Offering Solutions: An Appraisal of WASH Sustainability Challenges in Pakistan

SUMMARY
An analysis of UNICEF WASH programming and sustainability of Rural Water Supply Schemes (RWSS) and Open Defecation Free (ODF) status in Sindh and Punjab provinces has found Pakistan facing challenges across a number of indicators. Using these findings as a baseline for future work, UNICEF and its partners have been able to move forward in strengthening future programming and creating the enabling environment crucial to fostering greater coordination of federal and province level government efforts.

Changes in Punjab and Sindh’s populations’ attitudes and beliefs, or social norms, to RWSS services and ODF behaviours, such as paying for water and maintaining ODF status, reveals the need for a behaviour change programme and a social norms a re-triggering process.

The findings, whilst initially discouraging, have had an immediate positive effect through the creation and implementation of an institutional draft sanitation policy, a multi-year strategic sanitation and hygiene master plan and a behaviour change communication strategy.

Introduction
Each day in Pakistan diseases associated with poor water sanitation and hygiene are estimated to take the lives of 110 children. Although progress has been made in eliminating open defecation (OD), some 25 million, mainly rural, Pakistanis still defecate in the open. This urban-rural divide sees 94% of wealthy urban dwellers having access to improved sanitation, but only 12% of poor rural people do so. The situation is similar for access to safe drinking water within cities, a total of 91% of the population have access to improved water sources, yet many of these are bacteriologically contaminated, especially in unplanned and impoverished urban areas, the remaining 9% of the population still consume water from unsafe water sources such as surface water, rivers or contaminated wells.

In 2016 a study to discover the sustainability of the Pakistan’s Rural Open Defecation Free (ODF) communities and Rural Drinking Water Supply Schemes (RWSS) was undertaken. This study provided an analysis of UNICEF WASH programming and through identifying bottlenecks in WASH provision informed and strengthened future programming.

Description of Intervention
This ‘Sustainability Check (SC) Study’ addresses 5 dimensions, or ‘Sustainability Factors’, that are crucial to the sustainability of services. These include: Institutional, Social, Financial, Technical and Environmental factors. This system is scored from 0 to 100% and categorised as ‘Completely off-track’, ‘Poor likelihood of sustainability’ or ‘A stable intervention producing sustainable results’.

Home to over 140 million people, or 81% of the nation’s total population, the provinces of the Sindh and Punjab are Pakistan’s most populous. Greater security on the ground and
improved government capacity has seen more WASH sector interventions undertaken in these two provinces. This SC study selected Sindh and the Punjab expecting that this higher level of involvement would yield greater insights into the WASH sustainability than in provinces where fewer interventions took place.

A total of 3312 individuals, 1685 from Sindh and 1627 from Punjab, participated in the survey. The study comprised a representative household survey, key information interviews, focus group discussions (FDG’s) and field observations.

To examine attitudes around social norms a knowledge, attitudes and practices (KAP) survey was conducted across 221 communities that had been certified ODF between August 2012 and August 2015. As an additional qualitative assessment, 32 key informant interviews and 15 FDG’s were conducted at national, provincial, district and community level.

Lessons Learned

Despite both regions scoring poorly, with the majority of indicators scoring completely off track, this study was able to highlight essential interventions, some of which are have already been set motion, and provide clear recommendations on all 5 dimensions. A first for Pakistan, this study included an assessment of social norms and the role that they play in ending open defecation and the social acceptability of the need to pay for water supplies.

Results across all dimensions highlighted the need for the creation of an enabling environment that require continued efforts to strengthen government systems through policy and strategy and sector plans that can be effectively enacted and operationalized to ensure strategic level bottlenecks are unlocked.

In Pakistan social norms results reinforced the opinion that it can take years to pick up a new habit, and that change is a process and not a one off event. Future UNICEF projects may well need to embrace the fact that relapse is common, perhaps even inevitable, but that it should be viewed as an integral part of the change process and not as a failure.

