PROMISING PRACTICES IN WASH

Some case studies of Nigeria

UNICEF
# Table of Contents

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contents</td>
<td>i</td>
</tr>
<tr>
<td>Acronyms</td>
<td>ii</td>
</tr>
<tr>
<td>Foreword</td>
<td>iii</td>
</tr>
<tr>
<td>Preface</td>
<td>iv</td>
</tr>
<tr>
<td><strong>Digitisation of Rural Water</strong></td>
<td>1</td>
</tr>
<tr>
<td>Sector in Nigeria</td>
<td></td>
</tr>
<tr>
<td>- <em>An effective tool to ensure sustainability and accountability in rural water supply</em></td>
<td></td>
</tr>
<tr>
<td><strong>Harmonisation of Procurement Guidelines for WASH in Nigeria</strong></td>
<td>10</td>
</tr>
<tr>
<td>- <em>Moving towards greater efficiency</em></td>
<td></td>
</tr>
<tr>
<td><strong>Promoting Sanitation and Hygiene through Schools in Nigeria</strong></td>
<td>18</td>
</tr>
<tr>
<td>- <em>A Case Study of Daily Group Hand Washing Strategy among Primary School Pupils</em></td>
<td></td>
</tr>
<tr>
<td><strong>Empowering Women through WASHCOMs in Nigeria</strong></td>
<td>30</td>
</tr>
<tr>
<td>- <em>A case study of Katsina State</em></td>
<td></td>
</tr>
<tr>
<td><strong>WASHCOMs drive Birth Registration and Immunization of Children in their Communities</strong></td>
<td>41</td>
</tr>
<tr>
<td>- <em>A case study of Benue and Jigawa States</em></td>
<td></td>
</tr>
<tr>
<td><strong>ODF Certified Communities and their Sustainability in Nigeria</strong></td>
<td>50</td>
</tr>
<tr>
<td>- <em>A case study of Katsina, Jigawa and Anambra States</em></td>
<td></td>
</tr>
<tr>
<td><strong>Value for Money in WASH Interventions in Nigeria</strong></td>
<td>61</td>
</tr>
<tr>
<td>- <em>Achieving Economy, Efficiency, Cost-effectiveness and Equity</em></td>
<td></td>
</tr>
</tbody>
</table>
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPP:</td>
<td>Bureau of Public Procurement</td>
</tr>
<tr>
<td>CLTS:</td>
<td>Community-Led Total Sanitation</td>
</tr>
<tr>
<td>CSD:</td>
<td>Child Survival and Development</td>
</tr>
<tr>
<td>DFID:</td>
<td>Department for International Development</td>
</tr>
<tr>
<td>EHC:</td>
<td>Environmental Health Club</td>
</tr>
<tr>
<td>FCT:</td>
<td>Federal Capital Territory</td>
</tr>
<tr>
<td>FMWR:</td>
<td>Federal Ministry of Water Resources</td>
</tr>
<tr>
<td>GIS:</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>HPG:</td>
<td>Harmonised Procurement Guidelines</td>
</tr>
<tr>
<td>ICT:</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>IDA:</td>
<td>Iron Deficiency Anaemia</td>
</tr>
<tr>
<td>IRC:</td>
<td>International Research Centre</td>
</tr>
<tr>
<td>LAM:</td>
<td>Local Area Mechanic</td>
</tr>
<tr>
<td>LGA:</td>
<td>Local Government Area</td>
</tr>
<tr>
<td>NDHS:</td>
<td>National Demographic and Health Survey</td>
</tr>
<tr>
<td>NGN:</td>
<td>Naira (Nigeria Currency)</td>
</tr>
<tr>
<td>NGO:</td>
<td>Non-Governmental Organisation</td>
</tr>
<tr>
<td>NTGS:</td>
<td>National Task Group on Sanitation</td>
</tr>
<tr>
<td>ODF:</td>
<td>Open Defecation Free</td>
</tr>
<tr>
<td>PCA:</td>
<td>Program Cooperation Agreement</td>
</tr>
<tr>
<td>PMU:</td>
<td>Project Monitoring Unit</td>
</tr>
<tr>
<td>RUWASSA:</td>
<td>Rural Water Supply and Sanitation Agency</td>
</tr>
<tr>
<td>SHAWN:</td>
<td>Sanitation, Hygiene and Water in Nigeria</td>
</tr>
<tr>
<td>SMS:</td>
<td>Short Message Service</td>
</tr>
<tr>
<td>STGS:</td>
<td>State Task Group on Sanitation</td>
</tr>
<tr>
<td>TCF:</td>
<td>Tulsi Chanrai Foundation</td>
</tr>
<tr>
<td>UNICEF:</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>WASH:</td>
<td>Water, Sanitation and Hygiene</td>
</tr>
<tr>
<td>WASHCOM:</td>
<td>Water, Sanitation and Hygiene Committee</td>
</tr>
<tr>
<td>WASHIMS:</td>
<td>WASH Information Management System</td>
</tr>
<tr>
<td>VLOM:</td>
<td>Village Level Operation and Maintenance</td>
</tr>
<tr>
<td>WHO:</td>
<td>World Health Organisation</td>
</tr>
</tbody>
</table>
Since 1990, 88 million people have gained access to improved water sources, while another 16 million have access to improved sanitation in Nigeria. However the pace of progress has been low resulting in 56 million without access to water and another 130 million without access to improved sanitation as at 2015. Open Defecation is practiced by over 45 million people in Nigeria. The Government of Nigeria is committed to the attainment of Sustainable Development Goal (SDG)-6 and concretely demonstrated commitment to the SDG by launching the “Partnership for Expanded Water, Sanitation & Hygiene (PEWASH) 2016-2030” strategy in November 2016 by Vice President Yemi Osinbajo.

The Federal Government of Nigeria (FGN)-UNICEF Water Supply, Sanitation and Hygiene (WASH) Programme has been contributing to improving access to water, sanitation and hygiene, especially in the rural areas of Nigeria for over three decades. The FGN-UNICEF WASH program has since expanded in scope and diversity of interventions to cover 100 LGAs across 21 states with significant funding from the European Union and UK Aid. Starting with basic hand pump interventions, the FGN-UNICEF WASH program has evolved to encompass emerging participatory approaches such as Community Led Total Sanitation to more recent mobile-based application to track water point functionality and Sanitation Financing.

Interventions across 35,000 communities under the FGN-UNICEF WASH programme have produced interesting practices, innovations, lessons, strategies and approaches. Promising Practices” is an attempt to bring to the fore the knowledge and lessons thus gained towards improving effectiveness and ensuring equity in WASH interventions. “Promising Practices” is not just a mere documentation of lessons but a highlight of practices that have already become entrenched and being taken to scale. The processes have also imbibed a culture of change among the planners, implementers, and the communities.

The Promising Practices will serve as a veritable tool in the implementation of the PEWASH Strategy, aimed at achieving 100% access to basic water and sanitation services in the rural areas by 2030. Founded on grand experiences, the Promising Practices will promote evidence generation, knowledge sharing and learning across WASH sector stakeholders in the country.

As we move into the SDG era, the Promising Practices is expected to be a valuable reference document for WASH sector professionals not only in Nigeria but also across the world.

Engr. Suleiman H. Adamu, FNSE  
Honourable Minister  
Federal Ministry for Water Resources  
Abuja, Nigeria
Preface

Starting in the 1980s, the Federal Government of Nigeria (FGN)-UNICEF WASH programme has expanded in coverage and scope, and introduced a number of reforms in the rural WASH sector. This offers a great opportunity for collating, learning and sharing diverse experiences in the rural WASH sector covering more than 35,000 communities in the country. A number of innovative management tools, service delivery models, community approaches and practices have evolved under the FGN-UNICEF WASH Programme.

The “Promising Practices” is a follow-up to the previous compendium of case studies in 2014 highlighting best practices in Community Led Total Sanitation interventions across Nigeria. This publication is a collection of innovations and practices encompassing a broader range of WASH interventions ongoing in the country. The case studies cover digitization of rural water sub-sector; harmonisation of procurement guidelines for WASH infrastructure; sanitation and hygiene promotion through schools; empowering women and driving birth registration through WASHCOMs. Nigeria’s experience in improving the sustainability of ODF certified communities; and fostering value for money approaches in WASH interventions have also been highlighted.

Each case study features a narrative on the developmental phase of the processes leading to their eventual replication. The introduction of rural water facility monitoring has improved functionality from 56% to over 71% functionality in 107 LGAs with plans to expand this to 250 LGAs by 2017. WASH Information Management (WASHIMS) is now the WASH sector monitoring platform guiding decisions on WASH investment. Harmonized procurement process has led to improved quality of WASH infrastructure while bringing significant cost savings (US$ 3.2 million in 2016 alone). Similarly, the value for money approach has demonstrated economic savings while improving efficiency and effectiveness of the WASH interventions.

The rigorous application of the ODF certification and validation process has led to 95% of the ODF claimed communities progressing to a certified ODF status. Over 67% of the ODF certified communities have sustained their ODF status beyond a year. Starting with five schools in late 2015, group handwashing is now entrenched in nearly 2,200 schools. Handwashing stations are evolving from tippy taps to a more robust “steel-frame” hand washing stations.

Engaging communities and women has fostered community ownership and women empowerment. There are over 37,000 women WASHCOM members, representing about 37% of WASHCOM membership, they are playing vital roles in mobilizing & empowering other women in their communities for sustained WASH services and increased uptake of child survival interventions (e.g. immunization, birth registration).

We sincerely commend the efforts and contributions made by Bidhu Bhushan Samanta, the international consultant engaged to document these case studies across the country. We would also like to place on record the contributions made by the State and Local Government partners and community representatives during the course of this documentation.

Mrs. Rabi S. Jimeta, mni
Permanent Secretary
Federal Ministry of Water Resources

Kanann Nadar
Chief, WASH Section
UNICEF, Nigeria
Case Study 1

Digitisation of Rural Water Sector in Nigeria

- An effective tool to ensure sustainability and accountability in rural water supply
Digitisation of Rural Water Sector in Nigeria

- An effective tool to ensure sustainability and accountability in rural water supply

Abstract:
UNICEF has been supporting the Federal Ministry of Water Resources (FMWR) in the development and rolling out of WASH Management Information Systems (WASHIMS) across Nigeria. The process is at an advanced stage. WASHIMS is a user-friendly tool for collecting, organizing and processing sector data for informed decision making. The system has enormous capacity to capture a variety of data generated at various levels and consolidate information on a variety of themes. As part of WASHIMS, a cost-effective Real-time Functionality Tracking System (RTFTS) has been introduced to monitor the functionality of water systems in rural communities, particularly boreholes that account for over 90% of the water supply systems in rural areas in Nigeria. It is heartening to note that with the introduction of this system, the percentage of water points disfunctional at any given point in time has dropped from 44% to 29% in the pilot LGAs with one of them recording only 2% dysfunctionality compared to 26%.

BACKGROUND

Hand pumps fitted on bore well and solar powered motorised water systems are the two main drinking water sources in rural areas in Nigeria. Most of the inhabitants depend on these two systems to meet their household needs. It is therefore natural to expect that these sources provide uninterrupted water supply to the people lest they go back to the traditional and unsafe water sources even though this amounts to travelling long distance. Over the years, it has been realized that it is not enough to provide a safe water source but equally important to ensure that it is reliable and sustainable.

The Sustainable Development Goal (SDG) on Water and Sanitation (Goal No.6) has emphasized achieving universal access to safe water on a sustainable basis by 2030. According to the JMP report 2015, 69% of the population in Nigeria had access to an improved water source up from 40% in 1990. While this may look impressive, two recent surveys by UNICEF-TCF of hand pumps (2011) and solar powered motorised bore wells (2013) indicated that, only 56% of hand pumps and 37% of solar-powered motorised water systems were functional at any given point in time. It is not only a huge drain on the investments made in providing safe water sources, it also questions the justification for such investment if no account is taken of the reliability of the water facilities so created.

Lack of effective mechanism to report systems breakdown and repair contributes to poor functionality rates. Also, comprehensive data for planning to reach the unserved is a critical requirement. This informed developing a robust monitoring system for rural water supply.
PAST EFFORTS
Realising the importance of systematic monitoring of the water supply systems in rural areas, the Government of Nigeria through the Federal Ministry of Water Resources (FMWR) developed a National Framework for Sector Monitoring and Evaluation in 2004. It also harmonised sector indicators for unified monitoring and reporting of the sector and a sector data base through national inventories and surveys was established. It was determined that, in order to deploy the M & E Framework, a coherent sector-wise, user-responsive, and systematic real time data collection, updating and feedback mechanism is required for up to date sector monitoring.

THE WASHIMS STRATEGY
The WASH Information Management System (WASHIMS) was the product of up to date monitoring necessity supported by UNICEF in collaboration with the Government at all levels, viz., National, State and Local Government (LGA). Based on the experience and need, WASHIMS has undergone transformation over the years. Initially WASHIMS was built to monitor and track progress on the WASH situation against the baseline data that was generated for selected LGAs. Starting with a stand-alone data-base system with limited features in 2012 and capturing information on water, sanitation and hygiene in 12 LGAs, it evolved into an on-line user-friendly tool for collecting, organising and processing sector data to support management decision process in 70 LGAs by 2015. UNICEF is supporting the Federal Ministry of Water Resources to develop and scale up the use of this tool as a National System for WASH baseline progress and process data management.

FEATURES OF WASHIMS
WASHIMS has the following features:
- It is web-hosted and allows for real time data entry and update at the LGA level, building on exiting institutional arrangement - the lowest level of data generation being a community through a pre-designated functionary.
- Entries/updates made at LGA level are immediately available for review and use at all levels
depending upon the administrative rights and can be accessed from anywhere in the world.

- The system includes interface for data entry and update (using computer, smart phones or SMS platform) graphics, report generation interface as well as spatial display of facilities on maps.
- Database access privileges and input verification features.

