ASSESSING THE EFFECTIVENESS OF COMMUNITY BASED WATER MANAGEMENT IN NORTH INDIA

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ABSTRACT

In the context of India, the management of rural water supply by communities has a significant historical background, characterised by numerous documented instances of success. Nevertheless, it is widely acknowledged that communities require assistance from governmental and non-governmental entities to ensure the provision of sustainable services. The objective of the "Community Water Plus" project is to examine the support mechanisms provided to communities in 20 rural water schemes around India that have been recognised as effective. The research aims to evaluate the resources invested in these programmes. This paper introduces the research framework employed and presents the findings of the initial four case studies. These case studies include the World Bank-funded rural water supply and sanitation programme in Punjab, the Jalanidhi programme in Kerala, the WASMO programme in Gujarat, and the TWAD Board's experience with "change management" in Tamil Nadu. The significant findings suggest that State governments, with the assistance of external funding programmes, have established specialised units (e.g., in Punjab, Kerala, and Tamil Nadu) or dedicated organisations (e.g., WASMO in Gujarat) that possess the necessary formal capacity and professional expertise to aid communities in mobilisation, institutional development, and capacity enhancement across various levels. The level of assistance was substantial throughout the capital investment phase, demand generation, requirements assessment, and establishment of management capability, with adequate allocation and expenditure of resources for this objective. Communities and support organisations have demonstrated a commendable degree of professional performance, characterised by a clear delineation of roles and duties. The many forms of partnership encompass elements such as substantial empowerment (community contracting), robust organisational framework, and well-defined protocols for recruiting suitable human capital. However, as the service delivery phase progresses, the level of support provided gradually decreases. Indeed, Gramme Panchayats (GP) assume the primary role of providing support to communities, supplanting the State government in this capacity during this particular phase. However, this frequently leads to a lack of clarity on the delineation of responsibilities between Village Water and Sanitation Committees (VWSCs) and Gramme Panchayats in terms of service delivery and the provision of assistance and oversight. The infrequency of proactive monitoring and support by the State administration is often noted. The role of state governments is reinforced during the phases of capital replacement, since they give extensive technical and financial support. Based on the analysis of the initial four case studies, it can be inferred that effective community management occurs when State governments appropriately delegate authority to community organisations throughout the stages of project planning and implementation. However, this phenomenon occurs exclusively in

cases where State governments possess a robust emphasis on community and an organisational culture centred around such priorities. The ability of communities to cover regular operating and maintenance costs is facilitated by the implementation of water rates and community contributions. It is apparent that communities do indeed fulfil their financial obligations for the provision of regular services. The successful administration of the community was facilitated by the crucial contributions of transparency in account management and the provision of information through Gramasabha.

INTRODUCTION:

Community-management remains the predominant approach for rural water supply services delivery in low-income countries. It originated in response to the perceived limitations of the 'public works department' phase whereby central government failed to manage the many small rural systems it built. The approach has evolved over time and builds, on the insights around appropriate technology, community participation, demand-response approaches, amongst others. .Though this has undoubtedly brought benefits and is often the most appropriate service delivery model, various studies indicate that the community management approach is necessary but not sufficient for sustainable services (Harvey and Reed, 2006, RWSN, 2010, Lockwood and Smits, 2011).All these studies point to the need for ongoing support to community organisations in their service delivery tasks.

The study starts with the proposition that achieving sustainable services delivery necessitates the integration of community participation and community management of suitable technology, complemented by adequate institutional support from the government, which may involve partial delegation to the private sector. It is evident that there exists a necessity to enhance the professionalism of the support components of community management in order to ensure continuous provision of assistance. The requirements and potential for this vary significantly, presumably based on the specific water supply technology, the socioeconomic state of the community, and the ability of the enabling environment to offer assistance. This proposed theory is further explained in Figure 1. This figure demonstrates that in the model of community management with direct assistance, the intensity of community participation is highest, since the community handles the bulk of the executive responsibilities. In the other two modes of direct provision and professionalised community administration, the communities have largely an oversight and decision- making role, but not an executive one.

RESEARCH FRAMEWORK:

The prevailing strategy for providing water supply services in low-income nations is community management. The emergence of this phenomenon can be attributed to the perceived shortcomings of the "public works department" phase, during which the central government encountered difficulties in effectively overseeing the numerous small rural systems it constructed. The approach has undergone development over the course of time and is based on the knowledge and understanding of appropriate technology, community participation, demand-response approaches, and other related factors. .Though this has undoubtedly brought benefits and is often the most appropriate service delivery model, various studies indicate that the community management approach is necessary but not sufficient for sustainable services (Harvey and Reed, 2006, RWSN, 2010, Lockwood and Smits, 2011).All these studies point to the need for ongoing support to community organisations in their service delivery tasks.