Institutional

The combined results for Punjab ODF ranked in the lowest (46%) band of the sustainability model. Sindh province also performed very poorly, scoring 33% on combined indicators. While Punjab has laid the foundations for an enabling policy environment; formulating and updating policies and plans and implementing the Pakistan Approach to Total Sanitation (PATS), sanitation it is still viewed as a need

Key Points

- The joint sector review and the WASH bottleneck analysis has informed discussions and a greater understanding of interventions around enabling environment and sector financing
- The findings have prompted greater efforts to develop, update and operationalize policies, strategies and sector plans. Poor results across all dimensions in Sindh province have since led to the enactment of drinking water and sanitation policies and the approval of drinking water, sanitation and strategies and sector plans. These plans include SDG commitments to be implemented from 2018.
- Creating and sustaining social norms in ODF villages has proved a key challenge. To provide adequate time for the behaviour change process, a six-months post ODF behaviour change communication programme was introduced as part of PATS implementation. This was first introduced in 2017 in Sindh and is expected to improve the level of slippage in ODF communities.
RWSS indicators have fared somewhat better in Punjab province. Policy and plans state that access to safe water is a human right. It can be claimed that satisfactory progress has been made on key indicators, such as approving the Punjab Drinking Water Policy and a multi-year WASH plan (2015-2024).

Sindh has not fared so well. A combined institutional indicator score of 27%, designated RWSS as being completely off track. A draft Drinking Water Supply Policy has been drawn up, as has a WASH sector plan, and both enshrine water as a human right. Unfortunately, no legislative support for these plans exist, and what is more they lack a clear direction for implementing an approach to total Sanitation or increased private sector engagement. Again, the approach in the Sindh is hampered by inadequate human resources and no monitoring and evaluation or partnering Community Based Organisation (CBO) through which RWSS projects can be implemented.

Social

The acceptance of social norms has proven one of the most powerful of WASH behaviour change drivers across South Asia. In the case of the ODF and RWSS programmes in Pakistan, the social norms and payment for water services assessed were those related to toilet use. Both Sindh and Punjab ODF scores indicate a poor likelihood of achieving sustainability.

Sindh scores higher than Punjab on functional Village Sanitation Committees (VSCs) and CBOs and on their being representative of the communities in which they work.

In contrast, Punjab lacks both CBOs and VSCs to take responsibility for ODF programmes. Indeed, where they do exist, community members are often unaware of their presence.

There was a great disparity between Sindh respondents’ belief that community members always use toilets (75%), compared to actual usage rates of 34%. Although toilet use is higher in the Punjab, the same difference was found between actual behaviour and respondents’ beliefs, with 86% stating that community members always use toilets.
compared to actual usage rates of 63%. Communities were unaware of the existence of sanctions for open defecation. Only 42% of those interviewed in the Sindh, and a staggering 12% in the Punjab, were aware of any form of sanctions for practicing OD. Poor community engagement was again clearly evident in RWSS results for both provinces. Only 37% of RWSS projects in the Punjab and 20% in Sindh were community owned or managed, with very few having village action plans. Sindh has virtually no operational CBOs and almost no Water User Committees for managing RWSS in villages. Punjab did fare better in terms of human resources, with an adequate number of technicians and plumbers available to undertake RWSS projects.

The role of social norms also addressed community members' willingness to pay for access to water. Only 43% of those in the Punjab and 29% in the Sindh considered paying for water the 'norm'. Again, with the caveat that the pay for access 'norm' was not part of the original social norms programme, there was a large disparity between reported and actual behaviours. 33% of community members in the Punjab and 31% in the Sindh believe that households pay for water, when actual figures were 19% and 8% respectively.

Financial

Poor awareness of options to fund toilet construction was evident in both provinces. Some 90% of respondents were unaware of low-cost toilet or microfinance options, leading them to believe that toilet construction was expensive.

RWSS combined scores differed between Punjab and Sindh. Although Punjab’s score of 52% was weak, it is not completely off track. Sindh in contrast is off track, with a score of 31%. In both provinces, it was clear that there was again a gap between hardware funding and ‘soft’ communications and behaviour change programming. Importantly, vulnerable groups were not targeted with direct subsidies in either province. Encouragingly, Sindh did see an increase in RWSS funds originating from the provincial level and the Punjab had completed setting and regulating water tariffs in consultation with communities.

Technical

The existence and application of technical designs, technologies, and standards for both PATS and RWSS delivery fall into the Technical Sustainability Check category. Essential supply chain management of products and services and the public sector’s role in capacity building stakeholders to encourage research and innovation are also addressed.

