Democratisation of Water Management as a Way To Reclaiming Public Water: The Tamil Nadu Experience

By
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I
Introduction

Worldwide, democratisation of public utilities has been one of the major demands of people's movements seeking to make public services like education, health, social welfare, water and sanitation services more accessible, people friendly and equitable. While the concept of democratisation itself has many meanings differing from country to country and context to context, at its core, democratisation includes greater transparency in functioning, increased accountability of the people, full disclosure of all information underlying the functioning of the utility including of decisions made regarding choice of technology, allocation and distribution of funds and financial allocations all leading to creating a dynamic, open ended, mutually respecting and responsibility sharing partnership between citizens and the people in managing the utilities. Given the realities in many countries of poor and inefficient public services, inept and corrupt functionaries and a general feeling of suspicion, hostility and conflict between the people manning the utilities and common citizens, democratisation invariably also included ensuring that public services were provided for all people, especially the poor and marginalised sections in a manner which was equitable, affordable and respected their existence by according dignity, acknowledging their traditional practices and respecting them as shapers of their own destinies.

Democratisation also has meant that public utilities and common property resources always remain in public hands, are not alienated from the people, are not privatized and function in a manner which is equitable, respect principles of social justice and ensure that services are focused towards `reaching the unreached'. Democratisation, therefore is based on concepts that common property resources belong to all life forms on earth and are managed in `trust' ensuring that the poor and needy have first call on the resources while ensuring financial, human and social sustainability of the use of the resources.

While debate may exist on the finer points of what democratisation will include, a critical question that has confronted all interested in bringing about democratisation has always been, "How do we democratize public utilities?". The issues of `Where do we start' and `Who will start the process of democratisation' have always dogged activist groups and citizens' alliances worldwide.

There can be three possible triggers for bringing about democratisation:

(i) push by social movements
(ii) pressure from political players, or
(iii) an internal push from the utilities themselves.

Of the above three broad triggers for change, examples of social movements and political pressure for bringing about democratisation are visible from the experiences in countries like Latin America, as for example in Bolivia and Venezuela, or in Brazil or Argentina. Taking the water struggle as an example, the `Water Wars' launched in

Cochabamba in Bolivia in 2001 electrified the simmering anger and tensions across all of Latin America, where the public services had been privatized causing disastrous consequences and hardships to common citizens. This book has many stories of such experiences.

While there are many interesting stories of social and political movements forcing democratisation of water systems in different countries of the world, there are few examples of situations when a government department itself decided to experiment with democratizing water management. One such ongoing experiment has been going on in the rural water supply division, the Tamil Nadu Rural Water Supply and Sanitation Programme (TNRWSSP) of the Tamil Nadu Water Supplies and Drainage Board (TWAD) in South India. This paper shows that when a governmental agency mandated with the duty of providing water tries to evolve an open ended, mutually empowering and democratic relationship with citizens and local groups, the process can actually result in improving the quality of services provided to the satisfaction of all concerned in a manner which does not affect the financial or ecological sustainability.

Change From Being Facilitators to Partners: The Beginning of the Metamorphosis

Why a plan for Change? Water Crisis and Changing Policy Paradigms

The Creeping Water Crisis: Need to avert catastrophe

A very serious issue confronting water managers in the beginning of the 21st century was the serious issue of the water crisis. Like many other states in India, in Tamil Nadu too the main strategy pursued during the period of 1970 & 1980's was the policy to focus in establishing water supply infrastructures. On the ground what this meant was the replacement of the `hand pump revolution' of the 1960's and 1970's with the `piped water evolution' in the 1980's based on tapping ground water acquifiers. In a short period there was a virtual explosion in the number of tube wells sunk in the state.

It will be helpful here to consider that in the rural areas of Tamil Nadu deep bore wells constitute 77% and shallow bore wells constitute 11%; in other words 88% of all sources of water supply rely on bore wells for water.

