CHAPTER 2

COMMUNITY DRIVEN DEVELOPMENT

This chapter deals with a comprehensive review of literature pertaining to the research. It is divided into three parts.

Part I: The trajectory of CMRWSS schemes is traced from literature, outlining its evolution globally, in India and in Kerala. It critically examines the history to contextualize the current theme of the research.

Part II: Community management is multi-dimensional and wide in its scope. Many of the issues have individually merited research. In this section, community management is subjected to PESTEL analysis to provide a broad picture.

Part III: Literature on CMRWSS schemes provides indications about what aspects make up the model/philosophy, rather, their model constructs. The research evolves from these constructs. They are examined and their variant models are discussed.

These three parts are followed by a critique on CMRWSS schemes and in particular, Jalanidhi. It concludes by defining the lacunae for the research.

2.0 INTRODUCTION

"By means of water", says the Koran, "we give life to everything." (Human Development Report, 2006). Water is a multi-faceted resource. It is a life giver, if not life itself, it even absorbs death (Black & Talbot, 2005). It affects the health and well being of the society. It is needed for the economic security of society, for the development of industries and biomass. It supports water based ecosystems. The right to water is necessary for any human being to lead a life of dignity (Saha and Mukherjee, 2009). It is a symbol of many religious and cultural practices associated with rituals, festivals and art forms (Project Concept Paper, 2008). Thus there are ethical, social, ecological, legal and cultural dimensions to water.
All important civilizations that stood the test of time originated in the river valleys. The reverence to water and water bodies attributed by many of them kept up a balance between water use and maintaining water sources on the earth. This holistic perspective of water awareness embedded in human culture was lost in a somewhat skewed pursuit of technology at some point of time. This is illustrated in the following sections.

PART I

2.1 TRACING THE TRAJECTORY OF COMMUNITY MANAGED RURAL WATER SUPPLY AND SANITATION

Global literature speaks about the evolution of water management. It can be seen that the pattern everywhere is the same (Turton, 2002), with just minor differences based on time and community. The following section attempts to sketch the pattern.

2.1.1 Global Scenario

Sijbesma (2001) observes that progress, prior to the 1950s, was not due to developmental projects, but through a “long process of experiment and innovation through which people built up their skills, knowledge and self confidence to shape their own environments”. The emphasis was on developing water and not on managing it (Report of the Expert Group on Ground Water Management and Ownership, 2007). The control exercised by people over the environment diminished in the 1950s and 1960s, with increasing dependence on technology and with the responsibility of the provision of water falling on the government. This gave rise to two phenomena. First, the public sitting back to devour the services provided by the governments and in the process becoming alienated from their own environment, and second, the emergence of a “discursive elite”, a manifestation of “institutionalization of resource capture”, characterized by technical knowledge and supported by government policies (Turton, 2002).

Even with huge investments in public water supply, many of the developing countries, failed to provide access to safe drinking water to its burgeoning
population with the already installed infrastructure. Low technical and managerial skills also led to underperformance of public water supply systems (John, 1997). Unsound financial and economic principles such as the high capital cost of infrastructure, low investment in maintenance and low priority given to upgrading of facilities, and public perception of water as a right were some of the reasons that led to the failure of governments to meet the drinking water and sanitation requirements of the populace (John, 1997, Madhav, 2008). In spite of the best efforts of the governments, the aspired coverage of water supply and sanitation could never be achieved; even the projected figures are far from true. Many governments have taken cover under the fact that even the World Health Organization (WHO) and United Nations International Children’s Emergency Fund (UNICEF) are not clear on what they mean by the terms “adequate” level of service and “safe” quality of water (Lodhia, 2006). In short, major water supply services undertaken by governments failed to be satisfactory.

Water scarcity has two orders: the (quantitative) scarcity of water and the more important one, the socio economic capacity to adapt to scarcity (Turton, 2002). When the Dublin Statement on Water and Sustainable Development (1992) brought in an economistic view, encompassing the finite nature of the resource, hinting at reduced budgetary support and underscoring the necessity for revenue generation of the service; financial, along with social involvement of the users became obligatory.

The UN’s declaration of the 1980s as the International Decade for Water Supply and Sanitation brought about major changes in rural water supply. The Village Level Operation and Maintenance (VLOM) approach, which it advocated, later embraced community management with emphasis on ownership, participation and decision making by the community. The present day discourses on water governance discern more possibilities on the society, than on the state. The governance agenda can also be seen to focus on democratization, decentralization and devolution of power, while exploring the “non-state spaces” such as community and civil society (Joy et al, 2008). In the wake of formulation of a “comprehensive development framework” that was adopted world over and
reflected in the MDG, it is critical “for individuals, organizations, and institutions in developing countries to embed capacities to formulate and “own” local and national development goals and processes within a country-driven strategy” (Nair, 2003).

The constitution and cohesion, characteristic of rural communities, make them fertile ground for experimentation with variant models of service delivery. A number of existing management models are identified, with different degrees of public and private participation. Five broad groupings are:

1. Build it, leave it, and hope for the best, where no one is responsible
2. Community-based operation and maintenance (O & M), which is found to be insufficient
3. Community-based O & M with external support, which imply a certain degree of professionalization
4. Commercial models involving the private sector in management and maintenance, and

Thus, with more possibilities of service provision pointing to the user, the wheel turns a full circle and the management of water returns to him.

2.1.2 Indian Scenario

Archeological remains in the Indus Valley indicate that an efficient water management system for drinking water and irrigation existed in the Harappan civilization as early as 3000-1500 B.C. Varahamihira’s Brihatsamhita and Kautilya’s Arthasastra speak about the advanced knowledge prevalent in hydrology and water management (Murty, 1987, Black & Talbot, 2005, Naz, 2010, Narasimhan & Gaur, 2010a).
The Indian rulers of the pre colonial era followed a decentralized system of water management with sophisticated technology and well defined water rights, the major finance taken care of by the monarchy and the day to day management, by the locals. The colonial period witnessed massive technological contributions, but the notion that government was responsible for water supply services and there was no need to involve people in its management began. The interplay of social, ecological and human dimensions in the performance of services were overlooked by the authorities, which resulted in the failure of many a scheme (Naz, 2010, Black and Talbot, 2005).