![Figure 3: Screen of WASHIM Dashboard](image)

Source: UNICEF, Nigeria

REAL-TIME FUNCTIONALITY TRACKING OF RURAL WATER SUPPLY USING WASHIMS

While WASHIMS is a multi-dimensional tool encompassing several areas of WASH, its utility in tracking the functionality of rural water supply systems has now been well recognized, both in terms of ensuring reliability of these water sources and the accountability of those responsible for their sustainability. Considering the scattered nature of the rural habitation in Nigeria and the challenges in communication, it was not easy to get timely information on the functionality of the available water facilities in the communities. Moreover, the community members used to think that maintenance and repair of their water facility is the responsibility of the government and they did not have any stake in it. As a result, there was not only a delay in reporting the breakdown of the water facilities but also in passing on the information to the right channel for action. In the absence of any pressure for accountability, the down time was very high, in many cases extending over two months. WASHIMS brought with it real-time facility tracking that opened up a new opportunity for monitoring the functionality of water supply systems which facilitates timely repair by creating a basis for allocating responsibility for repairing the broken down facilities. WASHIMS is used for community-led real time tracking of functionality of water systems and notification of duty bearers. The tacking system currently covers hand pumps that are a major source of water supply to the rural communities.
What is real-time tracking of rural water supply facilities?

- This is an innovative and cost-effective way of ensuring timely reporting and efficient response mechanism for maintenance and repair of water systems - by directly engaging with the beneficiaries, particularly the users of hand pumps.
- A tracking system that gives on a real time basis information on functionality of hand pumps and those needing repair. In other words, at any time of the day, one can see which facilities are not working. This information is available to every authorised person in the administrative hierarchy, alerting the responsible persons to take immediate action for repair.

How it works:

- Whenever a water facility breaks down, the Facility Caretaker (selected by the users and trained) who is also a user of that particular facility sends an SMS through his/her mobile phone to a specified number. This activates the web-based system installed at LGA level which notifies the concern officials real time.
- The status of the water facility in the database is updated and an alert to the Local Area Mechanic (LAM) through his/her mobile phone number is sent.
- The WASH Coordinator/WASH Officer downloads the report from the system and initiates remedial action in collaboration with the LAM and the concerned community. This ensures that the broken down facility becomes operational within a short time.
- A coding system has been developed to identify and associate water facilities to communities where they occur in the system.
- The coding system gives communities consistent identity and avoids confusion which may arise from second names, demarcation, or politically and culturally motivated community names.
- The reports and feedback from the system trigger a chain of follow up actions that ensure the concerned person is held accountable for the delay in rectifying the breakdown thereby guaranteeing uninterrupted services (Figure – 5).
- The system also sends breakdown report to the Chairman of the LGA if there are three consecutive messages of breakdown of the same facility with no repair action taken.

<table>
<thead>
<tr>
<th>Community Coding</th>
<th>Facility Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KTS/408/001</strong></td>
<td><strong>KTS/408/HPBH/001</strong></td>
</tr>
<tr>
<td>The first community in Bakori LGA, Katsina State</td>
<td>The first Hand Pump Borehole in Bakori LGA, Katsina State</td>
</tr>
<tr>
<td>▪ KST - State Code</td>
<td>▪ KST - State Code</td>
</tr>
<tr>
<td>▪ 408 - LGA Code</td>
<td>▪ 408 - LGA Code</td>
</tr>
<tr>
<td>▪ 001 - Serial Numbering (By LGA)</td>
<td>▪ HPBH - Facility Type</td>
</tr>
<tr>
<td></td>
<td>▪ 001 - Serial Numbering (By LGA)</td>
</tr>
</tbody>
</table>

Figure 4: The Coding System
IMPLEMENTATION/ ROLLING OUT

Implementation of this system started with training of functionaries of local institutions (especially the Local Government Council WASH personnel) on the management of WASHIMS in general and tracking of the water supply systems in particular, followed by training of LAM and Community level Care Takers along with WASHCOM members. The training involved use of computer, internet, smart phone etc. by the relevant functionaries.

![Figure 5: Key Steps for Implementation of the Tracking System](image)

At LGA levels, computers and internet facility were provided along with the necessary power back-up and the LAM and the Caretakers were equipped with Smart Phones with training on modalities for real-time monitoring and reporting. Based on the initial feedback, UNICEF is now paying to the mobile phone service provider the subscription fee for SMS incurred by Facility Caretakers and LAM to overcome the difficulty they faced earlier. This makes it possible for all the LGAs to connect to this data base thereby eliminating payment they earlier made towards server subscription.

THE UNIQUENESS OF TRACKING THE FUNCTIONALITY OF WATER SUPPLY SYSTEMS UNDER WASHIMS

Some of the WASH related tracking systems available globally are the RAISON GIS developed by the International Development Research Centre to monitor water quality (micro-biological) and 'Smart Hand Pump System' developed by the Oxford University for predictive maintenance of water supply
systems, particularly hand pumps etc. However, the uniqueness of the system for tracking the functionality of water systems in Nigeria lies in the facts that;

- It is easy-to-operate system
- Cost effective strategy
- Scope extends to many other related issues concerning WASH.

The initial onetime cost (hardware, data base, facility coding, training etc.) for setting up this system in one LGA at current price works out to an average of US$5,455 (or about US$ 27 per person) while the running cost (subscriptions, bulk SMS, internet etc.) is US$ 1,091 (or about US$ 5.5 per person/year).

**PROGRESS**

WASHIMS is currently in use in 107 LGAs (35,000 communities) while real time facility tracking is in use in 70 LGAs across 21 States of Nigeria. More than 600 WASH Officers and sector players have been trained at different levels on the use of WASHIMS including the tracking of hand pumps fitted on boreholes. The system has been popularised as the National Management Information System for the WASH Sector and also used by some external support agencies and local NGOs.

![Figure 8: Progress in the scaling up of WASHIMS](image)

**IMPACT OF TRACKING FUNCTIONALITY OF WATER SYSTEMS UNDER WASHIMS**

Recent reviews, figures and study reports show that the tracking of hand pump functionality is having a very positive outcome in planning and implementation of the WASH Program. Some of these are worth mentioning;

- There has been a marked increase in the functionality of hand pumps fitted on boreholes. Data available from the pilot LGAs indicate that the functionality of water supply systems (particularly hand pumps) has gone up to 71% from 56% after the introduction of the system.
In Bakore, one of the pilot LGAs in Katsina State, functionality ratio has improved from 74% to 98% within six months of introduction of facility tracking.

- Besides improving functionality, the system has also drastically reduced the average downtime between breakdown and repair from two months to less than two weeks. The task is to reduce it further and this is another example of reliability.
- The system is also creating more employment opportunities given the number of Local Area Mechanics emerging; the ultimate aim is to have one mechanic for every 50 to 100 water points.
- Many persons in the communities have been empowered as they are now involved in monitoring and reporting of the breakdown and repair. This has also enhanced their position in the community.
- Empowering several hundred functionaries at different levels through training has contributed to skill development in the sector which is expected to bring in quality improvement in planning, implementation and monitoring of the WASH Programme.

EXPANDING GEOGRAPHICAL COVERAGE
The success of WASHIMS in tracking the functionality of water systems has encouraged the Government and UNICEF to extend the coverage area from the present 107 LGAs to at least 250 LGAs by 2017. There is already a renewed interest within the Federal Ministry of Water Resources in line with the emphasis of the current national government on strengthening information management system within the sector.

LESSONS LEARNT
- In the (2016) National Council on Water Resources (apex body for the WASH sector in the country) WASHIMS was endorsed as a monitoring tool covering rural and urban components.
- ICT enabled monitoring fosters greater accountability besides improving the WASH services in communities.
- It is cost effective and reliable and reduces breakdown time of water facilities.
- It is a step towards engaging the communities to look after their own water supply systems.
- Once installed, it is simple to operate and ensures the participation of all stakeholders, both the users and the implementers as a team.
- Within a community, it brings in certain amount of competition among the users of different sources, each trying to ensure that the source they use remains functional.

CHALLENGES
- Getting well motivated LAMs who are outside the Government employ is a big challenge since much depends on his/her commitment to the system so created. (This is addressed through a rigorous selection procedure, and imparting proper training and motivation)
- Since most of the repairs in hand pump relate to below ground assembly, equipping the LAM with special tools to take out the assembly is essential. In the absence of tools timely repair can not be affected. (Attempts are being made to provide the required tools to all LAMs during the training and teaching them how to use the same)
- LAM is paid by the community through the WASHCOMs who are supposed to collect certain fees from the users. In some areas getting adequate contribution to pay for repair is a big
challenge. (This happens in very rare cases. Even if a community does not pay to the WASHCOMs on a regular basis, they all come together when there is a breakdown and not only contribute their share but also help those who genuinely cannot pay because of poverty.

- In the absence of a LAM who keeps fast moving spare parts, availability of the same in the market is a constrain that delay carrying out the repair. (In such extreme cases, the WASH Department of LGA comes to the rescue of the community since it is equally accountable for the timely repair of the water facility)
- GSM communication network signals at community and LGA level fluctuates and often delay the use of the real time tracking facility. (In such cases the WASH Consultant uses his/her lap top at an appropriate place and the Facility Caretaker does the same to access the network signal for sending SMS)

THE WAY FORWARD

Under a PCA with TCF (Tulsi Chanrai Foundation), UNICEF is already in the process of setting up a robust VLOM (Village Level Operations and Maintenance) System at the State and LGA level to improve implementation of remedial actions and reduce facilities' downtime. Within VLOM implementation, the LAMs will be properly trained, equipped and linked with communities within their clusters. Attempts are being made to address the problems faced by the Facility Caretakers and LAMs to make the system perfect. The ultimate aim is to attain at least 95% reporting of pump breakdown, if not 100% in each LGA.

The real-time facility tracking tool available through WASHIMS opens up a widow of opportunities for tracking several other initiatives pertaining to water supply. In the future, one can look forward to use this system in the following areas of monitoring.

- Biological contamination of water points using H2S strips at community level. (This could be done by the caretaker with some orientation.)
- Predictive maintenance of water systems that refers to forecasting failure of the system rather than detecting failure when it occurs to reduce the down time further. (Besides the data available from the log sheets of a water facility, some additional data such as the number of hours used, seasonal variation in water production, past history of repair etc. will be required. In the long run this will be a very cost-effective initiative).
- Real time information on a community declaring itself as ODF (Open Defecation Free) can be fed into the same system to speed up the monitoring visits for validation by LGA/ RUWASSA. This can have a positive impact in reducing the time for ODF Certification.
- Outbreak of water and sanitation related diseases can also be monitored/reported using the same system.
Case Study 2

Harmonisation of Procurement Guidelines for WASH in Nigeria

- Moving towards greater efficiency
Harmonisation of Procurement Guidelines for WASH in Nigeria

- Moving towards greater efficiency

Abstract:

Procurement of supplies and services constitute a significant proportion of WASH budget, hence, any savings that could be made from an efficient procurement system can go a long way in providing WASH services to more communities within the same budget. In Nigeria WASH sector, there were certain limitations that made procurement system not very efficient and effective in controlling the cost of outputs. UNICEF Nigeria, in collaboration with the Government took a lead in rationalizing, standardising and restructuring the procurement guidelines for providing WASH facilities. The Harmonized Procurement Guidelines hitherto used in few states by 2014 is now operational in all UNICEF supported States and has led to sizeable savings in actual expenditure vis-a-vis the budget. In nine of the 36 States for which data has been collected, the revised system has brought a saving of around US$ 3 million between 2015 and 2016 (up to September). The quantity of work undertaken has also increased substantially. Based on the visible benefits of this system, some States have shown interest to adopt the guidelines for their own procurement e.g; Katsina has gone a step ahead to propose a legislation on it.

BACKGROUND

Procurement, whether for material or for services is an important process for WASH programme. A properly structured guideline on how to procure supplies and services can go a long way in ensuring efficiency in the implementation process and contribute significantly to cost reduction. This is in view of the fact that procurement constitutes a major proportion of WASH budget and Nigeria is not an exception.

PAST EFFORTS

Before 2011, UNICEF’s procurement process for WASH sector was guided by the public procurement laws of the Government. Unfortunately it was too cumbersome for application and slowed down implementation. It also was applied differently across states. Some of these regulatory frameworks that guided procurement include the following.

2. Federal Government Procurement Regulations issued by the Bureau of Public Procurement (BPP).
The procedures adopted by different States had something in common.

The common elements of public procurement procedures earlier adopted by States

- The procurement process generally involved two stages Viz., Pre-qualification and bidding.
- Invitation for pre-qualification usually through advertisement with a time limit. Certain criteria were specified for this purpose.
- Those that were qualified were retained by State Procurement Agency (RUWASSA)
- Only those selected in the pre-qualification stage were eligible to bid for supply of material or service.
- The bids were then evaluated on certain criteria that were not always objective.
- Any bidder quoting below the estimates made by the engineer was rejected even if it was the lowest but realistic among the qualified bidders.

The public procurement procedures as was applied by States had some limitations as stated in text box below

Limitations of public procurement procedures earlier adopted by States

- In the absence of a systematic evaluation of the bids, the evaluation process was often subject to manipulation.
- As the selection of winning bidder was based on subjective judgment and not objective assessment, contracts could be easily awarded to favoured contractors.
- Award was not always to the lowest bidder there by losing a lot of money in the process.
- Bids were restricted to contractors from the State; this resulted in limited competition and loss of value.
- Instead of using competitive price, the system used what the engineer determined to be the cost for the service.
- Variation to contract cost was done without recourse to procedure.

All these resulted in delays in obtaining 'No Objection Certificate' from the stake holders such as UNICEF and Federal Government, delay in the release of counterpart funds, poor or delayed execution of work by the favoured contractors and tardiness in paying contractor’s claims. This called for evaluation of existing guidelines and procedures among States and the outcome was Harmonised Procurement Guidelines for works, goods and services.

