The World Bank Indian Urban Water Report (July 2012)

A Policy Framework without Root-Cause Analysis

Milind Sohoni[1]

Head, CTARA, IIT Bombay

Abstract: **This note does a quick strategic and technical review of the latest World Bank (WB) report on reform in the urban water sector in India. This WB report focuses on institutional and financial arrangements between urban local bodies (ULBs), water service providers and the customer. In line with earlier WB reports, this one also fails to do root-cause analysis and designs a policy framework without assimilating the technological boundaries which this sector must follow thereby ending up ignoring strengthening of governance, building institutional capacity in research and training, and developing collaborations between various governance and knowledge institutions as possible solutions.**

The latest World Bank (WB) Report on the water sector in India is titled *INDIA: Improving Urban Water Supply and Sanitation Service Provision* (henceforth called [1]), and was released in July 2012. It reports on the work done by the World Bank in collaboration with several State bodies (of Maharashtra, Rajasthan and Haryana), Union bodies and external consultants. It should be read together with the earlier *Bridging The Gap Between Infrastructure and Service* (henceforth called [2]), another WB report published in 2006 which sets much of the agenda for the reform of the urban water supply sector, as the WB sees it. The current report is important in two respects: (i) it sets out a clear set of steps by which reform should take place, and (ii) a report card on the progress made on this agenda in the three states of Maharashtra, Rajasthan and Haryana. Our review will concentrate on the parts concerning Maharashtra. The report also presents a few 'business plans' for the organization of urban water supply and sanitation systems (WSS) along the steps outlined. The work was largely funded by the Non-lending Technical Assistance Program of the WB.

Report outline

Chapter 1 sets out the 'three pillars' of WSS reform as follows (quoted below):

- *Policies and Institutions: Appropriate policies and institutional arrangements that clarify the roles and responsibilities of key actors, and which create service providers that*

[1]The author can be reached at *sohoni@cse.iitb.ac.in*

are efficient, accountable and customer focused with sufficient autonomy to manage their affairs in a professional manner.

- *Infrastructure and Financing: Medium term infrastructure development program with appropriate financial frameworks that encourage service providers to rely increasingly on user fees and, later on, loans as their main sources of financing. Any subsidies within that framework should be provided in a targeted and transparent manner to support government policies.*

- *Capacity Building for Professional Services: Ensuring well trained, knowledgeable and motivated staff to deliver the services in a high quality manner.*

Chapter 2 'sets the context' by narrating international good practices. The terrain here is predictable–decoupling of WSS functions from ULBs, efficiency, O&M ring-fence, targeted subsidies and so on. There is also a cursory discussion on a regulator.

Chapter 3 details out the the 'business plans' for each state and makes a comparison. Here, we learn that $1.8 billion are required for the state of Maharashtra for its WSS reform and that there is a shortfall of $0.7 billion. This report and [2] are based on the basic premise that ULBs will need to tap capital markets for this additional investment.

Chapter 4 sets out the policy for creating the WSS Service Provider (WSSSP) and Chapter 5 is a proposed policy statement by state governments, leaving nothing to chance.

As with other WB reports, the devil is in the Annexures. The first, Annexure 1 sets the specifications (benchmarks) for an ideal WSS. In Annexure II, we see a detailed and almost rhapsodic step-by-step procedure for achieving a separation of WSS from the ULB, in both O&M costs and in infrastructure costs. This is a must-read, for it sets out the WB thinking on subsidies, private groundwater extraction, 'corporatization' and 'professionalization', regulation etc., right down to foreign exchange risks. Annexure 3 describes the current scenarios and 'Business plans' for each state. Annexures 4,5 and 6 are summaries. Annexure 7 lists the stakeholder meetings held to arrive at the report.

The analysis–context and contents

The first point which we raise is the *locus standi* of this report. Was there a clear terms of reference (ToR) document to which this study is a response? It is quite evident that much money was spent in the research and distillation. While it may be argued that this was 'non-lending', it is clear that the WB is an interested party since various state governments, including Maharashtra, are customers of the WB. It is also clear that the WB received substantial inputs from various departments and ULBs. Thus if this report, in parts or in entirety, is to be accepted by the state machinery, then a clear ToR must be produced and

circulated and similar funding and access be offered for an independent study. It would be a moral hazard to accept advice from an interested party without (i) a TOR, and (ii) a second studied opinion.

The second point to note is the absence of any civil society organization or knowledge institution in the stakeholder consultations. There are many groups and research institutions which have studied urban water supply and sanitation for many years. The WB study has not involved them in the process. The WB inputs may well be regarded as precious FDI in terms of knowledge and methodology. Like in the Chinese model, perhaps it would be better to have a policy of having a local collaborator for such projects. This would help create knowledge-institutions which are capable of conducting studies such as the current one. Thus, we recommend that (i) all secondary data generated by the WB study be put in the public domain, and (ii) to nominate an institution of excellence to initiate a parallel study on this data and to collaborate on future work with the WB on this topic. This would reduce the knowledge asymmetry in the current situation and a potential *knowledge capture* in the future.

