



PANCHAYATS HAVE BEEN ASSIGNED THE RESPONSIBILITY FOR EXECUTING RURAL WATER AND SANITATION. TO DO THIS SUCCESSFULLY AS EQUAL PARTNERS WITH THE GOVERNMENT AND ENGINEERS, THEY NEED A LOT OF SUPPORT OVER THE LONG TERM. THE GOVERNMENT AND NGOs WHO WILL SUPPORT THEM HAVE IMPORTANT ROLES TO PLAY TO ENSURE QUALITY WATER AND SANITATION SERVICES ARE PROVIDED IN THE LONG TERM IN AN AN EQUITABLE MANNER.

Synthesis Document

Expertise and resources needed for inclusive and lasting water supply and sanitation

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26 March 2021

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Introduction

Rural drinking water and sanitation have got a makeover in the past few months. The [Jal Jeevan Mission](#) (JJM), the revised version of the national rural water supply initiative of the Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti, puts the onus of providing piped water supply on panchayats. Similarly, the [second phase of Swachh Bharat Mission](#) expects panchayats to advance and hold the frontiers of sanitation based on the results of the first phase. This includes solid and liquid waste management, the treatment of faecal sludge and continued use of toilets.

In both, the emphasis is on sustainability, that is long-term usability and maintenance. Panchayats have been made responsible since they are the Constitutionally-mandated local institutions for all development work. This is welcome, though belated, as panchayats will need a whole lot of support, much more than the two schemes propose.

Currently, about 12 per cent villages are completely covered by a piped water system (PWS), according to JJM data. The last [Swachh Sarvekshan Grameen](#) in 2019 indicated 84.1 per cent people felt there was efficient solid waste management, and 83 per cent, efficient liquid waste management.

Ideally, panchayats can draw on the expertise of engineers from the state public health engineering departments (or equivalents), bureaucrats from district and block governments, and implementation support agencies (ISAs). District water and sanitation missions (DWSMs) can federate and coordinate village action plans (VAPs) made by panchayats, provide funds and ISAs to help panchayats plan and monitor water supply schemes and sanitation. Technical agencies can execute these plans; these may be construction companies, NGOs or other entities with the experience of making water supply networks or sanitation infrastructure such as public or community toilets.

Village water and sanitation committees (VWSCs), a sub-committee of panchayats, have been designated as the coordinating entities for both JJM and SBM II. They are responsible for planning, funds flow, coordination and monitoring. They need to prepare the VAPs for both water and sanitation.

Institutional Challenges in Service Delivery

In reality, there are multiple problems with these arrangements. VWSCs do not exist, or are dormant, in most states. PWSs are complicated to design and build as are faecal sludge treatment plants (FSTPs). There are issues of source sustainability, leakage, billing, water quality and equity that affect functionality. The creation of infrastructure is the easy part, but sustainable operation and management is the key to service delivery. Waste water management is spotty across India; while Haryana is the first state to provide piped water to all rural households, it has a huge problem of untreated waste water. Any visit to rural India is incomplete without wading through slush from overflowing drains. SBM II helpfully provides ‘technical’ solutions that are to be implemented for this.

Other institutions are weak where they matter. A study by IRC in collaboration with UNICEF Odisha on the capacities of the three pillars of service delivery in rural Odisha, the bureaucracy, technocrats and elected representatives (panchayat members), showed they were woefully ill-

equipped and ill-trained for the job. Junior engineers who are to assess and oversee the installation of handpumps (and now piped water networks) have a scanty grasp of the technicalities of the work.

Bureaucrats in block offices are informed about their responsibilities to repair faults but have little idea of how to plan and manage PWS and sanitation projects. Panchayat members are provided an overview of all development programmes in their exposure session after being elected; the sources of funds, procedure to hold gram sabha meetings, get approvals, negotiating with technocrats and bureaucrats and monitoring. They do not understand how schemes are costed nor how tariffs are to be set or levied. For this separate, in-depth training is needed.

There are usually one or two junior engineers in each block responsible for water and sanitation, in addition to other development works. Under SBM I, small teams of consultants were formed in districts and blocks to execute ODF campaigns. They are not trained to support the technical or social aspects of SBM II or PWS as laid out under JJM.

That leaves ISAs, usually NGOs or technical consultancies. But JJM and SBM II give them a role only in ‘software’ activities. These are mobilising people, changing behaviour, setting up institutions (VWSCs, for example), training them to monitor, etc. ISAs are not to be involved in technical work. That is the preserve of engineers and service provider companies, that will be evaluated and empanelled by the state water and sanitation mission (SWSM) concerned.

Table I gives an overview of the people involved in water and sanitation from the state level down.

Table I – personnel involved in water and sanitation			
	Administrators	Technocrats	Elected Representatives
State	Additional/Principal secretary, Director State Water and Sanitation Mission, consultants	Engineer in Charge; Superintending Engineers for specific areas or verticals	Members of legislative assemblies, minister(s) concerned
	Water Sanitation BCC		
District	District Collector; PD-District Rural Development Authority	Executive Engineer	Zilla Parishad members
Block	Block Development Officer	Assistant Engineer	Block Samiti members
Panchayat	Panchayat Executive Officer	Junior Engineers	Sarpanch
Ward			Ward members

Broadly, the technocrats in most states are responsible for drinking water. Administrators run the sanitation programme. PRI members are mandated to plan, motivate and monitor both.

The guidelines issued for JJM and SBM II lay down the structure and responsibilities of SWSMs and DWSMs (or district SBMs) from the state down to the panchayats. These are comprised mostly of bureaucrats from state and district governments along with PRI members (in districts). Technical experts and NGOs may also be included. At the panchayat level, half the VWSC members are to be women.

Table II outlines the kind of training each category and level of personnel have received. These are provided by the respective state’s institute for rural development or a key resource centre of the DDWS.

<i>Who were trained?</i>	<i>On what?</i>
Zilla Parishad (ZP) members and Block panchayat presidents	Rural development schemes: Course on the major development schemes to prepare gram panchayat

	development plans ¹ (GPDPs) covering the role of PRIs, sources of funds, procedure to hold gram sabha meetings, get approvals, negotiating with technocrats and bureaucrats, monitoring and training. Both water and sanitation are covered
PRI members and frontline workers²	Drinking water and sanitation concepts, the role of PRIs, solid and liquid waste management, hygiene and norms of safe drinking water.
Block Development Officer (BDO), Junior Engineers (JEs)	Drinking Water Schemes and SBM training on programme, goals, procedure to apply for household latrines and release incentives, types of toilets, CLTS and working with the government. They also cover roles and responsibilities regarding water supply and fault repair
Assistant Engineers and Junior Engineers (AEs and JEs)	Engineering modules and manuals for O&M of rural drinking water supply covering technical aspects, GIS, legal background for ensuring services, the roles and responsibilities of engineers, PRI members and officials, procedure for registering and attending to faults, community engagement. They also undergo CLTS orientation courses and are provided an overview of SBM, payment of incentives, types and structure of toilets

Way Ahead: Crucial Questions

As panchayats gear up for the long haul on water and sanitation, they need technical and financial skills for planning and management. It is critical to understand what skills are available, and are required, at various levels to help them. There is a huge opportunity that these programmes have in truly empowering panchayats to move beyond just infrastructure creation to service delivery with a rights-based approach. If they perform their functions as mandated, they can hold service providers and the administration responsible for effective and transparent basic services. District governments are again the fulcrum of planning, funds flow and monitoring these programmes. Panchayats are the executing agencies, tasked also with planning and monitoring.

