

# 'SLIPPAGE' ROUNDTABLE BRIEFING NOTE – DRAFT 26 JUNE 2009

## INTRODUCTION

The Round-table meeting on "Slippage of WASH services" at CESS, Hyderabad in India was held on 24 June 2009. The meeting is a joint initiative of the WASHCost India programme and IRC, International Water and Sanitation Centre. The WASHCost programme aims at improving WASH governance by developing and applying methods and tools for life-cycle costing of services.

The initiative has its roots in the globally growing awareness that the WASH sector should be held accountable in terms of access to services achieved, rather than in supply infrastructure developed as has been the practice over the past decades. 'Slippage' becoming part of the language of the sector in India is a good example of this trend. Therefore initially a call for abstracts of research and practice papers on the subject was sent out, which however resulted only in a limited number of responses. However, there was a very positive response in terms of urgency and timeliness of bringing the subject to the table.

At the same time it became also clear that the expression 'slippage' was not always used in a consistent way and questions were raised if it was not just a new buzzword or old wine in a new bag. Therefore it was decided to organise this round-table with the aim to increase understanding and causes of the fall back of WASH services in terms of quality, quantity and continuity in a relative small period of the full life-cycle after the initial capital investments in order to be able to develop strategies to address this situation.

The meeting is attended by 21 participants from different State governments, NGOs, Universities and international organisations.

## BACKGROUND

People in the sector, both the professionals and policy makers, but above all the consumers know from experience that the lack of sustainability of WASH services is a major issue. It goes as far that it helps the arguments used by some politicians in the donor countries for development cooperation that tax payers money is wasted and aid should be stopped. At the same time there is very little reliable information about the realities on the ground. It is well known to all that the official statistics used by both governments and international organisations (like the JMP) are often erratic and at best can be regarded as an indication for the relative performance of the sector. In addition, without exception such information reports only on coverage and thus on infrastructure installed and not about the actual access to and use of WASH services.

With the above in mind it may be still useful to refer here to some of the information and quotes that are available from studies carried out, including the draft papers that have been submitted in preparation of the round-table meeting. It is important to note that unless it is explicitly mentioned to be different, all examples below refer to coverage and not to actual use/access to services.

## AFRICA

Recent surveys in the Menaca region of Mali found that 80 per cent of wells were dysfunctional. In surveys in northern Ghana, 58 per cent of waterpoints were shown as needing repair. These figures are not unusual. The water and sanitation foundation FairWater estimates that there are 50,000 dysfunctional water supply infrastructures across Africa.<sup>1</sup>

## SOUTH AFRICA

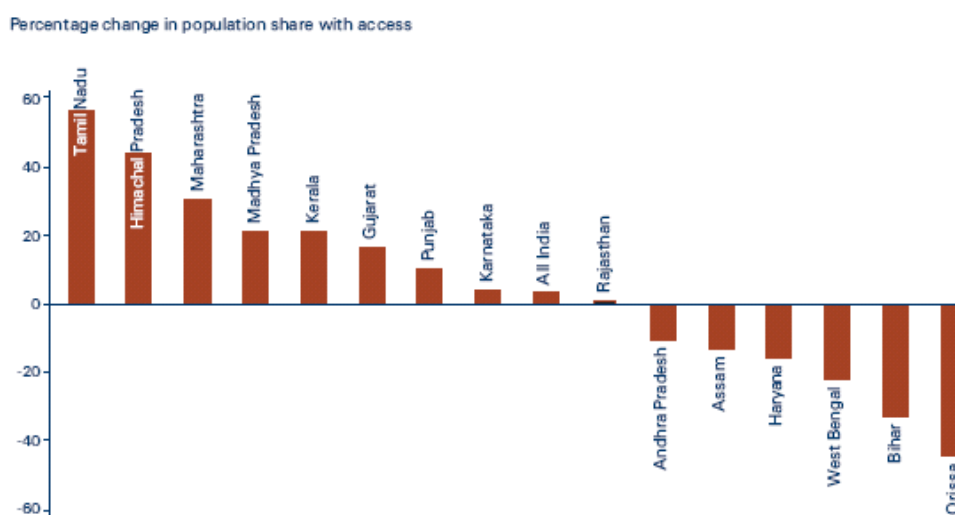
In a recent discussion paper of the Department of Water Affairs and Forestry (DWAF) of South Africa it is identified that "keeping these existing assets functioning optimally is crucial to the achievement of economic growth and poverty eradication" is one of the major challenges for sustainable growth and development. (see also text box below)