The difficulty was that in Tamil Nadu, 96% of all sources of water are groundwater based. Thus the phenomenal spurt of piped water schemes across the state in the eighties and nineties had its eventual impact on ground water tables. Out of the 385 water 'blocks' in the state, 138 were identified as over-exploited, 37 as at critical levels, 105 as semi-critical and 8 as saline. Only 97 blocks were identified as safe. Meanwhile, of the total 81,587 rural habitations in the state, about 27% are affected by quality. Of these affected habitations, about 25% do not have safe sources.

Uncontrolled mining of water has resulted in many areas in the western and southern districts having waters at depths of over 100-300 metres! Over-exploitation and droughts have reduced the per capita availability of drinking water in Tamil Nadu to 840 CuM (cubic meters). This is lower than the national average of 1200 m3 and is below the 1000 CuM which is the international measure of `water scarcity'. Persistence of severe water stress will impact long-term availability of drinking water which in turn will affect the productive livelihoods of the people of the state, especially the poor and vulnerable.

Thus overall, a challenging scenario presented itself to all those concerned about and involved with water at the start of the new millennium. Despite occasional good monsoons, the first five years of the new millennium witnessed the cumulative impact of years of poor rainfall in Tamil Nadu. Near drought conditions did little to help recharge already precarious ground water tables. Unregulated mining of water and un-coordinated use for irrigation and industry only highlighted the deleterious effect of the absence of a rational and integrated water policy framework. Technocratic approaches of the agencies providing water did not lend themselves adequately to stakeholder inclusive methods and lacked capabilities to enhance peoples' participation. Absence of a sense of ownership and alienation from meaningful association led to a lack of involvement of the users and stakeholders in water management and reluctance to participate in ensuring sustainable drinking water use practices. Coupled with an outdated approach and complaints of inefficient service delivery, the water crisis presented itself as a complex multidimensional problem calling for inputs from a variety of disciplines, perspectives and experiences.

Changing Policy Paradigm: Shift to Community Participation, Decentralisation and Reducing the Centrality of Public Managers

This dismal situation of acute water stress growing in the 1990's is the context for the important policy shifts that swept the water sector worldwide, impacting India too. These reforms focused on enabling greater community involvement in water schemes, with genuine emphasis on ensuring gender participation, and also changing the rules of the water game with the hitherto all powerful water technocrats, who decided on all water schemes, to act as just one - and not the only - player in the water scenario. The terminology used, of water engineers becoming `social engineers' who turn into `facilitators' of community mobilization and so on, is indicative of the policy shift. Thus the water engineers were no longer seen as the sole providers of water, but were to play a different and expanded role of being 'social engineers' and 'facilitators' of community participation in the first phase, and of competing with other players in a vastly changed water supply scenario in future phases.

In the new water regime, the potential water users were brought into the centre stage of making decisions on choice of technology, choosing location and sites schemes, implementation of schemes and its future maintenance. Schemes would henceforth not be free as before, users would need to bear part of the capital costs of new schemes and agree to pay user fees. They would also have to take charge of managing the schemes in conjunction with the local village body, the village 'panchayat'. While several components of these changes, for example, the issue of imposing user fees, or raising capital costs from people, especially those belonging to the poorer sections, have been politically sensitive issues, these policy shifts, had over the years been incorporated into official policy dictates.

The Challenges of Ensuring Water Governance Reform

Whatever the nature of sector reform policy initiated in the last two decades, of the many problems characterising the water crisis, four stand out:

1. The issue of a significant and growing section of marginalised people being excluded from provision of water service; in other words increasing numbers of `unreached' people, be it in rural or urban areas;
2. The continued prevalence of inequity in the distribution of water;
3. The problem of water sustainability covering the entire gamut of water management issues from effective management of water sources to conservation and preservation of water bodies and sources.
4. An uninvolved technocracy with an entrenched mind set.

Any attempt of trying to bring about water sector reform would need to thus address these four core areas if any sustainable solution had to be found. It is within this framework that the governance reform in TWAD was undertaken.