Black and Talbot (2005) opine that post-colonial independent India witnessed a centralized, top down approach and the provision of large scale infrastructure was considered synonymous with development. The indigenous water management systems faced the threat of becoming extinct. There was no role envisaged for the rural classes, they were considered “grateful recipients”, ready to devour whatever was handed down to them by way of development. Whether a democracy permits people to share in the ownership of the resource with the government or whether the State and the people are different, is still a matter of debate (Narasimhan and Gaur, 2010b). The fact remained that the schemes charted out for the people, like provision of water through hand pumps and bore wells, were far removed from their preferences and expectations. In 1950, the constitution of India conferred the duty of providing clean drinking water and maintaining public health standards to the State.

The period starting from 1969 gave more emphasis to policy-driven programmes than technology-driven ones. The eleventh schedule of the Indian constitution recognized rural drinking water supply as a State subject among those entrusted to the Panchayats by the State. However, the enormity of the problem prompted the Central government to supplement the efforts of the State government by providing financial assistance under the Accelerated Rural Water Supply Programme (ARWSP) introduced in 1972-73. It was meant to address the problems of poor availability, water quality and sustainability of drinking water sources and systems (Economic Review, 2010) but when it failed to perform, it
was withdrawn in 1974-75 and the Minimum Needs Programme (MNP) was introduced. This also fell short of expectations and that led to the re-introduction of ARWSP in 1977-78 (Performance Audit Report, 2008).

The compartmentalization of water use into two: water for agriculture and water for health, was reflected in the state and central policies. In India, “safe” drinking water is not synonymous with good health. Though household and environmental sanitation are equally important, the emphasis given on rural water supply is not usually extended to sanitation (Black and Talbot, 2005). Given the socio cultural background and the spatial, temporal complexities of India, the perspective of the international community that “safe” water can be the solution for better health is unfounded. However, the realization that the concerns of accessibility of “safe” water and sanitation can be addressed through a hand-in-glove approach prompted India to become a party to the International Drinking Water Supply and Sanitation Decade from 1981-1990.

In 1986, the Centrally-sponsored Rural Sanitation Programme (CRSP) was launched with the overall objective of improving the quality of life of the rural people. The same year, ARWSP took the garb of a mission approach by stressing on improved performance and cost effectiveness possible through increased scientific and technical inputs. This Technology Mission on drinking water and related water management, the National Drinking Water Mission (NDWM) was renamed as Rajiv Gandhi National Drinking Water Mission (RGNDWM) in 1991-92. The contributions of this Mission have been instrumental in giving a different perspective to rural drinking water supply.

A restructuring was evident in the sector when the 73rd and 74th amendments to the Indian Constitution in 1994 assigned the responsibility of providing drinking water to the Panchayati Raj Institutions (PRI). Unfortunately, their inherent weakness in allocating funds and limited technical ability (Rural Drinking Water and Sanitation in the Eleventh Plan Period, 2007), together with the premature status in terms of responsibility and capability to handle the service was reflected in insufficient service delivery. Coupled with the fact that the concept of community participation has drawn international acclaim and confidence of
funding institutions, approaches to interlink community management to the state and national initiatives became wide spread. In 1998, steps were initiated to revamp the ARWSP and to institutionalize community based, demand driven models in rural water supply programmes in which costs are shared by the users as well. Twenty percentage of the annual outlay was earmarked for those State Governments which undertook community-based rural water supply programmes.

The Department of Drinking Water Supply (DDWS) was formed in 1999 under the Ministry of Rural Development (MoRD) to give emphasis on rural water supply as well as on sanitation (Rural Drinking Water and Sanitation in the Eleventh Plan Period, 2007). The Sector Reform Project (SRP) and the Total Sanitation Campaign initiated in 1999 were moves to institutionalize community participation.

SRP marked the shift in the role of the government from provider to facilitator and included community participation in planning, implementation, O & M of the schemes. This marked the paradigm shift from supply driven to demand driven mode, centralized to decentralized service delivery and top down to bottom up approach. The user changed to the owner. Even as these reform initiatives were introduced in the ninth five year plan, it was firmed up and scaled up in the tenth plan and the need to pool the resources and service of government, NGO and external support agencies to bring in social mobilization and community empowerment was realized (Swajaldhara Guidelines, 2003). SRP transformed into Swajaldhara in December 2002 (Performance Audit Report, 2008).

The rural water supply programme was well funded in the tenth five year plan as it was under the aegis of the Bharat Nirman Programme (launched in 2005), which was intended to be “a time-bound business plan for action in rural infrastructure” (Lalvani, 2010). It aimed at covering all uncovered habitations and combating the issues of slip back and water quality issues in a period of four years by 2008-09 (Performance Audit Report, 2008). However, the tenth plan could achieve completion of only 11,046 schemes with an expenditure of Rs. 610 crores, as against the target of 19,385 schemes at a cost of Rs. 1,069 crores which was meant to achieve coverage of all habitations (Rural Drinking Water and Sanitation...
in the Eleventh Plan Period, 2007). Anyway, the investment made by the state and central governments, taken together, in the rural water supply sector since the first five year plan is of the order of Rs. 66,000 crores (Performance Audit Report, 2008). The National Water Policy (2002) also aims at integrated water management.

On the whole, Indian initiatives in the water resources sector are considered to be comprehensive and commendable (Water Assessment Report, 2002). However, the Mid-term Appraisal Report of the Eleventh Five Year Plan (2010) recognizes some of the fundamental issues in the sector and plans measures to address it. Lack of inter-ministerial and inter-departmental partnerships and communication prove to be detrimental in solving water issues. The effectiveness of the scheme lies in the role of the government in drafting the policies and strategies that would be instrumental in assessing the needs of the community regarding the priority and level of services.

Along with these government initiatives, a parallel movement could be seen, inspired by Gandhian philosophy, which never allowed the local wisdom of water management to wither away. This movement was kept alive by ingenious communities and NGO, at least in some regions of India (Black and Talbot, 2005). Nevertheless, the community has to be equipped to hold the reins of the resource again, with due regard to regional, temporal, climatic, social and cultural differences that has set in within the meantime.