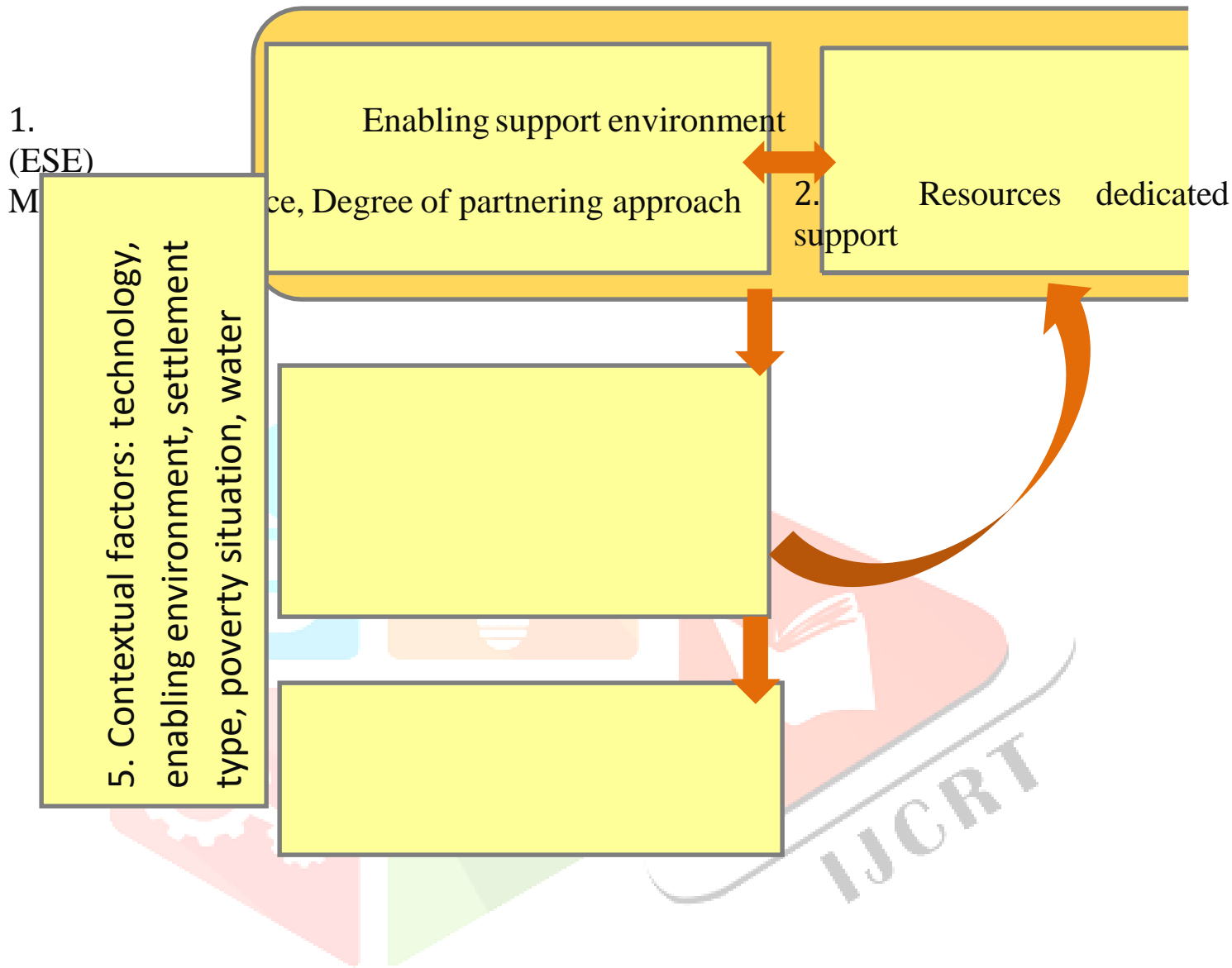**Figure 1; Anticipated level of community participation for different forms of community management**
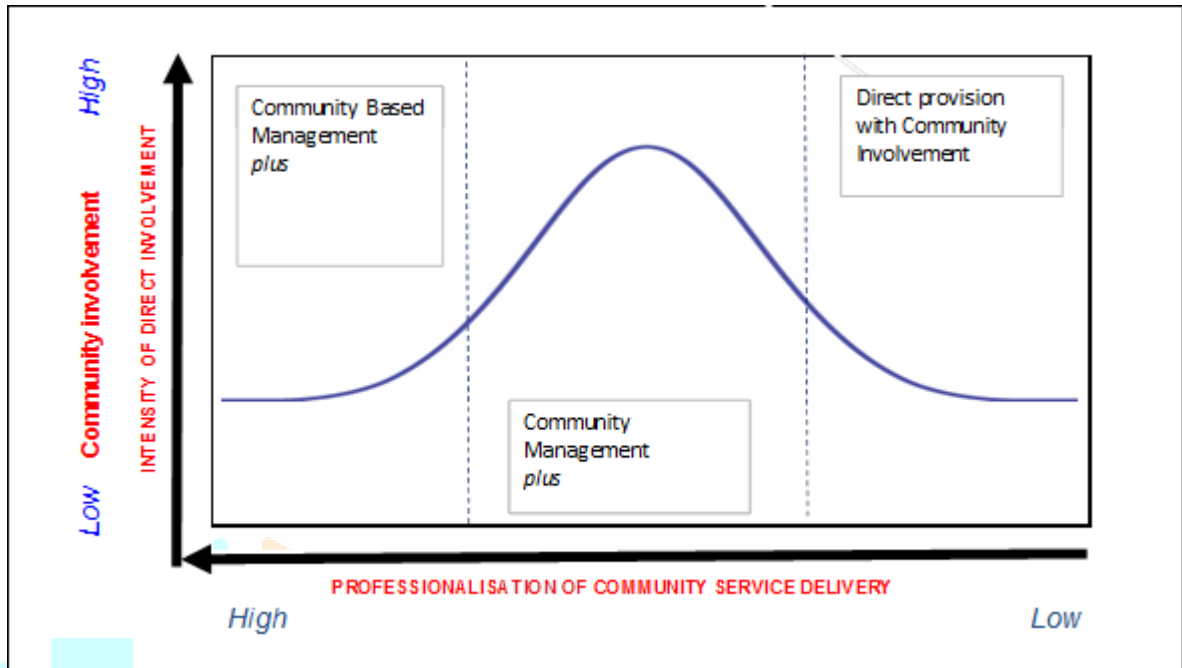
Source: Smits Etal 2014