Much of South Africa's water storage distribution and monitoring infrastructure, as well as water and waste water distribution systems, is aging and needs refurbishment or replacement. A history of poor investment in preventative maintenance has left a significant maintenance backlog in many areas. Local government is, nevertheless, facing increasing demands for high levels of services, which are often unaffordable, exacerbating investment backlogs. Poor cost recovery and water losses also contribute to poor investment in infrastructure maintenance. Poor maintenance of these systems is therefore leading to periodic and sometimes systemic failure, resulting in serious pollution, and often water supply failures.

*DWAF: Strategic Framework on Water for Sustainable Growth and Development - Discussion Document, April 2008*

## INDIA

**Figure 2 : Progress and Slippage: Change in Access to Piped Water in Urban Areas Between 1991 and 2001**



*Note: Piped access includes pipes both within and away from the premises.  
Source: Census of India 1991 and 2001.*

<sup>1</sup> Skinner, Jamie, IIED, March 2009: Where every drop counts: tackling Africa's water crisis

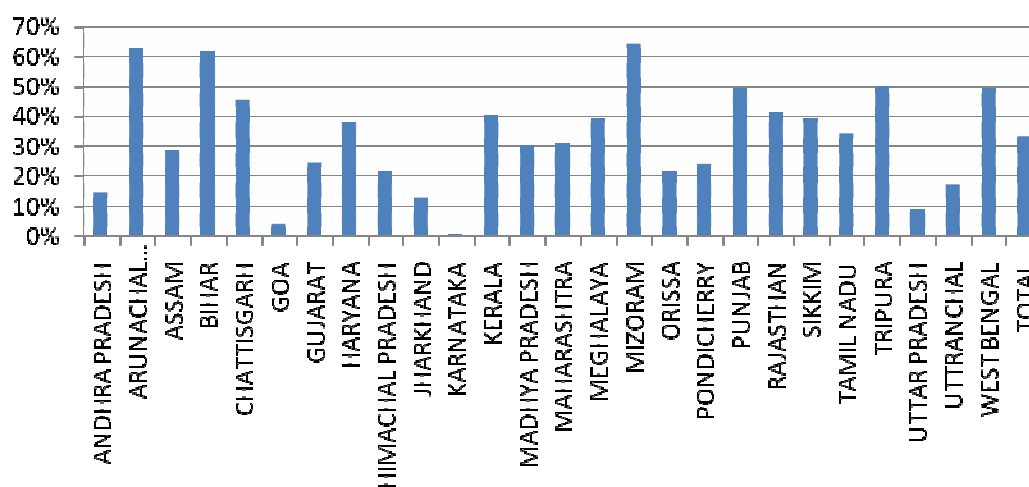
The Working Group on the Tenth Five-Year Plan of the GOI estimated that slippage of drinking water services affected around 15% of habitations in rural India. Another source that points to the problem of slippage in India is a World Bank report<sup>2</sup> that indicates evidence that *piped water coverage* in several States between the early 1990s and the early 2000s (see figure 2) has actually decreased. The actual problem, however, may still be much bigger.

Prof. Kirit S. Parikh, member of Planning Commission of the Government of India (GoI), states in a speech in October 2007 that: "Clean water for all is as important for health as perhaps health services. Currently, 95% of the villages have clean drinking water. But a large number of villages often slip back and there are numerous villages with serious water quality problems." In the budget of 2007-8 the GoI emphasises the priority of tackling the issue of slippage and non-covered habitations.