Sindh’s progress is very poor. There is no public sector approved design or standard for sanitation infrastructure and, as in Punjab, the supply chain is fragmented and focused on manufacturing with little attention paid either to distribution or raising community awareness through an approved behaviour change communication (BCC) model.

RWSS in the Punjab returns a combined score of 66%. 81% of users are generally satisfied with water supply schemes. Whilst the combined score of 45% is weaker for the Sindh, 80% of users are satisfied that their daily need for quality water is being met.

The ‘Technical and Service Delivery Standards for Water Supply and Sanitation Standards’ has been approved by the Government of Punjab. In the Sindh, government approved standards for RWSS exist in terms of design and civil work, but the level of equity integration remains low. As in the sanitation sector, supply chains, and particularly the availability of spare parts and support services, remain weak in the Punjab. In the Sindh, although spare parts are available, supply chains are hampered by the perception that these parts are expensive.
Environmental indicators address institutional arrangements for policy, environmental safety, commitment, availability, and the extent to which environmental safeguards are enforced.

Both the Punjab and Sindh are off track, with a returned score of 33%. Policy level commitments to prioritise and comply with environmental safeguards exists but are vague or lack rural sanitation components. The Sindh Protection Agency is incapable of effectively regulating rural sanitation, and in the Punjab the department lacks the capacity to regulate effectively. Both provinces also show clear biases towards urban and industrial regulation.

ODF Common Recommendations

Institutional

There is an urgent need for a legislative update to Provincial Sanitation Policies affirming sanitation as a right and not just a need. PATs manuals need to be homogenised across all provinces, with clearly defined indicators, principles, approaches, interventions and definitions. The manuals must also provide guidance on supply chains, Information, Education and Communication (IEC) materials, training and community mobilisation. Technical reviews need to be performed regularly and monitoring, evaluation and research units must both have dedicated staff and involve communities themselves.

Social Recommendations

The social mobilisation process must lead to greater engagement. PATS manuals can set standards for the creation and management of community networks and VSCs, whilst outlining how all community forums can consolidate to better work with public bodies.

Social Norms Recommendations

Communities are failing to implement sanctions for violating normative expectations and social norms re-triggering needs to be undertaken. Communities must also reach agreements on sanctions. Through learning from areas where sanctions have been successful, sanctions
models can be scaled-up. Financial recommendations: Whilst ensuring low cost toilets are available there must also be investment in, and promotion of, supply chains and greater engagement with lenders, encouraging them to make loans available for toilet construction. Community forums need to implement a sanitation levy for PATS services, such as safe excreta disposal. For Sindh, rural PATS services need planning for regular sanitation services until open drains are converted into sewers.

**Technical recommendations**

Standards, with SDG’s targets and policies, are needed to ensure safe excreta management and quality toilet construction. A supply chain analysis would identify market gaps and opportunities, especially for local artisans and suppliers. The WASH BCC strategy must be developed, reviewed and approved. To support environmental safety and sustainability integration. Through developing standards partners will be able to plan and implement environmental safeguards, especially in regard to human excreta management. These standards must be backed with appropriate environmental awareness and BCC campaigns.

**RWSS Common Recommendations**

**Institutional Recommendations**

Legislation needs to be drafted declaring access to clean water as a right and not merely a need. Clearly delineated roles and responsibilities for implementers are needed avoid duplication, whilst ensuring that training and capacity development leverage existing public sector training capacities and resources. A Monitoring, Evaluation and Research (MER) unit within lead Public Monitoring Agencies needs to be established, as does the

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**RWSS Indicator Scores**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Punjab</th>
<th>Sindh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional</td>
<td>67%</td>
<td>27%</td>
</tr>
<tr>
<td>Financial</td>
<td>52%</td>
<td>31%</td>
</tr>
<tr>
<td>Technical</td>
<td>66%</td>
<td>45%</td>
</tr>
<tr>
<td>Environmental</td>
<td>44%</td>
<td>44%</td>
</tr>
</tbody>
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76% to 95% On Track
0% to 50% Off Track

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each of these recommendations, it is essential that the requisite capacity building be provided to manufacturers, research organizations and academia.

**Environmental recommendations**

An environmental safety strategy needs to be formulated and resourced to implement
institutionalization of regular sector reviews. The PATS in Punjab model must be scaled-up to establish nationwide water treatment and supply network designs, tariff collection and management, operation and maintenance, and water technology research.