This discussion explored the following issues:

1. Please list the support PRIs and VWSCs need to manage both programmes.
2. What are the other departments at the district level that need to be engaged in planning to ensure source and sink sustainability (water sources are safe, and the additional waste water does not contaminate water sources)?
3. What are the other key functions for staffing required at the district and block levels to ensure water supply and sanitation are sustainably delivered to all?

¹ Each panchayat is to develop a development plan (GPDP) that embodies the aspirations and needs of local people. The sarpanch leads the process supported by local officials and the village body

² Government employees of various programmes including child welfare workers, accredited social and health activists and self-help group members

4. Is there a recommended number of engineers at different levels per 100,000 people for water supply and sanitation as envisaged under JJM and SBM II? What degrees and on-job trainings should they have and/or get?
5. How many technical agencies are available to plan PWSs and FSTPs and how many are ideally required?

In his opening comments, Kurian Baby sought inputs for panchayats with respect to the Jal Jeevan Mission (JJM) to provide household tap connections to all by 2024. India could make it happen by strengthening its near universal coverage of protected drinking water (93 per cent according to the Joint Monitoring Program, 2017) and showcase a universal global model of sustainable universal sanitation. The Federal Budget for 2021-22 allocated approximately ₹ 50,000 crores (₹ 5,000 billion) for JJM.

Pointing out the challenges, he said despite significant cumulative sector investments over the years by national, state, local governments and communities, piped water coverage has remained nearly stagnant over the past two decades. The problems are unsustainability – technical, financial, institutional and managerial and source failure. Service delivery agencies are weak, devoid of accountability to the consumers and tax payers while PRIs lack the skills to discharge their functions of planning, oversight and monitoring.

Most water supply models fail on account of complexities in management in the absence of professional post-construction support. The country is caught between the rehabilitation and maintenance of a huge languishing infrastructure already created on the one hand, and simultaneously expanding coverage to new and challenging areas, on the other.

Therefore, institutional capacity constraints are the most critical risk factor. The targets are so huge that the country needs to achieve three times more than it has achieved during the past seven decades. Most of the village water and sanitation committees, DWSSMs and SWSMs may also become mere ornamental institutions to part finance the programme.

The crux of the matter is how to build capacities of PRIs, communities and civil society so they can implement JJM in letter and spirit as equal partners with the departments, public and private service providers, from project planning through approval, procurement, contract management and monitoring. He posed the following questions -

- How would this capacity building strategy harmonise with the theory of change?
- How can utilities and service providers be made accountable to PRIs and the consumers, so their services are efficient and customer-focused? How can consumers be made accountable for responsible behaviour? What incentives and disincentives can be provided to achieve this?
- Please suggest how service providers can be capacitated to embrace SMART water practices including real-time monitoring and data analytics for efficiency improvement sustainable service delivery and value for money?
- The estimated average central allocation for JJM would be around a third of the total capital cost per FHTC. How can states and local governments be capacitated to mobilise finance and bridge the funding gaps?

- How to enhance the capacities of the utilities, service providers and PRIs to mobilise and utilise funds that may be 4-5 times more than that of their average annual uptake?
- How to capacitate the utilities and local governments in asset management to avoid slippage and ensure sustainable service delivery during the life-cycle of the project and beyond?

Summary of Discussions

Responding to Kurian Baby's remarks, participants offered several examples and solutions of how panchayats can be capacitated to work as equal partners in delivering sustainable water supply and sanitation services. The current gaps and challenges that PRIs face, said Kaustuv Bandyopadhyay and Anshuman Karol, include a low level of awareness about the provisions under SBM 2.0 and JJM, as well as the roles of elected representatives and officials; a top-down and siloed approach to prepare GDPDs; an over-dependence on experts for conversion of plans into projects and DPRs; non-functional/ dormant VWSCs and their limited participation in the planning exercise; limited capacity building of PRI members concerning only their roles and responsibilities; uneven devolution, activity mapping and enabling legal and political environment across states and; lack of a validated database for planning.

The larger support system in the rural drinking water sector needs to plan for enabling GPs and user committees (UCs) to take over and manage PWSs that are likely to have serious design flaws. An issue for ISAs and technocrats to consider is differentiating between the bulk transfer of water (from the source to a common delivery point) and distribution (supply to the households from the common point). This is critical in terms of the GP or UC being able to manage the service delivery in a sustainable manner.

The sarpanch is one of the gram panchayat representatives who have been trained under a nationwide capacity building initiative in strengthening the capacities of the key stakeholders and decision makers. The purpose is to develop a 'clean water and clean village' or a Sujal Swachh Gaon (SSG), said Sujoy Mojumdar.

A Sujal and Swachh Gaon would be a model village which would have: safe and secure drinking water through household connections for all; established sustainable sanitation facilities specifically to ensure the open defecation free (ODF) status of the community, and which would have made arrangements for solid and liquid waste management, plastic waste management and faecal sludge management.

SSG is spearheaded by the Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti, Government of India. UNICEF whose goal is to foster investment in institutional capacities is a key partner in implementing the initiative along with the World Bank and the state and district governments.

He gave the example of Babudevi, sarpanch, gram panchayat samiti, Sarvar, district Ajmer, Rajasthan. After the training, he ensured access of WASH services to the Bhil community, a Scheduled Tribe population in the panchayat who are socially and economically disadvantaged.

Calling for a shift in thinking, Poonam Sewak said outcome based results, rather than a project mindset, is required. This would shape long-term solutions for institutionalised and integrated drinking water and sanitation management with the panchayat as the unit and fulcrum of

Main points

- Focus on outcomes, not outputs, with a long-term mindset
- The larger support system in the rural drinking water needs to plan for enabling GPs and UCs to take over and manage piped water systems
- Panchayats need to work as equal partners with bureaucrats and technocrats. The two missions are an opportunity to strengthen them
- A suitable time-bound training strategy is needed that emphasises outcomes
- Panchayats can take the lead on certain aspects of PWS and outsource other work
- Capacity building needs to be localised, contextual, intensive and long-term
- A clear demarcation of roles between different stakeholders – bureaucrats, technocrats, ISAs and PRI members – is needed to define duties and responsibilities
- ISAs are needed from the district to the panchayat level but should not be bound to a specific set of activities. They need capacity building
- Differentiate between bulk transfer of water and distribution that different agencies are responsible for

governance. Panchayats need to seven-step ladder of Participation from Passive to Self-Mobilisation for collective action and capability to mobilise as well as engage with relevant resources. Broader levels of through information sharing, consultation (situation analysis), material incentives (incidental), functional (engaging informal or formal groups) and interactive (action planning through external facilitation) would facilitate this.