As of now there is no evidence if one model is better than another, In fact, often the choice for one model or the other is not made explicitly, based on these considerations. Rather, they are the results of preferences at the time services were developed. And the models evolve over time. So what starts as a form of community management with support may evolve over time into professionalised community management, or into direct public provision. With this conceptual model in mind we have developed the following research framework (figure 2):

Fig 2: Community water plus Project research framework (Smits, etal 2014)

1.
(ESE)
M ce, Degree of partnering approach

Enabling support environment

2. Resources dedicated support

5. Contextual factors: technology, enabling environment, settlement type, poverty situation, water

3.   Community service provider
Service delivery model, Performance ,Degree of community engagement

4.   Household service levels and infrastructure status

1.   **Enabling support environment(ESE).** To assess the degree of success in support, we look into the following elements at the ESE level

-    ***Enabling support environment model***, by defining which type of entity (or entities) fulfil these roles, and the relationships between them.
-    ***Performance of the enabling support environment***. This refers to the degree to which the support entities are fulfilling their roles adequately, against a set of performance indicators, looking for example at the types of support they provide and the quality of that support.
-    ***Institutional performance***. This entails the internal institutional process such as leadership, organisational culture and community orientation that allow the external performance to happen.
-    ***Degree of partnering***. This is a description of the type of partnering between the enabling support entity and community service providers

2.   **Resources dedicated to support**. It is to be expected that the degree of success in enabling support and monitoring depends to a large extent on the resources dedicated to these functions. This refers both to the monetary costs (as per the cost categories) as well as non-monetary ones, such as presence of skilled staff and political capital.

3.   **Community service provider**. To assess the degree of success of the service provider three elements are included
-    ***Service delivery model:*** This refers to description of the entity that carries out day-to-day operations &maintenance and administration. This may be a water committee, a *Gram Panchayat*, a

CBO or other entity. In this, the degree to which the entity may have professionalised certain tasks,
e.g. to a paid-for caretaker or mechanic, and its scope and scale of operations.
-    ***Performance***: This refers to the extent to which the service provider is fulfilling its roles in operation, maintenance and administration adequately, as defined by formal regulations or general good business practices.
-    ***Degree of community engagement in service provision***: We believe that community engagement in service provision is a good thing per se, as it empowers users to take appropriate levels of responsibility and oversight over their water services.

4.   **Household service levels and infrastructure status**. Whether a water service can be considered successful is eventually measured by the characteristics of the water supply that users eventually receive, i.e. the service level interms of water quantity, quality and accessibility.

5.   **Contextual factors.** We recognise that what might be required to be successful in one case may not be adequate to be successful in another. For example, the management of a more complex multi- village scheme may require a higher degree of professionalization and support than a simpler handpump system. In order to understand the type and extent of support that is needed to achieve successful service delivery, one needs to relate them to contextual factors such as type of technology, the socio-economic and poverty status of the community, the spatial dimensions of the type of settlement, the water resources situation etc.

6.   **Trajectories.** The organisational partnerships between communities, service providers and support agents have a particular history and trajectory of development that is often not replicable to another situation. Still, insights in the various trajectories of development of these *plus* partnerships may help identify common elements to take into account when promoting such partnerships elsewhere.