2.1.3 Water Supply Practices in Kerala

According to the age old traditional practices in Kerala, domestic well water was used for drinking and cooking purposes and surface water available from ponds, tanks and streams was put to other uses. The positioning, size and use of the water bodies were the result of a fusion of scientific and socio cultural practices (Thampuran et al, 2005). This ensured good water management and accorded a revered status to water.
In the bygone days, provision of water was looked upon as a social commitment in the rural areas. The haves took it upon themselves to provide water to the have-nots. Figure 2.1 shows the remnants of a system from Pallavur, Palakkad District, Kerala. There is a pathway from the public road to access the well in a domestic property. Water could be drawn by anyone, any time, without entering the premises of the house.

To take care of the rapid growth in population and the inaccessibility and inadequacy of water sources in rural areas, public water supply system was introduced. This led to the introduction of deep bore wells and hand pumps (Namboodiri, 2003). When the KWA was formed in 1984 from the erstwhile Public Health Engineering Department (PHED), it was vested with the responsibility of providing water to the entire population of Kerala.

The dispersed settlement that exists in the State would make one think that the centralized system which the KWA adopted is a good option, but it has been proved otherwise. On closer examination, it can be seen that, in most cases, there are only isolated pockets of households deprived of own wells and a large piped water system is not needed to cater to their requirements (Namboodiri, 2003).

A study by Socio-Economic Unit Foundation (SEUF) reveals that about 80 % of the rural population is dependent on well water (Mathai, 2003) and that Kerala has the highest well density of 250 per sq. km. (Morrison, 2003). Though domestic
connections were also provided, the distribution network of the centralized system of KWA does not ensure the proximity of the public stand pipes to the houses of the beneficiaries, instead provides piped water through a network of street taps usually located along the major roads of the locality, notionally following a norm of one tap per 250 people. The natural preference to well water and the lack of proximity to the source have resulted in the rural populace failing to consider this provision as the optimum solution (Santhakumar, 1998).

Non availability of a suitable, sustainable source and the undulating terrain peculiar to the State of Kerala have led to high initial investment in the centralized schemes (Performance Assessment and Service Improvement Plan of CMWSS in Kerala, 2009). “Target-driven programmes” of the government frequently failed to provide and maintain the infrastructure needed for the centralized water supply system (Morrison, 2003). Large command area and poor O & M have worsened matters. Low tariff rate coupled with poor revenue yield makes the centralized supply system operationally inefficient. Nisha (2006) also points to the common failures of inadequate coverage, unaccounted-for-water showing inefficiency in distribution and financial inequalities shown by low revenue generation and high expenses.

Kerala’s decentralization process, called the People’s Planning Programme, started in 1996 and was characterized by the transfer of powers to the local bodies (popularly called the Local Self Government Institutions (LSGI), with the GP at the lowest tier, Block Panchayat (BP) at the intermediate level and the Jilla Panchayat (JP) above that), devolving a large proportion of the state plan funds to them as ‘untied grants’ for developmental works. Since large water supply schemes needed technical expertise, KWA continued to implement water supply schemes without public participation.

However, KWA repeatedly proved its incapability to meet the drinking water needs of the State on its own, and welcomed the participation of the central government in the form of bilateral and multilateral funded projects. Even this proved inadequate and prompted the common man to come up with initiatives to quench his thirst. The Olavanna model at Kozhikkode and the SRP with central
assistance were enterprises which reposed more faith in the users. The empowerment of the society and its participation in developmental activities brought about by decentralization came to aid. Thus today the rural water supply sector has an assortment of management models, in which the role of the common man as the water manager is being increasingly recognized.

The section thus recapitulates the path trodden, affirming that the underlying process of community management is all about the common man being alienated from nature through external interventions and returning to don the role again, wiser but poorer.

PART II

2.2 PESTEL ANALYSIS OF CMRWSS SCHEMES

United Nations Development Programme (UNDP) (2007) defines water governance as “the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society” (Ballabh, 2008). Contrary to public schemes, the policies and operation of which can be changed with time, CMRWSS schemes require an established system before it is handed over to the community. A PESTEL analysis is done here, stressing on the various dimensions that influence the making of a good community managed model.

2.2.1 Political/Institutional Dimension

“Democracy is based upon the conviction that there are extraordinary possibilities in ordinary people” (Fosdick). The potential of the “rational human being” to take individual actions and make changes in his own life (Appadurai, 1996) is explored through the concept of community management. Conversely, Babu (2009) argues that “some of the fundamental rights like social and economic security or the right of poverty or of being in bad health, which the community surrendered before the state in a social contract”, has been re-vested as duty to the citizen through community management. He states that the guise of “active citizenship” is conveniently used by governments to evade the responsibility of service delivery.
Naz (2010) shares the view by stating that the government, in the guise of “proclaimed adherence to democratic commitment” has escaped from its ministerial and financial responsibilities. In the context of the governments failing to deliver, the perspective of the common man to this argument is, however, lacking.

Even as the criticism regarding escapism of the government from providing services remain, there seems to be an understated approval for community management as a plausible solution for rural water supply. Nisha (2006) subtly applauds the concept from an institutional and economic perspective, and suggests that co-management, rather than absolute community management, would be more effective.

Water institutions of the government have an organizational structure and staff mixture compatible to the large scale infrastructure programmes that it normally attends to. Community managed programmes are a smaller fry to them, unimpressive and requiring a different set of skills (Sijbesma, 2001). A transformation of institutional cultures would call for changing the rigid precedence, and also succumbing to a system of accountability, transparency and openness (Saleth and Dinar, 2004).

On the other hand, NGOs are better off in reaching the communities, especially the socially disadvantaged groups. Even though they differ in integrity and efficiency, the international donors are generally inclined towards their services (Black and Talbot, 2005). The difficulty, however, arises when they work against national policies. This turns out to be counterproductive, especially since the NGOs have the freedom to exit the scene after the work, unlike the government (Perspective No. 4, 2009).

