REPORT

For the year ended on 31/03/2012

-: AUDITED BY:-

J.H. & Associates
(Chartered Accountants)

3-4, Business Street Complex
New Station Road
Bhuj – Kutch
Phone: 94263 81810

Photograph : Kanakpar Audit

All the Gram Panchayats have the support of a Talati (Record Keeper, appointed by the government). All the financial records are verified by him. The Pani Samiti tracks its income and expenditure systematically and produces an annual account. In addition, the Pani Samitis also appoint a Chartered Accountant who audits the financial accounts and produces an audit statement. These statements are kept in the Pani Samitis/Gram Panchyat offices. WASMO also does a third party audit evaluation. The results are used to determine the best performing village for the awards that are given every year at district and state level.

In order to provide the best services, it is essential for the Pani Samitis to have a regular supply of funds. Water tax in all the four villages is collected once in a year. This money is deposited in the bank. Pani Samitis ensure that everyone pays the water tax. If any household is having more than three months of due, the water connection is cut and the household has to again take a new connection for water. Hence, to avoid paying a huge amount for a new connection, households usually pay their taxes on time to avoid the penalty. In Bharasar, Shinay and Kanakpar there is zero percent non payment rate. The users are free to pay anytime before the end of any given financial

year. When the financial year is nearing even the Pani Samitis make sure the payments are done to close the account statement smoothly.

Technical Performance

In cycle I, WASMO organizes a series of participatory rural appraisal activities as part of social work before the implementation phase. In this phase, a Village Action Map (VAP) is prepared. This VAP is finalized by the community and is put in front of the District Water and Sanitation Committee (DWSC) for its approval. These maps are available in all the three villages. In the control village, there is no technical map for water supply in the village. The Pani Samitis are sensitized on various operational manual and guidelines as part of trainings in the cycle III i.e., post-implementation phase. Manuals on water-testing are also available with the Pani Samitis.

Table 3.5 Technical Performance indicators

Indicators	**Bharasar**	**Shinay**	**Kanakpar**	***Jabruvandh Badhuvandh***
Technical Folder	Maps prepared during village action plan are available with the Pani Samiti.			No map available
Registry of operational information	Pani Samitis efficiently maintain both administrative and financial records.			-
Response time	Efforts are made to address any complaints/ repairs in 48 hours.			
Water metering	The Pani Samitis have included water metering of HH connection as part of their future action plan.			No HHs connections
Water security measures	Restoration of pond	-	Constriction of bunds to recharge grounswater	-
Water quality management	Water quality testing is done once in 3 months	Water quality testing is done regularly	Water quality testing is done once in 2 months	-

WASMO has also built the capacities of Pani Samitis in terms of book keeping and record maintenance. In Bharasar and Kanakpar, more than five records such as – Water Tax Collection, Water Quality Reports, Audited Statements, Expenditure and Income Records, Petty Cash Book, Minutes of Meeting, Register for comments/ suggestions by the visitors, etc are available. In Shinay, a accounts person is appointed on behalf of Pani Samiti. Shinay Pani Samiti have developed a software to maintain the pani samiti accounts on a computer by appointing skill available from the village. However, in the control village, the gram panchayat records such information in the common registers and there is no separate accounting for the water services.

The response from the Pani Panchayat towards a breakdown needs to be understood to determine their performance. All the four villages see to it that the repairs are addressed within 48 hours.

At the moment, WASMO's models do not have a metering system. The metering system is still a new concept and some of the villages have come forward and put forward proposals to the DWSUs for metering in their respective villages.

Water conservation is a village's interest. The water conservation is not a part of a VAP. However, if the village requests a technical help in this context, the DWSUs are ready to provide assistance in terms of both technical as well as financial. In Bharasar as part of water security measures, the villagers have restored a pond to conserve rainwater. The pond had dried up a few years ago. Now the pond has been developed into a recreational space for the villagers. Elders, adults and children flock at the pond for their evening recreation. Apart from recreational activities, the pond recharges the groundwater levels. The restoration of pond was done four years ago through the NRI funds. Kanakpar village receives scarce rainfall. In this pretext, two bunds were constructed in 2012, on the Kankavati river which in turn recharges the groundwater source. This idea from the villagers side was supported by WASMO. Even on the agricultural front drip irrigation has been adopted as part of water saving technologies. As such water security measures are from the interest of the Pani Samiti and the community.

Provision of water is just not about quantity but also quality. WASMO has trained one person from each of the Pani Samiti to carry out a water test every month. They also provide the Pani Samitis with the water testing kits. Water Quality Management team from WASMO also tests the water twice - pre-monsoon and post-monsoon and maintains the record. In Bharasar water quality testing is done once in every three months. Shinay pani smaiti has constituted a water quality testing team of four members (two male and two female). They regularly check the water quality and a record of the results are maintained. Kanakpar pani samiti carries out water quality testing once in two months. A teacher in the village has received formal training from WASMO in water quality testing. He guides the Pani Samiti members for testing the water regularly. In all the three villages, chlorination is also done mostly by the bore operators.

Overall, the Pani Samiti's in Bharasar, Shinay and Kanakpar are working towards sustainable water service provision to the communities. These villages have previously faced severe water crisis at one point and never want to face that again. Coming from this past, even though the members of the board are unanimously selected, they all are striving to work towards the operation and maintenance of available water resources. Pani Samiti's have an important role to play from post-implementation stage, where they receive only handholding support from WASMO. But on a daily basis Pani Samiti's are responsible for water service delivery, maintaining water quality, responding to complaints, book keepingetc., This truly signifies that WASMO is facilitator for Pani Samiti's to handle the operation and maintenance. Gone are those days when people and communities were dependent on government or water boards for water service provision. Through WASMO's model communities and their participation has brought about a positive change. The control village

habitations need an enabling environment and guidance to manage and maintain their resources as they lack knowledge and are also located very far the panchayat.

3.4 Community service provider participation assessment

Participation is understood functionally as: "*an active process whereby beneficiaries influence the direction and execution of development projects rather than merely receive a share of project benefits*" (Paul, 1987). Building on the idea of a participation ladder (Arnstein, 1968; Pretty, 1994; Adnan et al., 1992), the degree of community participation in Community Service Provision is assessed at each stage of the service delivery cycle:

- Capital Investment (Implementation)
- Service Delivery – administration, management and operation and maintenance
- Asset Renewal
- Service Enhancement or Expansion

It identifies the following types of participation:
Self - mobilisation
Interaction participation
Functional participation
Participation by consultation
Passive participation

Participation assessment of each of the CSP's is done at each stage of the service delivery cycle. This assessment enables us to understand whether the participation of the community is active, passive, interactive or functional. Analysing the participation indicators, throws light on the front and back end mechanisms of WASMO and extent of community participation during the entire process of implementation and for future sustainability. At the time of development of Village Action Plan, the community, Pani Samiti with support from Kutch, DWSU unit engage in a joint analysis of implementation process. This is carried out through a PRA exercise. Once the budget is fixed upon, 10% is contributed by the community. For efficient service delivery, the Pani Samiti is responsible for administration, management and operation and maintenance arrangements which they can revise in meetings. The Pani Samiti can fix the water tariff, the timings for water supply etc., For asset renewal and service enhancement Pani Samitis try to utilise their building cash reserves. When renewal or expansion is a very huge cost they will approach WASMO