FINDINGS:

This section presents the findings of the study, starting with the description of the historical development of the 4 cases and their institutional set-up. After this, through a series of comparative tables, we highlight the key findings from across the 4 cases, focusing above all on the institutional level of the external support entities(ESE).

Case 1: WASMO: Gujarat: The Water and Sanitation Management Organization (WASMO) was established 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. WASMO 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.

WASMOs main strategies include

•   Creating institutions at the village level and strengthening them through continuous capacity building;

•   Focus on Information, Education and Communication (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.

The project schemes of WASMO are executed in two phases, which are then followed by a third phase of ongoing post-implementation assistance. The initial phase spans a duration of three to six months and encompasses the process of community mobilisation. The subsequent phase, which spans a duration of twelve months, entails the tangible implementation and ultimate fulfilment of the project. The third cycle similarly spans a duration of 12 months, during which post-implementation assistance is provided. The introduction of the plan inside a community is facilitated by the organisation of workshops and village meetings. During these meetings, the community is informed about the program's norms, which encompass community participation and the partial sharing of costs by the users, typically amounting to 10% of the scheme's total cost. The government contributes the remaining 90%. A notable aspect of WASMO is the creation of Pani Samitis (Village Water and Sanitation Committees) to oversee the provision of water services. Pani Samitis have emerged as a result of the Gramsabha and function as a permanent committee inside the Gramme Panchayat, which holds a recognised legal status. The empowerment is facilitated by a Government Resolution (GR) that was issued by the Panchayat Raj Department in the year 2002. The Pani Samiti ensures the establishment of a distinct bank account within a nationalised bank to facilitate the flow of cash. The Pani Samiti assumes the responsibility of strategizing, formulating, and executing the water supply systems inside the community. Additionally, it is accountable for the operation and maintenance of the water supply system in the village, as well as the management and organisation of water tariff collection.

The state of Gujarat in India comprises a total of 18,478 villages. As of now, a significant number of 13,540 Village Action Plans have been officially sanctioned. A total of 9707 initiatives have been successfully finished, while 3349 schemes are still under progress. The Water and Sanitation Management Organisation (WASMO) has implemented a programme that includes the recognition of communities that demonstrate exceptional performance in consistently delivering clean water supply. The purpose of these prizes is to foster a sense of competition among the many communities, therefore incentivizing them to enhance their service performance. The Pani Samitis demonstrate their capacity to effectively oversee the operation and maintenance of water supply systems by implementing strategies to recoup costs through user charges levied on homes. Additionally, they get financial assistance from Panchayats and the Rural Water Supply Department to support their endeavours. The majority of localities are facilitating water access through residential pipe connections and public stand posts. In addition, several localities have successfully attained round-the-clock water service. The Water and Sanitation Management Organisation (WASMO) possesses a facility that offers continuous assistance to Pani Samitis in their activities related to operation maintenance and capital maintenance support. However, it is important to note that this help is mostly provided upon request, meaning that it is not consistently available. Pani Samitis seek assistance when needed and endeavour to obtain such help from the Water and Sanitation Management Organisation (WASMO). However, it should be noted that WASMO's limited capacity prevents it from reaching all areas and proactively addressing potential issues. The allocation of resources demonstrates this pattern, as a mere 4-8% of the resources are dedicated to post-construction assistance. These findings also raise the question of whether communities can maintain their sustainability in the absence of on-demand/request services. The provision of professional services for community administration, as illustrated in Figure 1, is of utmost importance.

Case 2: Punjab Rural Water Supply and Sanitation Project (with world Bank Assistance)
The Government of Punjab's vision and long term strategy aims at covering all Punjab villages with 100 % water supply coverage ensuring higher service standards and private service connections to most households. In 2006, the Punjab government launched a program under the World Bank-supported Punjab Rural Water Supply and Sanitation Project (2006-2013) (PRWSS). It aimed to provide all the state's 3161 villages with **70 litres per capita per day**(lpcd) of safe drinking water by Dec 2013. The project sought to make rural communities responsible for construction and management of their own water supply systems and to make the systems financially sustainable, with consumers paying for operations and maintenance on an ongoing basis. Main strategies of the program are

- Rural local governments with user groups are responsible for up gradation and management of all intra-village RWSS facilities and services;

- DWSS to be responsible for managing complex multi-village water supply schemes, but with improved fiscal and operational performance, and for providing capacity support to rural local governments;
- Introducing partial capital cost sharing by users as an expression of their demand
- Financing of recurrent O&M costs by user communities.