Arumugam Kalimuthu of WES-Net India informed that despite the rural sanitation coverage being 57 per cent, over 50 per cent of the covered households have slipped back to open defecation. Unless there is paradigm shift in our policy thrust towards sanitation, the situation may get worse.<sup>3</sup>

The draft paper of the WASHCost Team (prepared by V. Ratna Reddy, M.S. Rammohan Rao and M. Venkataswamy: 'Slippage': The Bane of Drinking Water and Sanitation Sector (A Study of Extent and Causes in Rural Andhra Pradesh) shows that 'slippage' is more than 30 percent at all India level, which is substantial by any standards. Across the states, the extent of slippage varies widely (Figure 3).

**Fig 3: Extent of Slippage Across States in India (Rural Water Supply)**



<sup>2</sup> World Bank, January 2006: India Water Supply and Sanitation – Bridging the gap between infrastructure and service

<sup>3</sup> meeting organized at India International Centre on 12<sup>th</sup> May by Mr. Sharma Landmark Journalist and Deshkal Society, Mr. Kalimuthu a panel member along with Dr. Patak (Sulabh International) and Dr. Amitab Kundu (leading urban specialist from JNU)

## WHAT IS 'SLIPPAGE'?

### DEFINITION USED BY GOVERNMENT

The Rajiv Gandhi National Drinking Water Mission (RGNDWM) uses the term 'slip-back' to refer to habitations that have slipped back from a previous status of a Fully Covered (FC) habitation to the status of a Partially Covered (PC), Not Covered (NC) or No Safe Source (NSS) habitation, from one all-India habitation survey to the next.<sup>4</sup> There is no mention of the term 'slippage'.

### DISCUSSION

One of the papers submitted for the workshop defined slippage as 'the occurrence of WASH service delivery system, that worked at certain moment of time has fallen back to lower level of service delivery' (Reddy et al., 2009). Workshop participants defined slippage as 'a drop in the normative status of WSS service levels (for a specific unit of WSS supply)', although participants recognized there were several aspects of the normative framework (or norms) that needed clarification. Some argued that norms are actually point back to a supply approach, rather than to a service level (demand) approach. The clarifications needed include the time period of review, distinguishing between 'temporary and permanent' slippage, consideration of the satisfaction of user demand and equity, distance and water supply service levels. The latter, in particular, had to differentiate between 'complete' and 'partial' service levels, the type of supply (piped house connections, public stand posts, etc.) and the hours of service (24x7, discontinuous but regular or just irregular). Workshop participants also noted that the time period of measurement is also a critical variable in determining the extent and type of slippage. It was suggested that the government could set minimum norms for service levels, but that communities could use the flexibility in the new RGNDWM Guidelines for Rural Water Supply to evolve their own norms.

Workshop participants also noted that slippage is a status assessment, while 'functionality' and 'sustainability' are factors underlying slippage.

#### **Definition related to sanitation**

Workshop participants also felt that the concept of 'slippage' should be extended to sanitation as well, given that the two are inter-linked. A definition of slippage in sanitation has to be based on a normative framework for sanitation service levels. Such a framework should consider attitudes and behaviours as well as facilities. Alternatively, if the norm is simply an open-defecation free (ODF) habitation, then slippage should refer to the drop in the proportion of ODF habitations from one point of measurement to the next.

## CAUSES OF SLIPPAGE

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<sup>4</sup> Rajiv Gandhi National Drinking Water Mission (2009) *Movement towards ensuring people's drinking water security in India: Framework for Implementation (2008 – 2012)*, Department of Drinking Water Supply, Ministry of Rural Development, Government of India, Annexure III, p. 57. The actual reference to the usage of the term is: 'The main aim of providing sustainability of drinking water schemes is that such schemes will not slip back from universal access of safe drinking water to the community throughout the design period of schemes.'