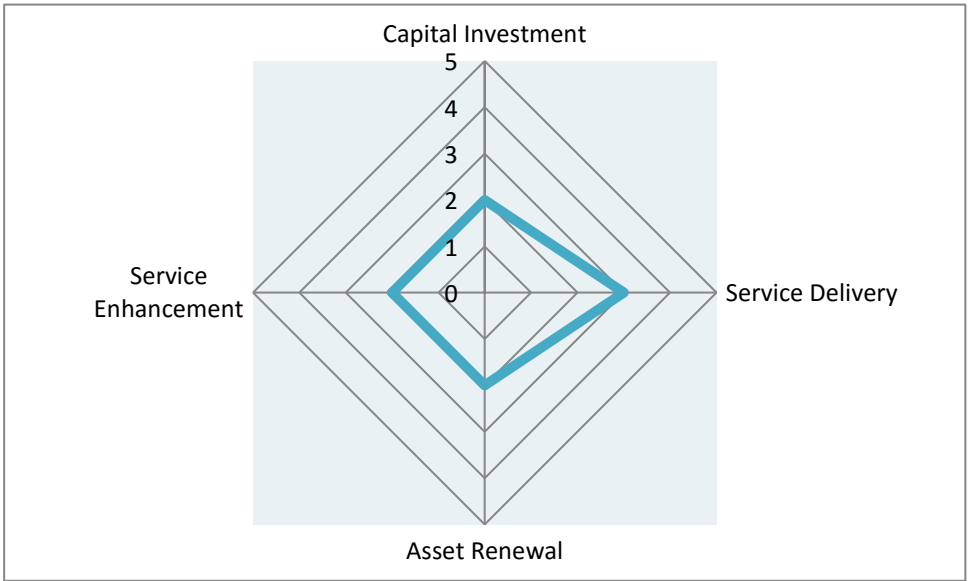


Figure 3.1 Participation Assessment for Bharasar, Shinay and Kanakpar

Capital Investment: In WASMO project cycle the community has to contribute ten percent of the project cost. Hence, in Bharasar, Shinay and Kanakpar the communities have contributed the same towards capital investment. In all the three Pani Samitis interactive participation is observed where the community in partnership with the service provider and/or support entities engage in a joint-analysis of implementation options before developing a plan. The ten percent contribution also includes funds and donations from NRI's. However in the control village of *Jabruvandh* and *Badhuvandh* habitations, passive participation is observed where the community members are informed that project implementation is going ahead as per an externally designed plan.

Service Delivery: Service delivery includes administration, management and operation and maintenance. As seen the Pani Samitis are responsible for the service delivery activities for smooth water supply. In Bharasar, Shinay and Kanakpar it is observed that functional participation is practised where the community is provided with administration, management and operation and maintenance arrangements that they discuss and they have a chance to amend limited elements. However in the control village of *Jabruvandh* and *Badhuvandh* habitations, passive participation is observed where the community members are informed how administration, management and operation and maintenance will operate without opportunity for changes. These habitations also have administration and management issues because the panchayat is located 8 kms away from the habitations.

Asset Renewal: In case of asset renewal, the Pani Samitis take a joint decision along with the community in the meetings. Based on the approximate cost of the work it is decided whether to approach or WASMO or to sanction the cost from the cash reserves. In Bharasar, Shinay and Kanakpar there is interactive participation where the community in partnership with the service provider and/or support engage in joint-decision making regarding asset renewal. *Jabruvandh* and *Badhuvandu* habitations have no clear mechanism on whom to approach. The renewal happens according to an externally designed plan.

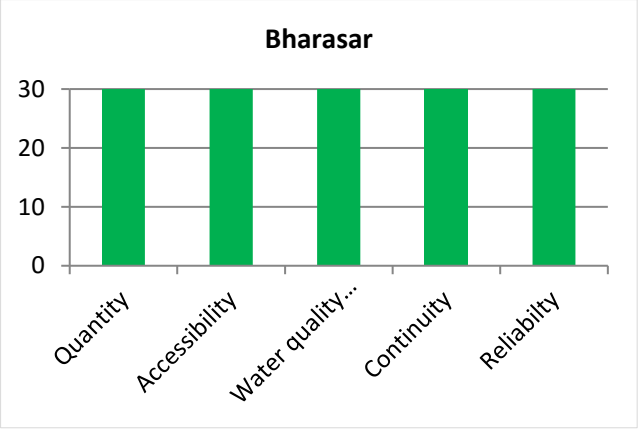
Service Enhancement or Expansion: Any service enhancement or expansion activity is taken in a joint decision with the community. The service enhancement plan has to benefit the community because they are the end users. In Bharasar, Shinay and Kanakpar they practice interactive participation where the community in partnership with the service provider and/or support engage in joint-

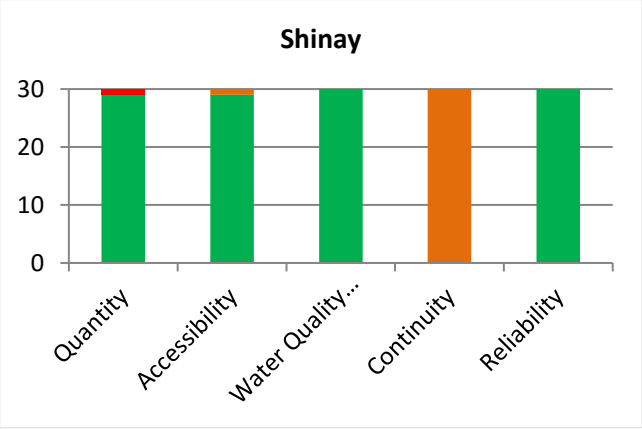
decision making regarding service enhancement or expansion. For *Jabruvandh* and *Badhuvandh* habitations passive participation remains the same in the case of service expansion too.

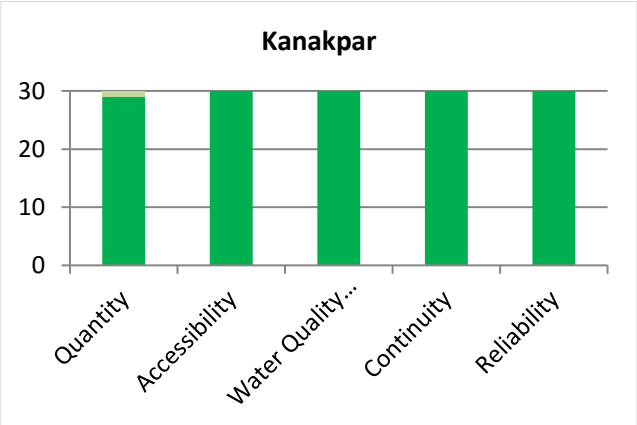
3.5 Service levels

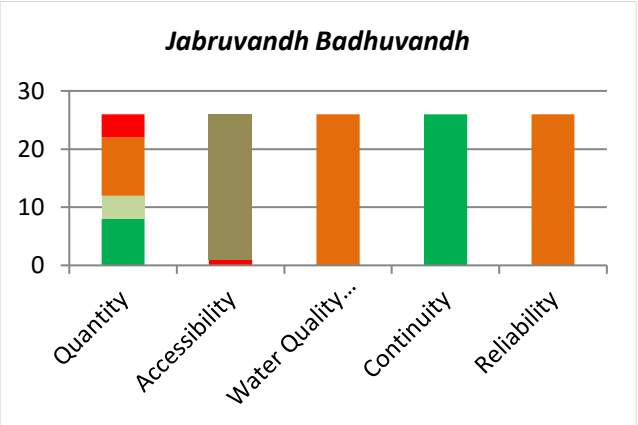
Service levels for all the CSP's are calculated based on the sample surveys done in the three best performing villages and the control village. The service level scores provide us with information on whether the water services are effective, i.e. whether they provide the level of service to which users are entitled. The scores are an aggregated value of the 30 household surveys for each CSP. The following are the service level indicators.

- **Quantity** of water refers to the total volume of water that is being taken from the concerned water system. It refers to the quantity used for any type of use: dinking, cooking, washing, bathing, toilet use. When the households have access to more than 80 lpcd of water, is categorized as high.
- **Accessibility** is the cumulative time spent by a household on collecting water. So, it refers to the time spent by all family members, and it would include the full time on: going to the water and back, queuing time and the time to fill any containers.
- **Water Quality** is assessed in two ways – through users' perception through the household survey and through assessment of water quality parameters through water quality tests at system level.
- **Continuity** of supply is defined by the average number of hours that water is available at the tap.
- **Reliability** is understood through a combination of two factors - the predictability with which supplies are provided and this the response time to break-downs.