Strengthening PRIs

Vijaya Venkataraman said both missions were an opportunity to strengthen PRIs and gram panchayats as decentralized governance entities along with the devolution of funds, functions and functionaries. Since 'local governments' are a state subject, the process and progress of devolution has been uneven in different states. She suggested that to bridge the gaps in technical resources, capacities and infrastructure in PRIs that prevent them from playing an effective role in water supply and sanitation, the roles of the three tiers of PRIs, and between PRIs and line departments, parastatal agencies and district governments need to be demarcated.

Liby Johnson said PRIs and communities can recommend the layout of pipelines. The settlement pattern can be a good indicator to base certain assumptions in this regard. There are three types of settlement patterns that need to be factored in: (1) Nucleated settlements – seen in many parts of Central / Eastern India where the houses are clustered around a central node and the distance between houses is relatively small; (2) Non-nucleated settlements or ribbon settlements – seen mostly along the western coastal regions, where the houses in a habitation do not have an obvious central node, but are spread across a greater length and; (3) Transforming settlements, that have increasing urban characteristics in the way the habitats are laid out.

Poonam said the capacity building of panchayats should not be limited to preparing or executing of plans for sustainable drinking water supply but ensuring the continuum of effective utilisation of resources along with O&M that requires a different set of capabilities. The human resources and capital available with panchayats may not be adequate for this, thus bringing forth the key dimension of the service providers.

When dealing with water, the unit of planning often may exceed the boundaries of a panchayat limits resulting in planning for cluster of GPs. For instance, it could mean setting up a local drinking water grid depending on the source, or a solid waste management or faecal sludge management for a cluster of habitations.

Kaustuv and Anshuman suggested developing a time-bound training strategy, making GPDP an overarching plan including VAPs under JJM and SBM 2.0, supported by ISAs, devolution of powers supported by training, access to data, finance and decision-making powers, convergence by the ministries concerned (Jal Shakti, Rural Development and Panchayat Raj, Skill Development and Entrepreneurship, New and Renewable Energy, Finance, etc.), disclosure of financial resources to PRIs by the state government, and preparation of service delivery plans by PRIs.

Demarcating roles

As a first step, therefore, activity mapping should be carried out at the state level to align with all new schemes, funding sources, programmes and guidelines, especially JJM and SBM II. This mapping should be formalized with enabling legislation and executed with capacity development interventions. "Empowering Panchayats with clear roles and authority assigned

to different levels through activity mapping, is a strong incentive to build capacity and also to get other prerequisites for effective performance in place".

DWSD was responsible for implementing RWSS and supporting service providers, said Ashish Kumar. The study scored the department highly on its technical performance. It provided support by training VWSC members and *Jal Sahiya*, technical and financial assistance for operation and maintenance. The study recommended retraining new VWSC members would ensure that capacity was not lost when *Jal Sahiyas* change.

In addition to training, DWSD paid for spares and some minor repairs that were carried out by its staff even though according to its guidelines, VWSCs were responsible for all O&M. This harks back to what Vijaya said, about demarcating roles to remove ambiguity. Kurian's statement to fix responsibility for O&M also had a bearing on this somewhat unclear support arrangement. The department provided a matching grant to the audited records of user tariff collection, which incentivised the VWSCs to collect them. The Department also footed the electricity bills.

While PRIs lacked skills for O&M, said Lalit Sharma, they needed to own the responsibility. To discharge their duties, they needed support. PRIs could take responsibility of PWS but find another solution for quality of water. Since it was difficult to maintain community water treatment systems, PRIs could promote household water treatment systems. For instance, most treatment systems for removal of arsenic and iron appeared defunct. Instead, the Sehgal Foundation selected a simple household water treatment system that could address biological, arsenic and iron contamination and turbidity in water and installed over 3,000 household systems in Bihar. The takeaway is PRIs can handle certain aspects of PWS and sanitation, while others can provide technical support.

Citing an example from Odisha, Nitya Jacob said a local NGO Jeeta, supported by WaterAid, acted as the ISA for a remote adivasi hamlet in the Debagarh district. The sarpanch Bholeswar Nayak, was literate, and ably assisted by Gurubari, the local self-help group secretary and also head of the local water committee. What the ward members lacked in formal education they made up with general knowledge of the terrain and climate. They understood that having a water source downstream of a toilet would eventually contaminate it, as the village was in hilly terrain. The toilets in their village were on the opposite side of a ridge that divided the village from the wells. On the toilet side, there was a handpump with a platform and a spring some distance away that the handpump had tapped. They used covered wells for drinking water.

In rural India, there is a clear distinction between the PRIs (as the local government) and the users. This is due to social, cultural, political, and geographical factors (where there is a long distance between the panchayat office and habitations). JJM should incorporate this into its institutional framework and make changes in the current guidelines of that seem to mix up the GP, VWSC and UC.

ISAs include NGOs/ VOs/SHGs/ CBOs/ Trusts/ Foundations and play critical role as partners in mobilising and engaging the communities to plan, design, implement, manage, operate and maintain in-village water supply infrastructure, said Kaustuv and Anshuman. ISAs need to be categorised based on their capacities and catchment area within the overall jurisdiction of PRIs. Water supply and sanitation need to be decentralised and toolkits provided for the preparation of participatory DPRs. District Planning Committee's (DPCs) have the constitutional mandate

to ensure convergence and integration of plans. Hence, DPCs in respective districts should provide necessary coordination for this.

Grassroots support

Jharkhand has taken decisive steps to strengthen VWSCs, said Ashish Kumar. It has a decade-long experience with '*Jal Sahiyas*' (water mates), local women who support the VWSC in planning, implementing, and monitoring the village water supply scheme. *Jal Sahiyas* are incentive-based frontline workers who are also VWSC's treasurers. Panchayats select the Sahiya who is trained by the Drinking Water and Sanitation Department. Their training covers fixing handpumps, village water supply, water quality, WASH concepts and community mobilisation. Sahiyas are an all-in-one WASH resource in villages.

A study by the Xavier Institute of Social Sciences in 2016 found that only 15-42 per cent of households had a piped water connection. In its best practice villages, 33 per cent users got an unacceptable quantity of water, while 37 per cent received water for less than one hour a day. VWSC existed to manage water supply in all villages. The village community was involved in decision-making through village meetings.