That decentralization intends to “tap dormant local resources in the form of monetary donations, material contributions and voluntary labour …..and improve the efficiency of implementation” has been admitted by Isaac (2001). The tendency for decentralization to deliver “private social work” and “shared public poverty” cannot be ruled out (Törnquist, 2007). As was expected from a society in
which rights-based political action has helped social progress of the downtrodden, the power of social capital ("inter-personal relations or small groups or community networks" (Ellickson, 1991) to retain the trust among members is found to be on the decline (John, 2002). Thus the concept of community management, rooted in decentralization, runs the risk of lack of cohesion of the society in the face of selfless development.

2.2.2 Economic Dimension

The world is divided on the opinion to pay for water. Iyer (2005) points out that treating water as an economic good and levying 'user charges' with the aim of full cost recovery may be acceptable for irrigation and industrial use, but using the same yardstick to assess "water for life" (drinking water) is unfair. The counter argument is that the sense of ownership inculcated through cost sharing will invest in the community the right to dictate the technology and the level of service, leading to improved service delivery.

Hence water may be priced, but it should be reasonable, with full economic pricing to the affluent, penal pricing beyond the basic minimum need, subsidization to the less affluent, and subsidies or free supplies to the very poor (Iyer, 2005). James (2010) also suggests that the manner in which beneficiaries are made to pay, (by cash or kind), making them pay in installments and demonstrating the possibility of improved service before making them pay for it are important with regard to cost sharing. Bearing the cost of water above the basic minimum need by the user is justified in terms of economy and resource utilization.

Contrary to other projects, a community managed scheme has too many investors, attending to different phases of the project, at different points of time. Since the coverage for water supply and sanitation aspired for rural population cannot be achieved by government funds alone, assistance is provided by funding institutions such as the WB, WHO, UNDP, the European Union and the like (Rao
et al, 2008). However, varying degrees of financial commitment of the users in the form of capital cost sharing, bearing of O & M charges and financial involvement of governments are required to provide cushion to the system. Though variant models of community management exists, those which demand a share in the capital costs and/or full/partial sharing of O & M costs have become popular.

However, the willingness to pay under adverse circumstances should not be interpreted as affordability to pay. The incapability of a community to raise sufficient funds for the project initially is often reflected in trimming the components and neglecting the sustainability parameters. What is forgotten in the process is that it is much too difficult to keep a service running than establishing it (Perspective No. 4, 2009). This practice proves to be detrimental in the long run, when the community has to find by itself, funds for improving the service and to keep it running. Hence a balance has to exist between the economic value of water, cost of infrastructure and the price charged for the service.

The value that people attach to the service is more attitudinal than economical; a service can be rated higher in value than its cost by attaching more importance to water uses and investments. A holistic view of the life cycle costs would help the donors, implementing agencies and the community to design and run sustainable services.

The donor agencies may be able to achieve higher targets, and slippage in coverage goes unnoticed since they withdraw from the scene after the project is launched. It has been found that funds are being utilized for constructing new facilities and not on rehabilitating or maintaining the existing ones. Since the donors and the government are under pressure to spend the funds and to project their achievements, they are compelled to adopt a business-as-usual approach, than try a new one. Moreover, ambiguity exists in the implementation of the demand driven model with cost sharing, community contracting and decentralization of financial functions in the PRI.
2.2.3 Social Dimension

The concept of community management revolves around the centrality of the citizen to governance. As first hand users of a service, functioning of a service started with the involvement of the community. Involvement later broadened into participation and shouldering the responsibility of operation and maintenance of the system. It finally evolved into community management which includes all that is needed for a community to keep the service operational (Narayan, 1995).

The bureaucratic inputs focus mainly in setting up infrastructure so that water is supplied in abundance. As of now, the environmental issues related to over indulgence have to be realized by the water users who can double up as water managers, exercising restraint on water use.

Community Management should work on the principle of strengthening the capacities and willingness of communities to take on the ownership and responsibility of the service. Capacity building is particularly essential for larger projects and/or projects employing complex technologies (Water Assessment Report, 2002). Governments and funding agencies project the achievements in the sectors in terms of figures. The Pythagorean theory of “all is number” does not hold good, because community managed schemes being what it is, owes its success and sustainability to factors like empowerment and cohesion of the community, knowledge and skills etc. which are difficult to quantify.

The earlier argument that the setting up a new service is more important for authorities is evident from their complete exit from the scene after the schemes are launched. Any amount of community empowerment fails to suffice the capability required to handle technical and financial issues which crop up in course of time. It is seen that communities find it difficult to manage all the tasks related to O & M - major repairs, asset replacement, conflict resolution, legal issues etc. (Briefing Note, 2009). Poor leadership, lack of transparency, equity issues etc. can worsen matters (Water Assessment Report, 2002). Shifting the power to beneficiaries requires time (James, 2010).
It is the discretion of the community to decide on the degree of exercising their voice and choice. The community may also choose to shoulder or delegate responsibilities related to scheme functioning. Each community being unique, it is acceptable that these choices may be taken based on its inherent characteristics. (Narayan, 1995).

2.2.4 Technological Dimension

The technological demands of a community managed water supply scheme are totally different from a public service. The concept of community management entails that the technology

- is appropriate since the solution to water supply is to be, as far as possible, locally found
- is simple so that the O & M requires a minimum of external assistance
- is of low cost, so that it is affordable
- is sustainable, replacing “exploitation” with “conservation” consciousness
- utilizes the concept of basic minimum need
- acknowledges the need for equity of water supply (Mid-term Appraisal Report of the Eleventh Plan, 2010)
- ensures quality of water through proper treatment
- makes use of different sources for diverse uses, giving due regard to water scarcity
- considers the suitability of the technology in adopting a traditional system or a more advanced system or a combination of the two to complement each other. The last option becomes desirable because untreated water can be used for purposes other than drinking (Sivanandan, 1996). The ingenious traditional systems can be used for water conservation (Mid-term Appraisal Report of the Eleventh Plan, 2010)
2.2.5 Environmental Dimension

Quality, an important aspect of rural drinking water supply service, is often overlooked. Some of the issues on quality of drinking water in India include absence of standards and norms, irregular testing and monitoring, lack of adequate statistics on quality, failure of measures to improve the quality and lack of public awareness and participation. A consensus has not been reached on the concept of “safe drinking water”. It is defined as the water supplied from a tap, tube well or hand pump, situated within or outside the premises, without specifying the quality of such water (Lodhia, 2006).