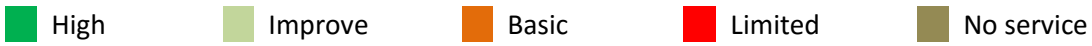


Figure 3.2 Aggregated figures of service levels in the four villages

Bharasar village enjoys 24*7 water supply, the quantity available per person is high. Overall, 100% of the population said they were very satisfied with the water supply. As shown in the table below, the service fares strongly on quantity, perceived water quality and continuity. Accessibility wise the entire village is covered with individual household tap connections. Individual storage tanks and household connections drastically reduces the time spent by any family member to fetch and store water.

To assess the performance of WAMSO and Shinay Gram Panchayat in terms of actual service levels, 30 household surveys were conducted. Overall, 96% households are very satisfied with the water supply scenario. Except for the ten household who fetch water from stand-posts, the rest of the village performs strongly on accessibility, perceived water quality. Even when the any component in the water supply infrastructure fails, the Pani Samiti with the bore operator address the issue in 24-48 hours. In adverse cases, they employ a plumber for highly technical issues.

In Kanakpar 100% households are very satisfied with the water supply scenario. The service levels perform strongly on accessibility, perceived water quality. The Pani Samiti has constituted six teams in the village. Each team consists of 15 members. In case of repairs or maintenance issues, these teams convey the message in the respective ward. Further the team themselves look into the maintenance issues.

Jabruvandh, *Badhvandh* habitations in terms of actual service levels, 26 household surveys were conducted. Overall, 100% households are somewhat satisfied with the water supply scenario. On an average the stand-posts are located 0.5 kms from the habitations. In case of households where there is no availability of storage space, the women have to keep going back to stand-posts to collect more water. For these two habitations since the family size is huge, the women are indirectly burdened with water fetching task to meet the basic household water needs. From the household survey it is clear that even children are dragged along for fetching water. Owing to the above factors, there is high variation in service level for the quantity available per person per day. On an average, women still spend almost 160 minutes in water colllection. However the situation improved because previously women had no other option but go for search in water. Now they at least have a reliable source at a small distance.

Infrastructure Status

The infrastructure snapshot tool is used to assess the sustainability problems for the future. e.g. a pump that is 10 years old has a high chance of breaking down. Each of the components in the table below is visited and observed by the research team. Following table gives the infrastructure snapshot of the four villages.

Table: 3.6 Infrastructure Snapshot of the four villages

System component	Theoretical Life Span	Age in relation to theoretical life-span			
		Bharasar	**Shinay**	**Kanakpar**	***Jabruvandh -Badhvandh***
Intake structure	50	5	6	7 *(There is another intake structure of 20,000lts capacity which was built 17 years ago.)*	-
Borehole	30	5 *(Another borehole was dug two years ago. Both of them are presently functional)*	6	7	-
Motorised pump	15	5	6	6	2
Electricity panel	15	40	6		
Main line	30	9	6	7	3
Reservoir	30	22			There are two reservoirs which are 2 years old.
Distribution network	30	40	6	7	-
Tap stands	30	6	-	-	2
Well					7

3.6 Equity

Equity in water supply is one of the major problems faced in intermittent water distribution systems. W ASMO's commitment to a decentralised, demand-driven approach is manifested in the flexibility in its interventions. It focuses on equity has won the trust and support of communities.

Using the aggregates results from the service analysis, the equity of service across the community is assessed. From the table above, and from various PRAs and discussions both with the communities as well as the Pani Samitis, it was clear that equity in water supply in all the three successful villages is assured. In Prantiya, The results indicate that equity in water supply is significantly affected by the location of the tank and layout of the network. The equity in water supply can be improved in an existing network by staggered supply.

WASMO has taken into account the sensitivities of women and vulnerable groups and was successful in achieving fully the intended purpose of changing the lives of the poor and vulnerable in society. It has also accomplished a sense of ownership among the Pani Samitis and users that drives the pursuit of sustainable services.

4 Costing

4.1 CapEx Costs

The capital invested in constructing fixed assets such as concrete structures, pumps and pipes is called capital expenditure. Investments in fixed assets are occasional and 'lumpy', and include the costs of initial construction and system extension, enhancement and augmentation (also called CapEx on Hardware), as well as once-off work with stakeholders prior to construction or implementation, extension, enhancement and augmentation, such as costs of one-off capacity building (called CapEx on Software).

As mentioned in the project cycle, WASMO enters a village with IEC (information, education, communication) software activities. To carry out the proposed activities, WASMO deploys technical experts from social science, engineering backgrounds to take the community management to the masses. A major percentage of WASMO's annual budget is directed to the implementation stage in the form of Direct Support. the total estimated CAPEX Direct Support costs for implementation of a scheme per village is INR 1,91,627. This cost includes the staff salaries (during cycle I of the project implementation), travel and daily allowances. During the village meetings certain IEC activities are also carried out such as role plays, singing competitions which are aimed informing the villagers as to why it is important to manage their water resources. These activities at the end of the day, empower the users. The technical staff spends approximately 42 staff days at each village towards implementation of the scheme. These 42 staff days cover the activities of village meetings, calculation of the infrastructure needed, formation of Pani Samiti.

Table 4.1 Costing table of capital expenditure for software

	Bharasar	Shinay	Kanakpar	*Jabru-Badhuvandh*
Number of households supported	558	700	70	62
Total population supported	2,900	3,500	400	700
Number of staff days involved in supporting	42	42	42	0
Average salaries for this level of staff (INR)	3,730	3,730	3,730	0
Total estimated direct staff cost for implementation (INR)	1,56,660	1,56,660	1,56,660	0
Travel and subsistence costs (INR)	16,359	16,359	16,359	0
Any information materials and supplies costs (INR)	18,607	18,607	18,607	0
Total estimated CAPEX Direct Support costs	1,91,627	1,91,627	1,91,627	0

The capital expenditure, 'CapEx Hardware', varies between each village. The CapEx hardware cost includes all the engineering and construction costs. The Village Action Plan is designed based on the population and per person water requirement. The community contributes ten percent of the total

hardware costs whereas the remaining ninety percent is funded from WASMO and the Gujarat Water Supply and Sewerage Board.

Table 4.2 Costing table of capital expenditure for hardware

Capital Expenditure Hardware	Bharasar	Shinay	Kanakpar	*Jabru-Badhuvandh*
Total estimated CAPEX Hardware costs	30,00,000	90,00,000	12,50,000	0

As can be seen, the software is a fixed cost per village. This is to be expected, as setting up a Pani Samiti, training it, providing it assistance will not depend on village size. This also means that the relative costs of software vary a lot, from 10-30% of total project costs.

4.2 Recurrent costs

For any enabling environment, there are operating costs for sustaining various schemes. In the case of WASMO, operational expenditure is spread across staff salaries during project implementation - cycle 1,2 & 3. This is called operational expenditure through direct support which means it includes expenditure on support activities direct to local level stakeholders, users or user groups, such as support to service providers and ensuring that local government staff have the capacities and resources to help communities when systems break down or to monitor performance. In short, these are the expenses that the Pani Samiti incurs on OpEx.