II

Democratising Water Management: The Training Process

The current experiment titled `Democratisation of Water Management – Nurturing Democratic Change' was launched in the end of 2003 in the background of both the acute water crisis detailed above, and the changing institutional paradigm. It was apparent that older perspectives and responses were not only insufficient but also inappropriate in dealing with the challenging situation which presented itself to the TWAD[1] Board in early 2004. It was equally clear that there was no alternative to launching a serious introspection of current technological perspectives underlying TWAD's style, thrust and nature of functioning, its relations with the community and other stake holders including political executive, the willingness of individual engineers in the organisation to critically re-examine their mode of functioning, relationship with the community and personal issues of values, ethics and behavior.

[1] **Background to TWAD:**
The Tamil Nadu Water Supply and Drainage Board (TWAD) was constituted under the Tamil Nadu Water Supply and Drainage Board Act (1970) for the purpose of regulation and development of drinking water and drainage in the state of Tamil Nadu barring the Chennai Metropolitan Area. TWAD as an autonomous corporation set up by the State Government, thus had exclusive mandate over all drinking water projects in the state.

The Board is responsible for investigation, design, execution and technical assistance. Operation and maintenance functions are generally the responsibility of local bodies. Administratively, four regional offices, each headed by a Chief Engineer, handle the field work of TWAD. Functions such as design, planning and research are done in a centralized manner from the Head Office in Chennai (formerly Madras).

TWAD prepares its own budget for execution and operation of projects which is approved by the Government of Tamil Nadu. The chief funding sources are from the Government of India, the state government, loans from financial institutions (such as the Life Insurance Corporation and Housing and Urban Development Corporation) and the World Bank.

Given the imperatives of a crisis of water delivery mixed up with challenge to the future relevance of the organisation, the rural water division of TWAD decided that the only way forward was not to regurgitate old solutions but to start afresh: by going back to asking fundamental questions about the need and relevance of public utilities, the values and vision it should embody, distortions and corruptions in practice, and the shape of future direction of change efforts to reinvent a role and relevance for itself.

In effect, TWAD launched an ambitious process covering the entire statewide department aimed at bringing about personal change and institutional transformation. Towards this end, almost the entire population of water engineers numbering over 550, covering all levels from Assistant Engineers to Chief Engineers, went through an intensive training process between May, 2004 and December, 2006 in the form of residential workshops of 5 days durations with each workshop having a maximum of 35-40 water engineers drawn from different levels. In the workshops the engineers were engaged in intense personal, group and collective exploration and discussion on various issues confronting the water sector.

The Thrust Areas for Intervention

From the very beginning it was clear that there needed to be changes brought about not just amongst the engineers of the TWAD Board but also amongst other key stake holders like the community, local body leaders and Village Panchayat Presidents, politicians and others. The change plans initially focused on working with the TWAD engineers, and through them to work with local communities, village panchayat Presidents and others in gradually increasing activities.

The main thrust of the change effort was to bring about the following:

ATTITUDINAL TRANSFORMATION

Amongst individuals

Of TWAD as an organisation

Amongst key stakeholders

The attitudinal changes covers issues of the way individuals, inside and outside TWAD, perceive their roles and responsibilities vis-à-vis managing water including issues of consumption, conservation and sustainability of water, their attitudes towards water as a community resource and so on.

PERSPECTIVE CHANGES

The most important perspective change was the recognition that the thrust of all service delivery institutions, and in particular in the water supply sector, should be for '***reaching for the unreached',*** in a manner ***ensuring equity,*** based on ***norms of social***

justice. All these were foregrounded in the acknowledgement that the citizens had a fundamental right to water and this right was a basic human right too.

Some of the more important components of the perspective changes that needed to be brought about in the internal functioning of the water utility's functioning included the following:

Shift from access to service delivery – For the policy maker and the water provider providing `access' to the village/area to water was the measure of success. This resulted in figures claiming almost 95% access to water throughout the state. The reality on the ground was otherwise. The change was to shift the focus from `access' to ensuring that every citizen was provided water. The shift from the geographical unit (village/area) to personal satisfaction was rooted in the acceptance that every individual had a fundamental right to safe, adequate and regular water.