The primary objective of the programme is centred around "Community Development" by means of Support Organisations (SOs) providing their services to the Department of Water Supply and Sanitation (DWSS) and Gramme Panchayats (GPs). Additionally, a significant emphasis is placed on "Infrastructure Building" through the implementation of civil works contracts aimed at enhancing drinking water schemes in 3,000 villages, as well as upgrading the existing water supply schemes in 1,600 villages. Additionally, trial installations of defluoridization and reverse osmosis facilities, as well as potable water treatment units, were implemented. Institutional development is actively encouraged at several levels, with the establishment of a dedicated procurement unit aimed at formalising and standardising transparent procurement procedures for the effective execution of programmes.

As of February 28, 2014, a total of 1240 villages have been included, surpassing the initial objective of 1,200 villages, as part of the PRWSS initiative. The villages under consideration have a significant proportion of privately owned connections. Water supply connections have been installed in all houses in 295 villages, while 541 villages have received water connections for 70-99% of their houses. In 404 villages where the number of individual water connections is less than 70%, specialists in Information, Education and Communication (IEC) and Human Resource Development (HRD) who are stationed in District Project Management Committees (DPMCs) are actively working to raise awareness and enhance the capacity of Gramme Panchayat Water Suppl The financial sustainability of operation and maintenance (O&M) in most schemes has been achieved as a result of the significant increase in private connections. The state has achieved significant advancements in the implementation of reverse osmosis facilities for the purpose of providing drinking water. These installations have been funded by the state government and have been carried out in a total of 1811 villages, as of February 2014 (source: http://www.mdws.gov.in/ExternallyAidedProjects). The implementation of a community sanitation system has begun in 98 communities, which falls somewhat short of the intended aim of 100 villages. Group training sessions are being provided for the members of the GPWSCs, focusing on areas such as procurement, financial management, operation, and maintenance. The provision of O&M manuals has been documented on the PRWSS website in 2014. The department has accomplished a significant milestone by introducing the "Shikayat Nivaran Kendra" (Complaint Redressal Unit), which operates on a 24x7 basis to facilitate online registration of complaints. SNK has placed a toll-free telephone number, 1800-180-2468, acquired from BSNL, which is equipped with six telephone hunting lines. Consumers of the Rural Water Supply have the ability to register their concerns and access the most up-to-date information regarding their registered complaints by utilising a unique complaint number assigned to them. The call centre of SNK is equipped with an Advanced Interactive Voice Response (IVR) technology, which facilitates the convenient lodging of consumer complaints. This unit facilitates the resolution of operational and maintenance concerns in a streamlined manner, hence providing support to communities during the post-construction period.

During the period of "strategic planning," the partnership adopts a "collaborative" approach, wherein authorities and communities assume shared responsibility and engage in collective decision-making processes to produce policies or plans. A "consultative" cooperation was noticed, wherein a methodical approach was employed to acquire pertinent inputs from external agencies and communities. In each of the four instances, a comprehensive awareness creation and orientation programme was implemented to adequately prepare the communities for Water, Sanitation, and Hygiene (WASH) planning. In the Punjab region, an estimated 8-9% of the overall budget of Rs 1200 Crores is allocated towards Information, Education, and Communication (IEC) as well as Human Resource Development (HRD). Conversely, in the WASMO Project, the first cycle is specifically designated for IEC initiatives. In the Jalanidhi project, the non-governmental organisation Sheyas, in collaboration with the KRSWA, implemented Information, Education, and Communication (IEC) initiatives. Similarly, in the Community Engagement and Communication (CEC) project, the engineers took the initiative to motivate the community. This stage suggests that it is necessary for communities to adequately prepare themselves prior to implementing the system.

Performance of the enabling support environment.; Several parameters were considered to assess the performance of the enabling environment and the consolidated responses for each of the case study are provided below in table 1:

Table 1: Comparative performance of the enabling support environment

Indicator / Definition	WASMO	PRWSS	Jalnidhi	TWAD-CEC
Degree of professionalization in the ESE				
Formality of the mandate for support	WASMO is a special drive vehicle created for the RWSS with necessary policy mandate..	A clear tripatriate agreement exists between Government t of India, Government t of Punjab and World Bank on the proposed reforms with necessary policy support	World bank and KRWSA started with a pilot and scaled later with cost sharing and cost recovery principles. Policies at the state, regional and GP level are established	CEC has a clearly articulated vision, mission and/or objectives for its support function, which is also supported by a policy mandate
Use of standard tools and instruments for support applied in a structured manner	Adopt professionalized tools and instruments and communities are empowered and trained to manage their services	Usage of tools and instruments exist	From the start the communities are trained and they do use standard tools and instruments	TWAD & CEC has tools and methods applied in a systematic manner (eg. water budgeting), but there is lot of adhoc support to the communities
Existence &use of structured mechanisms for tracking information	Well defined monitoring tools are used for tracking the information exchange but there is still space to improve the system	Information is exchanged on a regular basis with adoption of new technologies eg: metering to check the water usage and loses	Information exchange between KRWSA and Shreyas is good and both of them reach the communities effectively	CEC and TWAD tracks the performance of the service provider through monthly meetings and surveys, and uses that to monitor its own impact
Existence of structured mechanisms for communication with the service providers	There are established channels of communication and staff are available on time but there are still lot of gaps which could easily be sorted out.	Communication channels to reach the communities are good and latest technologies are adopted	Shyreyas the NGO is using Kudumbashree units (SHGs) to pass information to the beneficiaries. The Communication between KRWSA and community is not effective after the intensive capital phase	The ESE has a number of communication channels, but of which only some are easily accessible and well-used
Performance of the ESE				
Variety of support services being provided	All the variety of functions are supported such as technical assistance, monitoring , monitoring, WQM, technical assistance (i.e. zoning), and fund mobilization	All the variety of functions are supported	All the variety of functions are supported such as technical assistance, monitoring , and fund mobilization	technical assistance, monitoring , monitoring, WQM, technical assistance (i.e. zoning), WRM (i.e. water budgeting), investment needs assessment and fund mobilization -
Response time between a request for support and the support being provided	Communities are empowered to do it but whenever there is support available from WASMO district level offices	Problems are sorted out within 24 hours and the pump operators are trained to handle most of the issues	.Shreyas and KRSWA does support the BG and GPs sort out on their own.	24 to 48 hour – employed an operator at the Panchayat level but when additional support is needed a supervisor and additional staff can be called on at TWAD

It can be concluded that a successful community managed water supply program need to have specially designed support structures with necessary policy mandate and established communication and information management systems. Capacity building and training from the

inception of the program improves the community ownership and over a period of time helps in evolving into community management graduating to community empowerment. Further standard procedures and working methods with continuous professional support to the communities on all the operations such as accounting, budgeting, Information management, monitoring, technical guidance and record keeping will result in improving community capacities, however this can also pose a challenge when reaching to maximum number of villages or it can become a major hurdle in upscaling the innovation. Interactions with ESE reveals that having a specialised units with autonomy does contribute to support the community management.

Institutional performance. This entails the internal institutional process such as leadership, organisational culture and community orientation that allow the external performance to happen. The performance of all the cases is reflected in table 2

Table 2: Comparative Institutional performance of the enabling support environment

Parameters	WASMO	PRWSS	Jalnidhi	TWAD-CEC
Leadership	Amicable atmosphere and the officials work in harmony due to good leadership	Strong administrative leadership	Strong leadership who can communicate ideas effectively to the respective communities	Beaurocratic leadership to push CMI concept in TWAD.
Management and Administration	Human Resource Cell assures each official is aware of his/her roles and responsibilities. However, employees fear of job security.	Project management Unit takes care of execution of all the functions	Administrative systems for accounting and budgeting, personnel, and Information and are regularly being monitored	Systems of management and administration exist but lot of insecurity among the temporary employees,
Community Orientation	WASMO's core competency is established by building strong relationships with the community. Tools and methods are employed to interact and have a two- sided interaction with the communities.	PRWSS has specially employed professionals for community orientation	Specially trained staff demonstrate a high sense of morale while serving a particular community.	CEC being an NGO is closely associated with the community .With the small but highly motivated team able to mobilize the community, while TWAD scores very low on this parameter
Technical Capability	Access to all the technical expertise and sub-	Special procurement and	Technical assistance is restricted to 27 months.	TWAD scores highly on its technical

	contracts consultancy services for specialised areas such as ground water geology, etc.	technical units established	However there is no practical research or experiments to improve the uses of technology	capability and ability to influence external institutions. However CEC has limited technical expertise
Developing and Maintaining Staff	clear process for determining skills and the training programmes are designed on need-basis.	Role clarity among the staff but given the Govt systems no incentives or efforts to maintain staff	officers being transferred within/between government agencies and scope for growth is limited hence demotivated	The temporary nature of the programme creates a sense of job insecurity for the younger members of the team who aspire to develop in this sector.
Organizational Culture	Existence of a team spirit among the members. Employees have a sense of ownership and feels proud to work for WASMO.	Employees are committed and show enthusiasm	Staff since inception express a sense of ownership and pride. Though the staff turn is high, the organizational culture is continued as objectives remain the same.	There is a huge change in TWAD with change management.
Organisational Autonomy	Every year the team sets internal goals and works towards achieving them. The team secures sufficient funds from appropriate sources to meet organisational goals.	Limited Organisational autonomy, need to work within the broad framework	Limited Organizational autonomy was observed.	Limited autonomy within TWAD
Interactions with Key External Institutions	Top management stays well informed about external policy, financial, and regulatory issues and actions. The management also maintains good contact and relations with all the key individuals related to a respective project	PRWSS maintains interactions with external Institutions and individuals as there more opportunities due to the presence of World Bank	ESE interacts with key external institutions through an established bureaucratic setup and ensures that its objectives are conveyed and necessary agreements obtained before initiating any work.	Much needed interactions with key external institutions is absent