Table 4.4 Operating expenditure towards software and hardware - annually

OPERATIING EXPENDITURE SOFTWARE AND HARDWARE	Bharasar	Shinay	Kanakpar	*Jabru-Badhuvandh*
Staff salaries of those involved (INR)	3,000	18,000	4,500	3,000
Number of annual staff days involved	365	,1825	730	365
Average salaries for this level of staff working (INR)	98.63	118.36	73.97	98.63
Any information material and supplies cost (annual) (INR)	1,700	1,700	1,700	0
Total estimated direct staff cost (annual) (INR)	37,700	2,17,700	55,700	36,000

In the case of WASMO, annual monitoring cost will come under OpEx direct support. Every year WASMO takes up monitoring activity of approximately 400 villages. Monitoring is carried out to check the efficient functioning of the Pani Samiti via the tariff collection, maintenance of infrastructure and user satisfaction. WASMO's annual budget has a special head to take up this monitoring activity. At the village level, one scheme will undergo the monitoring and evaluation, approximately once in three years. So annually, to monitor one scheme out of the target villages it costs INR 3,043.

Table 4.5 Annual monitoring costs

SERVICE MONITORING FUNCTION ANNUAL COSTS	Bharasar	Shinay	Kanakpar
Total estimated monitoring function support costs for rural water (annual) (INR)	12,17,464	12,17,464	12,17,464
Number of service providers monitored	400	400	400
Annual cost of monitoring function per service provider	INR 3,043	INR 3,043	INR 3,043

The above tables briefly explain the OpEx direct support that WASMO has to bear at any scheme level. At the same time Pani Samitis also have ongoing operational expenditure which is met through collection of water user charges. Every Pani Samiti has directly accountable material and supplies which form a part of the ongoing operation and maintenance.

Table 4.6 Directly accountable annual materials and supplies

OpEx incurred by the Pani Samiti	Bharasar	Shinay	Kanakpar	*Jabru-Badhuvandh*
Pump mechanics (INR)	3,200	5,000	2,800	0
Contracted repair or capital maintenance (INR)	10,000	8,250	10,550	5,000
Total directly accountable materials and supplies (INR)	13,200	13,250	13,350	5,000

The combined recurrent costs (opex and direct support), most of which is incurred by the Pani Samiti, through tariffs. The rest is contribution from WASMO. And that is discounting the fact that no data could be obtained on the energy costs, which are incurred by State Government. Because energy for water pumping is such a significant part of OpEx, we have estimated the power needs for the groundwater abstraction, based on assumed pumping heads, and subsequently estimated power charges based upon the published tariffs. The Summary Cost Table indicates that this support to the community, at INR 105 per person per year is a significant, though usually little recognised, component of the support to total OpEx o INR 220. It can be concluded that the tariffs are indeed ok to recover the part of OpEx that Pani Samitis are supposed to cover, but that this is only a fraction of the real cost of supply, tariffs recovering about one-third of the total.

With the available CapEx and OpEx costs it is easy derive at the estimated ESE support costs for rural water supply. The following table shows that ESE support cost per person is INR 16 (approximately an average).

Table 4.7 Total ESE costs and indirect staff costing

Total ESE cost and indirect staff costing (ESE overheads)	Bharasar	Shinay	Kanakpar
Total estimated ESE support costs for RWS	17,99,13,106	17,99,13,106	17,99,13,106
Proportion of ESE's costs relating to rural water supply	100%	100%	100%
Number of service providers supported (annual)	13,058	13,058	13,058

Total estimated ESE support costs per service provider	13777.99862	13777.99862	13777.99862
Overhead Costs per Service Provider	INR 578	INR 528	INR 428

Table 4.8 Summary Cost Table (INR)

Gujarat Kutch Summary Cost Table - calculated as the average cost per person, that is averaging across the 3 'successful' villages

Source of funds	Use of funds - implementation			Use of funds - annual recurrent					
	CapEx hardware	CapEx software	CAPEX TOTAL	OpEx labour & materials	OpEx power	OpEx bulk water	OpEx enabling support	CapManEx	RECURRENT EXPENDITURE TOTAL
Community/consumers	INR 313	-	INR 313	INR 64	-	-	-	INR 11	INR 75
Local self-government	-	-	-	INR 15	INR 51	-	-	-	INR 66
	-	-	-	-	-	-	-	-	-
State government entity	-	-	-	INR 2	INR 54	-	-	-	INR 56
State water supply agency	INR 1,406	INR 310	INR 1,716	INR 7	-	-	INR 16	-	INR 23
National Government	INR 1,406	-	INR 1,406	-	-	-	-	-	-
NGO national & international	-	-	-	-	-	-	-	-	-
International donor	-	-	-	-	-	-	-	-	-
TOTALS	INR 3,125	INR 310	INR 3,435	INR 88	INR 105	-	INR 16	INR 11	INR 220
Median of 20 case studies			INR 3,231						INR 207
'Plus' %age	90%	100%	91%	27%	100%	-	100%	0%	66%
Median of 20 case studies			95%						57%

Table 4.9 Summary Cost Table (PPP USD$)

Gujarat Kutch Summary Cost Table - calculated as the average cost per person, that is averaging across the 3 'successful' villages

Source of funds	Use of funds - implementation			Use of funds - annual recurrent					
	CapEx hardware	CapEx software	CAPEX TOTAL	OpEx labour & materials	OpEx power	OpEx bulk water	OpEx enabling support	CapManEx	RECURRENT EXPENDITURE TOTAL
Community/consumers	$ 17.81	-	$ 17.81	$ 3.65	-	-	-	$ 0.61	$ 4.26
Local self-government	-	-	-	$ 0.87	$ 2.91	-	-	-	$ 3.79
	-	-	-	-	-	-	-	-	-
State government entity	-	-	-	$ 0.13	$ 3.09	-	-	-	$ 3.22
State water supply agency	$ 80.16	$ 17.67	$ 97.83	$ 0.38	-	-	$ 0.91	-	$ 1.29
National Government	$ 80.16	-	$ 80.16	-	-	-	-	-	-
NGO national & international	-	-	-	-	-	-	-	-	-
International donor	-	-	-	-	-	-	-	-	-
TOTALS	$ 178.14	$ 17.67	$ 195.81	$ 5.03	$ 6.00	-	$ 0.91	$ 0.61	$ 12.56
Median of 20 case studies			$ 184.16						$ 11.78
'Plus' %age	90%	100%	91%	27%	100%	-	100%	0%	66%
Median of 20 case studies			95%						57%

The INR Indian Rupee conversion to the USD United States Dollar has been undertaken at the mid 2014 exchange rate of INR60/USD$ with a Purchasing Power Parity (PPP) multiplier of 3.42 applied in order to give the best interpretation of India costs in global terms (http://data.worldbank.org/indicator/PA.NUS.PRVT.PP).

5 Conclusions

Enabling support environment

- The ESE can be characterized as a formal and professionalised support model, with reasonably clear division of roles and responsibilities, that provides comprehensive and structured support, in a demand-responsive manner.
- It is performing its role in an effective manner, but can improve in several aspects, including monitoring client satisfaction, addressing equity issues within Pani Samitis.
- However, it is focused mainly on its support role in cycle 1 and 2, essentially support during the implementation of new infrastructure, or asset renewal and enhancement. Support to cycle 3, what we call direct support to service provision, is done only on-request basis, and not in a structured manner. It is questionable whether that is most effective. As almost all villages in Gujarat have now access to recently improved infrastructure, support to cycle 3 will become more important probably.
- WASMO is able to fulfil its role so effective, because of 1) its institutional culture and 2) a strong organisational structure and procedures and 3) adequate human resources.
- In terms of the institutional culture, the clear articulation of vision, mission and objectives, help the staff to perform well, creating an institution that is perceived to be supportive, professional and integer.
- WASMO has well-organised and structured procedures for staffing, training, monitoring, auditing, financial procedures, and communication within WASMO and with its stakeholders.
- There are adequate human resources, in number and quality,
- There are also aspects where WASMO was found lacking on their approach to technological innovation.
- During capital investments (cycle 1 and 2), partnering is consultative in the sense that ESE and CSP jointly decide on what to developed but follow standard procedures for how to develop it, in terms of financing, procurement rules, training, technical designs, amongst others.
- For service delivery (cycle 3), partnering in decision-making is limited, in the sense that CSP have large autonomy within the broad frameworks set. WASMO is contributing though by resources in cash and in kind. Moreover, the ESE is accessible on request

Costing

- The costs of CapEx hardware are shared at a 90-10% basis, but communities can earn back the 10% if they have good performance indicators within a year after completion. CapEx software is 100% funded by WASMO
- The rules for sharing the costs of CapManEx are the same as for CapEx. However, there is lack of clarity how the financial reserve of Pani Samitis is expected to contribute to this, nor how this reserve is managed.
- All in all, this model is heavily dependent on public finance, with almost 100% of investments and two thirds of recurrent costs, coming from government. That in itself is not a problem. But, because the sources of finance are many, and in some cases unclearly defined, it is impossible to have the full overview of the costs, with transparency risks associated.
- Since WASMOs reach in Gujarat is extensive, the future costs will go up as the remaining villages could be remote and small which implies that costs will be higher is smaller villages.