The RWSS Watersoft MIS of the GOI identifies eight major causes of slippage:

- Increase in population (including migration)
- Drying up of sources
- Water quality problems
- Poor O&M
- Seasonal slippage (temporary)
- Less supply (at Point Water Supply delivery point)
- Age of systems
- Shortage of electricity

Workshop participants came up with a long list of underlying causes, which could be broadly classified under four key characteristics of slippage, i.e., the occurrence of any one of which would lead to 'slippage' from a previous state of adequate service quality.

- **Poor water quality:** Due to changing water quality due to water pollution and naturally-occurring chemicals like fluoride and arsenic, and the lack of availability of funds or appropriate technology to treat water contamination
- **No water supply from the water point:** Either because the source dries up seasonally or permanently (perhaps due to poor quality of construction) or due to pipe bursts or the electric pump or transformer burning out or power failures, accompanied by the lack of preventive maintenance, timely repairs, timely replacement of major parts, locally-available trained manpower for O&M, protection and management of catchment areas and lack of incentives for better maintenance
- **Reduced access to water supply from the water point:** Either because of poor construction of the water point, low pressure in pipeline, overcrowding due to population growth and a lack of demand management, and other factors raising demand more than design capacity, or reduced water from the source due to rising competing uses (e.g., rising numbers and/or over pumping of agricultural or industrial bore wells) due to perverse government or market incentives (e.g., free electricity policies due to vote bank politics)
- **Lack of access due to social exclusion:** such as caste discrimination or restriction of supply to non-paying households

As with the authors of papers written for the Workshop (e.g., Reddy et al, Chakraborty), the participants agreed that all these causes can be traced back to the root problem of poor WASH governance. The participants, however, detailed the components of poor water governance to include a wide range of factors, including incorrect incentive structures in existing government policies (leading to low levels of ownership and leadership at all levels), lack of authentic and up-to-date data and poor monitoring of user demand, poor capacities at community and PRI levels to plan and implement programmes to improve water services, the government department's inability and unwillingness to respond to rising demand for improved water services, low community interest in generating funds for O&M, especially to maintain traditional systems (possibly due to the fact that there are new systems now and hence low interest in maintaining traditional systems), lack of institutional accountability, focus on target-driven coverage, low levels of government support to local institutions and poor coordination between government departments implementing schemes that affect local water supply.



## GOI GUIDELINES 2008 - 2012<sup>5</sup>

**Overview:** The participants noted that the guidelines were attempting to give domestic water supply management back to the community, after a century or so of the government taking charge from the community. However, the government remains the 'duty bearer' with the obligation to provide its citizens with water supply according to its own norms – and hence was responsible for the gap between these norms and actual service levels, and also of slippage.

**Caveat:** While noting that the Guidelines were a positive step in the right direction, the participants felt the effectiveness of GOI guidelines themselves were limited by the fact that water is a state subject in India, hence states have a decisive say in the water policies adopted on the ground. Consequently, state-level water policies, regulations and legislation, have greater influence on district, panchayat and village-level performance.

**Gaps in Guidelines:** With this background and caveat, participants identified a number of areas where the RGNDWM Guidelines could be improved. The key issues are listed below:

- Institutional mechanism envisaged: The PRI institutions (GPs, MPs, ZPs) are ill-prepared and lack the funds and capacities needed to take over, manage and maintain water supply schemes constructed by the RWSS or PHED. The village-level planning envisaged by the Guidelines, are especially prone to the low capacities, and low incentives, at GP level and it is unclear whether the Sajal Puraskar alone will be sufficient to enthuse and motivate villagers to carry out this task effectively.
- Time for village water security planning: Given the experience of various donor-supported community-based water supply projects in the country, it is clear that community mobilization, facilitation and empowerment takes a minimum of 6-7 months (and 16-18 months for the entire project cycle), which is much more than the 2 months envisaged in the guidelines.
- Measures for source protection: Although source protection is mentioned and even emphasized in the Guidelines, there is no mention of any specific details, such as recharging structure or catchments, without which these may not be actually implemented.