The quality of water is affected by pollution and over-exploitation of ground water. Point or non-point source of pollution is caused by discharge of effluents, unhygienic individual practices, temporal peculiarities of the region etc. The lack of a long term vision in using tube wells as the source for catering to the irrigation and drinking water needs was the result of the failure to recognize the unity and integrity of the hydrological cycle, referred to as “hydroschizophrenia”. This has led to the over extraction of ground water, which is aggravated by under pricing and subsidies. This is one of the reasons for “slippage” in coverage. It has also contributed to chemical pollution of ground water such as rising levels of arsenic, fluoride, iron, nitrate and salinity, which today add to the problems of biological pollution (Mid-term Appraisal Report of the Eleventh Plan, 2010).

Namboodiri (2003) provides an insight into the planning, institutional, social, economic and technical aspects of community managed schemes through a case study on the decentralized water supply scheme implemented in Chekode Panchayath of Malappuram District of Kerala. While he opines that the danger of ground water exploitation is less for community managed schemes as compared to bigger piped water supply schemes, environmentalists raise concern over the mushrooming of these micro schemes. As surface water is depleted for the purpose of water supply, neither the funding agency nor the government seems to be responsible for fresh water destructions. This points to a lacuna in the comprehensive planning and design, addressing the concerns of ecology and environment in infrastructure.
The negative impacts of ground water depletion are not borne by individuals, but by communities as a whole. A collective action based on a “resource-limited” approach to conserve water resources and to inculcate awareness and provide encouragement to resort to healthy sanitation practices are possible in community management (Narasimhan and Gaur, 2010a).

India does not have unique norms or standards which are applicable to the entire country. The Department of Rural Water Supply, Ministry of Urban Development, Indian Council of Medical Research under Ministry of Health and Central Pollution Control Board have all prepared norms and standards of their own. These norms and standards are different from each other (Lodhia, 2006). There has to be a consensus on adopting the standards and their strict enforcement should be monitored. The quality of drinking water supplies in India by public agencies is presently governed by Bureau of Indian Standards (BIS) specifications IS: 10500-1991. But drinking water being a state subject, each state follows its own standards and norms (Lodhia, 2006). The lack of adequate statistics on the quality of drinking water fails to provide a true picture of the state of affairs.

The syllogism of water and sanitation contributing to better health, working conditions, productivity and development is well known (Anand, 1996). Of all investments aimed to maximize public health, sanitation is the most important. The compartmentalization of water supply and sanitation programmes fails to bring in the required impact on public health. Rural water supply is dependent on unprotected sources, and sanitation practices are closely associated with social, economic and cultural aspects of the people (Joshua, 1996).

Since awareness about the impact of water and sanitation on health and well being of a community has to be instilled, attempts to create the same has to begin at the grass roots. Good practices followed at home, will have its impact on the community as a whole. Efforts have been made in the recent years to institutionalize community participation for monitoring and surveillance of drinking water sources. The National Rural Drinking Water Quality Monitoring and Surveillance Programme launched by the GoI in February 2006 is a step in that direction. Entrusting the community and women groups with this
responsibility have shown positive results. The Water Quality Surveillance Group (WQSG) of women looks into the Water Quality Surveillance Programme (WQSP) in Alappuzha, Kerala and has evolved as a self employment programme.

2.2.6 Legal Dimension

Literature speaks about the Laws of Manu (Cullet, 2009) which mentions water laws of the time. Kings had the responsibility of protecting public water and those who polluted, stole or diverted water were brought to task. A water controller was in charge of water administration. The water laws of today mainly address issues of resolving water rights and settling water related disputes (Narasimhan and Gaur 2010b). Entrusting the rights of water to the State and the mix-up of drinking water related laws with environment and health laws, makes these laws inconclusive (Cullet, 2009). Issues like lack of control on ground water extraction from one’s own land, checks on pollution etc. need further attention.

Panickar (2007) raises the point of not considering the interests and knowhow of the community in designing a water supply system, the cost of which is borne by them also. The engineering solutions are to be enhanced with community participation and indigenous wisdom. Narasimhan and Gaur (2010b) further demand supplementing this knowledge with a vision for the future, seated in equity and justice. They also underscore the relevance and need of a rational, science based national water policy framework encompassing economic prosperity and resource-limited mind set.

The PESTEL analysis of community managed rural water supply schemes shows the complementarities and dependence of the dimensions. Political/ institutional dimensions set the scene for the programme, economic dimensions initiate and sustain it and social values shape it to suit the context. Technological aspects define the service, environmental aspects decide the sustainability and legal dimensions explore the values involved.
PART III

2.3 MODEL CONSTRUCTS OF CMRWSS SCHEMES

Community managed rural water supply schemes supported by the government are based on constructs like demand responsiveness, beneficiary participation, cost sharing, and ownership in the scheme (Perspective No. 4, 2009). These constructs of the philosophy cannot be viewed in isolation. On the contrary, one dovetails into the other. Table 2.1 brings out the basic difference between conventional top-down approach, community-based approach and demand responsive approach. There are variants and combinations of these three models also. An attempt has been made here to analyze the relevance of the model constructs, discuss their variant models and appropriateness in the current scenario.