– As seen in the annual costs, it is observed that bigger village costs are lesser versus smaller villages costs are higher.

Community service provider

- The villages visited can be classified as having a model of community management with direct support from WASMO, and administratively and financially supported by GP. I
- Across the villages a mixed level of performance by the CSPs in their roles was found:
  - Internal governance roles [to be clarified] but the CSP performs well in information sharing and accountability
  - Financial administration: the CSP performs well in record keeping and tariff collection. But the blurred lines between the administration of the Pani Samiti and the general GP administration brings about transparency risks, particularly where there are no separate bank account or unclear handling of financial reserves between the two.
  - Technical operation and maintenance: basic O&M tasks are done well, but more advanced activities like undertaking water security measures or metering are absent
  - The degree of community engagement in service provision differs between the capital intensive phases (capital investment, renewal and enhancement), in which the community participates in an interactive manner, and the service provision phase, where there is more functional participation, because then CSPs have to work within the frameworks for community management, set by WASMO.

Service levels and infrastructure status

- Service levels in Bharasar, Shinay and Kanakpar stand very high as all the three villages have 100% household connections. Among them Bharasar and Kanakpar have 24*7 water supply.
- The status of the assessed infrastructure was good; though several of the asset are reaching the end of their life-span, needing replacement in the next 5 years.

Contextual factors

We identified two important contextual factors, which may influence the way the model is functioning.

- The low level of water security (quantity and quality), when WASMO originally started means that people know how it is not to have water, and see the benefits of having well-organised supplies
- The socio-economic status of the area is relatively good.
- Literacy also plays an important factor. As seen in the control village, due to low literacy the community is not aware of have access to water supply .

References

Lockwood H. and S. Smits. 2011. *Supporting Rural Water Supply: Moving towards a Service Delivery Approach*. Rugby, UK: Practical Action Publishing

Smits, S., Franceys, R., Mekala, S. and Hutchings P., 2015 “Understanding the resource implications of the ’plus‘ in community management of rural water supply systems in India: concepts and research methodology”,. Community Water Plus working paper. Cranfield University and IRC: The Netherlands

Appendices

The appendices have CSP tables of the four villages

Table 5 CSP 1 Best Practice Activity and Responsibility Matrix

Entities / Actors	Tasks / Activities																		
	Allocation of finance / Budgetary approval	Monitoring service levels & water quality	Project planning	Infrastructure design & implementation	Social intervention design and implementation	Operation and minor maintenance	Ongoing software support to community	Water resources management	Capital Maintenance and renewal	Major repair	Approval of user charges	User charge collection	Management of community involvement	Community capacity development & Training	Dispute resolution	Paying of water charges	Institutional & human resources development	Auditing	Evaluation/performance assessment
Central Government	PAY	INT	INT	PAY	INT			INT	PAY	PAY				INT					INT
State Government entity)	RES + PAY	INT + PAY	RES + PAY	RES + PAY	RES + PAY	INT	RES	RES + PAY	RES + PAY	RES + PAY	INT	INT	RES	RES + PAY		INT	RES + PAY	RES + PAY	RES + PAY
Regulatory agencies																			
Local government/ Gram Panchayat	INT	INT	INV	INV	INT	INV	INT	RES	RES	RES	INV	INV	RES	INV	INT	INV	INT	INV	RES
Other PRI entities																			
NGOs																			
Formal private enterprise				RES															

Micro private enterprise																			
Water committee	RES + PAY	RES + PAY	RES	RES + PAY	RES	RES + PAY	INT	RES + PAY	RES + PAY	RES + PAY	RES	RES	RES	INT	RES	INT	INT	RES + PAY	RES
Other community organisations																			
Operator or mechanic		RES				RES													
Households	INV	INT	INV	INV	INT	INT	INT	RES	RES + PAY	PAY	INT	PAY	INV	INT	INV	PAY			INV
NRIs	PAY								PAY	PAY									

Table 9 Type of support activities received by the CSP Best Practice 1

Type of support activity	Does the CSP receive this type of support?	Who provided the support*	*Other, please specify	Modality of support	Frequency of Support	Comments / Explanations
Monitoring and control (incl. auditing)	Yes	Other Government agency	DWSU, WASMO	supply-based	1	
Water quality testing	Yes	Other Government agency	DWSU, WASMO	supply-based	2	PRE-MONSOON AND POST-MONSOON TEST DONE INDEPENDENTLY. A KIT IS ALSO PROVIDED, WHICH IS USED BY PANI

						SAMITI TO ASSESS THE QUALITY EVERY MONTH
Water resources management	Yes	Other	DWSU, WASMO	On request		
Technical assistance	Yes	Other		On request		
Conflict Management	No					
Support in identifying investments needs	No					
(Re)training of service provider	Yes	Other Government agency	DWSU, WASMO	supply-based		
Information and communication activities	Yes	Other Government agency	DWSU, WASMO	supply-based		
Fund mobilization	Yes	Other Government agency	DWSU, WASMO	On request		
Other (specify)						

Table 13: Infrastructure status snapshot tool CSP Best Practice 1

System component	Presence	Functioning	Age in relation to life-span	Physical condition (good, reasonable, poor)	Comments / Explanations
Intake structure	Yes	Yes	5 YEARS	Good	
Borehole	Yes	Yes	5 YEARS	Good	
Borehole	Yes	Yes	2 YEARS	Good	
Hand pump					
Motorised pump	Yes	Yes	5 YEARS	Good	
Motorised pump	Yes	Yes	2 YEARS	Good	
Diesel generator					
Electricity panel	Yes	Yes	40 YEARS	Good	
Electricity panel	Yes	Yes	6 YEARS	Good	

Treatment plant					
Main line	Yes	Yes	9 YEARS	Good	
Reservoir	Yes	Yes	22 YEARS	Good	
Reservoir	Yes	Yes	12 YEARS	Good	
Pressure-break tanks					
Chlorinator					CHLORINE POWDER - EVERY 15 DAYS - HEALTH DEPARTMENT
Distribution network	Yes	Yes	40 YEARS	Good	
Tap stands	Yes	Yes	6 YEARS	Good	STANDPOST
….*To be expanded when necessary*					

Table 21 Descriptors of CSP Best Practice 1

1. Characteristics	**Response**	**Explanation / Working / Comments**
1.1 Type of organisations	Formal water committee	SUB-STANDING COMMITTEE UNDER GRAM PANCHAYAT
2. Organizational capacity		
2.1 Staffing of governing body of CSP	15	
2.2 Staffing of the CSP	16	
3. Scale of operation of the CSP 3.1 Coverage		
3.1.1 Population supplied with water by the CSP	2900	
3.1.1. Size of population in service area	2900	
3.1 Coverage	1.00	
3.2 Coverage with household connections		
3.2.1 Number of households with household connections	558	
3.2.2 Households served by the CSP	558	
3.2 Coverage with household connections	1.00	