Shift from providers to partners – Traditionally the water engineer was taught that he was only the `provider' of water, who determined when, where and how to provide water. The changed perspective required the water engineer to look at the community as equal partners in managing, conserving and ensuring sustainable use of water. This approach emphasized bringing shift in the perspective of citizens to also assume responsibility in managing water as a scarce resource.

Shift to sustainability enhancement approach - The changed perspective of examining system performance around issues of efficiency and effectiveness is grounded in a much more pressing imperative; ensuring the sustainability of water system involving issues of conservation and scientific, rational and appropriate use of water. The sustainability approach emphasizes the importance of viewing water management in a holistic, integrated and multi-dimensional manner.

It must be stressed that perspective changes were required both amongst the engineers as also amongst citizens and other stake holders. Years of being provided free schemes had not only made people habituated to receiving `free schemes' but had also robbed communities of earlier traditions of taking responsibility for conserving water sources, controlling consumption and safeguarding water. If democratisation had to take roots and succeed it was necessary to bring perspective shifts amongst water professionals and citizens alike.

INSTITUTIONAL TRANSFORMATION

To focus on issues of internal democratic functioning, respect for individuals, ensuring transparency and in general creating a responsive work culture amongst all levels of the utility personnel.

Another critical area was recognizing that society too was structured around institutions with their own independent practices, cultures and values. These included traditional institutional practices, as for example the traditional `*kudimaramathu*' system which had work allocated to different groups for maintaining irrigation water systems. Thus institutional transformation emphasized the importance of creating relationships based on respecting the dignity, self respect and inter-dependence of all persons and groups who, together, have to partner the enormous task of preserving nature and water systems for future generations. This would cover not just engineers, but also community at large, politicians, local leaders and other stake holders.

Critical issues: Dimensions of the challenge

Eight key areas were identified as critical:

1. Supply of an adequate amount of safe drinking water to all citizens of the state in a manner which does not further endanger water system.

2. Encourage and enable active partnerships between all stakeholders with a goal of building sustainable water systems.

3. Institutional transformation of management systems, to ensure water systems meet new norms of conservation; appropriate use of technology, knowledge and skills.

4. Reviving traditional water management systems while empowering stakeholders and the local community to play a more active and intense role in managing water systems.

5. To bring about 'Convergent Community Action' by bringing together state service provider with an informed, involved and active community.

6. To create a sense of common ownership aimed at enabling sustainability of water systems.

7. Focus on capacity building of different stake holders including government officials, women and local communities, local bodies, NGO representatives and elected representatives.

8. Strategic use of state agencies as the starting point to transform the organisation into a more people focused, community responsive and publicly accountable organisation.

Transferring the Change Process: Introducing Change Management in 453 villages in 29 Districts of Tamil Nadu

The change process was initiated first amongst the water board engineers who would then take it down to the community and other stake holders in the course of their daily interactions with

them while providing water facilities. The change interventions were thus structured in the following three levels in 147 Village Panchayats covering 472 villages in the state. :

Formation of Change Management Group

As the change process gathered momentum, a Change Management Group (CMG) came to be formed inside TWAD made up of volunteers who came forward to champion the change process within and outside the organisation. Care was taken to ensure that the CMG was as diverse as possible accommodating people from different age groups, experiences, educational backgrounds and regions.

Within a few months after the initiation of the change management process inside TWAD, the impact of the 'churning' process started manifesting itself. The first batches of engineers found themselves given the space and encouragement to not only critically re-examine prevailing water management practices but to actually experiment with newer approaches in the field. They were in fact encouraged to try new methods with the assurance that they would not be victimized for failures.