THE HARMONISED PROCUREMENT GUIDELINES (HPG) AND ITS FEATURES

UNICEF Nigeria in 2014 supported States to standardise the procurement guidelines, initially involving the States that were receiving interventions. An expert was engaged to facilitate the harmonisation and simplifying of the procurement guidelines for WASH interventions including training, mentoring, guiding and supervising the relevant officials. The main features of these guidelines are as follows;
Key elements of the harmonized procurement guidelines

- It contains standardized templates for various stages of the procurement process and is designed to be user-friendly. There are twenty such templates currently in use.
- The procedure and rules outlined in the guidelines apply to all contracts for works, goods and services.
- Technical bid evaluation is separated from financial bid evaluation, only financial bids of contractors whose technical bid are pre-qualified are evaluated.
- Lowest bidder instead of lowest responsive bidder principle is strictly upheld after prequalification.
- Participation of key stakeholders is mandatory including their due diligence certification.

Presently the guidelines are used for procurements of goods and services that have funding support from UNICEF. However, some State partners have indicated their interest to adopt UNICEF procurement practices even for WASH projects they exclusively fund.

IMPLEMENTATION OF THE GUIDELINES

These guidelines were rolled out in 2014 and have been adopted in all procurement activities of UNICEF interventions funded by EC and DFID across Nigeria. For each stage in the procurement process, a time limit has been prescribed so as to minimized the delay encountered in the past. The following chart indicates the various stages of the procurement process with time limits. (See also Fig:1)

<table>
<thead>
<tr>
<th>SN</th>
<th>Stages</th>
<th>Procedures</th>
<th>Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Procurement planning</td>
<td>States use the template provided to indicate dates for doing various procurement activities under the programme and share with UNICEF (Procurement Consultant) for comments.</td>
<td>2 days</td>
</tr>
<tr>
<td>2</td>
<td>Prepare tender dossier</td>
<td>Various templates (such as bid advertisement, bid evaluation, instruction to bidders, etc.) in the Guidelines to be used in the procurement process are adapted by the State and shared with UNICEF (Procurement Consultant) for comments</td>
<td>2 days</td>
</tr>
<tr>
<td>3</td>
<td>Bid advertisement</td>
<td>Invitation to bid is advertised in at least 2 national dailies</td>
<td>1 days</td>
</tr>
<tr>
<td>4</td>
<td>Bid submission</td>
<td>Bidders submit their bids in sealed envelopes dropped in tamper-proof bid boxes</td>
<td>3 weeks</td>
</tr>
<tr>
<td>5</td>
<td>Bid opening</td>
<td>Exactly on the deadline for bid submission, bids received are opened in public at the time and venue advertised, in the presence of bidders and general public. Prices quoted in each bid are announced.</td>
<td>1 day</td>
</tr>
<tr>
<td>6</td>
<td>Bid examination and evaluation</td>
<td>There are four stages of the bid examination and evaluation (price analysis is the last stage). Using the templates provided each bid under each lot is assessed to determine whether the minimum criteria at that stage are met. Any bid not meeting the minimum criteria is disqualified from moving to the next stage. Contract is recommended to the lowest responsive bidder in each lot (i.e. the bid that met all minimum requirements and emerged in that lot as the lowest.)</td>
<td>5 days</td>
</tr>
<tr>
<td>7</td>
<td>Bid documentation</td>
<td>Documents and records of the procurement proceedings are secured and at the end of the evaluation compiled, according to the order and format stipulated in the relevant template under the Guidelines.</td>
<td>2 days</td>
</tr>
<tr>
<td>8</td>
<td>NOC application</td>
<td>The procurement documentation accompanies a letter written by the State RUWASSA requesting for NOC from UNICEF to award contract to the recommended contractors. UNICEF studies the report for compliance and responds accordingly</td>
<td>3 days</td>
</tr>
<tr>
<td>9</td>
<td>Contract award &amp; signing</td>
<td>Recommended and approved contractors are invited to sign the contract. After the signing, contract execution and administration begin.</td>
<td>2 days</td>
</tr>
</tbody>
</table>

Chart – 1 Process/timelines for HPG

Source: UNICEF, Nigeria
Work Flow Process for Harmonized Procurement Guidelines

1. Project Analysis and Funding Commitment
2. Open Advertisement in newspapers and other media
3. Pre Bidding Meeting
4. Bid Submission
5. Bid Opening Meeting
6. Bid scrutiny, evaluation and due diligence report
7. Contract Awarded
8. Contract completion certification and request for payment

Source: UNICEF, Nigeria

Figure 1: Process of Harmonised Guidelines

Figure 2: A pre bidding meeting with prospective bidders in Bauchi State
**BENEFITS (In qualitative terms)**

It is an improved and transparent mechanism for procurement of works, goods and services contributing to enhancement of efficiency in WASH programme delivery in the following ways:

- It has contributed to improve procurement capacity of Government agencies like RUWASSA, LGA and other relevant organizations at State and local levels.
- It has brought in uniform standards in the procurement process across the participating States.
- It has introduced transparency in the procurement process leading to positive attitudinal changes in the minds of those responsible for procurement.
- It has led to savings in time on the various stages of the procurement process without compromise.
- It has made the whole procurement process a competitive one thereby achieving good value for money through cost savings and better quality of work delivered.
- Competition among the bidders has also made them execute the work on time.
BENEFITS (In quantitative terms)

Data available from ten States indicate the following benefits in terms of the money saved and the quantity of work done by these States.

- The savings achieved (The difference between the estimated price by the RUWASSA engineer and the actual contract price approved) for 2015 and 2016 has been in the order of over Naira 1001 million (US$3.2M).
- The number of motorized boreholes constructed for installation has increased from 1502 in 2015 to 2684 in 2016 (up to September).
- The number of solar power pumps constructed rose from 19 in 2015 to 178 in 2016 (up to September 2016).
- The number of schools and PHCs provided with sanitary facilities increased from 293 in 2015 to 1290 in 2016 (up to September)
- The number of staff from RUWASSA trained on the revised guidelines was 129; the investment in skill development contributed to better management of the procurement process.

Source: RUWASSA through UNICEF Field Offices Nigeria

Figure 5: Savings (in '000 Naira) achieved by selected States during 2015 & 2016

Figure 6: No. of Hand Pumps installed

Figure 7: San. Compartments (School/PHC)
The foregoing analysis indicate that, there was not only a sizeable saving from the contract value but also, more work was done in finalising the contract, better supervision of project and reduction in time limit for various processes.

**LESSONS LEARNT**

- Standardisation of procurement process is an essential element of project management.
- A transparent procurement system can reduce the cost of goods and services bringing about significant savings in the expenditure which can be deployed for additional facilities.
- Standardization contributes to timely completion of projects leading to availability of benefits earlier than what was expected.
- Open competition adopted by the procurement process brought in not only cost savings but good work quality which is healthy for project management.

**CHALLENGES**

- Tendency of implementing staff to sometimes apply old procedures continues to be a challenge. (This is being addressed through proper orientation and motivation)
- There was apprehension among contractors and they formed groups to agree among themselves not to bid below certain cost. (Field experience shows that this is not happening since the bids are no more confined to a particular State but open to others outside the State as well)
- Dual procurement policy in a given State may lead to some contractors bidding only in processes that use the previous system where they could be favoured.
- Some States continue to maintain dual procurement policy - the old practice and the new harmonized procurement guidelines. This could lead to contractors favouring the old practice where they could manipulate the system.
- In the absence of a rigorous assessment of the technical bid including the competence of the prospective contractors, the lowest bidder may not give goods or services of acceptable quality. (This is addressed by providing orientation to WASH staff at Government level to make them aware and motivated to undertake rigorous assessment)

**THE WAY FORWARD**

- In order to address the problem of dual policy relating to procurement in many States, advocacy efforts are ongoing with the State Government to adopt a uniform policy of procurement based on the revised guidelines. Success in the implementation of the Harmonized Procurement Guidelines would serve as a good learning point for advocacy.
- The example that Katsina has shown by enacting a legislation for adoption of the revised guidelines across the State could be emulated in other States over a period of time.
- Providing orientation to RUWASSA staff involved a contracts management at regular intervals will be needed to know the issues that may come up in the implementation.
Case Study 3

PROMOTING SANITATION AND HYGIENE THROUGH SCHOOLS IN NIGERIA

- A Case Study of Daily Group Hand Washing Strategy among Primary School Pupils
Promoting Sanitation and Hygiene through Schools in Nigeria

- A Case Study of Daily Group Hand Washing Strategy among Primary School Pupils

Abstract:
Diarrhea and respiratory tract infection are the two major killers of children in developing countries. Worm infestation caused by unhygienic behavior leads to iron deficiency anemia creating further health complications. All these contribute to malnutrition among children and absenteeism from school which affect their educational pursuits. It is well established that hand washing with soap and water at critical times reduce these risks among children to a great extent. This calls for some strategic intervention to inculcate better hygiene practices among school children, particularly, those in primary schools when they are young enough to adopt new practices and through them influence families and the community. UNICEF Nigeria is supporting the Government to implement a programme to promote hygiene practices among school children. As a part of this, Daily Group Hand Washing (DGHW) practices using appropriate and low-cost hand-washing technologies made of locally available materials has been taken up in selected LGAs of several States. The initial feedback from the children, the teachers and the concerned communities has been positive in terms of reducing prevalence of diarrhea related morbidity among children and absenteeism from school due to sickness. The record shows that, school enrolment has significantly increased due to a more congenial school environment. This confirms the empirical evidences revealed by studies in other countries.

BACKGROUND
Schools provide an ideal platform to promote sanitation and hygiene not only in schools but also through the school children to the families and the community. According to WHO sources, it is estimated that, globally, 200 million school children suffer from iron deficiency anemia (IDA) caused by worm infestation, 53% of school-age children in developing countries suffer from IDA, this is beyond the 43% threshold level. Children with heavy worm burdens are likely to be absent from school for a greater proportion of the time than those who are lightly infected or free from worms. Also, frequent illnesses among children due to sanitation and hygiene-related diseases can affect learning ability adversely. It is well established that hand washing with soap and water reduce the risk of diarrhea diseases by more than 40%. Similarly, the impact of hand washing with soap and water on the reduction of respiratory infection is estimated at 16%. This calls for some strategic intervention to inculcate better hygiene practices among school children, particularly those in primary schools when they are young enough to adopt new practices and through them reach families and the community.

WHY THROUGH SCHOOLS?
The rationale for promoting sanitation and hygiene through schools can be looked at in four major dimensions. These are i) the health dimension, ii) the learning dimension, iii) the childhood dimension and v) the community dimension.
The health dimension: Data available from WHO indicates that globally, around 400 million children are reported to be infected by different worms, some times, more than once with effect on their nutritional status. Also malnutrition is responsible for children becoming stunted and underweight. It is estimated that over 200 million school children suffer from iron deficiency anemia (IDA) caused by worm infestation. A survey conducted by Multi Applied System (MAS) in India as part of an Adolescent Health Project, revealed that more than half of the adolescent girls in the 25 project villages had been infested with either worm or helminthes leading to more than 90% of girls reporting IDA. Another data available from WHO shows that 53% of school-age children in developing countries suffer from IDA, that is beyond the 43% threshold. According to NDHS 2013 in Nigeria, 37% of children below 5 years are stunted, 18% wasted and 29% underweight.

The learning dimension: It is a known fact that a healthy child (physically, emotionally and mentally fit) is expected to do well in learning than a sick child. Stunted children are generally admitted in school late and are less likely to complete their schooling. Tests results have shown that a stunted child is less intelligent than their peers who are better nourished. Recent studies have also shown that not only diet but the adverse impact of poor sanitation and hygiene also contributes to stunting. Children with heavy worm burdens are likely to be absent from school for a greater proportion of the time than those who are lightly infected or free from worms. Generally, frequent sickness of a child can affect his/her learning achievements adversely.

The childhood dimension: Childhood is the best time for a person to inculcate better hygiene practices and schools are the most important places of learning. This is particularly true for those in primary school whose mind could be easily molded. A child spends considerable amount of time in the school and looks up to the teacher as a role model. Hence, whatever is taught in school is more likely to be retained in his/her memory. Considering the sheer size of the pupils population in a country, they are an advantageous medium to transmit any idea or message. Almost in all families there are school-going children who could be the medium for spreading knowledge on hygiene taught in schools. They may question the existing practices in the household and become change agents within their families. Nigeria has over 62,000 public primary schools with student strength of over 23 million. This is a big resource to tap.

The community dimension: The teachers and students could be a good channel to promote sanitation and hygiene in families and through them to the community. The teachers are a respected lot in the community and hence can exercise influence on pupils. Besides, by adopting a child-to-child, child-to-parents and parents-to-community approach which is only possible in a school environment, sanitation and hygiene promotion can reach the community. It is realized that ensuring only a healthy environment in school is not enough to keep a child healthy, sanitation and hygiene conditions in the family and in the community can affect the child in several ways. Sickness in the family may keep the girl child out of school for a number of days. An unhealthy environment in the family and in the community can also affect the health of a child. Nigeria has a teaching staff of over half a million for its 62,000 public primary schools. It is a good resource that could be used for promoting sanitation and hygiene through schools to the community.
PAST EFFORTS
Promoting sanitation and hygiene through schools have been the practice for quite some time in Nigeria. Earlier, the focus was on providing hardware facilities like water sources and toilets, but the assumption that this would encourage people to practices good hygiene was not realized. Hence a more integrated approach was developed in 2011. This was further consolidated in 2014 when certain interventions in promoting hygiene practices were institutionalized. Formation of Environmental Health Club (EHC) in schools is an example. According to the Annual Review (2016) of SHAWN-II, 832 schools were having functional EHCs. However, as the hand washing facilities were provided only near the toilets, students were not using it for other purposes like washing hands with soap before taking their lunch, after play or work. There were no hand washing stands for use in most schools and it was expensive to provide the same in all schools in the short run. This gave birth to adoption of different low-cost methods for promoting group hand washing practices among the children in primary schools.