3.3 Coverage with household connections among vulnerable groups		
3.3.1 Number of SC/ST [and other vulnerable group] households with household connections	50	50 HOUSEHOLDS APPROX 200 PPL
3.3.2 SC/St [and other vulnerable group] households served by the CSP	50	
3.3 Coverage with household connections among vulnerable groups	1.00	
4. Financial descriptor		
4.1 Tariff structure* *Where relevant indicate whether there are more advanced forms of differentiation such as progressive block tariffs (in comment section)	RS 3/HEAD/MONTH	ONCE IN TWO MONTHS COLLECTION, FOR STANDPOST-RS 1/HEAD/MONTH
4.2 Connection costs	2500	
4.3 Total capital expenditure	0	

Table 27 - Performance Indicators CSP Best Practice 1

Indicator	**Definition**	**Explanation / Working / Comments**
Governance 1.1 Formal establishment of service provider		
1.1.1 Number of formal legal requirements related to service provision		
1.1.2 Number of formal legal requirements complied with		
1.2 Statutes		
1.3 Selection of the Board of the service provider	25	
1.4 Information sharing and accountability mechanisms	100	
1.5 Gender balance in the governing body of the CSP		
1.5.1 Number of women in the governing body of CSP	8	

1.5.1 Total number of members of the governing body	15	
1.5 Gender balance in the governing body of the CSP	0.533333333	
1.6 Capacity of the personnel and board of the provider		
1.6.1 Number of members of the personnel and governing body of the CSP that have received formal training for their function	0	50% OF THE PRECEDING PANI SAMITI HAS BEEN TRAINED. NO ONE FROM PRESENT PANI SAMITI IS YET TRAINED, BORE OPERATOR TRAINED - 20 YEARS OF EXPERIENCE
1.6.2 Number of personnel and governing body members	15	
1.6 Capacity of the personnel and board of the provider	0	
Finance 2.1 Financial balance of recurrent revenue and expenditure		
2.1.1 Total Annual Revenue (user charges, government subsidy, any other income)	INR 80,000.00	
2.1.2 Total Annual Expenditure (OpEx, CapManEx etc)	INR 70,000.00	
2.1 Financial balance of recurrent revenue and expenditure	INR 10,000.00	
2.2 Cash reserves	100	
2.3 Book keeping	100	
2.4 Non-payment rate		
2.4.1 Number of users who more than three months of water fees	0	
2.4.2 Number of users	2900	
2.4 Non-payment rate	0	
Technical performance		

3.1 Technical folder	50	
3.2 Registry of operational information	100	
3.3 Response time	24	
3.4 Water metering	0	
3.5 Waters security measures	100	
3.6 Water quality management	100	

Table 34: Community Participation CSP Best Practice 1

Stage of delivery cycle	Score
Capital Investment (implementation)	2. Interaction participation
Service delivery	3. Functional participation
Asset Renewal	2. Interaction participation
Service enhancement or expansion	2. Interaction participation

Table 6 CSP 2 Best Practice Activity and Responsibility Matrix

Entities / Actors	Tasks / Activities																	
	Allocation of finance / Budgetary approval	Monitoring service levels & water quality	Project planning	Infrastructure design & implementation	Social intervention design and implementation	Operation and minor maintenance	Ongoing software support to community	Water resources management measures	Capital Maintenance and renewal	Major repair	Approval of user charges	User charge collection	Management of community involvement	Community capacity development & Training	Dispute resolution	Paying of water charges	Institutional & human resources development	Auditing	Evaluation/performance assessment
Central Government	PAY	INT	INT	PAY	INT			INT	PAY	PAY				INT					INT
State Government entity)	RES + PAY	INT + PAY	RES + PAY	RES + PAY	RES + PAY	INT	RES	RES + PAY	RES + PAY	RES + PAY	INT	INT	RES	RES + PAY		INT	RES + PAY	RES + PAY	RES + PAY
Regulatory agencies																			
Local government/ Gram	INT	INT	INV	INV	INT	INV	INT	RES	RES	RES	INV	INV	RES	INV	INT	INV	INT	INV	RES

Panchayat																			
Other PRI entities																			
NGOs																			
Formal private enterprise				RES															
Micro private enterprise																			
Water committee	RES + PAY	RES + PAY	RES	RES + PAY	RES	RES + PAY	INT	RES + PAY	RES + PAY	RES + PAY	RES	RES	RES	INT	RES	INT	INT	RES + PAY	RES
Other community organisations																			
Operator or mechanic		RES				RES													
Households	INV	INT	INV	INV	INT	INT	INT	RES	RES + PAY	PAY	INT	PAY	INV	INT	INV	PAY			INV

Table 10 Type of support activities received by the CSP Best Practice 2

Type of support activity	Does the CSP receive this type of support?	Who provided the support*	*Other, please specify	Modality of support	Frequency of Support	Comments / Explanations
Monitoring and control (incl. auditing)	Yes	Other Government agency	DWSU, WASMO	supply-based	1	

Water quality testing	Yes	Other Government agency	DWSU, WASMO	supply-based	2	PRE-MONSOON AND POST-MONSOON TEST DONE INDEPENDENTLY. A KIT IS ALSO PROVIDED, WHICH IS USED BY PANI SAMITI TO ASSESS THE QUALITY EVERY MONTH
Water resources management	Yes	Other Government agency	DWSU, WASMO	On request		
Technical assistance	Yes	Other Government agency	DWSU, WASMO	On request		
Conflict Management	No					
Support in identifying investments needs	Yes	Other Government agency	DWSU, WASMO	On request		
(Re)training of service provider	Yes	Other Government agency	DWSU, WASMO	supply-based		
Information and communication activities	Yes	Other Government agency	DWSU, WASMO	supply-based		
Fund mobilization	Yes	Other Government agency	DWSU, WASMO	On request		
Other (specify)						

Table 15: Infrastructure status snapshot tool CSP Best Practice 2

System component	Presence	Functioning	Age in relation to life-span	Physical condition (good, reasonable, poor)	Comments / Explanations
Intake structure	Yes	Yes	6 YEARS	Good	
Borehole	Yes	Yes	6 YEARS	Good	
Hand pump					
Motorised pump	Yes	Yes	6 YEARS	Good	
Diesel generator					
Electricity panel	Yes	Yes	6 YEARS	Good	
Treatment plant					
Main line	Yes	Yes	6 YEARS	Good	
Reservoir					

Pressure-break tanks					
Chlorinator					
Distribution network	Yes	Yes	6 YEARS	Good	
Tap stands					
STP					

Table 22 Descriptors of CSP Best Practice 2

1. Characteristics	**Response**	**Explanation / Working / Comments**
1.1 Type of organisations	Formal water committee	SUB-STANDING COMMITTEE UNDER GRAM PANCHAYAT
2. Organizational capacity		
2.1 Staffing of governing body of CSP	12	
2.2 Staffing of the CSP	17	
3. Scale of operation of the CSP 3.1 Coverage		
3.1.1 Population supplied with water by the CSP	3500	
3.1.1. Size of population in service area	3500	
3.1 Coverage	1.00	
3.2 Coverage with household connections		
3.2.1 Number of households with household connections	700	
3.2.2 Households served by the CSP	700	
3.2 Coverage with household connections	1.00	
3.3 Coverage with household connections among vulnerable groups		
3.3.1 Number of SC/ST [and other vulnerable group] households with household connections	40	

3.3.2 SC/St [and other vulnerable group] households served by the CSP	40	
3.3 Coverage with household connections among vulnerable groups	1.00	
4. Financial descriptor		
4.1 Tariff structure* *Where relevant indicate whether there are more advanced forms of differentiation such as progressive block tariffs (in comment section)	RS 12/HEAD/MONTH	BPL HHS(6 IN NUMBER) DO NOT PAY
4.2 Connection costs	2500	
4.3 Total capital expenditure		