It can be seen from the table above that, in all the four case studies there is strong leadership observed at both political and administrative fronts. Except for Gujarat, the community orientation of the Government departments is very low, however they bring in NGOs and specially hired staff to perform the functions related to community orientation. Technical capabilities are strong with the department and was very low with the NGOs hence in three case studies there was close interaction with technical and social divisions and both the divisions executed the work hand in hand in a coordinated way to guide and empower the community in scheme implementation. In all the four cases the teams were working in good spirit and they are all motivated to work towards achieving the common goal, however in case of TWAD-CEC and Jalanidhi cases the same tempo was not maintained as the staff got transferred and the same rapport with the new staff was not materialised. Further the temporary staff in time bound projects did have job insecurity. Organisational autonomy was not observed at the department level however the NGOs and special organisations designed (WASMO) did have an autonomy and could able to make decisions and execute the required actions in time which was crucial for the success of the program. In all the four cases the top management had maintained good interactions with key external Institutions and they were up to date with policy changes and the other latest developments at the national and state levels. The CEOs/ Directors of the programs were invited to the national and regional workshops to share their experience for replication in other States.

Degree of partnering:

It is very important to assess the partnerships among the ESE and Village Water and Sanitation Committees (VWSCs) as they enable greater efficiency of work, integrations of skills, expertise, finance and other resources to accomplish both individual and jointly agreed outcomes. In this research, it was critical to understand the relationships between various stakeholders and how they have contributed to the processes for successful WASH services, and how that has changed over the four phases of the service delivery cycle. We use the partnering continuum (Stef etal 2014) as explained in the concept note for CWS.

During the "Capital Investment" phase, several forms of partnership may be observed, exemplified by notable instances of substantial empowerment such as community contracting in Jalanidhi, Kerala. Additionally, robust organisational structures and well-defined procedures for recruiting sufficient human resources are evident in cases like WASMO. However, in this particular phase, the connection between the government and communities becomes collaborative as they jointly assume responsibility for making decisions pertaining to hardware development, such as infrastructure, and software development, such as capacity building. In the instance of the Water and Sanitation Management Organisation (WASMO), collaborative efforts are undertaken with communities to develop a Village Action Plan (VAP). Conversely, in Kerala, the Kerala Rural Sanitation and Water Association (KRSWA) undertook a feasibility assessment to determine the appropriate course of action, leading to the formulation of an action plan. In Tamil Nadu, the process involved a cooperative effort between engineers and the local community to establish the action plan. The connection between parties is characterised as contributing when they share the costs associated with implementing a project or initiative. Both governmental entities and local communities collaborate to combine their financial resources in order to cover the expenses associated with capital investments in hardware. In the event of WASMO, it provides 90% of the expenses, whereas CSP contributes 10% of the expenses. The collection of 10% is derived from families, with the possibility of Non Resident Indian (NRI) payments being included in some situations. In the Jalanidhi plan, the cost sharing arrangement consists of 75% funding from the World Bank, 15% contribution from scheme beneficiaries, and 10% contribution from the Gramme Panchayat. In Punjab, households made contributions ranging from Rs 400 to Rs 800 due to the perceived hindrance posed by the 10% contribution requirement in initiating the plan. The ESE and CSP collaborate in a joint effort, combining their labour and resources to facilitate the implementation of hardware and software provisions. This collaboration may be characterised as a "Operational" partnership, wherein both authorities and communities contribute to the shared workload. The collaboration between ESE and CSP is characterised by a transactional nature, wherein support-sharing is employed to combine resources. This occurs during the first phase when ESE and CSP engage in negotiations to develop an implementation plan with the community. Following this, ESE approves the budget once the community has made their contributions. The bureaucratic form of collaboration becomes apparent when the ESE organisation supplies the CSP entity with a defined framework for the provision of hardware and software during the implementation process.

During the time of service delivery, the level of support provided gradually decreases in intensity. Indeed, Gramme Panchayats (GP) assume the primary role of providing support to communities, supplanting the State government in this capacity during the current era. However, a common issue arises where there is a lack of clarity on the respective responsibilities of Village Water and Sanitation Committees (VWSCs) and Gramme Panchayats in terms of service delivery and the provision of assistance and oversight. This often leads to a blurring of borders between these two entities. During this phase, both Village Water and Sanitation Committees (VWSCs) and Gramme Panchayats (GPs) have the ability to utilise the hierarchical framework of the State government. However, this method is more oriented towards meeting specific demands, with the government offering help only upon request. The Client Service Provider (CSP) engages in consultation exclusively when they require a particular technical service. The operational maintenance costs are financed by the collection of user charges from families and funding provided by Panchayats.