Table 2.1 Differentiation among three Popular Approaches of Water Supply

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<thead>
<tr>
<th>Top-Down Approach</th>
<th>Community-based Approach</th>
<th>Demand-responsive Approach</th>
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<tbody>
<tr>
<td>Supply-driven</td>
<td>Significant local participation</td>
<td>Demand-driven</td>
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<tr>
<td>Centralized beneficiary selection</td>
<td>Maintenance: a community responsibility</td>
<td>Community initiates, plans, implements, maintains and owns</td>
</tr>
<tr>
<td>Top-down decision making</td>
<td>Community selection of repairmen</td>
<td>Women play a key role</td>
</tr>
<tr>
<td>Maintenance: a governmental responsibility</td>
<td>Strong local water committees</td>
<td>Private sector provision of goods and services</td>
</tr>
<tr>
<td>Government selection of technicians</td>
<td>Full cost recovery of O &amp; M and replacement costs</td>
<td>Strong local water committees</td>
</tr>
<tr>
<td>Weak local water committees, if any</td>
<td></td>
<td>Full cost recovery of O &amp; M and replacement costs</td>
</tr>
<tr>
<td>Water given out free or at very low cost</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.3.1 Demand driven approach

When a service is provided on the basis of the demand of the beneficiaries, it becomes a demand responsive approach. However, in community management, the basic problem lies in identifying and assessing demand. The concept of “demand” as such is complex, as illustrated in Table 2.2 and it also means different things to different stakeholders. For an economist, it is the willingness to pay, while for an engineer, it may be the amount of water needed to supply a population and for the social scientist, it is a basic human right (Jones, 1999).

Table 2.2 The Complexities of “Demand”

<table>
<thead>
<tr>
<th>“Demand” may be:</th>
<th>“Demand” is always:</th>
<th>“Demand” is NOT always:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expressed</td>
<td>Unique to each project location</td>
<td>Equivalent to choice</td>
</tr>
<tr>
<td>Effective</td>
<td>Dependent on alternative existing options</td>
<td>Satisfied by the “best” solutions proposed by professionals</td>
</tr>
<tr>
<td>Latent</td>
<td>Dynamic</td>
<td>The same as what people say they “want”</td>
</tr>
<tr>
<td>Uninformed</td>
<td>Different for water and sanitation</td>
<td>Taken into account</td>
</tr>
<tr>
<td>Unrealistic</td>
<td>Dependent on people’s willingness to pay for specific options</td>
<td></td>
</tr>
<tr>
<td>Biased</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Created</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Jones, 1999.

Encompassing as many meanings as it can to the notion of demand, community management approach normally does not guarantee universal coverage; on the contrary, caters only to the population willing to receive and nourish it. The relevance of the concept lies in the fact that the needy can initiate the service, with
without providers/ facilitators in the scene. When implemented by the government with/ without the aid of external agencies, the basis of selection of the beneficiary community is normally dictated by some or all of the following factors:

1. Hardship factors, decided by access to water source, adequacy and quality of water (Bhattarai, 2005)
2. Policy related factors like coverage, service to un-privileged or under-privileged population
3. Political influence of the community to attract the implementation of the scheme, and
4. Willingness of the community to pay for the service

On the whole, the variants of the model would include:

1. Schemes on a supply driven mode, where demand responsiveness is nil
2. Schemes in which the norms are set by the agency, subject to the demand raised by beneficiaries
3. Schemes conceived on the exclusive basis of demand

2.3.2 Cost Sharing

From a study conducted on 121 CMRWSS schemes, the WB discloses that the institutional costs of demand driven schemes are much less than supply driven schemes and that the capital costs for rural water supply can be reduced by adopting the demand driven mode (Narayan, 1995). There are various options for financing community schemes. Three approaches that have been suggested for self-financing of water supply schemes are:

1. The initial investment for the installation of the scheme and subsequent growth in accordance with the water demand are met by some external
financial sources, but once the system is underway, it should be able to meet the O & M costs by mobilizing finances by pricing of its output.

2. The second approach is similar to the first, but in addition to the O & M costs, the interest on capital invested is also to be met through pricing of water.

3. The third approach enables a water supply scheme to mobilize funds to meet the recurring costs including interest payment and depreciation costs through pricing, thereby making it possible to replace the capital stock when the initial investment is exhausted. (John, 1997)

The concept of cost sharing is not just about helping the government in the provision of infrastructure, it is much more than that. The sense of ownership instilled through the process leads to an attitudinal change in the beneficiaries about caring for the service. To ensure equality, the cost is equally borne, except for cases of contributing to capital through labour and cross subsidies.

The Knowledge Attitude and Practices (KAP) survey undertaken in 1988-89 revealed that the beneficiaries were prepared to pay a certain amount for the regular maintenance of the public schemes (Black & Talbot, 2005). The poor has always been paying for water either in terms of time or in terms of poor health. They walk and carry water through long distances, losing the income that they could earn in the meantime. They pay in terms of poor health caused due to carrying water or through drinking poor quality water. The time saved through the provision of a water supply scheme, in terms of water accessibility, allows children to attend schools and women have sufficient time at their disposal to attend to household matters and even take up other income generating jobs.

To sustain the sense of ownership, the full responsibility of O & M of the schemes is vested with the community. Its capability in running the service should not be overestimated and long term sustainability of the schemes should be the objective. Avoiding infrastructure components or resorting to poor maintenance to cut down costs would cause schemes to under-perform and shorten their useful life.
When the government is relieved of the responsibility of providing the service, their assistance would be welcome in the form of subsidies in power supply and depreciation accounting of the asset.

There are different methods to share the costs of a service, be it capital costs or O & M. The capital costs can be borne at different proportions, based on the financial and social status of communities. Some of the variants of O & M is given below in Table 2.3. The communities following the same water supply programme can adopt any of these variants as they deem fit.

Table 2.3 Variants of O & M Payment

<table>
<thead>
<tr>
<th>No.</th>
<th>Payment system for running the water supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nobody pays</td>
</tr>
<tr>
<td>2</td>
<td>User households pay, but everyone pays the same, irrespective of the actual running costs and household benefits (e.g. consumption, distance)</td>
</tr>
<tr>
<td>3</td>
<td>User households pay, and everyone pays the same, but based on the costs of the service.</td>
</tr>
<tr>
<td>4</td>
<td>User households pay according to benefits (e.g. consumption, distance) and running costs.</td>
</tr>
<tr>
<td>5</td>
<td>User households pay according to benefits (e.g. consumption, distance) and running costs, but adjustments are made based on payment capacity</td>
</tr>
</tbody>
</table>

Source: Sijbesma, 2001

2.3.3 Beneficiary Participation

Participation of beneficiaries can start from the conception stage and continue throughout the life cycle of the project. Here it also means participation in the O & M of the scheme, after the authorities have departed from the scene completely. The time, level and intensity of participation are also important and it is found that
instilling participation only at later stages have proved to be detrimental to projects. It has to be multidimensional, dynamic and continuous (Narayan, 1995). The intention should be on optimizing participation and not on maximizing it (Sijbesma, 2001). Different degrees of participation can be exercised based on the characteristics and discretion of the communities, as shown in Table 2.4.