The study classified the type of service provision as community management with direct support, bordering on direct public provisioning, especially because of the heavy financial subsidy for operational expenses. The VWSCs had effective mechanisms for accounting and managing cash, whilst improvements could be made in water security planning. There was a *Jal Sahiya* in each village, usually a young married woman.

Jeeta helped locate and build the toilets, all of which were disabled-friendly and functional. The NGOs had given both Nayak and Gurubari extensive support and training on WASH and helped set up the local water committee. The NGO also worked with block and district officials on inclusive WASH, since this was a remote adivasi district.

The project helped to improve water supply in the village from seasonal to perennial. And provided all households with a hybrid toilet. This took several years because of the remoteness, recognising the process of changing attitudes was slow. The remoteness meant developing in-situ sources for water, and low cost toilet options. Therefore, PRIs needed long-term support focusing on behavioural aspects and institutional strengthening.

In Chhattisgarh, the Samerth Charitable Trust in Kawardha has deployed local teams trained in hydrology and integrated water resource management, said Jon Shepherd. They use an app that takes them through the processes of good water management. In this way, an expert hydrologist is needed for certain, very technical tasks, but much of the work (e.g., water balances) can be done by local teams and panchayats.

With support from the ISAs, panchayats can create their own water security plans and present these to government for funding. The ISA (Samerth) provides ongoing help to create WSPs and support to discuss them with district governments (e.g., arranging meetings and providing background information). Therefore, ISAs are needed at all levels. PRIs need to adopt a systems thinking approach - mapping all of the influences and power dynamics surrounding communities that lack WASH services, evaluated them and then build up from there.

Webinar: Voices of PRI members on executing drinking water and sanitation

On 4th March, the SuSanA India Chapter along with IRC, ISC, WaterAid and Water for People held a webinar to elicit the views of sarpanchs and NGO experts on the topic. About 130 people tuned in to listen, ask questions and provide comments. The link to the webinar is here - <https://youtu.be/JmGRLzw92wM>.

The Government of India's standing panel on rural development suggested how to encourage involvement of rural institutions in development, said Natasha Patel. PRIs were the connecting link between service providers and people on the ground and therefore, there was a need to strengthen them. The challenges in doing so included timely funding and lack of capacity.

JJM and SBM II emphasised sustainability, said Nitya Jacob. Panchayats had main responsibility, but past experience showed they need a lot of support to be able to work as equal partners with service providers, bureaucrats and technocrats.

The capacities of PRIs to provide watsan services varied widely from state to state. In lower income states the line departments were the service providers, said Ruchika Shiva, the webinar's co-facilitator. IRC assessed capacities of service providers – bureaucrats, technocrats and elected representatives – in Odisha and found sanitation was highly undermined, training was inadequate, female professionals were underrepresented in technical fields, the O&M of watsan systems was chronically neglected and there was a lack of human resources. There was just one executive engineer for 1.5 million people, one assistant engineer per 150,000 people and a junior engineer for approximately 140,000 people. The capacities for watsan steadily declined from the state government to grassroots level governments.

Technocrats focused on creating infrastructure but neglected O&M. JEs lacked understanding of mega PWS even if it was being executed in their areas. PRI members were provided output-based training, not outcome based. This helped the system to tackle only immediate needs, not long term water security or waste management.

Yogesh Kumar, the webinar's co-facilitator, said it was important to understand what the equal relationship meant. PRIs are the only constitutionally mandated elected entity at the grassroots. In the 11th Schedule of the Constitution, their functions included water and sanitation. Therefore, it was imperative to build their capacities to deliver on their roles since the JJM guidelines said PRIs owned assets and other agencies were facilitators. This implied PRIs needed to oversee and govern schemes – resources, taxes, sustainability and management.

To discharge their duties with respect to JJM and SBM, PRIs needed planning with support from ISAs, participatory planning and transparency to achieve 100% coverage. PHED or its equivalent could provide technical options for PWS, source sustainability and quality monitoring.

Recapping the thematic discussion, Kurian Baby said participants had underlined the need to build capacities. Local self-governments could manage water supply and sanitation since utilities along had never been able to provide good quality sustainable services. Capacity building is a long-drawn process to empower LSGs as equal partners to work with other agencies who will provide support. Champions for capacity building can incentivise this.

Bharat Patel, sarpanch from Indore District, Madhya Pradesh, spoke of his experiences with water and sanitation. Households pay ₹ 2 a month for garbage collection that goes towards the cost of running a vehicle for the purpose. Under JJM, the panchayat has made check dams in the nallahs that has improved local water availability. Drinking water is supplied via handpumps in addition to the state government's Nal Jal Yojna.

Crucially, he said that while villagers feel piped water supply will be expensive, he is convincing them of its need based on the health, economic and quality of life arguments. He has ensured remote habitations also get piped supply. At a gram sabha, it was decided to levy water charges of ₹ 60 from poor HHs and ₹ 100 from others for tap connections. These charges have been calculated to cover the anticipated power and pump operator costs. Along with the PHED, a village committee surveyed the village to design the PWS. As women had the main responsibility to provide water for domestic use, therefore their needs were included in the planning.

Ishwar Singh Thakur, deputy sarpanch from Sehore district said panchayats needed more finances to execute plans since they did not get all the required funds from the government. It was possible for panchayats to plan and raise funds locally. In his panchayat, the gram sabha used local knowledge of local aquifers to decide where to instal them tubewells rather than relying on the PHED. Their PWS is being upgraded with a sump well that is cheaper than an overhead tank (OHT). The panchayat has augmented local water storage capacity by deepening ponds in its ambit under MGNREGA.

Nirmala Ramdev Patel, sarpanch from Sehore district, said water was supplied to standposts via pipelines. The scheme cost ₹ 800,000 and planned by the community. PHED provided support in planning and execution. The panchayat levied user charges to pay for the pump operator and electricity. And OHT was being built to overcome water shortages in summer.

Arti Devi, a former sarpanch from Ganjam district, Odisha, described how she set up the water supply system in her panchayat. She started with a gram sabha to plan the WSS. For finances, she approached the irrigation department that provided ₹ 2.5 million to rehabilitate a large tank for water supply and irrigation. A women's group from the village made a common toilet near the pond and employed two people to maintain it. This prevented people from defecating near the pond. With the funds, she was able to install an OHT with a capacity of 10,000 litres, and deepened and cleaned the wells as an alternate source. She was able to thus achieve drinking water security relying on PHED for technical support. To improve sanitation, she conducted rallies and awareness camps that covered hygiene and water conservation.

To strengthen institutions, she set up water communities in each ward to manage water supply (broken taps, leaking taps, wastage) and the use of toilets. Arti said the government gave no money for O&M so she had to raise resources from the village and used the 15th FC funds. She also set up a committee with panchayats members and JEs to improve O&M and fund utilization, and timely fault repair. She even suggested such committees for other panchayats to the Collector. It was easier for panchayats near cities to collect tariffs and raise money from markets, fishing auctions, etc. The remote ones have fewer opportunities to raise untied funds.