Table 29 - Performance Indicators CSP Best Practice 2

Indicator	**Definition**	**Explanation / Working / Comments**
Governance 1.1 Formal establishment of service provider		
1.1.1 Number of formal legal requirements related to service provision		
1.1.2 Number of formal legal requirements complied with		
1.2 Statutes		
1.3 Selection of the Board of the service provider	25	
1.4 Information sharing and accountability mechanisms	100	
1.5 Gender balance in the governing body of the CSP		
1.5.1 Number of women in the governing body of CSP	6	
1.5.1 Total number of members of the governing body	12	
1.5 Gender balance in the governing body of the CSP	0.5	
1.6 Capacity of the personnel and board of the provider		

1.6.1 Number of members of the personnel and governing body of the CSP that have received formal training for their function	0	PRECEDING PANI SAMITI HAS BEEN TRAINED. NO ONE FROM PRESENT PANI SAMITI IS YET TRAINED, BORE OPERATOR TRAINED - 20 YEARS OF EXPERIENCE
1.6.2 Number of personnel and governing body members	12	
1.6 Capacity of the personnel and board of the provider	0	
Finance 2.1 Financial balance of recurrent revenue and expenditure		
2.1.1 Total Annual Revenue (user charges, government subsidy, any other income)	INR 4,50,000.00	
2.1.2 Total Annual Expenditure (OpEx, CapManEx etc)	INR 4,00,000.00	
2.1 Financial balance of recurrent revenue and expenditure	INR 50,000.00	
2.2 Cash reserves	100	
2.3 Book keeping	100	
2.4 Non-payment rate		
2.4.1 Number of users who more than three months of water fees	0	
2.4.2 Number of users	3500	
2.4 Non-payment rate	0	
Technical performance		
3.1 Technical folder	0	
3.2 Registry of operational information	100	
3.3 Response time	24	
3.4 Water metering	0	
3.5 Waters security measures	50	
3.6 Water quality management	100	

Table 35: Community Participation CSP Best Practice 2

Stage of delivery cycle	Score
Capital Investment (implementation)	2. Interaction participation
Service delivery	3. Functional participation
Asset Renewal	2. Interaction participation
Service enhancement or expansion	2. Interaction participation

Table 7 CSP 3 Best Practice Activity and Responsibility Matrix

Entities / Actors	Tasks / Activities																	
	Allocation of finance / Budgetary approval	Monitoring service levels & water quality	Project planning	Infrastructure design & implementation	Social intervention design and implementation	Operation and minor maintenance	Ongoing software support to community	Water resources management measures	Capital Maintenance and renewal	Major repair	Approval of user charges	User charge collection	Management of community involvement	Community capacity development & Training	Dispute resolution	Paying of water charges	Institutional & human resources development	Auditing	Evaluation/performance assessment
Central Government	PAY	INT	INT	PAY	INT			INT	PAY	PAY				INT					INT
State Government entity)	RES + PAY	INT + PAY	RES + PAY	RES + PAY	RES + PAY	INT	RES	RES + PAY	RES + PAY	RES + PAY	INT	INT	RES	RES + PAY		INT	RES + PAY	RES + PAY	RES + PAY
Regulatory agencies																			
Local government/ Gram Panchayat	INT	INT	INV	INV	INT	INV	INT	RES	RES	RES	INV	INV	RES	INV	INT	INV	INT	INV	RES
Other PRI entities																			
NGOs																			
Formal private enterprise				RES															
Micro private																			

enterprise																			
Water committee	RES + PAY	RES + PAY	RES	RES + PAY	RES	RES + PAY	INT	RES + PAY	RES + PAY	RES + PAY	RES	RES	RES	INT	RES	INT	INT	RES + PAY	RES
Other community organisations																			
Operator or mechanic		RES				RES													
Households	INV	INT	INV	INV	INT	INT	INT	RES	RES + PAY	PAY	INT	PAY	INV	INT	INV	PAY			INV

Table 11 Type of support activities received by the CSP Best Practice 3

Type of support activity	Does the CSP receive this type of support?	Who provided the support*	*Other, please specify	Modality of support	Frequency of Support	Comments / Explanations
Monitoring and control (incl. auditing)	Yes	Other Government agency	DWSU, WASMO	supply-based	1	THIS YEAR'S AUDITING IS PENDING
Water quality testing	Yes	Other Government agency	DWSU, WASMO	supply-based	2	PRE-MONSOON AND POST-MONSOON TEST DONE INDEPENDENTLY. A KIT IS ALSO PROVIDED, WHICH IS USED BY PANI SAMITI TO ASSESS THE QUALITY EVERY MONTH
Water resources management	Yes	Other Government agency	DWSU, WASMO	On request		RECHARGING INTERVENTION BY WASMO
Technical assistance	Yes	Other Government agency	DWSU, WASMO	On request		

Conflict Management	No					
Support in identifying investments needs	Yes	Other Government agency	DWSU, WASMO	On request		
(Re)training of service provider	No					
Information and communication activities	Yes	Other Government agency	DWSU, WASMO	supply-based		
Fund mobilization	Yes	Other Government agency	DWSU, WASMO	On request		
Other (specify)						

Table 17: Infrastructure status snapshot tool CSP Best Practice 3

System component	Presence	Functioning	Age in relation to life-span	Physical condition (good, reasonable, poor)	Comments / Explanations
Intake structure	Yes	Yes	7 YEARS	Good	FUNDED BY WASMO
Intake structure	Yes	Yes	17 YEARS	Good	FUNDED BY PANCHAYAT
Borehole	Yes	Yes	7 YEARS	Good	BOREWELL- 400 FEET
Hand pump					
Motorised pump	Yes	Yes	6 YEARS	Good	
Diesel generator					
Electricity panel					
Treatment plant					
Main line	Yes	Yes	7 YEARS	Good	
Reservoir					
Pressure-break tanks					
Chlorinator					BORE OPERATOR-CHLORINATION-POWDER GIVEN BY PHC (TWICE A WEEK)

Distribution network	Yes	Yes	7 YEARS	Good	
Tap stands					
….*To be expanded when necessary*					

Table 23 Descriptors of CSP Best Practice 3

1. Characteristics	**Response**	**Explanation / Working / Comments**
1.1 Type of organisations		
2. Organizational capacity		
2.1 Staffing of governing body of CSP	12	
2.2 Staffing of the CSP	17	
3. Scale of operation of the CSP 3.1 Coverage		
3.1.1 Population supplied with water by the CSP	400	
3.1.1. Size of population in service area	400	
3.1 Coverage	1.00	
3.2 Coverage with household connections		
3.2.1 Number of households with household connections	70	TOTAL CONNECTIONS
3.2.2 Households served by the CSP	70	
3.2 Coverage with household connections	1.00	
3.3 Coverage with household connections among vulnerable groups		
3.3.1 Number of SC/ST [and other vulnerable group] households with household connections	35	
3.3.2 SC/St [and other vulnerable group] households served by the CSP	35	
3.3 Coverage with household connections among vulnerable groups	1.00	

4. Financial descriptor		
4.1 Tariff structure* *Where relevant indicate whether there are more advanced forms of differentiation such as progressive block tariffs (in comment section)	RS 8/HEAD/MONTH	COLLECTED ONCE IN 4 MONTHS
4.2 Connection costs	500	
4.3 Total capital expenditure	17000	MOTOR CHANGED. NEW MOTOR COSTED RS 17000

Table 31 - Performance Indicators CSP Best Practice 3

Indicator	**Definition**	**Explanation / Working / Comments**
Governance 1.1 Formal establishment of service provider		
1.1.1 Number of formal legal requirements related to service provision		
1.1.2 Number of formal legal requirements complied with		
1.2 Statutes		
1.3 Selection of the Board of the service provider	25	
1.4 Information sharing and accountability mechanisms	100	
1.5 Gender balance in the governing body of the CSP		
1.5.1 Number of women in the governing body of CSP	11	
1.5.1 Total number of members of the governing body	11	
1.5 Gender balance in the governing body of the CSP	1	
1.6 Capacity of the personnel and board of the provider		
1.6.1 Number of members of the personnel and governing body of the CSP that have received formal training for their function		NEW PANI SAMITI IS FORMED TWO MONTHS BACK. PREVIOUS PANI SAMITI RECEIVED