THE TIPPY-TAP
The Daily Group Hand Washing (DGHW) concept was initially introduced in 18 schools in Chickun LGA of Kaduna State using Tippy-Tap technology to commemorate the 2015 Global Hand Washing Day. This technology is already being adopted in some of the African countries like Kenya. The following steps were taken to put this idea into practice;

- Teachers from the pilot schools were invited to a meeting at the LGA WASH Department Office where they were sensitized on the benefits of Daily Group Hand Washing. It was emphasized that hand washing with soap should be done before the children took their lunch under the supervision of a teacher.
- The School Health Desk Officer at the State Universal Basic Education Board participated in this meeting, thereby adding credence to the strategy.
- The tippy-tap technology and how it works was explained to the participants with proper illustrations.
- It was agreed that each student would bring a plastic bottle with clean water to the school (where there is no water source), teachers would mobilize the Y-shaped poles and cross bar to hang the water bottles and soap.
- LGA WASH Team visited each of the pilot schools and supervised the construction of group hand washing stations.
- All the pilot schools completed the installation of the hand washing stations and demonstrated group hand washing, taking turns of 10 students at a time to mark the 2015 Global Hand Washing Day.

Based on the response from this endeavor, the strategy has now been implemented in over 2000 schools in 50 LGAs of 11 States.
What is Tippy-Tap?: The Tippy-Tap is a low cost appropriate technology for hand washing that could be used at household or institutional level such as schools. It is a hand-free way to wash hands under running water where there are no taps, especially, appropriate in rural areas where there is no running water. It is operated by a foot lever, thus, reduces the chances for bacterial contamination as the users touch only the soap and not the water container. The following pictures show the Tippy-taps with different containers, one with used water bottle and the second with Jerry Can in Nigeria.
Features of Tippy-Tap

- It is a simple and hygienic device to wash hands with soap from running water.
- It does not create any bacterial contamination of water since the students do not touch the water container; they only touch the soap.
- It saves water as only 40 to 50 ml of water is required per head for cleaning hands.
- It is less costly since it can be developed with local and even salvaged materials.
- It does not produce any waste water since the water after hand washing can be recharged to the ground and watering flower beds.
- Discharging of waste water can be controlled through channeling and covered catch pits.

Present Implementation Status: The present status of the functional Tippy-Tap hand washing stations in 2016 before summer vacation is presented below.

<table>
<thead>
<tr>
<th>State</th>
<th>No. of LGAs</th>
<th>Month/Year when rolled on</th>
<th>No. of schools covered</th>
<th>No. with functional HW stations</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaduna</td>
<td>3</td>
<td>Sept. - Oct. 2015</td>
<td>759</td>
<td>359</td>
<td>In absolute term very large number are functional</td>
</tr>
<tr>
<td>Katsina</td>
<td>11</td>
<td>Dec. 2015 to Mar 2016</td>
<td>408</td>
<td>137</td>
<td>In 2 LGAs all are functional</td>
</tr>
<tr>
<td>Benue</td>
<td>7</td>
<td>Jan. 2015 to Oct. 2015</td>
<td>112</td>
<td>110</td>
<td>In 5 LGAs all are functional</td>
</tr>
<tr>
<td>Bauchi</td>
<td>8</td>
<td>Jan. 2016 to Mar 2016</td>
<td>444</td>
<td>280</td>
<td>In 3 LGAs all are functional</td>
</tr>
<tr>
<td>Zamfara</td>
<td>3</td>
<td>Dec. 2015 to Jun 2016</td>
<td>89</td>
<td>44</td>
<td>In 1 LGA all are functional</td>
</tr>
<tr>
<td>Jigawa</td>
<td>8</td>
<td>Feb. 2016 to June 2016</td>
<td>167</td>
<td>61</td>
<td>In 1 LGA all are functional</td>
</tr>
<tr>
<td>Edo</td>
<td>3</td>
<td>Jan. 2015 to Oct. 2015</td>
<td>80</td>
<td>75</td>
<td>In 2 LGAs all are functional</td>
</tr>
<tr>
<td>Delta</td>
<td>1</td>
<td>Jan. 2015</td>
<td>25</td>
<td>25</td>
<td>All are functional</td>
</tr>
<tr>
<td>Ekiti</td>
<td>2</td>
<td>Jul. 2015 to Jul. 2016</td>
<td>31</td>
<td>25</td>
<td>In one LGA all are functional</td>
</tr>
<tr>
<td>Osun</td>
<td>2</td>
<td>Oct. 2015</td>
<td>25</td>
<td>25</td>
<td>In 1 LGA all are functional</td>
</tr>
<tr>
<td>Kano</td>
<td>2</td>
<td>Jun 2016</td>
<td>36</td>
<td>13</td>
<td>In 1 LGA all are functional</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>Sept. 2015 to Jun 2016</td>
<td>2172</td>
<td>1154</td>
<td>36% LGAs and 53% of schools hand washing stations in use</td>
</tr>
</tbody>
</table>

Source: UNICEF Nigeria Field Offices
The progress above is commendable and the outcome of the initiative is very encouraging. Beginning from Kaduna where a beginning was made as well as other States, some LGAs are reporting cent percent functional hand washing stations using the Tippy-Tap technology. The strategy is widely used as reflected in the number of schools (359) having these stations operational even in Kaduna State which first adopted the approach.

**Challenges from Tippy-Tap:** The Tippy–Tap Hand Washing Method has the following challenges that are already being addressed.

- In the absence of any boundary wall or fencing around majority of the schools, vandalism of the water and sanitary facilities by some mischievous elements posses a big threat. (Attempts are being made to impress upon the authority to provide funds for boundary wall in primary schools)
- The thin plastic bottles give way easily particularly when exposed to sun. Replacing them is not always easy since in rural areas, getting the used water bottles is difficult. Also, the capacity of the bottle is small and this require filling them frequently, often inconvenient and not sustainable. (Schools are encouraged to replace used water bottles with jerry can of five liters capacity that can last longer and serve more children before refilling. It is proposed to have one hand washing station for every class)
- In schools where water facility is yet to be provided, the students are asked to bring water in bottles from home for re-filling the water containers in the hand washing stations.
- The wooden poles and bars used for hanging the containers are not always sturdy and give away mainly due to mishandling by students who sometimes play around these poles. (More long lasting poles are being installed and the EHC members ensure that the children do not play around the stand)
- The number of water bottles used is not sufficient to have all pupils wash their hands within the limited time (30 minutes) given for lunch break. (Jerry cans with five liter capacity are being replaced to address this issue and also one station for each class)
- There is problem of replenishing the soap for hand washing due to non-availability of funds in some schools. (EHC members are now handling this challenge successfully)

**THE MOBILE HAND WASHING STATION**

In order to overcome the challenges of the Tippy-Tap Hand Washing Stations, RUWASSA in Katsina State has designed and fabricated Mobile Hand Washing Station (Figure -2).

This technology has the following features.

- It has an aluminum pipe long enough to hold five taps on either side.
- The pipe is connected to a water container that is mounted on a higher elevation than that of the pipe so that water can flow by gravity.
- It has an outlet through which the waste water is drained out and recharges ground water.
- Being made of metal, it is strong and durable under the heat.
- It has four wheels and is rolled into the school office or principal’s room after school hours to prevent vandalization.
- It can last longer and can be repaired by the school itself by a local fabricator.
- It can handle more number of students than the Tippy- Taps given the capacity of the storage tank.
• Considering the durability of this system, it is cost effective; the onetime cost is estimated at US$ 100 to US$ 150. The cost can further be reduced by using a wooden frame work and only bucket and taps being aluminium and metal.

An experiment is being made of this Hand Washing Stations in Katsina State and based on the outcome it could be modified and extended to other States.

**Figure 2: Mobile Hand Washing Station developed by RUWASSA, Katsina State**

**LIKELY CHALLENGES FROM MOBILE HAND WASHING STATIONS**

In spite of its advantage, the Mobile Hand Washing Station is likely to have a few challenges that need to be kept in mind.

• Considering the fact that the time for lunch break is only 30 minutes, one station with ten taps will not be adequate for those schools where the student strength is high and time given for
lunch break is 30 minutes. (This could be overcome by providing more such mobile stations. There could be one such station, with ten taps for 100 students so that they can finish their hand washing within ten minutes).

• Refilling the water container frequently can delay the hand washing process. (This could be handled by increasing the size of the water container to 50 liters for 100 students so that no refilling will be required during the process of group hand washing).

WATER CONTAINER WITH TAP FOR EACH CLASS
This method is being used in some LGAs of a few States like Anambra. The features of this method are as follows.

• There is one plastic container of 15 liters of water both for drinking and hand washing with a tap. This is kept on a stool and at a height convenient for use by the children.
• Each class has one of such containers that is adequate for a class of 25 to 30 students.
• Since there is a tap, the students do not contaminate the water.
• Although, apparently, it may not look like a group hand washing method, in reality it is so since there is one such facility for each class and the teacher ensures that every student wash their hands before going for lunch.
• There is one cup and a soap dish on each container for drinking and hand washing respectively.
• The advantage of this method is its durability. It does not need to be filled during the day. Even if it is required, the EHC members ensure such refilling since there is a water source within the school.
• It is cost effective, the entire set may cost less than US$ 10.
• Because of its cost, the Local Government Education Department is able to finance it fully; only the recurring cost of soap has to be arranged and this is done by the EHCs with the help of the School Based Management Committee or Parent Teachers Association.

Figure 3: Above- Hand washing stand for each class in Mbaloaye Primary School of Aguata LGA of Anambra State.
According to the head teacher of the school, the people in communities around the school highly appreciate the hygiene practice adopted in the school and are withdrawing their wards from private schools to enroll them in this school (see Box).

Challenges from Water Container with Tap: This method has the following challenges that need to be addressed.

- The water container’s capacity is 15 liters and may not be adequate to meet the drinking and hand washing requirements of the entire class. (This can be met by increasing the capacity of the container keeping in mind the pupil's strength of a particular class. The minimum could be one and half liters per capita/pupils @ one liter for drinking and half liter for hand washing.)
- In the absence of an EHC in the school, there are chances that the pupils rush out of class for lunch without washing their hands. (This can be overcome by making the formation of an EHC and giving members orientation as already done for 832 schools.)
LESSONS LEARNT

• It is not very difficult to introduce Group Hand Washing Practices in primary schools including provision of the necessary support facilities. Given a congenial environment pupils easily pick up hand washing practice as a habit.
• Once this practice picks up, the community can also be motivated to go for hand washing at household level. (See Figures 6 & 7). It may vary from area to area.
• It is advisable to identify a facility for hand washing that is cost effective, appropriate, acceptable and sustainable.
• Formation of EHC and training its members will be useful for effective implementation of this intervention and hence should precede introduction of group hand washing.
• In order to spread the hand washing messages to families and to the community, it will be appropriate to involve the School Based Management Committees and the Parents/Teachers Association in the hand washing strategy.
• Availability of water and toilet facilities in school together with hand washing facilities bring in the full advantages of hygiene in the health impact of WASH on children.

Ms Orakwe Vivian is the head teacher of Mbalaoye Primary School in Aguata LGA of Anambra State where Water Container with Tap is provided for hand washing in each class since 2014. The school also has a functional EHC with 24 members. These pupils had been given proper orientation on the need and how to practice hand washing with soap. When interviewed, the members were able to explain hand washing practices and the benefits. The President of the EHC, a pupil of Class VI was well versed on the subject and looked confident. The school has functional toilets with separate provision for boys and girls and source water from a solar-based motorized pump that the community maintains. Supply of water to the school has been free. The environment within the school is clean, thanks to the active EHC. The student enrolment has increased from 300 in 2014 to around 400 in 2016. According to the Principal, the school is now attracting pupils even from private schools in the neighborhood and this is attributed to the school environment and facilities available including hand washing facilities.

Figure 6: Tippy Tap near a Church
THE WAYFORWARD

Hand washing with soap at critical times continues to be a high priority for UNICEF WASH in Nigeria. Promoting hand washing through schools and through school pupils in the families and community is an appropriate strategy to facilitate its adoption. Some of the major steps to be taken up in this direction are as follows.

• UNICEF WASH will make efforts to coordinate internally with the Education Section and advocate Education Ministry both at Federal and State level to provide the required facilities in schools. The models are already available in different States/LGAs for adoption choosing the right method on hand washing.
• In areas where UNICEF is already supporting Group Hand Washing in schools, it will continue to address the local issues and find solutions to make the practice sustainable. Although, started with 6 States initially it is now operational in several States which speaks for the popularity of this intervention.
• Mechanism to promote hand washing practices through school to the community will be put in place with the help of the EHCs, the School Based Management Committees and Parents-teachers Association.
Case Study 4

Empowering Women through WASHCOMs in Nigeria

- A case study of Katsina State
Empowering Women through WASHCOMs In Nigeria

- A case study of Katsina State

Abstract:
It is increasingly being realised that for a successful WASH project, involving women during planning implementation and management is essential. In Nigeria, attempts have been made to empower women as partners in WASH interventions. Efforts are being made to represent women from the community in the Water, Sanitation and Hygiene Committees (WASHCOM) that are now widely existing in different States. Currently, there are 8319 WASHCOMs functioning in the DFID funded Sanitation, Hygiene and Water in Nigeria (SHAWN) Project areas that covers 6 States and 60 LGAs of the country with a total membership of nearly 100,000, of this, 37,000 (37%) are women. All of the WASHCOM members were trained on their roles and responsibilities, that has empowered them to play a positive role in WASH interventions. As a part of the executive body, women have been contributing to the provision of water facilities in their communities, triggering the communities to become ODF and promoting hygiene practices at household level. Even in Katsina where the socio-cultural norms could have been a hindering factor for women’s participation, women are very effectively involved in the planning and management of WASH services. The social and cultural barrier is slowly but steadily breaking. This opportunity has raised their status at household and community level. With the extra time available, they have gained the confidence to take up income generating activities to support their families.

BACKGROUND
Women’s empowerment is generally measured by their access to resources and their hold over decision making in household, society and community. Viewed from this angle, women empowerment in WASH sector could be linked to their access to WASH services and their involvement in planning and management of these services. It is of common knowledge that, due to social, cultural and historic factors, women and girls are the major carriers of water for households drinking, cooking, washing and cleaning purposes and meeting the demand for other household chores. This inhibits their ability to gain education and engage in economic activities. Therefore, addressing water and sanitation problem offers an opportunity to address social and economic empowerment of women.