The initial successes in the field spurred the engineers to try with greater energy and involvement bringing about changes in village water supply. In a critical manner they began to evaluate the context of water schemes in each village covering issues of extent of water availability, assessment of demands for different uses, prevailing water use practices including traditional practices for management of water, willingness of people to accept responsibility for maintaining equitable supply, sensitivity of villagers to the importance of safe sanitation practices and their readiness to accept changed sanitation methods and drawing up a socio-economic profile of the village.

In effect, the village community was trained to critically review the need, necessity and relevance of proposed new water schemes in terms of the need for new investment, exploring the potential of expanding, rejuvenating or repairing existing water schemes and reviving abandoned or non-completed schemes. A conscious attempt was made to encourage the community to self regulate consumption of water, ensure better maintenance of existing water supply schemes, lower power consumption and work towards conserving natural resources.

The initial efforts of improving relations with the community produced almost instant result the moment engineers started relating with the community as people and not subjects! This spurred more concentrated efforts in different regions. Though subsequent responses, especially requiring stakeholders to assume additional responsibility and involvement required far greater effort, the fact that engineers were visiting and working with them to find solutions struck chords with local people.

A Definitional Breakthrough: The Maraimalainagar Declaration

In August 2004, in the initial period of the change experiment, the first major definitional breakthrough occurred. This was to have a profound impact in the very philosophy underlying the functioning of TWAD! The declaration came to be known as the Maraimalai Nagar Declaration.

The Maraimalai Nagar Declaration (August, 2004)

- We will evaluate the existing schemes and ensure that the schemes are put into optimal use first.
- Then rehabilitation will be undertaken wherever necessary along with revival of traditional sources.
- This will be taken up before taking up any new schemes in the block.
- We will all aim at 10% increase in coverage with the same budget.

The significance of the Maraimalai Nagar Declaration is because of the fact that TWAD, like many other state controlled autonomous public utilities, is not supported for its revenue from state budgets, but instead depends on revenues earned from schemes it implemented. In 2004 TWAD Board was entitled to 13%[2] of all budgeted schemes, from which fund it would pay salaries, cover operating expenses and other costs. Thus, the more number of schemes TWAD undertook the greater would be its earnings.

Seen against this background, the unanimous acceptance of the Maraimalai Nagar Declaration was not just historic but a very courageous break from the past paradigm. In effect the engineers were voluntarily accepting reduced earnings by agreeing that before they undertook fresh or new investments they would

- Firstly, evaluate existing schemes and ensure that they were put to optimal use first;
- Secondly, they would rehabilitate old or existing schemes;
- Thirdly, they would also examine the possibilities of reviving traditional sources;
- Finally, only after exhausting all these stages, if there was still need for fresh investment, they would recommend and implement new schemes.

Over the 2 years between 2005-06, many TWAD projects were re-examined and projects scaled down. Engineers managed to persuade both co-engineers as also community leaders that in the long run it was better to go for water conservation methods than to go in for new bore wells and overhead tanks. While it was a time consuming affair to convince community leaders to go in for self-regulation of water management first, before investing in new schemes, the change management engineers persisted. Across Tamil Nadu, in numerous villages, slowly people started embracing the new approach to water management.

Total Community Water Management: Breathing Life to a new Vision

The gradual implementation of the MM Nagar Declaration and the slowly visible impact led to the Change Management Group (CMG) embarking on a process of evolving a vision for TWAD from a futuristic perspective. The collaboratively evolved draft Vision was discussed throughout the TWAD Board and with stake holders in 453 villages before adoption.

Our Dream - Secure water for all, forever

Our Vision

[2] Before 2002, the Government permitted TWAD to charge 18% of schemes.

1. **Conservation of nature as a guarantee for the future water**
2. **Vibrant, revived and recharged water bodies**
3. **Assured, equitable and sustainable water for all**
4. **Successful community managed water supply system through active participation including women and poor**
5. **Safe disposal of solid and liquid waste for clean and healthy environment**
6. **Cost effective technology options to ensure Local maintenance and sustainable Financial management**
7. **Formation of Common Water Regulatory Authority for judicious use of water for all sectors**

The newly evolved Vision went far beyond the boundaries of what a water engineer would generally be engaged in. For the first time, the utility's functionaries saw their role as guardians of not just water resources, but of conserving nature itself. Accepting a broader mandate for themselves, freed them from viewing their roles in a narrow, limited manner allowing for greater creativity and innovation in their functioning.