The third point is also strategic. One important recommendation is for the unbundling of WSS functions, for example, of the design and implementation of infrastructure, or of service provision. The first one is already in place for much of the civil works across most departments and there are many players. However, the quality of the assets created leave much to be desired. Given the weak judicial process, the contractor and ULB interaction is much like the causal-worker/foreman game (see for example, [3]). This game leads to inefficient outcomes unless there is a discerning 'permanent' foreman, i.e., a sound long-term technical advisor who will monitor. This is precisely a skill which is in short supply with ULBs. In which case, it is safer to work with agencies which may be inefficient but which are perpetually answerable (e.g., the Maharashtra Jeevan Pradhikaran (MJP)). This strategic understanding of the situation is missed by [1] but is present in [2], when it claims about 'SEA's (State Engineering Agencies):

> *Leave ULBs free to Select Engineering Consultants and NGOs of their choice to identify, prepare and implement WSS projects on the basis of the best technical and financial proposals received; there is no justification for continuing the de facto monopoly of SEAs as both the Indian WSS markets and available human resources are large enough to support a viable private consulting industry. If ULBs do not have the capacity to appoint and supervise consultants, they could request technical assistance from a SEA, whose role should gradually evolve to that of a 'Facilitator' and 'Advisor'.*

In any case, for Maharashtra, some ULBs have approached other non-SEA agencies for creating assets. Their experience should be analysed. Meanwhile, the 'Facilitator' role of MJP now seems to be enshrined in its 'restructuring'.

The fourth point is more technical and concerns service provision. One motivation for all the financial and institutional restructuring is to create avenues for mutually profitable private participation with clear roles and responsibilities. However, from the ULBs viewpoint, its own deliverable to society is hardly clear or simple. One example is its responsibility to the urban poor. Even for this relatively familiar requirement, the report fails to suggest satisfactory options in the business plans other than some remarks on targeted subsidies. In fact, charitably speaking, as we follow Kuznets' inverted-U in development (see, e.g., [4]), our cities will likely grow more unequal before they grow more equal. In which case, the provision of a safety net may require a closer integration of some of the municipal functions. Moreover, as water becomes scarce, actions such as rainwater harvesting, private groundwater extraction, water re-use etc., will need an even messier interface between the service provider and the ULB[2]. Hence, it is not clear that such a separation is indeed feasible or desirable.

In fact, the report is silent on most technical issues such as sourcing of urban water, demand management, re-use and re-cycling. All of these need careful thought and new technological inputs. These inputs may guide the investment and taxation options before a ULB. Thus, one cannot design a policy framework without assimilating the technological boundaries which this sector must follow.

Finally, there is the matter of capacity building. This is dealt cursorily, too cursorily, as certification courses and extramural training for employees at all levels. The role of educational, research and knowledge institutions[3] is completely side-stepped. In the whole report of 139 pages, the word 'education' does not appear at all, both 'learning' and'knowledge' appear once, and 'research' twice, both times on page 6, the first page of Chapter 2, 'International Good Practices'. Presumably, much of India's urban water reform can happen without these faculties.

In *our* opinion[5], many of our developmental problems have their roots in poor engineering capacity in key governance institutions. Building this capacity will require educational and research institutions to focus on developmental problems of water, energy, livelihoods and so on. In fact, through its own project TEQIP[6], WB is funding quality improvement in many premier technical institutions. It is surprising then that (i) WB has not tied the TEQIP

[2]As an example, Chennai city threatened to cut off sewage and water services to buildings which did not comply with rainwater harvesting norms.

[3]See for example the contributions of Anna University and Chennai Metrowater Training Center also mentioned in Annexure I of [2]

project to capacity demands of the water sector, (ii) TEQIP actually seems to encourage an 'international' version of engineering largely at public expense (see, for example, the faculty visits of Jadavpur University under TEQIP[7]). Ideally, engineering colleges should engage with regional ULBs and support them by developing attractive inter-disciplinary courses in the water sector.

The report does miss one important possibility–that of actually improving the outcomes of the ULBs and their engineering departments *within existing frameworks*. If this is achieved then all subsequent arguments of the report are moot. One possibility is to strengthen the monitoring and coordination functions of the government. This role is generally to be exercised by the District Planning and Development Committee (DPDC)[4]. The DPDC is a constitutional body and is an august meeting of all senior elected representatives of the district and attended by all senior functionaries of the state, including CEOs of municipalities within the district. Adding *independent* technical capacity to the DPDC (for which there is *clear* constitutional provision), say, of independent verification, consultancy etc., will bring added transparency, new knowledge and an outcome orientation to both the demand side (i.e., the representatives of the people) and the supply side (i.e., the engineering departments). In fact, regional research and educational institutions, including those in TEQIP, can gainfully participate in this way. See, for example, the unique report[8] by PRIA, an NGO.