Maya Mausariya, sarpanch from Dhar district, MP, has set up a PWS under the Nal Jal Yojna. She relies on the PHED and panchayat samiti to monitor supply, record complaints, water quality and testing.

Giving the perspective of ISAs, Liby Johnson said the challenge was the sheer scale of JJM that left little to choice save construction. Community mobilization could take up to a year to prepare them to contribute and take ownership of water supply. On the one hand, it is impossible to do a good job in this scale. There were few, if any ISAs with the ability and reach to work at this scale. The only organizations available in large numbers were those set up under NRLM but they will need a lot of CB.

Even if the government met its targets, was a second phase of JJM desirable to fill gaps from this JJM the right way to go. The VAPs needed to be made but could not be made effectively given the current situation. ISAs were being pressured to make VAPs, but that is not their roles. Given these and time constraints, what could be done to improve VAPs. Liby suggested demarcating roles between ISAs, panchayats, service providers and the government. Incremental approaches, rather than radical solutions, were needed to improve VAPs.

A crucial aspect to sort out was the confusion between GPs as service providers vis-à-vis the users or monitors. State-level discussions were necessary to sort out these issues. Rural India was heterogenous and local issues varied a lot from place to place.

SBM had raised the demand and aspirations for toilets now, compared to 2015. Likewise, JJM would raise the demand for safe water and better services. In programmes of this size, a waste of funds was inevitable. Given the scale of the programmes, there is bound to be some waste of resources.

People are increasingly willing to accept panchayats as the implementer/government and this further underscored the need to capacitate them to meet the needs of communities, supplemented by support from PHED and ISAs. However, panchayats should not be expected to handle technical issues which can be done by user groups, SHGs, youth groups.

Development agencies should try to support panchayats for up to five years, said Subhash Chandra, to develop and implement integrated VAPs. Venkatesh Aralikatti said different departments should handle technical issues and community engagement. For instance, the rural development department could manage the latter while the PHED could handle the former. Suresh suggested installing water meters to regulate consumption and set tariffs. They were an equitable method and help generate awareness about judicious use of water.

Summing up, Ruchika said it was necessary to demarcate roles, separating the technical functions from community outreach. The role of ISAs needed to be more clearly defined from the local to the district levels. More than technical issues, changing mindsets to demand services, and provide sustainable services, was necessary for the water and sanitation sector. For this, we should consider processes and outcomes, not just outputs.

Yogesh Kumar added JJM was a running bus and we had to ride it to determine how best it could meet its objectives. Capacity building was complex given the diversity of stakeholders and contexts for VAPs. These building blocks for community processes needed to be simplified and development agencies could provide the requisite manuals. He also averred that PHED could handle the technical aspects while grassroot organizations, NGOs and CSOs could work with communities.

The discussions indicated panchayats did have the capacity to deliver services. They were under pressure to perform. They could be graded by capacity when determining the level of

support needed to optimise resources for capacity building. Technical issues needed to be simplified so PRIs could understand how and why to monitor. Could better and sustainable services be an issue of human rights where panchayats take a rights based approach to plan, implement and monitor.

Responses in full

Vijaya Venkataraman said she believed that placing PRIs and the Gram Panchayat (GP) in particular as the focal point for the implementation of these programmes presents a great opportunity to renew and strengthen the commitment to decentralized governance and devolution of funds, functions and functionaries to empower PRIs including the GPs. This would be the foundation for sectoral growth and coverage and maintenance of services.

It is evident that 'local governments' being a state subject, the process and progress of devolution has been uneven in the states. The gaps in technical resources, capacities and infrastructure in PRIs that hinder an effective role in the water supply and sanitation sector (and for that matter, in other sectors) is well documented. In order to address these gaps, clarity of roles between the three tiers of PRIs and between PRIs and Line Departments/parastatal agencies / District Administration is to be established. Activity mapping to achieve this has been carried out only sporadically. As a first step therefore, activity mapping should be updated at the state level on a regular basis to align with all new schemes, funding sources, programmes and guidelines. Activity mapping should be formalized with enabling legislation and executed with capacity development interventions.

"Empowering Panchayats with clear roles and authority assigned to different levels through activity mapping, is a strong incentive to build capacity and also to get other prerequisites for effective performance in place".

Ashish Kumar said Jharkhand has taken decisive steps to strengthen the Village Water and Sanitation Committee (VWSC). A village woman is nominated as '*Jal Sahiya*' (Water Mate) to support the VWSC in planning, implementing, and monitoring the village water supply scheme. *Jal Sahiya* is an incentive-based frontline worker for water and keeps the responsibility of Treasure of the VWSC.

Lalit Kumar said PRIs lack skills but at the same time he believed that until the PRIs own the responsibility and perform, the development process will remain so. The need of the hour is to understand the level of their capability and potential, build the capacity to the level they can perform and do not expect beyond that. For the gap still remaining, other means were needed. If PRIs were given the responsibility, they would do somethings well and find ways to manage the rest. For example, PRIs could take responsibility of FHTC just to make water available and find solution for quality of water differently.

It is difficult to maintain a community level water treatment system for many reasons, so why not to shift to household water treatment systems selected for location specific issues. Most of the water treatment systems for removal of arsenic and iron are defunct so the Sehgal Foundation innovated and adopted a water treatment system capable of addressing biological, arsenic, iron, manganese and turbidity in water. Over 3000 household systems were installed in rural Bihar. The system is very simple to operate and maintain for a rural household with no recurring cost. All the systems are in use without any failure because technology is simple, reliable and household took the responsibility as they contributed in the cost of the system.

Nitya Jacob wrote, he visited a remote adivasi hamlet in the Debagarh district of Odisha. There was a sarpanch Bholeshwar Nayak, a middle-aged man, who was literate. He had a few ward members, unlettered. He was ably assisted by Gurubari, the local self-help group secretary and also head of the local water committee. What the ward members lacked in formal education they made up with general knowledge of the terrain and climate. They knew where the water flowed when it rains and the ideal places for installing a well. They understood that having a water source downstream of a toilet would eventually contaminate it, as the village was in hilly terrain. The toilets in their village were on the opposite side of a ridge that divided the village from the wells. On the toilet side, there was a handpump with a broken platform and a spring some distance away that the handpump had tapped, so the sarpanch said. But they used covered wells for drinking water.

An NGO called JEETA, supported by WaterAid, had helped locate and build the toilets all of which were disabled-friendly. The NGOs had given both Nayak and Gurubari extensive support and training on WASH and helped set up the local water committee. The NGO also worked with block and district officials on inclusive WASH, since this was a remote adivasi district.