To breathe life and to give concrete shape to the Vision, in the next phase, the CMG took each component of the Vision and evolved a detailed action plan to realize each of the dreams. The details were so fine tuned they included a proposed time line of activities, parameters for evaluating progress, the varieties of stages to be traversed and so on. What resulted was the creation of a detailed template of action to guide the water engineers! The creation of the template for actualizing the vision and its implementation as a community based project in over 100 villages came to be titled, 'Total Community Water Management'.

Encompassing the Vision, CMG set itself to work with the community towards

- improved systems and system management for better service delivery
- protecting and improving the source potentiality
- revival of all traditional water bodies for other uses and recharge
- ensuring equitable water supply, especially to weaker sections like dalits and tribals.
- a clean environment in and around water points
- regular disinfection practice and periodical water quality testing
- better O&M practice for low user cost
- judicious use of scarce water and to undertake
- conservation measures
- practice of waste water reuse and recycling
- consensus in Gram Sabha regarding regulatory measures
- "Reaching the Unreached"

The results of the experiment conducted in the pilot villages was incorporated into the regular functioning of the department through a Circular of the Managing Director of TWAD dated 16th June, 2006.

III

Impacts of the Democratisation Process

Breaking Hierarchies and Mindsets: Introducing the *Koodam*

The challenge of changing systems and institutions started from confronting the bureaucratic cultures inherited by government departments which sought conformity, stifled free expression, inhibited creativity and imposed constraints on information flow and interactions between and amongst people. Once this was confronted, the engineers had to deal with barriers to free interaction between themselves and different stake holders, partly created by the bureaucratic culture itself, and partly by prevailing social norms and relations. Apart from bureaucratic cultures within the government department itself, the engineers had to contend with social barriers caused by caste distinctions, class divisions, communal (religious) differences and many other barriers. The challenges were many; some of the most challenging issues were:

To break hierarchical modes of relating and encourage free interaction;
To ensure people do not take recourse to strategic `silence' in presence of seniors / superiors;
To prevent people saying `Yes' when they actually meant NO!
To instill a sense of individual and collective ownership of the process of change.

The Koodam:

The transformation process was begun with an invitation to the members of the TWAD Board participating in the process to create a `***Koodam***´ in which they would interact with each other as equal persons engaged in the common purpose of learning from and with one another, without distinction of rank, position or privilege. The *koodam* is actually a traditional concept and practice in Tamil society. (with parallels to practices like Choupal etc. in North India)

Koodam refers to a geographical space in a traditional village which is held sacred,
Where all participants meet as equal, adult members of society
And discuss on issues to arrive at consensus
Within *koodam,* the norms for relating as members are based on the acceptance that all are equal irrespective of differences in status, wealth and learning outside the *koodam*.
Koodam is an honoured space, sacred because all participants value and respect it. It is not a religious space.

In a dramatic manner, the concept of the *koodam* helped establish a new sense of relating, belonging and purpose for the 540+ engineers who had been invited to be part of the exercise to bring about changes within the organization. The officials were of various ranks ranging from Chief Engineers to Assistant Engineers.

Koodam as the Canvas for Charting the Change Process

Of great interest is the manner in which the majority of the participants not only responded to creation of a workshop *koodam*, but the manner in which they enthusiastically championed creation of community *koodam's* in different parts of the state. From village *koodams* consisting of the Panchayat President, local officials and the community, engineers introduced the concept to school students, groups of elected representatives and members of the community. In course of

time, district level *koodams* and *koodams* of elected representatives and common citizens came to be formed. The idea which energized most was the notion that all are equal and have an equal opportunity to express their opinion and views, irrespective of differences in class, caste, gender and community. Since the process acknowledged the importance of consensus decision making and of arriving at decisions after ensuring participation of all sections, particularly the marginalised, decisions taken tended to be honoured and respected. Since the engineers were sensitized to the importance of ensuring that traditionally excluded persons like dalits, women, other weaker sections were involved in the koodam extra effort was taken to ensure that plans addressed their concerns first.