According to UNDP report, women and girl children spend over 40 billion hours in sub-Saharan Africa for fetching and carrying water. This is equal to a year of labour for the entire workforce of France. At household level, women and girls are most often the users, providers and managers of water and guardians of household hygiene. Whether a water system works or not, they are the ones who are mostly affected. Similarly, without access to sanitary facilities in the household, women become inconvenienced during day light, using only the night for cover to relieve themselves. This exposes them to the risk of physical attack, violence and snake/scorpion bites.
Due to their dependence on water resources, women have accumulated considerable knowledge on location, quality and storage methods, their exclusion from participating in the siting and management of WASH services needs to be addressed. A study by IRC in 88 communities across 15 countries and a desk study by World Bank in 121 of their projects showed that, women’s involvement is the key for effective community water projects. Despite this, in many societies, women’s views are not systematically represented in decision-making bodies and gender based inequalities persist. The overall objective in the WASH Sector is to promote the survival, protection and development of children and this cannot be achieved without the full participation of women. Globally, UNICEF WASH programme is working to ensure that women are directly involved in the planning and management of water supply and sanitation programmes and that hygiene promotion interventions are specifically designed to address the need of each woman and girl.

PAST EFFORTS

Women’s participation in WASH services delivery is as old as UNICEF’s involvement in the WASH Sector in Nigeria. However, over the years, it has undergone several changes. With the introduction of Community Led Total Sanitation (CLTS) in a limited way during 2005-06, its adoption in a wider area in 2008 and its subsequent scaling up since 2011, establishing WASHCOMs has become a standard practice for accelerating sanitation coverage and the role of women has been more clearly identified. Women no longer remain as the beneficiaries of WASH services in a community but active participants in the planning and management of WASH services. This has been possible with the formation of WASHCOMs in communities where CLTS has been triggered. There are high chances that every community in Nigeria may undergo CLTS triggering and similarly form WASHCOMs involving women.

WASHCOMS AND THEIR COMPOSITION

WASHCOM is the basic management structure at community level to look after the planning and management of WASH services and is accountable to the community town council. Members of the WASHCOMs are generally elected through a democratic process within the community following certain criteria as laid down below. Members;

- Should be a resident and shall remain in the community for a continuous period of at least two years.
- Should have the willingness to serve the community with good record of previous voluntary services.
- Should be the one without a record of misconduct especially financial mismanagement of community funds.
- Should not be holding any sensitive position in any other organisation whether inside the community or outside that may affect his/her performance as WASHCOM member.
- Should have the ability to read and write in any language (as an advantage).
- Should not be holding any political appointment with Government or any political party.
- Should be acceptable to the community.

The number of WASHCOM members varies from 7-13, depending on the size of the community, in some places it is more. The members once elected are supposed to choose the office bearers or the Executive Body. After the Executive Body is constituted, the members nominate at least two and at
most 5 members of the community to the Executive Body as patrons and that is notified to the community. In this way, the WASHCOM is a well represented body of the community.

**WASHCOM AND WOMEN EMPOWERMENT**

Guidelines for the composition of WASHCOMs specify electing women members as the starting point of women’s involvement in WASH services. As per the guidelines, half of the members in WASHCOM are expected to be women; a 40% representation is acceptable. They are to be represented in the following way.

- If the Chairman is a man then the Vice-Chairman will be a woman and vice-versa
- If the Secretary is a man then the Assistant Secretary will be a woman and vice versa
- A Treasurer could be a man or woman
- If the Provost is a man then the Assistant Provost will be a woman

The possible positions of WASHCOM women members could be seen from Figure -1

![Figure – 1 Possible Position of WASHCOM Women Members](image)

As members of WASHCOM, the women members/office bearers have the following roles and responsibilities along with their male counterparts.

- They receive programmes and projects on behalf of the community and facilitate the endorsement of the programmes/projects by the community leaders
- They create awareness and monitor delivery and uptake of interventions like hand washing, CLTS interventions and other services like immunization, birth registration, nutrition, exclusive breast feeding and other child survival issues for which they are empowered.
- They mobilize community to contribute money for repair and maintenance of water supply services in the community.
- In the capacity as Treasurer or Assistant Treasurer, they are involved in opening bank accounts for keeping the money received as contribution from the community, prepare quarterly reports of the bank transactions and brief the community.
• They liaise with the community with regard to the siting of WASH projects.
• They oversee the operation and maintenance of water supply facilities including timely repair of those reported broken down.
• They oversee and supervise the activities of the Voluntary Hygiene Promoters and when required offer their own services for the same.
• They are a part of the CLTS campaign to make the community ODF.
• They promote household best practices that contribute to survival, protection and development of a child.

The training/orientation sessions organized for them to be able to perform their role in a better and more effective way also empowers them to handle a variety of activities in the community. This also raises their dignity and status within family as well as in the community.

PROGRESS

To make women as partners of progress in the WASH sector, progress has been reported in Nigeria for the six States and 60 LGAs covered under SHAWN Project funded by DFID.
• Over 3 million women have gained access to safe water and sanitary means of excreta disposal.
• Around half of women collectors of water now have access to clean water within 300 meters from their premises down from 800 meters average distance traveled to collect water. This gives women extra time to socialise and/or involved in other economic and social activities in the community.
• There are 8,319 functional WASHCOMs with total trained active members approximately 100,000 out of which 37% are women, a large strength to reckon - this is not very far from the acceptable 40% national benchmark for women participation in Nigeria.

• As per the Annual Review Report of DFID (2016), in all the SHAWN LGAs, at least two joint sessions involving men and women members of the WASHCOM were organized and recorded.

• The Annual Review Report (2016) also indicates that in all LGAs, at least one exclusive session of WASHCOM members was organized and recorded. The number of communities covered was 3880 constituting 23% of the total number of the communities.

• The encouragement received by the women members for being a part of the functional WASHCOMs has ignited their zeal and synergy into multi-sector project interventions like immunization, birth registration, nutrition, breastfeeding and so on, and the impact can hardly be over emphasized.

KATSINA SHOWS THE WAY FOR OTHERS IN NORTHERN NIGERIA

Katsina is one of the northern States of Nigeria with a predominant Muslim population where traditional and socio-cultural factors were instrumental in keeping the women away from participating in the socio-economic development of their communities. But the people are fast changing this culture as witnessed in the last couple of years. Steps are taken to engage women in planning and management of WASH services which in the past was not permissible.

Katsina currently has eleven LGAs with a total number of 3053 communities. On an average, 70% of the communities in the 11 LGAs have WASHCOMs; with 6 LGAs having WASHCOMs in all the communities (Table - 1)

Table 1: LGA-wise WASHCOMS Status in Katsina State (September 2016)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>LGA</th>
<th>Total Com.</th>
<th>No. of WASHCOMs</th>
<th>%</th>
<th>Members Trained</th>
<th>Women members Trained</th>
<th>%</th>
<th>No. in Exe Body</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Bakori</td>
<td>428</td>
<td>428</td>
<td>100</td>
<td>5220</td>
<td>2115</td>
<td>40</td>
<td>423</td>
</tr>
<tr>
<td>02</td>
<td>Faskari</td>
<td>327</td>
<td>327</td>
<td>100</td>
<td>3810</td>
<td>1635</td>
<td>43</td>
<td>327</td>
</tr>
<tr>
<td>03</td>
<td>Maiadua</td>
<td>298</td>
<td>298</td>
<td>100</td>
<td>4470</td>
<td>1490</td>
<td>33</td>
<td>298</td>
</tr>
<tr>
<td>04</td>
<td>Sandamu</td>
<td>238</td>
<td>238</td>
<td>100</td>
<td>1000</td>
<td>385</td>
<td>38</td>
<td>77</td>
</tr>
<tr>
<td>05</td>
<td>Kaita</td>
<td>254</td>
<td>254</td>
<td>100</td>
<td>4110</td>
<td>1347</td>
<td>33</td>
<td>151</td>
</tr>
<tr>
<td>06</td>
<td>Dutsinma</td>
<td>270</td>
<td>270</td>
<td>100</td>
<td>1340</td>
<td>430</td>
<td>32</td>
<td>106</td>
</tr>
<tr>
<td>07</td>
<td>Ingawa</td>
<td>270</td>
<td>69</td>
<td>25</td>
<td>690</td>
<td>345</td>
<td>50</td>
<td>69</td>
</tr>
<tr>
<td>08</td>
<td>Musawa</td>
<td>276</td>
<td>84</td>
<td>30</td>
<td>840</td>
<td>420</td>
<td>50</td>
<td>23</td>
</tr>
<tr>
<td>09</td>
<td>Matazu</td>
<td>189</td>
<td>49</td>
<td>26</td>
<td>490</td>
<td>245</td>
<td>50</td>
<td>74</td>
</tr>
<tr>
<td>10</td>
<td>Safana</td>
<td>264</td>
<td>47</td>
<td>18</td>
<td>470</td>
<td>235</td>
<td>50</td>
<td>47</td>
</tr>
<tr>
<td>11</td>
<td>B.Garawa</td>
<td>239</td>
<td>71</td>
<td>30</td>
<td>710</td>
<td>273</td>
<td>38</td>
<td>168</td>
</tr>
<tr>
<td>Total for State</td>
<td>3053</td>
<td>2135</td>
<td>70</td>
<td>23150</td>
<td>8920</td>
<td>38.5</td>
<td>1763</td>
<td></td>
</tr>
</tbody>
</table>

Source: Katsina RUWASSA (Rural Water Supply and Sanitation Agency).
It is gratifying to know that over 38% of trained WASHCOM members are women elected by the community which was hitherto not acceptable even in non-SHAWN States. Attempts are now being made to include women in the WASHCOMs pointing to how the awareness gained in SHAWN LGAs has now spread to other LGAs. In fact, the newer LGAs have a better representation of women in WASHCOMs; 4 out of 5 have 50% women membership. It is also important to note that in the overall 20% of the WASHCOM members trained are women. The LGAs that have higher number of women represented in WASHCOM also have higher number of functional water facilities.

When asked whether involvement in the WASHCOM has in any way raised their status in their own household and in the community, the success story in text box below represents the responses obtained across the communities.

Box below gives another success story of women empowerment through WASHCOM in one of the communities of Bakori LGA of Katsina State. There is more than one such example.

**Success story of women empowerment through WASHCOM in Bakori LGA of Katsina State**
- There has been a change in the attitude of our husbands in terms of allowing us to come out of the house and attend meetings in the community which was earlier not permitted.
- We are now in a position to demand better facilities from our husband that will improve our life style. This includes having a toilet or upgrading the existing one, getting better dresses for us and the children etc.
- As we save some time due to availability of water nearby and a toilet within the premises, we find time to take care of our children better, prepare food timely and keep the house and its environment clean, and our husbands and children like this.
- Members of the community now look at us in awe and as role models and listen to us. This has facilitated our role in promoting better hygiene practices and other child survival and development issues among the families during our visits to households.
- For many, the extra time now available helps us to take up small income generating activities that add to family income thereby improving our status in the family and also in the community, this too is becoming appreciated by our husbands.

*Community Women in Baida*

![Figure 3: WASHCOM women members together with their male counterpart and the visiting team at Baida Community of Maiadua LGA of Katsina State](image-url)
Box: The Story of Economic Empowerment of Women in Salihawa Community of Bakori LGA in Katsina State with WASHCOM women members taking the lead

**Women WASHCOM members take lead in Salihawa**

Salihawa is one of the communities in Bakori LGA of Katsina State. It is a Muslim dominated community. The WASHCOM was formed three years ago. Of the 15 members, five are women. Ms Marga Salisu is the Vice-Chairperson of WASHCOM and Ms Mairo Ibrahim is the Assistant Treasurer. Besides taking active part in WASHCOM activities, they mobilised other women in the community to undertake income generating activities using their spare time and they decided to go for agriculture. But none of them own land. They took a piece of land from a co-community member on lease and started growing beans and corn. This was during the last farming season. In the first year itself, they harvested products worth about NGN 76,000 and sold the entire product in Bakori (LGA) market not too far off with the help of some of their husbands, a thing which was impossible earlier. The profit they earned was NGN 15,000. Although the amount was not big, this venture gave them the taste of earning something on their own. This they attribute to the confidence they gained taking part in WASHCOM activities and the trust they earned from the community. With the experience gained, they are now more ambitious and want to carry out cultivation on a bigger piece of land and also diversify their product. Besides, some of the members have already started other income generating activities like bean cake, making/grinding spice, roasted nuts etc. This women group now has forty-five members; not a small number considering a community of 149 households.

Figure -5: Women members of Salihawa Community in Bakori LGA of Katsina State engaged in cultivation with the time saved and thanks to the women members of WASHCOM Executive Body
CHALLENGES
A beginning has been made to empower women through the WASHCOMs. This is remarkable in Northern Nigeria where women, unlike Southern Nigeria do not come forward because of customs and traditions. The response is encouraging although a few challenges still remain that need to be addressed.

- Although the guidelines on the formation of WASHCOMs envisages a 50% women representation, the present representation is about 40%. (Achieving 50% women representation in a traditional society is a slow process. As seen earlier, the new LGAs that are enrolling into the programme have a 50% women representation in WASHCOMs. This is a good development.)
- Representing women in the Executive Body as an office bearer is still low although in some of the WASHCOMs, the Vice-Chairperson, and the Treasurers are women and actively involved in WASHCOM activities. In Southern part of Nigeria, the position of a Secretary of some of the WASHCOMs are women. The fact that in some of the WASHCOMs women have already been accepted to be a part of the decision making process is a very good sign. The male members of the Executive Body are increasingly accepting their female counterparts as integral part of WASHCOM and appreciating their contribution.
- Absence of a database of the Government with gender-differentiated statistics to determine equity is a big challenge. (UNICEF has started developing this in its supported States through WASHIMs and soon this may become a guide at national level for WASH interventions. This is also supported by all the donors insisting on developing indicators on gender equity in WASH.)
LESSONS LEARNT
The few lessons learnt in the past, in mainstreaming gender in WASH interventions, are highlighted under;

- It is possible to involve women in the decision making process of WASH interventions through WASHCOMs even under adverse socio-cultural conditions.
- Involvement of women is a slow process and should not be imposed on the community without effective mobilization.
- Communities have started accepting the role of women in WASH interventions and appreciate the role played by them in promoting hygiene for a better quality of life.
- Women’s involvement in WASHCOMs and their participation as office bearers raise their status both in the households and in the community. This encourages other women to join the process.
- Enhancing the social status of women WASHCOM members in the community also helps them to promote hygiene and other health and developmental issues as community members, especially, other women are receptive to them and consider them as role models.
- Once the women members come out of the shackles of traditional and social barriers and join the main stream of village development, they feel more confident to take up even income generating activities to support their family and children. The time saved from collection of water and use of toilet at home only facilitates the same.
- The fact that in many WASHCOMs, the Treasurer or the Assistant Treasurer is a woman, confirms other members’ confidence in women and their capability and honesty in handling financial issues. In many WASHCOMs, collection of the community contribution is done by the women members of the WASHCOM Executive Body.