Their project helped to improve water supply in the village from seasonal to perennial. And provided all households with a hybrid toilet. This took several years because of the remoteness, recognising the process of changing attitudes was slow. The remoteness meant developing in-situ sources for water, and low cost toilet options. An added benefit was most houses got solar panels and a light through a government programme. Apart from the infrastructure, I found the village clean. The adults and children said they washed their hands before eating at least, though were less sure of other times. The toilets seemed to be in use. Handwashing places had soap with soap marks.

This example showed

1. Panchayats need support over the medium- to long-term. One-off training sessions that are usually provided will not do.
2. In addition to training, they need practical support. A series of meetings to work out where to site toilets, source water, arrange for distribution, etc., are needed. This takes time.
3. While the hardware discussions are on, sensitisation about the rights and entitlements are needed so people understand what government programmes can and should provide, and how to get them.
4. People need to understand the benefits of using a toilet and what safe water means. Then they need to be reminded to use the toilet regularly, and handle drinking water safely.

Liby Johnson said his experiences were relevant to the central Indian hilly region, particularly areas in the Eastern Ghats. The rural drinking water service delivery is, very wrongly, considered to be a technically complex sector. System design and planning has been heavily centralised in all these years, and JJM has, at least so far, been able to dent this. Having helped village communities build and maintain piped water supply systems (with three tap connections in every households, and 100 per cent coverage of households in every habitation) in more than

1200 habitations across a wide variety of geographical and socio-cultural contexts, the one thing that we have learnt is that “small” is indeed “beautiful” and easily manageable.

Ownership with little stake in design. The way JJM implementation is panning out today, GP or user communities are likely to have very little say in the way the piped water supply system is designed and built. They will be made responsible for its operations and maintenance once the construction phase is over. Where the service providers and the PHEDs with all its engineering skills failed, JJM expects the weak PRIs to perform and deliver sustainable quality services. This is doable, only under a comprehensive devolution and empowerment programme for local governments. Either professionalise local governments to provide professional support. Empower them both in service provider and service authority functions. While travelling across several Eastern Indian states as part of a task force of the Jal Jeevan Mission, the pitfalls in this approach became apparent. One year through JJM, it would be indeed wise to have a third party process audit for on-course correction, wherever required.

The non-consultative design and building process means that the GP or the User Committee (UC) are made liable to manage a sub-optimally designed system. In several places, the contentious matter was the way distribution pipelines were laid. Had the panchayat or community been consulted while the distribution layout was being prepared, they would have advised on the most suitable routes to take. What was actually done meant that the GP or UC had to find additional resources (not easily available, so far) to correct the mistakes in the distribution system.

Given that JJM needs to achieve the twin objectives – of 100 per cent FHTC everywhere and, community ownership, there is a need to strategize and plan for these not happening simultaneously. It will be wrong to sit back and demand that everything work out in the ideal manner. The larger support system in the rural drinking water sector needs to plan for enabling GP and UC to take over and manage PWS systems that are likely to have serious design flaws.

Settlement pattern based system design. Where it is possible to influence the design and building phase, there is need to gear up to influence the powers that be to consider and push decentralized mechanisms – single village systems in this case. The settlement pattern can be a good indicator to base certain assumptions in this regard.

There are three types of settlement patterns that need to be factored in.

1. Nucleated settlements – seen in many parts of Central / Eastern India where the houses in the habitation are clustered around a central node and the distance between houses is relatively less
2. Non-nucleated settlements or ribbon settlements – seen mostly along the western coastal regions, where the houses in a habitation do not have an obvious central node, but are spread across a greater length
3. Transforming settlements – where one is seeing increasing urban characteristics in the way the habitats are laid out. This will be applicable across all States of India in the peri-urban areas and the increasing number of Census Towns that are not statutory towns

Our experience is that in areas where water quality is not an area of concern (Fluoride, Arsenic or high Iron content) or already suffer from serious water stress, the first category – nucleated

settlements can actually manage their own single village systems. The user community for a given system can be easily delineated and very often there will be existing social/cultural community systems that manage common matters. It may not make sense to think of larger design (multi-village or bulk water transfer-based systems) in such cases, rather it may be expensive and unsustainable to manage.

For areas with water quality or quantity stresses, alternatives will be needed. Similarly, for most areas with ribbon kind of settlements or where the rural to urban transformation is taking place, single village systems may not be feasible in the long-term.

Transmission should be differentiated from distribution. In cases where multi-village or bulk water transfer based systems are envisaged, it will be wise to distinguish between the responsibility for transmission and distribution, like how electricity transmission and distribution are separated. In case of rural water supply, the distinction must be between bulk transfer of water (from the source to a common delivery point) and distribution (supply to the households from the common point). This is critical for the GP or UC to manage the service delivery in a sustainable manner. If the PHED or a service provider takes care of the bulk water transfer up to a common point for the habitation, the last-mile supply can be managed easily by the GP or the UC. The supplier can charge the UC on basis of a bulk meter at the level of supply. The UC can thereafter manage the distribution system and carry out O&M and service fee collection at a much manageable level. Can we have the accountability of bulk water ensured through a contractual obligation between the bulk water provider and the Local governments?

Differentiate ownership and management. Conventional wisdom, of the top-down variety, seems to consider the GP as “community”. Thus, ownership and management by the GP is seen as ‘community management’. Experience does not bear this out. There is a clear distinction between the GP (as the local government) and the users, caused by several factors – social, cultural and political; and, in cases of the hilly central Indian areas, geographical (where there is a long distance between the Gram Panchayat and the habitations).

JJM would do well to design the institutional framework considering this. The current guidelines of JJM seem to mix up the GP, VWSC and UC without much clarity. The GP is the local government and the mandated level for ownership of drinking water supply. In most States of India, the GP has limited abilities to manage the supply system and it is wishful thinking that these can be built overnight. Would not it therefore make better sense to differentiate between ownership and management? Can the system be imagined such that, the GP owns the system and outsources the management to a User Committee? It could be a village level institution bringing together all users, or it could be an alternate village institution such as self-help group (SHG) of women.

The VWSC is added to this mix creating further confusion. Most VWSCs that exist in the States are a relic of the Sector Reforms/Swajaldhara period and is essentially a user committee. In some States, the VWSC is a sub-committee of the Gram Panchayat and has different characteristics. It may be worthwhile to mandate the VWSC as an organ of the Gram Panchayat as a body consisting of GP elected members and representatives of the various JJM User Committees or PWS Management Committees in the GP.

Poonam Sewak said outputs without requisite processes were unsustainable and so the processes without expected outputs were futile. Striking a balance between the two to achieve not only efficiency but also effectiveness was the need of the hour. There was a need to shift from project mindset to 'outcome' based results. This alone can shape the long-term solutions for institutionalised and integrated drinking water and sanitation management with GP a Unit and fulcrum of the Governance.