According to the evidence collected from 121 rural water supply projects, WB asserts that participation is the single most important factor contributing to overall project effectiveness. Two characteristics of the community are important in this aspect: the commitment to the project that the community has promised before implementation and the extent to which the community has been equipped to accomplish it. Both these depend on the effectiveness of the agency(ies) involved in the project (Narayan, 1995).

### Table 2.4 Degree of Community Influence in Rural Water Projects

<table>
<thead>
<tr>
<th>Low level of community control</th>
<th>The community is asked to contribute labor, land, or locally available materials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The agency delegates certain management and/or operation and maintenance tasks to the community and trains community members for these tasks.</td>
</tr>
<tr>
<td></td>
<td>The community is involved in discussing various options during the planning phase of the project, but final decision making power remains with the agency.</td>
</tr>
<tr>
<td></td>
<td>Options are discussed and decisions made jointly. Compromises help to adjust the project to the community and agency realities</td>
</tr>
<tr>
<td>High level of community control</td>
<td>Final decision making and authorization rests with the community.</td>
</tr>
<tr>
<td></td>
<td>Agency technical support and advice is provided at the request of the community</td>
</tr>
</tbody>
</table>

Source: Sijbesma, 2001
2.3.4 Women Empowerment

Any reform introduced needs the support of the masses for its success. The success of rural water supply and sanitation programmes will be possible only through the initiatives of groups, currently excluded or marginalized. Today, the role of women as water users and water managers are being increasingly recognized. It ultimately is the choice of the woman whether the service is acceptable depending on whether the water source provides colourless, odourless, sweet and fresh water, whether it is pure from health and religious perspectives, whether the service is feasible regarding the distance, accessibility and convenience and the use of technology (Singh, 2008). Hence for a water service to be successful and sustainable, it is better that the choices of women are considered. Interestingly, this power possessed by women is often forgotten or neglected, even by women themselves.

The social and religious constraints are often conducive to women restricting themselves to the confines of their homes without participating in managerial and decision making processes, but invariably they bear the difficulty of providing their families with water, the ambrosia of life. Unless it is interwoven in the framework, it is difficult to include women in the system. India’s formal decentralization laws have seats reserved for women. The policies pertaining to rural water supply schemes intentionally include positions for women and make them participate actively in decision making.

The community management model derives its essence from the above discussed model constructs, but these are seen to vary according to the context.

2.4 STUDIES DONE ON CMRWSS SCHEMES IN KERALA

The section mentions some of the studies conducted on CMRWSS in Kerala, especially Jalanidhi. The critique is only indicative and not exhaustive.

The novelty of the concept, the expectation associated with the programme as a solution to combat water scarcity in rural areas and the involvement of funding agencies have subjected Jalanidhi to evaluative and impact assessment studies,
perhaps more than any other programme implemented in Kerala. The implementation of Jalanidhi in a cascading fashion, in successive batches, necessitated these studies to start early.

Four types of studies have been conducted under the auspices of KRWSA, most of them as series. They are Process Documentation, Progress Documentation, Sustainability Evaluation and Impact Assessment Studies. Of these the later two were done by external agencies. The fifth series of Sustainability Studies made a pioneering attempt to operationalize the multidimensional sustainable development using Fuzzy Inference Analysis. Insiders’ views are presented by Balasundaram (2003) who gives an overview of Jalanidhi and Manoharan (2005) who narrates the tribal component of the project.

A case study on Jalanidhi, by Aiyar (2003), investigates the institutional and political dimensions thoroughly, but since it was conducted during the early stages of implementation of the programme, the impact could not be assessed conclusively.

While the spotlight is on economic, institutional or environmental dimensions in some studies, the evaluation of the programme by WB and other agencies have mainly highlighted the physical achievements. Since Jalanidhi also has in its agenda attitudinal transition and community empowerment along with services provided, a qualitative analysis is also needed to yield the actual dimensions/achievements of the programme.

Socio-Economic Unit Foundation (SEUF) (Performance Assessment and Service Improvement Plan of CMWSS in Kerala, 2009) examines the effectiveness of decentralized demand-led schemes and the performance of Jalanidhi along with other CMRWSS in Kerala such as Sector Reforms Project, Swajaldhara, Jeevadhara, and PRI funded schemes. It focuses mainly on the role that can be played by the LSGIs in improving the programmes.
The Kerala Development Report (2008) mentions an imbalance between tariff and service quality. It also suggests that compared to the costs expended on CMRWSS schemes, KWA could improve its performance by changing the pricing policy.

An Evaluation Study on Jalanidhi Projects in Kerala, done by the Kerala State Planning Board (2009), considers two options for rural water supply. As against the Jalanidhi model, which demands beneficiary contribution and operation of the schemes, the other alternative is to get the state governments and the panchayats to meet the entire project costs and the latter to look after the operation and administration of the projects, even to the extent of excluding the poor to pay the user charges. The second option is considered to be more in tune with the responsibility of the state to provide the basic amenities, to include people irrespective of economical status in the schemes and to avoid the intervening tier of beneficiary group. The study probes into the difference between principle and practice and goes on to review whether the project objectives and the targets have been met. It also explores the perception of the beneficiaries. The recommendations point to refining the role of the Panchayats and do not delve on the technical and process improvements.

Literature reveals that a wholesome assessment of community management schemes is complicated due to its multiple dimensions. The assessment of the impact of the model constructs of the scheme in the context of Kerala merits attention, especially when these constructs are derived from global literature.

2.5 DEFINING THE PARAMETERS OF THE RESEARCH

Global literature abounds with analysis of the concept and performance of community managed schemes. Reports and evaluation studies conducted by the Rural Water Supply Network (RWSN), the Water and Sanitation Programme (WSP), Department for Drinking Water and Sanitation of the GoI, the WB and other international funding agencies form a valuable source of information.