Social recommendations

Drinking Water Associations must be accountable and ensure transparency of water tariff collection and expenditure. They must also ensure adequate RWSS operation and maintenance, financial record keeping, meeting minutes. Drinking Water Associations must also review existing training capacity development plans and leverage public sector training capacities and resources. Housing Urban Development (HUD) and Public Health Engineering Departments (PHED) must be able to provide timely technical and financial support to CBOs under ‘WASH Support Centres’ at district level.

Social Norms recommendations

Payment for water was rarely observed during the study. This needs to be addressed through a social norms change framework with future interventions incorporating IEC and BCC campaigns.

Financial recommendations

A social norm of payment for water will lead to greater acceptance of monthly water tariffs and that are set in consultation with communities. Separate budget lines must be implemented for repairs and maintenance and the upgrading, or extension of, existing RWSS to keep them functional. A budget for BCC, IEC and capacity building also needs to be implemented alongside subsidies for vulnerable groups.

Technical recommendations

Revise the National Environmental Quality Standards (NEQS) for domestic and industrial effluents and penalties for non-compliance and introduce stricter monitoring. Improved standards should ensure RWSS spare parts are of adequate quality and affordable. Technicians need to be trained in undertaking minor repairs, while research and development on innovation and low-cost RWSS could be improved with financial support from public agencies. Public BCC campaigns need to be undertaken to promote drinking water safety measures.

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Box 1. Key Steps

1. Results clearly indicate the need to strengthen sector coordination at federal and province level. This will ensure the synergy necessary to implement identified approaches, to standardize technical options and to monitor key sector performance indicators.

2. UNICEF and partners will continue and strengthen joint sector reviews and follow ups on the implementation of recommendations in both Punjab and Sindh provinces

3. Extended post ODF interventions in parallel with close monitoring of changes in the sustainability of ODF, noting any return to OD practices and apply relevant findings to fine tune the implementation approach

4. Continue and strengthen engagement with sector partners to improve operation and maintenance of water supply schemes through the newly implemented drinking water policy and strategy and sector plans.

Environmental recommendations

Ground and surface water extraction must be regulated and comply with NEQS.
A needs assessment is urgently needed to propose effective capacity development interventions around PATS training and planning and delivery at provincial and district levels. The Punjab WASH Coordination Committee must be strengthened so it can to oversee the coordination of stakeholders.

Next Steps

Although at first glance sustainability results are discouraging, the model has proved a sound motivator for stakeholder action and many of the study’s recommendations have now been incorporated into a checklist to certify that sustainability criteria are being put in place (See Box 1).

The overall results of the sustainability check study is having the positive effect of highlighting weaknesses that provoke active responses from stakeholders. Its 142 detailed recommendations provide a clarity of emphasis for management staff and implementers.

Transparent, empirical findings also act as an important means of influencing both opinions and behaviours, and emphasise accountability in those organisations and agencies with responsibility for ensuring the future sustainability of Pakistan’s WASH interventions.

Though the study covers a wide range of factors and provides various recommendations, critical to unlocking the bottlenecks at strategic level will be UNICEF’s commitment to the improvement of the enabling environment. Only through continued efforts to strengthen government systems can the required policy, strategy and sector plans be enacted and operationalized to ensure that strategic level bottlenecks are unlocked. For an in depth look at the Pakistan Sustainability Check Study please refer to the UNICEF Technical Paper or the Pakistan Country Report.

References

UNICEF Pakistan - Annual Report 2016
UNICEF Pakistan - WASH sector Sustainability Check Study in Pakistan - A new systematic model for assessing the sustainability of WASH programs 2018.

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Acknowledgements

Thanks to Kitka Goyol and Thewodros Mulugeta UNICEF Pakistan; UNICEF ROSA’s WASH team for the support received, and Rob Savage for his editorial services.

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About the Series

UNICEF’s water, sanitation and hygiene (WASH) country teams work inclusively with governments, civil society partners and donors, to improve WASH services for children and adolescents, and the families and caregivers who support them. UNICEF works in over 100 countries worldwide to improve water and sanitation services, as well as basic hygiene practices.

This publication is part of the UNICEF WASH Learning Series, designed to contribute to knowledge of best practice across the UNICEF’s WASH programming. The documents in this series include:

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