		ALL THE TRAINING. NEW PS YET TO RECEIVE TRAINING.
1.6.2 Number of personnel and governing body members	11	
1.6 Capacity of the personnel and board of the provider	0	
Finance 2.1 Financial balance of recurrent revenue and expenditure		
2.1.1 Total Annual Revenue (user charges, government subsidy, any other income)	INR 38,000.00	
2.1.2 Total Annual Expenditure (OpEx, CapManEx etc)	INR 20,000.00	
2.1 Financial balance of recurrent revenue and expenditure	INR 18,000.00	
2.2 Cash reserves	100	
2.3 Book keeping	100	
2.4 Non-payment rate		
2.4.1 Number of users who more than three months of water fees	0	
2.4.2 Number of users	400	
2.4 Non-payment rate	0	
Technical performance		
3.1 Technical folder	75	
3.2 Registry of operational information	100	
3.3 Response time	24	
3.4 Water metering	0	
3.5 Waters security measures	100	
3.6 Water quality management	100	

Table 35: Community Participation CSP Best Practice 3

Stage of delivery cycle	Score

Capital Investment (implementation)	2. Interaction participation
Service delivery	3. Functional participation
Asset Renewal	2. Interaction participation
Service enhancement or expansion	2. Interaction participation

Table 8 CSP 4 Control Activity and Responsibility Matrix

Entities / Actors	**Tasks / Activities**																		
	Allocation of finance / Budgetary approval	Monitoring service levels & water quality	Project planning	Infrastructure design & implementation	Social intervention design and implementation	Operation and minor maintenance	Ongoing software support to community	Water resources management measures	Capital Maintenance and renewal	Major repair	Approval of user charges	User charge collection	Management of community involvement	Community capacity development & Training	Dispute resolution	Paying of water charges	Institutional & human resources development	Auditing	Evaluation/performance assessment
Central Government																			
State Government entity)	RES + PAY	INT + PAY	RES + PAY	RES + PAY	RES + PAY														
Regulatory agencies																			
Local government/ Gram Panchayat	INT	INT	INV	INV	INT	INV			RES + PAY	RES + PAY	INV	INV	RES		RES	INV			
Other PRI entities																			
NGOs																			
Formal private enterprise				RES															
Micro private enterprise																			
Water committee	INV	RES	RES	RES	RES	RES + PAY			RES + P	RES + P	RES	RES	RES		INV	INV			

									AY	AY									
Other community organisations																			
Operator or mechanic		RES				RES													
Households	PAY								PAY	PAY	INT	INT				PAY			

Table 12 Type of support activities received by the CSP Control 4

Type of support activity	Does the CSP receive this type of support?	Who provided the support*	*Other, please specify	Modality of support	Frequency of Support	Comments / Explanations
Monitoring and control (incl. auditing)	No					
Water quality testing	No					
Water resources management	No					
Technical assistance	Yes	Other Government agency	DWSU, WASMO	supply-based		THE WORK HAS COMMENCED
Conflict Management	No					
Support in identifying investments needs	No	Other Government agency	DWSU, WASMO	On request		
(Re)training of service provider	No					
Information and communication activities	Yes	Other Government agency	DWSU, WASMO	supply-based		THE WORK HAS COMMENCED
Fund mobilization	Yes	Other Government agency	DWSU, WASMO	supply-based		THE WORK HAS COMMENCED
Other (specify)						

Table 19: Infrastructure status snapshot tool CSP Control 4

System component	Presence	Functioning	Age in relation to life-span	Physical condition (good, reasonable, poor)	Comments / Explanations
Intake structure					
Borehole					
Hand pump					
Motorised pump	Yes	Yes	2 YEARS	Good	WATER IS PUMPED FROM WELL
Diesel generator					
Electricity panel					
Electricity panel					
Treatment plant					
Main line	Yes	Yes	3 YEARS	Good	
Reservoir	Yes	Yes	2 YEARS	Good	FUNDED BY GEC
Reservoir	Yes	Yes	2 YEARS	Good	FUNDED BY WASMO
Pressure-break tanks					
Chlorinator					
Distribution network					
Tap stands	Yes	Yes	2 YEARS	Good	STANDPOST
WELL	Yes	Yes	7 YEARS	Reasonable	

Table 25 Descriptors of CSP Control 4

1. Characteristics	Response	Explanation / Working / Comments
1.1 Type of organisations		
2. Organizational capacity		
2.1 Staffing of governing body of CSP		9 VILLAGES UNDER JAKHAU GRAM PANCHAYAT 2-MEMBERS FROM JABRAVANDH AND 2 FROM

		BADHUVANDH
2.2 Staffing of the CSP		
3. Scale of operation of the CSP 3.1 Coverage		
3.1.1 Population supplied with water by the CSP	700	
3.1.1. Size of population in service area	700	
3.1 Coverage	1.00	
3.2 Coverage with household connections		
3.2.1 Number of households with household connections	0	
3.2.2 Households served by the CSP	62	
3.2 Coverage with household connections	0.00	
3.3 Coverage with household connections among vulnerable groups		
3.3.1 Number of SC/ST [and other vulnerable group] households with household connections	0	
3.3.2 SC/St [and other vulnerable group] households served by the CSP	0	
3.3 Coverage with household connections among vulnerable groups	#DIV/0!	
4. Financial descriptor		
4.1 Tariff structure* *Where relevant indicate whether there are more advanced forms of differentiation such as progressive block tariffs (in comment section)	RS 100/MONTH/HOUSEHOLD	

4.2 Connection costs		
4.3 Total capital expenditure		

Table 33 - Performance Indicators CSP Control 4

Indicator	**Definition**	**Explanation / Working / Comments**
Governance 1.1 Formal establishment of service provider		
1.1.1 Number of formal legal requirements related to service provision		
1.1.2 Number of formal legal requirements complied with		
1.2 Statutes		
1.3 Selection of the Board of the service provider	25	
1.4 Information sharing and accountability mechanisms	25	
1.5 Gender balance in the governing body of the CSP		
1.5.1 Number of women in the governing body of CSP	0	NO WOMEN FROM SELECTED VILLAGES
1.5.1 Total number of members of the governing body	15	
1.5 Gender balance in the governing body of the CSP	0	
1.6 Capacity of the personnel and board of the provider		
1.6.1 Number of members of the personnel and governing body of the CSP that have received formal training for their function	0	NO FORMAL TRAINING.
1.6.2 Number of personnel and governing body members	15	
1.6 Capacity of the personnel and board of the provider	0	
Finance		

2.1 Financial balance of recurrent revenue and expenditure		
2.1.1 Total Annual Revenue (user charges, government subsidy, any other income)	INR 6,000.00	
2.1.2 Total Annual Expenditure (OpEx, CapManEx etc)	INR 5,000.00	
2.1 Financial balance of recurrent revenue and expenditure	INR 1,000.00	
2.2 Cash reserves	25	
2.3 Book keeping	0	
2.4 Non-payment rate		
2.4.1 Number of users who more than three months of water fees	0	
2.4.2 Number of users	500	
2.4 Non-payment rate	0	
Technical performance		
3.1 Technical folder	0	
3.2 Registry of operational information	0	
3.3 Response time	48	
3.4 Water metering	0	
3.5 Waters security measures	0	
3.6 Water quality management	0	

Table 36: Community Participation CSP Control 4

Stage of delivery cycle	**Score**
Capital Investment (implementation)	5. Passive participation
Service delivery	5. Passive participation
Asset Renewal	5. Passive participation
Service enhancement or expansion	5. Passive participation