The Maharashtra scenario

In Maharashtra, we learn that the state has already launched its plan which is called the Maharashtra Sujal Nirmal Abhiyan (MSNA). However it is unclear what this means and what is attempted since there seems to be no official document available easily. Two interesting documents are (i) a recent tender call, [9] from the MJP on behalf of Baramati ULB, and (ii) a presentation by an MJP officer to CII, [10]. We understand that the first MSNA agenda in practice is the non-sewage subset of the MSNA Level I as presented in [1]. It refers to a 7-fold path of household surveys, water and energy audit, GIS representation, hydrological simulation, metering of commercial users, and computerized billing of water supply services within a ULB. The WB report also outlines MSNA Level II and Level III as well. These are largely about service expectations from a WSS system and internal business processes. The plan for MSNA III takes us into years beyond 2025 and it is only then that ULBs will either be able to raise capital, or will be comfortable handing out WSS services completely to private service providers. That will lead us into regulatory bodies and governance, which the report does discuss at some length. Since crossing of this policy bridge is some way away,

[4]as it is known in Maharashtra. The general nomenclature is DPC.

we have kept that subject out of this review. Broadly speaking, JNNURM expectations and those presented here will match upto MSNA Level III. They will differ thenceforth: JNNURM recommends only an O&M ring-fence and a robust property tax collection to be used for infrastructure investments, while the WB recommends that the WSS system itself raise money for its infrastructure investments.

Actually, the MSNA Levels I-III are a welcome agenda and coincidentally, MSNA Level I comes close to our own internal studies of a few taluka towns of Maharashtra[5]. All of the above steps are required for arriving at some economic rationality and technical efficiency in WSS service. Also, opening tasks of design, analysis, monitoring, installation etc., for non-state players and consultants does indeed encourage innovation and new knowledge creation.

Reforms–new paradigms are possible

On the whole, it is important that we look at these reforms carefully. In the rural sector, the WB anointed and so-called demand-driven approach to rural drinking water schemes [11, 12] has restricted the solution space to single-village schemes (SVS). The success of these SVS's is not at all clear with source failure and poor technical designs being the primary causes of failure [13]. In regions of wide-spread groundwater collapse, where multi-village schemes are indicated, the demand-driven approach does not easily allow this demand to be aggregated and a multi-village solution to be found. In fact, in the last 10 years, MJP has initiated only a handful of multi-village schemes. Given the vulnerabilities of climate change and frequent droughts, regional rural drinking water grids is an important solution option which should not be discarded purely on ideological grounds.

Given the overall water stress, it would be foolish to trust some set of ideological solutions to work well or at all. There is no substitute to a long-term investment in building capacity in both training and research in the water sector. What is needed is a new inter-disciplinary engineer who is both technically sound and can work in the social context. This must be done by a vibrant partnership between the state machinery and institutes of higher education, CSOs and NGOs and by creating avenues for young professionals to work with government agencies in design, analysis and monitoring functions. After all, no system (even from the WB) can be so perfect that it does not require us to be good.

Acknowledgements: Thanks to Om Damani, Puru Kulkarni and Pooja Prasad for a critical reading of various drafts and some research.

[5]We would however recommend free softwares such as Quantum GIS (instead of proprietary Arc GIS) and the US government's EPAnet instead of proprietary WaterGems.

References

[1] India - Improving urban water supply and sanitation service provision (Vol. 1 of 2) : Lessons from business plans for Maharashtra, Rajasthan, Haryana and international good practices (English), Report by World Bank and Ministry of Urban development, Government of India, July, 2012.

[2] Bridging The Gap Between Infrastructure and Service, Background paper, Urban Water Supply and Sanitation, World Bank, 2006.

[3] *A theory of contractual structure in agriculture*, by M. Eswaran and A. Kotwal, American Economic Review vol. 72 (1985), 352-367.

[4] Chapter 7.2 of *Development Economics*, by Debraj Ray, Oxford University Press (1999).

[5] *Engineering teaching and research in IITs and its impact on India*, by Milind Sohoni in Current Science, vol. 102, June 2012, pg. 1510.

[6] India - Technical and Engineering Education Quality Improvement Project. Report by World Bank, 2009.

[7] `http://teqip.jdvu.ac.in/doc/faculty_deve.pdf`, accessed on August 5th, 2012.

[8] Status and Functioning of District Planning Committees in India, Report by Society for Participatory Research in Asia (www.pria.org), November 2009.

[9] Internet site: `maharashtra.etenders.in/tpoimages/mjp/tender/Tender54.pdf` accessed on 30th July 2012.

[10] Non-revenue water and Sujal Nirmal Abhiyan of Maharashtra, presentation to the CII by Shri R. Holani, Chief Engineer, MJP (2011).

[11] Review of Effectiveness of Rural Water Supply Schemes in India, Report by World Bank, 2008.

[12] Maharashtra Rural Water Supply and Sanitation "Jalswarajya" Project, Project documentation report by the World Bank, 2003.

[13] `http://www.cse.iitb.ac.in/~sohoni/water`