The involvement of the ESE (Exceptional Student Education) is limited in the various phases, and there is a lack of proactive monitoring and assistance from the State government. The role of state governments is reinforced throughout the periods of capital replacement, when they give extensive technical and financial support. In the cases of WASMO and CEC-TWAD, the communities will once again turn to the External Support Agencies (ESAs) for both technical and financial assistance. However, in the cases of Jalanidhi and PRWSS, the communities independently manage their water supply systems by engaging professional agencies to carry out tasks such as motor replacement or pipeline extension. At this time, the function of the ESE has become significantly minimal. However, the VWSCs do engage in consultations to seek technical input. As evidenced by the data, it is apparent that the communities require the assistance of external agencies in order to

effectively carry out their various tasks. However, considering the many and magnitude of the villages, one would question the feasibility of such help.

It is conceivable for the Environmental help Engineers (ESEs) to provide assistance to General Practitioners/Village Water and Sanitation Committees (GP/VWSCs). However, in the event that "on demand/request support" is not available, the communities may have significant difficulties in ensuring a sustainable water supply. However, as seen in the state of Kerala, community contracting has emerged as a viable approach to progress in this regard.

Partnerships exhibit considerable dynamism and progress through diverse stages, necessitating distinct forms of assistance tailored to the specific needs of communities and the corresponding partnerships. It is noteworthy to acknowledge that the partnership continuum encompasses many stages, including consultative, contributing, operational, and transactional. However, it is crucial to highlight that the bureaucratic partnership is mostly absent, with the exception of some technological designs. Communities rely heavily on Educational Support Executives (ESEs) for the majority of their operational needs, and it is apparent that a lack of foresight on the part of these ESEs is prevalent. According to Nayar and James (2004), the implementation of structural measures for community engagement, such as the enforcement of user charges, the establishment of Village Water Committees, and the delegation of responsibility to communities, is insufficient on its own. These measures must be complemented by other non-structural strategies.

In order to foster community ownership and responsibility for water service delivery, it is essential to implement structural measures such as community mobilisation, participation (with a particular emphasis on women), and capacity building. Based on the results, it can be inferred that the community management with direct assistance model (Figure 1) was implemented in all three case studies, however in Kerala, community management with professional support was seen.

CONCLUSIONS:

The initial four case studies demonstrate that State governments, with the assistance of external funding programmes, have established specialised units (e.g., in Punjab and Tamil Nadu) or dedicated organisations (e.g., WASMO in Gujarat) that possess the requisite formal capacity and professional expertise to facilitate community mobilisation, institutional development, and capacity building across various levels. Notably, these programmes provided substantial support during the phase of capital inv The aspects of demand development, needs assessment, and management capacity creation were effectively handled, with appropriate allocation and use of resources. Support organisations and non-governmental organisations (NGOs) have played a crucial role in enhancing community capabilities from the start of the project. The agencies have demonstrated a commendable degree of professional performance, characterised by a clear delineation of duties and responsibilities. The many forms of partnership encompass notable instances of heightened empowerment, such as community contracting, as well as robust organisational frameworks and processes, along with sufficient allocation of human resources. However, as the service delivery phase progresses, the level of support provided tends to decrease in intensity. Indeed, Gramme Panchayats assume the primary role of providing support to communities, so supplanting the State government in this regard. However, frequently this leads to a lack of clarity on the delineation of responsibilities between Village Panchayat and Water and Sanitation Committees, with regards to the execution of service delivery tasks and the provision of assistance and oversight. During this phase, both Village Water and Sanitation Committees (VWSCs) and Gramme Panchayats (GPs) have the ability to utilise the hierarchical framework of the State government. However, this method is more oriented towards meeting specific demands, as the government only offers assistance upon receiving a formal request. The infrequency of proactive monitoring and support by State government is a notable observation. The role of state governments is reinforced during the periods of capital replacement, since they give intensified support. Based on the analysis of the initial four case studies, it can be inferred that effective community management occurs when State governments appropriately authorise community organisations at the project implementation stage. However, this phenomenon occurs exclusively in cases when State governments exhibit a robust

emphasis on community-oriented policies and possess an organisational culture that prioritises such endeavours. It is also evident from our analysis that the process of service delivery involves a combination of "community management with direct support" and "direct provision by public bodies". This is observed via the active involvement of general practitioners (GPs) in assuming various managerial responsibilities within the VWSCs. This action serves as a strong indicator that the Rural Water Supply Departments should consider implementing a policy shift. Specifically, they should consider including NGOs or experts in the task of community orientation, rather than insisting that engineers take on these responsibilities.

Based on the analysis of the initial four case studies, it can be inferred that effective community management occurs when state governments appropriately authorise community organisations during the implementation phase of a project. Furthermore, it is important to note that partnerships should be tailored to the specific needs of the community, as there is no universally recommended type of partnership. However, it is evident that collaborative and consultative partnerships do contribute to the success of community management.