JJM and SBM provided ample space for multi-stakeholder platforms in the policy with good learning of varied levels of outcomes as of now. Still there is a long journey ahead while Governments, GPs, CSOs and other Private Agencies must travel.

Participation. The central question is, how can GPs be empowered to work as equal partners, not contractors or funders, with the local governments and service providers. This means that the achievement should be no less than enabling the GPs to climb the seven level ladder of *Participation from Passive to Self-Mobilisation* for collective action and capability to mobilise as well as engage with relevant resources.

This involves crossing five more broad levels of participation, viz., through information sharing, through consultation (situation analysis), material incentives (incidental), functional (engaging informal or formal groups) and interactive (action planning through external facilitation). Empowerment of GP as institution in other words is the constant withdrawal of induced external facilitation where GP is either equipped with required human and financial capital or at least has the capability to mobilise on its own as per the need.

Capacity Building. Capacity building of the GPs is therefore not limited to preparation or execution of an action plan for sustainable drinking water supply. An Action Plan may emerge after a thorough situation analysis and external facilitation in a given context. But ensuring the continuum of effective utilisation of resources along with operation and maintenance requires a different set of capabilities for an elected body like GP. Taking into consideration the dynamic status of Blue, Green and Grey water resources, both in terms of quantity and quality, assessment and planned use of the same, on a concurrent and ongoing basis is inevitable. The human resources and human capital available with GP may not be adequate for this and thus bringing forth the key dimension of the service providers.

Capacity building does not end with the completion of events to train different stakeholders but encompasses a larger canvas of networking and federation. As is obvious, urbanisation is rampant and several GPs are getting converted to urban local bodies either due to the growing population or their proximity to the urban agglomerations. The strategy for census towns with population more than 10,000 is yet another area of focus by the government. Strategies need to be developed as per the typologies considering various parameters.

Keeping in view this trend, GPs have to gradually mould themselves to the emerging need of engaging service providers. State and regional level efforts have to be made for creating a pool of skilled service professionals, who in turn will engage at GP or Cluster of GPs level as per the need within an institutional structure of GP, local CBOs like SHGs and Professional Service Providing Agency for overall coordination and support.

Service Providers. GPs are of various sizes and located in diverse socio-ecological systems with varying proximity and access to the urban areas/services. The need and scope of designing and managing water and sanitation systems therefore also varies widely. As it deals with water

resources, the unit of planning often may exceed the GP limits resulting in planning for cluster of GPs. For instance, it could be a local drinking water grid depending on a surface water source or setting up solid waste management or faecal sludge and septage management system for a cluster of habitations.

In the context of urbanisation, it may be also important to note that it is not just definition how an urban body is categorised. It may be also relevant in the emerging scenarios to consider the ability, absorption capacity and aspirations of the community to access the services similar to that prevalent in urban areas. The inclination and ability of several users to procure drinking water from private treatment plants in rural areas is one classic example.

Safe or small water enterprises play a key role in several states providing safe and affordable drinking water to the rural communities. role of service providers at the GP level, cluster of GPs level, block level, district level, regional level and state level becomes much more prominent to realise the revised objectives of JJJM and SBM.

Few pointers in moving forward:

- a) Enhancing the level of Participation of GPs in the spirit of Gram sabha in planning, implementation and monitoring of DW and sanitation interventions from series of events to that of string of processes
- b) Promoting Self-Monitoring mechanisms among the grassroots institutions for periodic self and peer evaluation will create a healthy competition and learning.
- c) Building the capacities of the human resources at GP level for periodic and holistic quantitative as well as qualitative assessment of surface and ground water resources in terms of the availability, use and users. It is much more significant in the water stressed areas as notified by the Government/s, time to time. These service professionals may work in coordination with grassroots functionaries like SHGs or any entity engaged by GP while working for Facilitation or Support agencies at different scales of operations. SWNI is working with MoHUA on Urban City Water Balance studies, which can be similarly replicated with necessary modifications at appropriate scale of planning in the rural context.
- d) Government/s to make adequate efforts for constantly building the pool of men and women professionals through Skill development Programmes on drinking water and sanitation, equipped with techno-managerial skill sets at State and District levels.
- e) Enhancing the efforts in engaging with CSOs and Private Sector participants for promoting location specific appropriate technologies through a challenge fund. This also includes the replication and adaptation of urban models in suitable GPs.
- f) Promoting collaborative learning and sharing efforts among CSOs through platforms created for specific purposes. For example, SWNI is steering Sustainable Enterprises for Water and Health (SEWAH) in collaboration with USAID for promoting Safe and Small Water Enterprises. The Knowledge Centre at the Safe Water Enterprise Alliance shares tools promotes knowledge exchange amongst the sector stakeholders. These can be viewed at www.swealliance.org SWNI has also initiated Water Knowledge Resource Centres (WKRC) for sharing the collective knowledge and experience for collective good.

Kaustuv Bandyopadhyay and Anshuman Karol wrote that to discharge the institutional mandate for effective and efficient implementation of SBM 2.0 and JJM by Gram Panchayats first of all we need to understand the current gaps and challenges as follows.

- Low level of awareness, sectoral/scheme related understanding on the provisions under SBM 2.0 and JJM as well as the roles elected representatives and officials specially at the Gram Panchayat level.
- Top down instructions and practice of preparing GPDPs with limited inter-sectoral integration and convergence.
- Over dependence on sectoral/technical experts for conversion of plans into projects and DPRs.
- Non- functional/ dormant VWSCs and their limited participation in the planning exercise. In fact, in many Gram Panchayats GPCCs and TSGs are not constituted to facilitate the preparation of GPDPs and where these are constituted they have limited interaction with VWSCs.
- Capacity building of elected members of Gram Panchayats are limited around their roles and responsibilities as elected members and in some states the trainings of elected members are not in line with the National Capacity Building Framework. Limited hands on training and exposure visits further widen the learning gap.
- Uneven devolution, activity mapping and enabling legal and political environment across states. Wherever drinking water and sanitation has been devolved, parastatal bodies are still functional with limited accountability towards PRIs.
- Lack of validated database for planning is a problem faced at most Gram Panchayats. Further, prior information about financial resource envelope before the planning exercise still a challenge.

Going forward, this can be achieved through:

- A well designed training strategy in a time bound manner is required to raise awareness level.
- The GPDP needs to be seen as an overarching plans covering Village Action plans under JJM and SBM 2.0. Capacities to prepare GPDPs in participatory and decentralised manner needs to be built with the support of ISA's.
- Transferring subjects as per the 11th schedule of the Constitution to PRIs alone is not the answer, training in terms of how to use it effectively, democratising the information base not only to officers at the state and district levels, but at the Gram Panchayat level is vital. Information needs to reach to the grassroots, to the common people about the different schemes so that they can effectively use it and ask for it during Gram Sabha meetings.
- Various ministries (Ministry of Jal Shakti, Ministry of Rural Development and Panchayat Raj, Ministry of Skill Development and Entrepreneurship, Ministry of New and Renewable Energy, Ministry of Finance, etc.) need to find possible points of

convergence at the planning, implementation and monitoring level. Similar mechanisms are required at the state level.