<sup>5</sup> Rajiv Gandhi National Drinking Water Mission (2009) *Movement towards ensuring people's drinking water security in India: Framework for Implementation (2008 – 2012)*, Department of Drinking Water Supply, Ministry of Rural Development, Government of India

- Convergence among government departments: This is mentioned in the Guidelines, but there are no provisions to enforce the coordination necessary with Forest, Water Resources, Public Health Engineering, Agriculture and other key Departments.
- O&M funds: It is not clear whether the funds allocated for O&M (as a % of total allocation) will actually be sufficient to operate and maintain existing water supply infrastructure. It would be better if such a top-down rule of thumb is replaced by estimates backed by analysis of the actual situation on the ground.
- Water infrastructure planning: Despite evidence from the ground that wrong sites are selected, that engineering design criteria may be outdated or inappropriate, toilet construction does not take into account water supply availability or waste-water management, the Guidelines do not mention any means to redress this situation. Handing over planning to communities, under supervision of technical departments, will simply replicate such planning weaknesses.
- Lack of incentives and capacity for community to use and maintain WSS infrastructure – need space to be given by government!

## WAYS FORWARD

The workshop participants listed issues that warrant further study, identified opportunities for action-research along with state-level implementation of the GOI Guidelines and shared information on on-going initiatives and possible opportunities for collaboration.

## ISSUES THAT WARRANT FURTHER STUDY

### Concerning slippage

- Analyse state-level secondary information of 'slippage' in water supply and sanitation, to identify the major causes in sample villages, and see whether the magnitude in macro-level statistics are borne out by sample estimates.
- Devise monitoring indicators and a tool to show current status of slippage: Work out more detailed, meaningful and practical monitoring indicators and a monitoring tool to generate a continuous stream of consistent statistics on slippage.
- Estimate actual slippage and its costs: Carry out systematic assessments of the magnitude and extent of slippage, using revised monitoring parameters (see below), as also the economic and social costs of slippage, to emphasize the criticality of slippage as an issue (currently seen as an ad-hoc problem) and the linkage with chronic poverty, and also the Infrastructure-specific replacement cost of water systems
- Evaluate requirements to address slippage: Analyze the process and investments needed for 'slipped' habitations to return to the 'original' position, carry out sample investments and study their effectiveness through case studies.
- Analyze institutional roles and responsibilities: Since slippage is a sector-wide governance issue, analyze institutional roles, responsibilities and accountabilities comprehensively, at community, local government and higher levels and suggest options and opportunities for improvement.

### Concerning GOI Guidelines

- Detailed analysis of the GLs and their implementation: to better assess the core of the GLs and see, for instance, whether they can be modified to reflect a sector-wide approach at state-level and to implement rural 24x7.
- Re-examine supply norms: Check the actual situation in the village level and see whether the existing GOI supply norms (including 40 lpcd) need to be modified.
- Validation of estimates used in the GOI GLs: Estimate actual expenditure for different cost components and revenue generation potentials (e.g., at GP level), for maintaining water supply infrastructure and compare these to GOI GL thumb-rules.

- Research and track opportunities and challenges in village-level cross-sectoral water security planning: from the first step, to understand the resource requirements.
- Detailed study of IEC and CB: in specific agro-climatic sites and analysis of differences there may be across them, to design rigorous and effective 'best practice' modules and revise provisions in GLs.
- Improvement of skills and capacities of PRIs and other levels, including of engineers, to take forward the GLs, evaluating the effectiveness of existing (govt & other) CB programmes and designing CB programmes to deal with existing 'capacity gaps'.
- Strengthening implementation of GLs: Study approaches to translate GLs on the ground.
- Pilot convergence in practice of several departments working together on the ground – on resource, infrastructure management, etc. at Mandal, cluster or district levels.