THE WAY FORWARD
Mainstreaming gender in WASH programmes has been in focus since the last three decades. Starting from 1977 UN Water Conference and now the SDGs (2015-2030), the world forum has been emphasizing gender equity in WASH interventions. The Federal Government of Nigeria brought out a Gender Policy way back in 2006 and a Strategic Framework for its implementation in 2008 for the period 2008-13. This is now being reviewed and a new policy is in the offing. Although there has been no specific mention of WASH in the 2006 policy, probably because this policy was somewhat linked to the MDG where WASH was a supportive goal, some of the related programmes like health and environment had some components that were applicable to WASH as well. In Nigeria, woman’s involvement in WASH intervention is as old as the WASH Programme supported by UNICEF. Over the years, it has been refined and the scope expanded. Some of the major areas that should be taken further on this issue are presented below.

- The WASH Management Information System (WASHIMS), developed by the FMWR with support from UNICEF and piloted in 21 States has disaggregated gender data. In due cause of time this will apply across the country and serve as an important tool for gender base decision making.
- Support studies that contribute to the understanding of women related WASH issues and find the most effective communication channels and triggers for behavioural change. It is good to also carry out in-house operational research on gender and its impact.
• Providing toilets separately for boys and girls in primary schools will be a priority under School Sanitation Programme. Coordinating with the Education Ministry for the needed budget provision towards this is important.
• The Ministry of Women Affairs and Social Development has recently earmarked over 1 billion NGN for economic empowerment of women in the country. WASH Implementing Agencies will explore the possibility of linking women through WASHCOMs to it to take up gainful income generating activities and/or expanding the ones already in places.
• Continue to document promising practices in WASH on women's participation in planning and management of WASH services.
• Efforts will be made to involve more and more women in the Executive Body of the WASHCOMs as office bearers besides increasing their representation.
Case Study 5

WASHCOMs drive Birth Registration and Immunization of Children in their Communities

- A case study of Benue and Jigawa States
WASHCOMs drive Birth Registration and Immunization of Children in their Communities

- A case study of Benue and Jigawa States

Abstract:

Formation of WASHCOMs and empowering them is a part of the strategy to engage community in the planning, delivery and management of WASH facilities. It is heartening to see that in some of the intervention States, once the WASHCOMs are empowered and settled, they take on additional responsibility to address other community issues beyond WASH. Building on this premise, an expanded WASHCOM guideline covering inter-sectoral issues was developed with support from UNICEF Nigeria in collaboration with the Federal Government. Under this approach, the WASHCOMs in their communities were sensitised on other child survival issues affecting their community and this was rolled out on a pilot basis. Two activities that were identified by the WASHCOMs were birth registration and immunization in 29 communities in Benue and Jigawa States. Astounding results could be noticed in these communities with regard to birth registration and immunization of children. This clearly demonstrates the potential of WASHCOMs for addressing child survival, protection and development issues.

BACKGROUND

Some of the health indicators of Nigeria are at an undesirable level. The country has over 11 million stunted children, only half of the children are immunized and over two-thirds of those below 5 years of age have no birth registration. Nigeria is one of the five countries that account for half of global under-5 deaths. It has been established that improving WASH services contributes to realizing the child’s right to survival and development. A greater impact on child survival can be achieved by integrating WASH interventions with other health services like immunization, anti-natal care, malaria control, nutrition, and birth registration.

Nigeria WASH Programme is currently covering over 30,000 communities spread over 21 States (out of 36) and 90 LGAs. In all these areas Water, Sanitation and Hygiene Committees (WASHCOMs) exist and can be leveraged to enhance uptake of other developmental interventions.

The WASH Section worked with other sector colleagues to integrate issues around health, nutrition, child protection, education and other child survival issues pertinent to the community into the Expanded Guidelines for training WASHCOMs. By including cross-sectoral issues affecting child survival and development such as immunization, nutrition, vitamin-A supplementation, birth registration, malaria, etc., the Expanded WASHCOM Guidelines provides an avenue for a structured engagement of communities on these issues through the WASHCOMs.
CRITERIA FOR SELECTION OF PILOT COMMUNITIES
The strategy was to work in States that had poor social indicators, and a good number of ODF certified communities with functional WASHCOMs. In consultation with other sectors stakeholders, the States that ranked lowest in terms of social indices like ante-natal care, child nutrition, birth registration; and their progress in Community Led Total Sanitation (CLTS) interventions were prioritized. Additional criteria for selecting communities included the presence of improved water source and presence of related sector programmes in the State. The hypothesis was that empowered WASHCOMs would be ready for other interventions if their WASH needs were already met.

Selection of Pilot communities
Two States, namely Benue and Jigawa, were selected for the initial pilot that focused on 29 communities with an estimated population of 61,640 inhabitants. These are ODF certified communities with functional WASHCOMs and whose WASH needs were already met. WASHCOMs in these communities, through a social dialogue with community members identified immunization and birth registration as important issues to be addressed.

IMPLEMENTATION AND ROLLING OUT
UNICEF WASH interventions in Benue and Jigawa states commenced in 2012 with the sensitization of communities on ending open defecation practices. This was followed by the establishment of WASHCOMs and other WASH interventions at a later stage. Based on the remarkable progress achieved in sanitation as well as the evidence of successful community engagement in non-WASH issues brought out in the CLTS Case Studies’ documented in 2013/14, the expanded WASHCOM guideline was developed in 2014.

Stakeholders at State and local government levels from Benue and Jigawa States were engaged to pilot the initial roll-out of the convergence approach in selected communities in 2015. In collaboration with Health and National Population Commission (NPopC), WASHCOMs were trained to lead sensitization and social dialogue on key child survival and development issues affecting their communities. Critical actions to be taken were identified and presented to the community.

In the case of the 29 selected communities, birth registration and immunization were identified as key issues in their communities by community members. Based on resolutions adopted, WASHCOM members liaised with the service delivery centres (Local Government Immunization and Birth Registration Offices) to organize services outreach to the community where distance impedes accessing these services. The ultimate aim was to get all the children registered and immunized.
With the credibility that the WASHCOMs had earned in the CLTS Campaign and the effective role they play in the operation and maintenance of water supply systems in their communities, they won the confidence of the community members and were accepted as the well wishers of the community. As this was established and the WASHCOM members approached the community on the need for both birth registration and immunization, the response from the latter was positive.

WASHCOM members mobilized households, ensuring that all children due for immunization were listed, presented and immunized. Subsequently, they monitored to ensure that no child was missed during immunization. For birth registration, they carried out birth registration campaign, obtained birth registration information for all children (including missed ones) between 0-17 years and submitted these details to the District Birth Registrar who certified the information and issued birth certificates. The certificates received were distributed by WASHCOMs to affected households. Having ensured that all children were registered, new births and deaths occurring in the community are promptly documented for registration thereby sustaining 100% birth registration status for the community through WASHCOMs.

![Figure 2: Birth Registration supported by WASHCOMs](Source: UNICEF, Nigeria)

**Advantages of an Expanded WASHCOM Approach**

Addressing other sectoral issues by building on the existing WASH platforms is not only value for money but also introduces synergy across interventions with increased child survival outcomes:

- Builds on existing WASH structures at community level (WASHCOMs) to promote health, etc.
- Builds on sensitized communities with sense of ownership and readiness to sustain other interventions
- Relatively easy acceptability for new interventions by households due to their trust on WASHCOMs
- Communities benefit not only from WASH but also other interventions leading to better child survival & developmental outcomes
- Creates a ripple effect around neighbouring communities who too demand for other services

**Typical Cost of Interventions** (based on interventions in 2 LGAs covering 29 communities)

- Total cost - approximately **US$ 6,000**
- Cost for training for 2 days is about **US$ 3,000** (2 resource persons; 4 state officials per
LGA; 62 LGA officials per LGA)

- Cost of facilitation in communities is about **US$ 3,000**
- Cost per community for the expanded approach is **$206** (which will decrease as human resource utilisation is optimised to engage more communities)

**It is Value for Money**

- No additional cost in creating new institutional arrangements at community level
- Health, Social Welfare and Rural Development Ministries need not spend additional funds to mobilize communities for services

---

**RESULTS ACHIEVED**

In Benue and Jigawa States where the piloting was done, the approach has been appreciated by the sector players including the Department of Vital Registration in National Population Commission, State Ministry of Health and other stakeholders like the Primary Healthcare Department.

Since the inception of the roll-out in early 2015, impressive results have been recorded in immunization. As at January 2016, there was a drop in cancellation of outreach sessions for immunization (which generally occurs due to poor turnout of people) from 18% to 2%. The ward summaries of the District Vaccines and Devices monitoring system showed continued decline in missed immunisation to less than 2%. 843 children between the age of 0-5 years who never got vaccinated and 1,136 children who discontinued vaccination after their initial rounds were profiled and immunized. 92 children within their first month of birth, whose births occurred at home were also registered and immunized. Figure-5 illustrates the increase in immunization rates for various vaccines post intervention. For instance, the number of children administered DTP-HepB-Hib-1 increased by 34% over that achieved pre-intervention.
In the case of birth registration, as at January 2016, the 29 communities have sustained 100% registration of all new-born children. Over 23,611 unregistered children have their national identity by being registered and issued national birth certificates in these local governments. Within the period out of which of these 13,488 registered children were from the 29 communities (representing over 57% of all births registered in these LGAs). Overall, there has been 84.8% increase in registered births intervention for the two LGAs (Figure-7). The LGAs which recorded less than 400 registered births before WASHCOMs intervened now record over 1,000 births monthly as seen in the screen.
shot from the Nigeria online birth registration reporting portal - www.rapidsmsnigeria.org (see Figure-7) for January 2016.

Figure 7: Screen-shot from the Rapid SMS Platform showing number of registered birth for Konshisha LGA in the Month of January 2016

Source: UNICEF, Nigeria

Figure 8: Jubilant WASHCOM members of Ahwen Community in Konshisha LGA of Benue for success in CSD with two health workers and some community leaders
Arising from the successes recorded in the pilot phase, this process of services convergence with WASHCOMs as entry point was scaled up to 156 communities. Over 42,000 birth has been registered in Oju LGA of Benue State and 16 Health Centers have reported increase immunization uptake through active mobilization by WASHCOMs. Bauchi State is first that has embraced the approach LGA wide in two Local Governments namely, Dass and Warji and unconfirmed results are promising.

**CHALLENGES**
Experience from the two pilot LGAs has brought forth a few challenges that need to be considered and addressed.

- Initial resistance to joint planning and coordination of activities by LGA functionaries from other sectors. (This challenge eases as results from the approach become obvious).
- Health Officers often view their role in compiling monthly immunization appointment list as an additional task. (This has been addressed by a state government circular asking for their participation. This is working out well).
- Local government District Chief Registrars (DCR) are few and easily overstretched with increased demand for birth certificates. (Flexible deployment approach is being considered).
- Other sectors are slow to adapting budget to be able to fund activities under the strategy. This will be addressed by increasingly demonstrating results under coordination.
- Health Centers easily run out of vaccine stock as soon as households demand for services increase.
- Short fall in form B1 and B2 is frequently reported. The two forms are the main tools in birth registration, inadequate supply often discourages WASHCOMs

**LESSONS LEARNT**

- Sensitization of stakeholders and coordination at local government level is fundamental for effective convergence of services through WASHCOMs.
- Integrating child survival and development outcomes in WASH interventions is a driver to
improving health outcomes for the child.

- The national significance of birth registration gives communities a sense of inclusion.
- Involvement of WASHCOMs, who are community people in promoting immunisation, helps dispel negative perceptions about vaccination and increase household’s vaccination acceptance.
- The expanded responsibilities on child survival and development promotion have further boosted the prominence of WASHCOM in their communities.
- Communities are proud of their achievement and quick to showcase successes on convergence.

THE WAY FORWARD

UNICEF should continue to encourage this intervention as a part of inter-sectoral convergence that will bring in synergistic impact on survival and development of children. While doing so the following factors will be considered.