It is not as though traditionally the concept of the koodam did not have social problems. Women and dalits were never given space within traditional caste gatherings. Existing social discrimination did manifest itself in these spaces. There were however, other aspects which could be given a new, 21st century interpretation by adding notions of democratic functioning, sensitivity to listening and accommodation of the interests of all, consensus decision making and other norms enabling democratisation to assume form in practice.

In a manner not envisaged for it in the beginning of the change process, the concept of the *koodam* energized change efforts within and outside the organisation and struck a chord amongst many sections of society[3].

Outcomes of 453 Villages under 143 Village Panchayats across 29 districts

The lessons learnt from the organisational churning and experimentation process were implemented in actual water projects in 143 village panchayats covering almost 450 villages in 29 of the 30 districts of the state. The following figures relate to experience from about 140 Village Panchayats and are as of end 2006. The impacts can be shown in the nature of 7 Shifts in approach that occurred. These are:

Shift 1: Choice of technology option
Shift 2: Finding more cost effective solutions
Shift 3: Towards community involvement
Shift 4: Towards savings
Shift 5: Towards conservation
Shift 6: Towards reducing operations and maintenance expenses
Shift 7: Towards sustainability

Out of 330 schemes in 140 VPs for which complete data is available, only 128 schemes representing 39% opted for sinking new bore wells and 8 schemes, representing 2% of all VPs opted for Combined Water Supply Schemes (CWSS). The remaining 194 schemes constituting 59% of all schemes in the Pilot villages opted for low cost alternatives involving local technology, conservation oriented water schemes focusing mostly on

[3] We have worked with the concept of the *koodam* in many settings including in change programmes in government departments, community organisations, and NGOs. The koodam concept evoked intense response from Naga participants when we worked on a program on `Good Governance in Nagaland', a state in North East India.

rehabilitation of existing schemes, extending pipeline, mini power pumps or hand pumps. This reflects a different way of decision-making, based on community ownership, choice and willingness to manage the operating costs.

One of the most significant impacts, which portrays the inherent potential of this process, is the reduction in the capital cost per household by 40 per cent in the project villages. It has been found that the average cost per household in non-pilot schemes was about Indian Rupees (Rs) 4580 whereas in the pilot batch the average cost is only Rs.1827. In real terms this means the possibility of additional coverage of 400,000 households every year, within the same budget (as of 2006).

It slowly became clear that adoption of appropriate technology options, ensuring timely maintenance thereby reducing potentially expensive replacements in the future, regulating hours of pumping and supply, maintaining both adequate quality and quantity all had an effect on the nature and functioning of water systems in each village. The regulation of pumping hours included (i) ensuring that the bore pump was not too powerful and (ii) maintaining a cap on the hours of pumping based on the ensuring balance between quantity of water available in the source and quantity required for supply. This had a major impact in reducing the hours of pumping thereby reducing electricity costs. Equally importantly, from the angle of sustainability of water source, the regulation of pumping hours ensured the replenishment of the water source.

It is noteworthy that the operations and maintenance expenditure in these villages reduced by about 25 per cent while the revenue generation improved by 70 per cent leading to improved financial sustainability of the schemes.

Apart from choice of appropriate low cost, people friendly technology, the TCWM initiative led to a plethora of innovative schemes. For example tree plantations were taken up in a big way and thousands of saplings have been planted. In Palangarai village, Coimbatore district, more than 7,000 saplings have been planted with over 80 per cent survival rates. This, with the construction of almost 32 check dams has led to the water table in the village rising up from 1200 feet to 800 feet.