#### **Concerning rural water supply in general**

- Comprehensive assessment of O&M issues: Study existing O&M gaps at habitation, and higher levels to better understand O&M issues and suggest ways to address gaps.
- Study opportunities for improving continuity of systems and procedures at GP level, so that good systems do not change when political leaders change.
- Systematic study of physical water losses, water use and water demand by doing an audit of a particular supply system to see why adequate quantities of water being pumped into the system does not reach the final consumer fully at the village-level.
- Create a one-shop stop for statistics showing the status of drinking water sources by compiling available research studies and estimates that are currently scattered.
- Study employment generation potential for BPL people at village level.

#### **OPPORTUNITIES FOR ACTION-RESEARCH ALONG WITH STATE-LEVEL IMPLEMENTATION OF THE GOI GLS**

- Jalaswarajya, the WB-assisted project in Maharashtra which has an on-line monitoring system but not performance monitoring, may be interested in hosting research into defining benchmarks to measure PRI performance in WATSAN at scale.
- WASMO in Gujarat has offered in the past the opportunity to do action research along with their implementation.
- Orissa, Bihar and MP state governments are interested to explore improved implementation and WaterAid India (WAI) is currently in negotiation with them.
- Andhra Pradesh government is interested in supporting the measurement of costs and quality of service (for different users) of a few bulk-water supply system managed by local bodies as well as multi-village and single-village schemes.



## ON-GOING INITIATIVES AND POSSIBLE OPPORTUNITIES FOR COLLABORATION

- **WES-Net India, New Delhi**
  - Organizing a high-level national conference in July-August on GOI GLs where the topic of slippage can be included
  - Offer of e-discussion platform (Solution Exchange) through WES-Net
  - Web Page for WASH-Cost
  - Sharing of WES-Net Sector Research Coordination findings
- **Plan International (India), New Delhi**
  - Sharing of the findings of the ORG-Nielson study on capacity building
  - Offer of Plan International (India)'s 11-state work in India as a research platform
  - Sharing of the findings of Plan International 11-country study
- **Water and Sanitation Program – South Asia (WSP-SA), New Delhi**
  - Offer to provide updates on on-going work with a few state governments on reform, including devising own GLs and improving water supply performance
  - Offer to share information on regional events (e.g., January 2009, Governance workshop) and the upcoming event in Dec-Jan
  - Offer to follow up any interest in collaboration and partnerships
- **Water Aid India (WAI), New Delhi**
  - To share existing research on (1) water security research (2) measurement of costs of slippage; and (3) chronic poverty analysis (including slippage as a factor)
  - To share their Document Series on GLs
- **WASH COST Project, CESS, Hyderabad, Andhra Pradesh**
  - To provide link to the WASH Cost web page for India to WES-Net
  - To share findings from detailed research on some parameters, and monitoring across 100 odd sample villages
- **Centre for Environmental Planning and Technology (CEPT), Ahmedabad, Gujarat**
  - To share approach and lessons from on-going research on urban WSS and benchmarking to see if they could be useful for the rural sector
  - Offer of students to do small research assignments in the WASH COST project
- **IRC International Water and Sanitation Centre, the Hague, Netherlands**
  - Will keep group posted on relevant events in the region and maintain links with other activities related to the subject, like the SNV Asia functionality group
  - Small research funds for documentation or small assignments, which fits in with IRC work plans on local WASH governance

## NEXT STEPS

**Future conferences:** The workshop participants suggested that before another (larger) conference is held, there should be agro-ecological area and site-specific background research and analysis, the findings of which can be discussed at the conference. They also suggested that the conference should not focus exclusively on slippage but on underlying sector-wide issues. Finally, they also felt that instead of a conference exclusively focused on slippage, it may be better to add slippage as a theme to existing regional conferences.

**Workshop report:** IRC will do a brief write up from discussions from this meeting and send to participants; also publish it on the WASH COST and IRC websites and seeking feedback from others (not just who participated). The draft will be circulated to all participants for time-bound comments before publishing.