- WASHCOM as an entry point for inter-sectoral convergence offers an opportunity for mobilizing the latent social energy inherent in community WASH structures to address developmental challenges beyond WASH.
- Experience in Nigeria has shown that once WASHCOMs are established and empowered, and their immediate WASH challenges are met, they gain trust of the community and become good entry point for initiating social dialogue to address pressing issues affecting their community. This should be continued.
- This knowledge should be tapped to demonstrate how this approach can contribute to addressing developmental challenges in a systematic manner without necessarily creating new structures and to continue to apply in a wider area.
- FGN-UNICEF WASH programme in Nigeria, currently spread over 30,000 communities 90 LGAs across 21 states, offers a sizeable footprint to advance child survival & developmental interventions through WASHCOMs as an entry point. Besides, Nigeria is implementing an LGA-wide approach with the objective of getting all the communities ODF and with access to water. In 2016, the Government of Nigeria will commence the implementation of a national roadmap for the elimination of open defecation. This offers an excellent opportunity for rolling-out cross-sectoral integration using WASHCOMs nationwide.
- The model for promoting immunization and birth registration through WASHCOMs has been adopted by stakeholders. In the immediate phase, the pilot is planned for scaling up to cover 500 neighbouring communities and will be extended to cover 8 to 10 states.
- The approach can be institutionalized as a strategic vehicle to further leverage the investment in WASH to increase child survival and development.
- The approach has the potential to boost the reach and save cost for programmes involved in long lasting insecticide treated bed net, community management of acute malnutrition, neglected tropical diseases (e.g. Onchocerciasis) which often require the setting up of committees.
Case Study 6

ODF Certified Communities and their Sustainability in Nigeria

- A case study of Katsina, Jigawa and Anambra States
ODF Certified Communities and their Sustainability in Nigeria
- A case study of Katsina, Jigawa and Anambra States

Abstract:
Nigeria is one of the three African states that initiated the Community-led Total Sanitation (CLTS) strategy for accelerating sanitation coverage in a sustainable manner. Starting in 2005-2006 in a small way and expanding to a wider area in 2008 to mark the International Year of Sanitation, the CLTS strategy has come a long way and has now been embraced by all the States and the FCT. As a part of this strategy, the Federal Government has laid down procedures for declaring a community open-defecation-free (ODF) and a certificate is issued to that effect. In DFID-funded Sanitation Hygiene and Water in Nigeria (SHAWN) project covering 6 States and 70 LGAs, recent reports indicate that the cumulative number of ODF certified communities between 2014 and 2016 has doubled from 3276 in July 2014 to 6547 in June 2016. There is evidence that communities maintained their ODF status on a continuous basis which is paramount index for measuring the success of CLTS. While overall, more than 60% of ODF communities in Nigeria reported sustainability, in the three States of Katsina, Jigawa and Anambra, 87 to 94% of communities in selected LGAs were found to be sustaining the ODF status even after a year. Several factors contributed to this success although challenges in some areas of intervention still remain.

BACKGROUND
The main purpose of facilitating a community to be open-defecation-free (ODF) is to improve the health of its citizens by providing a clean environment and breaking the cycle of faecal-oral route of disease transmission. This naturally calls for sustaining the gains achieved from ODF to prevent loss of the investment made in making the community ODF. This also brings in the sustainability aspect of sanitation. The Sustainable Development Goals for WASH envisages universal access to improved sanitation in a sustainable manner by 2030. Viewed in this perspective it is essential to expect that the communities maintain ODF status and continue to move up the sanitation ladder.

CLTS AND ODF
Nigeria has been implementing the CLTS Approach for accelerating the coverage of sanitation. Started in 2005-06 in a small way, this approach has now been embraced by all the States and the Federal Capital Territory. CLTS entails empowering a community through sensitization using tools call triggering exercise to make them realize the extent and magnitude of the problems associated with open defecation. This makes them call for collective action to solve the problem in order to improve health and well-being of its people. It focuses on igniting a change in the sanitation behaviour of the community members rather than purely constructing toilets. This is done through a process of social awakening that is stimulated by the facilitators from within or outside the community. It concentrates on the whole community rather than individual behaviour where the community resolves to make its environment open-defecation-free. Unlike earlier subsidy-based sanitation intervention, CLTS is fully non-subsidized. This makes it a low cost but high impact approach to sustainable sanitation.
**PAST EFFORTS**

In Nigeria, the Federal Government laid down a protocol to certify community open-defecation free and this is designed basically to address sustainability. The National Task Group on Sanitation (NTGS) played an important role in developing this protocol. Under the protocol, the following processes had been laid down (see also Figure -1).

1. The triggered community declares that it is ODF either through WASH Committee (WASHCOM) (where it exists) or through NGO responsible for implementing CLTS or by the community itself to the Local Government Area (LGA) WASH Department/Unit or the appropriate agency (where there is no WASH Department/unit) at LGA level.

2. The LGA WASH Department/Unit or the appropriate agency makes an initial visit to the community to verify the ODF claim as per the guidelines prescribed in the protocol.

3. If it is confirmed that the community has attained ODF status based on the information gathered and on-the-spot observation, the WASH Department/Unit or the appropriate agency make unannounced visit to the community every month for three months and carry out similar verification process.

4. On satisfactory completion of these visits, the WASH Department/Unit or the appropriate agency furnishes the Rural Water Sanitation Agency (RUWASSA) or the designated agency at State level (where RUWASSA does not exist) with the detailed information.

5. On receipt of the information, RUWASSA conducts further verification in conjunction with the WASH Department/Unit or the appropriate agency to assess the ODF status in 4th and 5th months. At this stage, RUWASSA does random checks of about 25% of communities verified at LGA level.

6. If the outcomes of these visits are consistent with the earlier ones reported by the LGA, RUWASSA sends a report to the State Task Group on Sanitation (STGS) which in turn sends a team consisting of its members to conduct another round of un-announced visit to verify the status of the community.

7. Based on the outcome of this visit, the State Task Group on Sanitation (STGS) recommends to the LGA and the State to declare the community open-defecation-free.

8. The community is then officially declared ODF with certificates presented to it at a formal ceremony attended by the community members, state government functionaries, representatives of the LGA, NGO and development partners.

While the process stated in the protocol was fine, the time taken to certify a community ODF was too long. It was also realized that the ultimate outcome of this process was ODF certified community and not the ODF declared community. As per the Protocol, no official certification could be made unless ODF had been sustained for 6 months. This was too long a period for a community to wait for the certification. Besides, there was delay in the verification process itself due to the shortage of staff and resources with the RUWASSA and LGA. Funds needed for travel to the communities to meet the prescriptions in the protocol were inadequate as reported by these agencies. It was, therefore, not surprising that only 34% of the ODF declared communities could be certified ODF. Delay in ODF certification not only discouraged the community waiting for the celebration, it also discouraged the adjoining community to take interest in the process. These issues were raised during the final DFID Review of SHAWN – 1 that suggested reducing the time lag between ODF declaration and ultimate certification.
The limitations of the process envisaged in the previous protocol as realized by the Government led to a revised National ODF Certification Protocol.

IMPLEMENTATION OF THE REVISED PROTOCOL FOR ODF CERTIFICATION

The revised protocol aims to simplify the process by reducing the time lag between ODF declaration by the community and ODF certification by the STGS, also for ensuring the quality of the entire verification process. This is expected to encourage the community that worked hard to reach ODF status which would have a spin off effect on the neighbouring communities.

The major positive outcome of the revised protocol has been that it has reduced the total time limit for verifying community ODF claim or formally declaring it as ODF from more than 180 days to 100 days. It also introduced a mechanism to ensure quality of the certification process. Highlights of some of the changes can be seen below.

- It was envisaged that the concerned agencies (WASH Department/WASH unit) at LGA level should make a maximum of five visits to the triggered communities within 6 weeks, as
compared to three months earlier.

- Monitoring by RUWASSA may be undertaken during this time period and not on the 4th and 5th month after LGA’s verification as laid down in the previous protocol. Notwithstanding, they are given another 15 days to complete the verification from the time they receive the list from the LGA.
- LGA team is now expected to submit a batch of at least 20 communities and a maximum of 40 communities to RUWASSA for verification. This reduces the pressure on RUWASSA and also the time to complete the verification visits.
- RUWASSA is now expected to undertake random visits to 20% of these communities (as against 25% earlier stipulated).
- RUWASSA is now expected to submit its recommendations to the STGS within 20 days of first receiving the ODF verification claims from the LGA. No such time limit was earlier stipulated.
- A time limit of 20 days has now been given to the STGS to conduct the verification visit to the identified communities and recommend to the LGA and State Governments for declaration of ODF community. There was no such limit before.
- A time limit of 20 days from the time the STGS recommends for certification has now been given to the LGA and State Government to officially declare the community ODF and a certificate presented at a formal function.

Figure 2: A Triggering session in one of the communities of Musawa LGA of Katsina State

Once a community is declared ODF, the present system entails visits by the NTGS to different States/LGAs for re-validation of the ODF-certified communities after some time gap this is to see whether these communities are still maintaining their ODF status. This brings in moral pressure on the community to maintain their ODF status besides strengthening the data base on sanitation coverage. It also reflects the sustainability of sanitation coverage in the community.
Figure 3: As a part of triggering a separate session for children in one of the communities of Musawa LGA of Katsina State

Figure 4: An STGS Verification Team in Action in Umueze Community of Aguata LGA in Anambra State
PROGRESS OF ODF CERTIFICATION AND SUSTAINABILITY

The revised protocol is in operation since 2015. Starting with only 40 communities that were certified in 2010, the number of communities certified has increased to 7569 by September, 2016 mainly in SHAWN supported LGAs. The percentage of communities certified compared to those claiming ODF is 95% and close to half of the triggered communities. This is a much more satisfactory report compared to 2014 when the corresponding figures were 50% and 34% respectively for the country as a whole.

As regards sustainability of certified communities, more robust data is now available from the revalidation visits to ODF certified communities by NTGS after a period of six months. Usually under the present arrangement and to ensure sustainability of the ODF certified communities, the NTGS undertakes re-validation in a sample of ODF Certified communities. The sample varies from 10% to 20% of these communities.

As at September 2016, the NTGS has covered 8 States and 39 LGAs and the feedback is that 67% of the ODF certified communities have sustained their ODF status. In some of the LGAs like Mallam Madori (94.4%) in Jigawa, Bakori in Katsina (89.0%) and Aguata (87.0%) in Anambra States, the figures are very impressive.

LESSONS LEARNT FROM SELECTED LGAs OF KATSINA, JIGAWA AND ANAMBRA STATES

While the NTGS reports that a 67% of communities sustain ODF in 8 States, some of the LGAs have set an example of a very high sustainability rate even after a year of their certification as ODF. This is revealed from the 2016 revalidation results available from the NTGS. In this regard the three States that have achieved this feat are, Jigawa Katsina and Anambra in some of their LGAs.

<table>
<thead>
<tr>
<th>State</th>
<th>LGA</th>
<th>No. of Communities</th>
<th>Sample size (%)</th>
<th>% Reported Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jigawa</td>
<td>Mallam Madori</td>
<td>175</td>
<td>10</td>
<td>94.5</td>
</tr>
<tr>
<td>Katsina</td>
<td>Bakori</td>
<td>345</td>
<td>10</td>
<td>88.6</td>
</tr>
<tr>
<td>Anambra</td>
<td>Aguata</td>
<td>61</td>
<td>10</td>
<td>87.0</td>
</tr>
</tbody>
</table>

Source: UNICEF, Nigeria (As obtained from National Task Group on Sanitation, Sept., 2016)
Feedback from the field in these LGAs/States indicates the following motivational factors for the community to maintain the ODF status.

- Household are aware of the health impact of using a toilet rather than practicing open defecation. That makes them use and maintain the toilet constructed under CLTS.
- Households perceive the shame and indignity of not having a toilet that motivates them to continue constructing and using the toilets.
- The privacy enjoyed by members of the household that own toilets particularly the women members of the family and the aged who stopped going out in the dark keeps them using the toilet.
- Their motivation also arises from greater ease of access for defecation and comfort when using a toilet compared to open defecation.
- Technical advice received from me to me on how to use and maintain the toilet and upgrading it contributes to sustainability.
- Easy access to water has been another motivating factor for the households to have a toilet, upgrading and using it.
- Close monitoring of the community through WASHCOMs with a provision to impose penalty for defaulters and the guidance by the religious leaders have also contributed to sustainability of ODF (Figure -6).
- It has been noticed that communities that declare ODF soon after triggering sustain it more than communities that take long time to declare ODF after triggering.
- Effectiveness of the triggering exercise organised in the community is also a factor for reducing the time-lag to achieving ODF and the sustainability.
- Above all, the habits formed by the household members after using the toilet for a longer time and the benefits observed influences others to use the toilet rather than continuing in open defecation again. They also become advocates for others (See Box).

**CHALLENGES**

Challenges generally emanate from the de-motivating factors for the households. These are:

- Ineffective triggering process and follow up (This is being addressed by hand picking good facilitators who are potential motivators from LGAs, NGOs and other locals in communities at ward level)
- Collapsing walls of pit toilets due to unfavourable soil conditions and lack of finance to upgrade (A Sanitation Marketing Strategy is being developed to address these issues)
- Lack of continued technical support to maintain and improve the toilet (This is a part of the Sanitation Marketing Strategy)
- Sharing other’s toilets and no money to build one for the family (This is rapidly decreasing as the households realize the privacy and dignity of having their own toilet)
- Lack of water for anal cleaning and hand washing after defecation (All ODF communities are now prioritized in the provision of safe water with in a distance of 500 meters from their house. Digitisation of the monitoring of water facilities functionalities will enhance the reliability of these facilities as a source of safe water.)
- Poor quality of construction and durability of local materials used (The sanitation Marketing Strategy will also be addressing this issue)
• A weak WASHCOM (This is addressed by rigorously following the selection of WASHCOM members/executive body and training them. Certain level of pressure is also now built on them by the community itself).

Sometimes, due to external factors, a community that was once declared ODF is de-classified after the re-validation despite the fact that all the members of the community are using their toilets. It was discovered that, a floating population like Al-Majiris/migrants from other communities visiting or passersby defecate in the open. Al-Majiris are the orphan children who move with their teacher from place to place until they attain adulthood. This is common in many of the communities, particularly those in bordering areas with other countries. The mobile teacher can also stay in a community with these orphan children for some time and also engage some orphan children of the community in religious preaching. During this period, these migrants defecate in the open. Some communities build toilets for this purpose. However, a vigilant and progressive WASHCOM can handle such a situation by imposing fines on those migrants for open defecation and at the same time providing them options so that there is no open defecation in their community.

The Story of a newly-wed bride deserting her in-law’s house that did not have toilet and later coming back to champion the cause of an open-defecation-free community.

Fatima Binta Abubakar, a 32 year old girl from Kankana community (Yakwoanshi LGA) in Jigawa State got married to Haruna Abubakar in 2013. Daughter of Sabutu Abdul and Kainde Sabutu, she lived in a community that had been certified as ODF in 2012 with support from UNICEF. All her family members were using a toilet, she was shocked to learn after her marriage that her spouse’s family did not have a toilet and were defecating in open. Getting upset, she returned back to her parent’s house the next day after wedding. Knowing the reason, her husband constructed a toilet immediately and got her back. She along with her husband joined others and became the champion of making the community ODF. Their efforts along with the support of WASHCOM bore fruits and the community was certified ODF in 2015. Though an illiterate woman, Fatima’s courageous and determined actions are worth emulating.