Other efforts have included revival of water bodies in the form of desilting water tanks in over 120 of the 140 villages. Rain water harvesting was revived and restored in 90 per cent of the villages and new forms of solid and liquid waste management were introduced. Soak pits, kitchen garden and construction of septic tanks, not the domain of the regular engineer, became the norm.

The following figures show the financial impact of the new approach.

Contribution: Rs.1.42 crores (app. US $ 0.3 million) contributed by 50,896 households in 145 village panchayats, in 29 districts reflecting their sense of ownership

Investment cost: Overall reduction by 40-50%: average project costs from Rs. 4580 per household in regular schemes to Rs.1827 per household.

Low cost options: 50% of schemes are now rehabilitation such as pipeline extensions instead of more expensive options

Savings: Savings of between 8% to 33% have been achieved over the regular budget. Operation and maintenance expenditure reduced to Rs.18.6 per household.

In sum, savings to the tune of Rs. 50 crores (app. US $ 10 million) has been effected over budgeted schemes.

Equity: 65% of schemes were for groups where majority were below the poverty line including scheduled castes

Sustainability: 90% households undertaking rainwater harvesting; 150 traditional water bodies revived.

IV

Expanding the Paradigm of democratisation:

Public-Public Partnership as an alternative to Public-Private Partnership

The positive outcomes of the democratisation experiment initiated by TWAD is indicative of the power inherent in the process of bringing about governance reform in public utilities. Many challenges however still loom large, threatening the success of the water management change exercise. Continuing and sustaining the change process and addressing newer issues for change are two of the most critical issues that now confront TWAD as an organisation.

The most important outcome of the democratisation experiment is the braking of numerous stereotypes and myths about government systems, public officials, politicians and citizenry. The most powerful of the myths that has been shattered is that the people, especially the poor people, will forever want only `free schemes' and will not assume responsibility for taking care of their assets and resources. In numerous villages, it has now been conclusively demonstrated that communities are willing to take charge of their own water schemes and also ensure that there is fair and equitable distribution. The new work ethic which is slowly being adopted by the water engineers is indicative of the ability of public officials to respond to changed situations placing a premium on transparency , accountability and responsibility. The TWAD engineers have also

demonstrated that they can be as creative, innovative, committed and be willing to take risks as any other professional.

In August, 2006, the Government of India invited the Change Management Group to make a presentation at a national level conference involving 12 states facing a severe drinking water crisis, focusing exclusively on the TWAD experience. At the end of the Conference, a National Level `Change Management Forum' was formed. All the states participating unanimously endorsed the resolution that future efforts at change within the drinking water sector should necessarily involve institutional transformation focus.

Of critical importance is that 2 states, Maharashtra and Jharkand invited TWAD engineers to share with their engineers the change efforts in Tamil Nadu. TWAD engineers conducted workshops for engineers of the , Maharashtra Jal Pratikaran (MJP) and the water department of Jharkand aimed at helping them identify critical areas for change.

Such exercises of one public sector utility helping another public sector utility to improve its functioning has come to be termed by the UN as `*Water Operators Partnerships (WOPs)*' or `*Public-Public Partnerships (PUPs)*'.

PUPs, referring to the partnerships between successful public sector utilities taking the lead to help other public utilities transform and change has become a powerful conceptual tool to challenge the privatization model pushed forward by international finance institutions using the concept of `Public-Private Partnerships'. There are many other requests to TWAD from other water utilities in India and a few from abroad.

It is necessary to note that the model for change followed in the TWAD experiment is not limited to the water department, but can be successfully applied in other sectors too including health, welfare and education institutions.

Globally today, the TWAD experience has become an example of the potential to truly democratize public services in such a way that people and community ultimately take charge of their public utilities and common property resources. While a long distance needs to be traversed before the TWAD Board achieves the objectives of full democratisation, the satisfying feeling is that the journey has begun, and begun decisively.

February, 2007
Chennai, India.

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