- The State may take up an exercise to disclose the financial resources available to different tiers of local self-government before the planning exercise begins.
- During the planning process different tiers of PRI should also prepare service delivery plans and demand accountability from the district administration.

To strengthen ISAs, they suggested that these will play critical role as partners in mobilising and engaging the communities to plan, design, implement, manage, operate and maintain in-village water supply infrastructure. These ISAs need to be categorised based on their capacities and catchment area within the overall jurisdiction of PRIs.

For example, NGOs/Trusts/ Foundations having district wide, state wide or interstate presence should work with VOs, SHGs, CBOs, etc., and complement their capacities. For doing so a national level capacity building framework needs to be developed with inputs from states by involving NGOs/ Trusts/ Foundations working across similar domains. This framework needs to be converted into structured training programs. Sub district level ISA's needs to be empanelled by states to implement it. Mechanism also needs to be developed to review the progress.

The entire process needs to be decentralised. For GP-level water and sanitation projects it is advisable to develop a toolkit for the preparation of participatory DPRs. PRIA piloted this model for Water Security Planning in Jharkhand and develop a 'Training Manual on Community Based DPRs '. District Planning Committee's (DPCs) have the constitutional mandate to ensure convergence and integration of plans. Hence, DPCs in respective districts should provide necessary coordination for this.

Kurian Baby added a post construction support business model called WASH India Network (WIN) had been launched. It would build capacities, provide technical backstopping and annual asset management contracts to community schemes. The hub is the Nenmeni Community Water Supply scheme in Kerala and even supports a cluster of 30 small piped water supply in Adimali Panchayath about 200 kms away under Asset Management Contract. There are also excellent models though isolate like in the Sagar and Patharprathima in West Bengal by Water For People. A good model is to federate community schemes and link to local governments at appropriate level supported by professional business start-ups.

There are two distinct challenges in capacity building. If local governments were involved, to add romantic flavour to the institutional formula/model, it would be possible to use the funds that are increasingly channelised through PRIs, e.g., the SFCs/UFCs. But the role of PRIs is seriously constrained in key areas of decision-making and informed choices. The PHEDs/utilities lead the show. This argument is clothed in the so-called technicalities and simply 'we know what is good for them' mind-set.

The second challenge was the tendency to bypass all process elements like consultations, awareness creation and capacity building in the name of 'urgency or we don't have time' after sitting over it for years. The tragedy is the institutional dichotomy of de facto responsibility in water supply with the PHEDs and de jure with the PRIs.

If PRIs were to take the lead role, the service provider like water boards and PHEDs must be made accountable to the local governments legally and contractually with penal provision for contractual violations.

Jon Shepherd highlighted the work of Samerth Charitable Trust in Kawardha, Chhattisgarh. In this work, local teams are trained in hydrology and integrated water resource management and supported by an app that takes them through the processes of good water management. In this way, the expert hydrologist is needed for certain, very technical tasks but much of the work (e.g., water balances) can be done by local teams and panchayats.

With support from Samerth Charitable Trust, panchayats have created their own water security plans and present these to government for funding. Often technical expertise and plan creation has stronger capacity in panchayat and NGOs e.g., water quality testing and ability to create WSPs. e.g., is in Kawardha district.

The ISA (Samerth) provides ongoing help to create WSP that plan, finance, document etc all water needs for the panchayat and supports to engage with district collectors (e.g., arranging meetings, building capacity of district collectors to understand WSP importance). They are needed at all levels but perhaps most at district because this is where funding for infrastructure can be granted. The panchayat level also important for ongoing ownership and management.

They could use a systems thinking approach - mapping all of the influences and power dynamics surrounding communities that lack WASH services, evaluated them and then build up from there. IRC WASH have an excellent WASH system approach that could be used.

Respondents

Name	Organization	Country
Kurian Baby	Independent water expert	India
Chandana N	Indian Institute of Technology	India
Vijaya Venkataraman	Independent water expert	India
Ajit Seshadri	Vels University	India
Ashish Kumar	WASH professional	India
Lalit Mohan Sharma	Sehgal Foundation	India
Liby Johnson	Gram Vikas	India
Poonam Sewak	Safe Water Network	India
Kaustuv Bandyopadhyay and Anshuman Karol	Participatory Research in Asia	India
Jon Shepherd	Frank Water	United Kingdom
Ruchika Shiva	IRC	India
Yogesh Kumar	Samarthan	India
Natasha Patel	India Sanitation Coalition	India
Bharat Patel	Sarpanch	India
Ishwar Singh Thakur	Deputy sarpanch	India
Nirmala Ramdev Patel	Sarpanch	India
Arti Devi	Former sarpanch	India
Maya Mausariya	Sarpanch	India
Nitya Jacob	SuSanA India Chapter	India
Venkatesh Aralikatti	UNICEF	India
Sujoy Mojumdar	UNICEF	India

Further Reading

- Toolkit for NGOs to understand water management: play.google.com/store/apps/details?id=co...water&hl=en_GB&gl=US
- Initiatives on water in Chhattisgarh: www.samerth.org/our-initiatives/
- [WIN Orientation workshop: Exercise in rationale and roles Dr. V.K. Baby](#)
- [LANDS OF SUCCESS Towards water, sanitation and hygiene services for everyone, forever in Patharpratima and Sagar blocks, West Bengal, India](#)
- PRIA's [Training Manual on Community Based DPRs](#)
- www.swealliance.org, a Knowledge Centre at Safe Water Enterprise Alliance with tools to promote knowledge exchange
- [Status of sustainable sanitation chain in rural, semi-urban, and urban regions: a case study of Maharashtra, India](#)
- Report on devolution of powers to panchayats, 2015-16 www.panchayat.gov.in/documents/20126/0/d...a7c4?t=1554884884392
- Roadmap for the Panchayati Raj 19 www.panchayat.gov.in/documents/20126/0/P...9981?t=1554872219971
- [Understanding resource implications of the “plus” in community management of rural water supply systems in India: DWSD, Jharkhand](#)

The Thematic Discussion Series Host

The Thematic Discussion Series on Innovations in WASH was organised and hosted by the Sustainable Sanitation Alliance (SuSanA) on the SuSanA Discussion Forum Platform. It was facilitated by the India Sanitation Coalition. The discussion is part of a series of online discussions taking place under the umbrella of the SuSanA India Chapter.

To view the whole discussion, please go to the SuSanA Forum: <https://forum.susana.org/swachh-bharat-abhiyan-in-india-sba-or-sbm/24571-expertise-and-resources-needed-for-inclusive-and-lasting-water-supply-and-sanitation-susana-india-chapter-thematic-discussion?start=24>

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