Even while the basic constructs are strengthened as the model matures, flaws surface, and offshoots and mutations manifest. As Lockwood (2010b) prefers to
call it, there is a “sustainability blind spot” as manifested in policy, planning, financing and support systems. The International Symposium on Rural Water Services held at Uganda (Lockwood, 2010a), suggests the need for professionalization of community management. It points out the overarching need for a “Community Management Plus” model by developing an additional legal, financial and technical supporting framework, capable of providing long term back up support and drawing from the community’s resources.

Harvey (2009) goes a step forward to propose a paradigm shift from “system” to “service” and “project” to “programme”. A service requires ongoing management, it is a dynamic process, and does not give room to providers for exit strategies or handovers. The following changes as shown in Table 2.5 are expected:

**Table 2.5 Project vs. Programme Approach**

<table>
<thead>
<tr>
<th>Sustainability Factor</th>
<th>Project</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy context</td>
<td>The influence on policy is minimized by the time frame of the project</td>
<td>There is potential to develop advocacy strategies to influence long-term policy and strategy change</td>
</tr>
<tr>
<td>Management and institutional arrangements</td>
<td>Projects are often donor-driven and implemented by NGOs/consultants who leave the area after a finite period</td>
<td>Local government and sustainable institutions in partnership with the private sector take the key roles</td>
</tr>
<tr>
<td>Community and social aspects</td>
<td>The need for a project ‘handover’ transfers all O &amp; M responsibility to the users with little or no external support</td>
<td>Sustainable partnerships can be developed over time and ongoing institutional support provided to communities. Communities are given choice to be or not to be the service provider</td>
</tr>
<tr>
<td>Sustainability Factor</td>
<td>Project</td>
<td>Programme</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>Financial issues</td>
<td>Time bound budgetary requirements limit sustainable financing mechanisms. Users pay for maintenance and upkeep of a single facility only.</td>
<td>Budgetary allocations can be made for institutional support for communities and long term incremental strategies. Users pay for water service which includes the cost of asset replacement for which subsidy may be available</td>
</tr>
<tr>
<td>Technology</td>
<td>Technology choice often remains rigid with a finite life span and there is no time to investigate longer-term solutions</td>
<td>Allocations for research and development can investigate alternative technologies. A flexible approach to technology is adopted allowing it to be upgraded over time and respond to environmental changes</td>
</tr>
<tr>
<td>Environment</td>
<td>Initial environmental assessments may be conducted during construction but there is no follow-up</td>
<td>Long term strategies can be put in place to monitor water resources and environmental issues</td>
</tr>
<tr>
<td>Supply chains</td>
<td>The need for an exit strategy has led to the idea of a ‘seed fund’ for private spare parts supply, which has not worked. Maintenance and repair are focused on the specific facilities</td>
<td>Incremental strategies can be developed to encourage spares supply by linking with other programme activities. Maintenance and repair are inherent components of water service</td>
</tr>
</tbody>
</table>

Source: Harvey, 2009
Triple S (Briefing Note, 2009) advocates a Service Delivery Approach (SDA) which focuses on the delivery of services rather than on the means of service delivery (the infrastructure). SDA acknowledges slippages in service delivery and suggests a “planned process of low intensity administration and management with occasional capital projects for upgrading and eventual replacement” to address them (Briefing Note, 2009).

An attempt has been made through the research to capture the dynamism involved in the concept of community management and to structure it in the lines of new paradigms. When service is to be focused than the system, there is a need to set standards, monitor and improve performance of schemes through service level benchmarking. The benchmarks formulated by the Ministry of Urban Development, GoI, involves the definition of the performance indicator, identification of data requirements, establishing the methodology for the indicator to be measured, arriving at a methodology for reliable measurement of indicators, setting the frequency of its measurement, etc. However, the ambiguity of what is to be measured and who is to measure and monitor the community managed services exist. A simple system of performance monitoring can be done by the community itself, or in case of the existence of a monitoring agency, even a unified system of performance comparisons can be done.

Even as the need to focus on service and benchmarking reveals itself, the fact remains that the modifications should demystify processes and technology. The research is structured on the basis of the gaps identified, as shown in Fig 2.2

2.6 SUMMARY OF THE CHAPTER

Over the past few decades, community management has come to be noticed in the global, national and local scenario as a plausible model of development. The concept has resurfaced from age old times and is in the process of evolution to address the concerns of progress.
Of the developmental models practiced world over, community management is found to be the most malleable. It can be under government patronage, in which case, it becomes highly sensitive to extrinsic factors such as politics and policies. Nevertheless, it has the potential to distance itself from the government and to assume a distinctive identity.

When a community managed model is initiated under the auspices of the government, the PESTEL dimensions define its skeletal structure. Taking advantage of social capital, the government delegates, or rather escapes, at least
partially, the responsibility of providing services. The social disparity is conveniently forgotten and the beneficiaries are equal and united in their cause as they pool in funds to initiate and run the schemes. Though it is the duty of the governments to provide technologically and environmentally sustainable services manageable by the community, the government itself shirks the accountability by withdrawing from the scene after launching the projects. The legal facet strives to bring in a framework rooted in equity and justice.

On a positive note, a community contributes to providing the services, where the government system has underperformed. The autonomy that it enjoys makes it more responsible and accountable for the infrastructure and service.

The constructs provide body to the model and its relative importance distinguish one variant from the other. Demand responsiveness and cost sharing affirm the participation of beneficiaries. Integrating water supply with sanitation, education, health awareness etc. brings in holistic development.

Literature on CMRWSS schemes in Kerala, including Jalanidhi, project their achievements and limitations. Global studies on offshoots of community management include shifting the focus from project to programme, and concentrating on service, rather than on the system. It also points to the need of a “community management plus” model to develop and strengthen the framework. These paradigm shifts are the result of learning from experience and addressing immediate concerns of sustainability. These have been explored with a view to guide the direction of research.

The next chapter addresses one of the main objectives of the research. It deals with a critical review and analysis of selected community managed rural water supply schemes in Kerala.