Location: Baida community from Maikoni B ward of Maidua LGA.
LESSONS LEARNT

• A LGA-wide approach is an effective approach to implementing CLTS. It is effective both in terms of cost and the deployment of human resources.
• Since CLTS is a community (not household) approach to make it ODF, sustainability is partly guaranteed.
• A committed group of motivators with an effective training and a good triggering process can lead to an ODF community not only in the shortest possible time but also makes it sustainable.
• An active WASHCOM, through its women members can be a good channel for motivating community ODF.
• Preaching and guidance by the local religious leaders contributes to making the community ODF and also sustaining it.
• Close monitoring by the community through WASHCOMs and imposing fine for open defecation wherever needed could be an effective way to achieve and sustain ODF.
• Easy access to materials and services for constructing toilets and up-gradation of the existing ones has a positive influence on achieving ODF and sustaining it.
• Availability of more than one designs for toilets with trained artisans to implement it is also a factor that meets the affordability and preference criteria of different households.

THE WAY FORWARD

CLTS is a flagship programme of the Federal and State Governments of Nigeria, hence, all out efforts will be made to address the issues experienced so as to achieve ODF status for the country. UNICEF supported the Federal and State Government to prepare a Road Map for making Nigeria open-defecation-free by 2025. This document has already been approved by the National Water Resources Council (the highest policy making body) and has detailed out the various strategic interventions needed for achieving the goal. The State Governments have also been supported to develop their own road maps for the same purpose. In addition, the following actions are being taken to support the programme by addressing the issues encountered;

• A Sanitation Marketing Strategy including financing is being developed through group of experts on the subject that will focus on alternate delivery mechanism for promoting sanitation.
• Develop and implement sanitation marketing and financing strategy
• Adopt social marketing of sanitary services including technical support for the new and the up-gradation of the existing ones.
• A system of ward level monitoring is in place through organising WASH clinic where the focus is on sanitation, particularly the issues and solutions pertaining to ODF sustainability.
• WASHCOMs are being strengthened so also the hygiene promotion part at community level through reorganization and training.
• Attempts are being made to digitize community level monitoring using smartphone technology and this will contribute to increase accountability.
• Speeding up the provision for sanitary facilities in schools and health centres is also having its impact on creating more ODF communities and sustaining the same.
• Prioritized implementation of “Partnership for Expanded WASH (PEWASH)” programme recently launched by His Excellency the Vice President of Nigeria in the presence of the Minister of Water Resources and other high level dignitaries. This programme articulates...
eliminating Open Defecation by 2025 as one of its key priorities.

Figure 6: A WASHCOM member with families for hygiene promotion in one of the communities in Kano State
Case Study 7

Value for Money in WASH Interventions in Nigeria

- Achieving Economy, Efficiency, Cost-effectiveness and Equity
Value for Money in WASH Interventions in Nigeria

- Achieving Economy, Efficiency, Cost-effectiveness and Equity

Abstract:
*With increasing investments in the WASH sector in Nigeria, there was a need to assess ‘value for money’ in the different WASH interventions based on four dimensions viz., Economy, Efficiency, Effectiveness and Equity. This was first initiated in 8 States and 30 LGAs in 2010 and extended to 6 States and 60 LGAs in 2014. Based on the earlier experience the format for capturing data to reflect economy, efficiency, effectiveness and equity were revised, refined and standardised. Necessary data sheets were developed to capture the required data. The results as revealed by an independent review team of DFID in 2016 are very encouraging. The overall savings from various interventions put together has increased from US$ 157,927 in August 2014 to US$ 380,213 in July, 2015 and US$ 538,141 in June 2016. Besides reducing the unit costs of various interventions, the strategy has motivated the Government to invest more in the sector. Apart from cost savings, greater number of people gained access to WASH Services with the same amount of investment compared to previous periods.*

BACKGROUND
Value for Money (VFM) in development programming is about maximizing the impact of every dollar spent to improve poor people’s lives. Increasingly, development programmes and government are expected to demonstrate the best value for money which entails the most advantageous combination of economy, efficiency and effectiveness to achieve maximum outcomes that meets the project’s end requirements. As per a World Bank Report (2012), Nigeria loses NGN 455 billion annually or US$ 3 billion due to poor sanitation. This works out to US$ 20 per capita/year and constitutes 1.3% of Nigeria’s GDP. According to the same report, open defecation alone costs Nigeria over US$ 1 billion a year.

The 2012 investment by the Federal Government including funding from ODA (Overseas Development Agencies) in Nigeria on WASH was US$ 650 million or more. UNICEF has made huge investment from the funds available from EU and DFID besides utilising a part of its regular resources to support the government for providing safe water, improve sanitation and hygiene spread over 21 States. Under Sanitation, Hygiene and Water in Nigeria Project (called SHAWN) funded by DFID, UNICEF is investing close to 100 million pound sterling between 2013 and 2018. Therefore, it is imperative to look at VFM and demonstrate how best money has been invested to meet the desired goal. Besides, understanding the cost of achievements, it can be shared with Government partners to take informed decision on how best to allocate resources to achieve a lasting impact. Unit costs and benchmarks can be used to achieve more at lower cost.

---

12012 Federal Ministry of Water Resources data for the SWA meeting
VFM also brings greater transparency, create awareness about what works and at how much cost and this can win greater political will. It can also strengthen State and local budget and planning processes leading to public funds getting increasingly allocated, released and utilized within WASH sector resulting in significant benefits to the society and the economy.

**WHAT IS VALUE FOR MONEY?**
The VFM is interpreted in different ways by different people. According to DFID, VMF relates to maximising the impact of each pound spent to improve poor people's lives. The National Audit Office of UK describes it as optimal use of resources to achieve intended actual outcome. For a few others, VFM denotes making the best use of available resources to achieve sustainable development outcomes. If we synthesize these interpretations then VFM can be termed in a simplified way as the maximum utility that one derives from every purchase or every unit of money spent.

**DIMENSIONS OF VFM**
The VFM can be expressed through four major dimensions. These are i) Economy, ii) Efficiency, iii) Cost-effectiveness and iv) Equity. Sustainability can be considered as a spin-off effect of achieving the above. For a better understanding of these dimensions, it will be appropriate to define each of them.

**Economy**
Economy is a measure of VFM at inputs stage. It refers to the price at which inputs are purchased (supply of goods, training, transport etc.); unit cost of supplies, contracts, staff costs etc. are some of the examples for calculating how this dimension of VFM has been achieved. Considering the fact that supplies constitutes a major chunk of the budget in WASH interventions, any decision to have them at a more competitive price is of paramount importance. Similarly, for training that also constitutes an important component of WASH intervention, cost per trainee (per day) for individual courses can reflect how economically the activity has been undertaken.

**Efficiency**
Efficiency relates to how well the inputs are converted to a specific output. Examples of output are construction/installation of a water point, conducting a CLTS campaign etc. This dimension expects that the implementer exercises strong control over the quality and quantity of outputs produced. Efficiency of an intervention can be expressed in terms of percentage of original targeted outputs achieved for the budgeted amount, percentage of communities declared ODF following CLTS triggering, number of people living in communities that have been declared ODF following CLTS triggering etc.

**Effectiveness**
How the outputs have been converted to outcomes will signify the effectiveness of an intervention. Unlike efficiency, the implementer here does not exercise any direct control over whether the actual outcomes materialise and whether they can be sustained. Effectiveness in WASH can be expressed in terms of percentage of actual beneficiaries to targeted beneficiaries, percentage of new users still using services at a sustained service level after some time gap, comparing the cost per beneficiary with access to safe water between states, costs per community achieving ODF certified status between States etc.
Equity
Equity relates to bringing down the disparity in the distribution of WASH services between rural/urban, between different States and between different LGAs within a State, between different communities, and so on. Reducing gender disparity is also a part of this dimension. Equity is considered from the activity identification and planning stage for an intervention where the target population is identified and locations are based on most in need. Some of the indicators to reflect equity in WASH services are access to services by a disadvantaged group, separate toilet units for male and female students, women participation in WASHCOMs etc.

PAST EFFORTS
The VFM concept in the programme in Nigeria was introduced by UNICEF in 2010 as part of monitoring impact of WASH interventions. It later became a requirement in DFID funded project. During the DFID project closure review in 2013, the review team found evidence of good value for money with significant cost savings. Commendably, achievements of output often exceeding the targets, cost benefit ratio compared very favourably with norms laid down for WASH interventions in developing countries and even better than other DFID supported WASH projects elsewhere in the world. Encouraged by these results, attempts were made to develop a more elaborate VFM framework to include effectiveness and equity indicators in addition to economy and efficiency. The draft VFM Framework was designed after a consultative meeting held in October 2013. A long list of potential indicators and evidence were reviewed resulting in the identification of a set of meaningful and relevant indicators. In June 2014, a meeting with the State level WASH teams was organized to validate and further develop this framework. The objectives of this framework are: i) to strengthen
existing reporting of value for money and ii) to provide the basis for regular monitoring and guidance to WASH staff on how to improve and demonstrate the level of economy, efficiency, effectiveness and equity of the project. This revised framework is currently in use since late 2014 in 6 States and several LGAs.

FEATURES OF THE REVISED FRAMEWORK FOR VFM
The VFM framework currently in use has the following features.

- It is built on the earlier framework (2010) together with recommendations from the project closure review and a DFID review of value for money and sustainability of WASH Program making it practicable.
- Tools and templates developed to collect and report VFM on quarterly basis since 2010 have been updated and refined.
- For each of the four Es viz.; economy, efficiency, effectiveness and equity indicators, type of evidence and processes have been developed so as to facilitate their routine monitoring and follow up.
- The above four dimensions of VFM form an integral part of the Logframe developed for WASH interventions in six States which is serving as the basis for future review.
- All transactions for all categories of expenses such as cash, supply, services and travel are coded to an activity and output.

HOW IT WORKS?
The revised version of VFM framework is in operation since late 2014. For its smooth implementation, UNICEF’s Vision System has been set up to track costs at three main levels viz., outcomes, outputs and activities and also by categories of transactions such as cash, supply, travel and services. These have been coded for activities and outputs. There is separate activity codes for all activities in each field office. For field offices with more than one State where activities are implemented, it includes description for easy identification. Each State has a vendor number that helps to automate the generation of vision data specific to State. To ensure that the cost of activities is captured correctly, officers and program assistants are expected to review the financial management documentation to ascertain that the correct codes are used and a comprehensive description is made. Related to coding of transactions and vendors, activity proposals are prepared in a standard format to allow the same types of activities to be grouped under the same heading so as to determine the unit costs and cumulative cost. Clear cut responsibility has been assigned for UNICEF staff on data collection, data analysis, data reporting, data review and dissemination. The indicator template developed for this purpose can be seen at Annex -1. Guidelines have been issued to the project staff and Government partners on how to complete the VFM indicator template and the frequency of reporting (Annex -2).

The following nine parameters/indicators have been worked out to analyse VFM based on the four Es viz., Economy, efficiency, effectiveness and equity. This has been standardised across the States and LGAs so as to ensure uniformity in getting information for the project as a whole.

---

1Vision is a main system used by UNICEF for budget management
Economy

1. Economy cost savings from inputs (From negotiable DSA rates)
2. Economy unit costs (From average cost of training, drilling and hand pump installation)

Efficiency

3. Efficiency savings from processes (From better work planning)
4. Efficiency unit costs (From average cost per beneficiary for the project as a whole, cost per beneficiary with access to safe water and cost per community achieving ODF certified status)
5. Efficiency indicators (From ratio of certified communities, ratio of ODF certified communities in a year and ratio of completed boreholes). The higher the ratio, the higher value for money achieved.

Cost effectiveness

6. Cost efficiency indicators (unit costs of achieving ODF in a community viz., triggered, claimed and certified)
7. Effectiveness indicators (From total Government contribution, separately for capital costs and operational costs and Government contributions leveraged)
8. Cost effectiveness indicators (From total cost per person using improved water services and using sanitation services in ODF certified communities)

Equity

9. Equity indicators (No value data has been generated. However, some data on percentage of women membership of WASHCOMs are available)

PROGRESS OF VFM COVERAGE

Starting with 4 States and 20 LGAs in 2010, the VFM concept with a much wider scope has now been scaled up to 6 States and several LGAs, since 2014.

RESULTS OF VFM ANALYSIS

The 2016 review by DFID highlights how the WASH interventions have demonstrated value for money through the four dimensions viz., Economy, Efficiency, Effectiveness and Equity (Figure -3). The major achievements are presented below.

Over all savings in economy and efficiency: The cumulative savings accrued from WASH interventions in the six States increased from US$ 157,927 in August 2014 to US$ 380,213 in July 2015 and US$ 538,141 in June 2016. The biggest yearly savings came from Economic savings. However, Efficiency savings from processes remained modest primarily due to more realistic and efficient budget planning and from experience gained in the previous years from VFM analysis. Cost savings have resulted through engagement of local resource persons with commensurate capacities and payment of negotiated DSA rates to State and LGA officials. Similarly, strict adherence to the procurement guidelines contributed to a favourable bidding process to reduce the cost of hand pump borehole and latrine in States like Bauchi, Katsina and Jigawa. For example, the unit cost of drilling hand pump bore hole is currently US$ 3,070 as against the 2013 benchmark of US$ 4,499 to US$ 5,110. The unit cost of motorised bore hole in two States of Benue and Katsina was US$ 41,729 and US$ 16,435
respectively. The corresponding figure in 2013 was US$ 43,545. UNICEF has designed revised
guidelines for procurement of supplies that includes all contracts, supplies, recruitment etc.

**Economy**
- The economic savings of the project was estimated at US$ 139,395 derived from the
  negotiated DSA with key WASH staff in the States of Jigawa, Kaduna and Zamfara. Instead of paying
  through the Government to the trainees, direct payment was negotiated as a cost-effective
  approach.

**Efficiency**
- Cost per beneficiary with access to safe water was US$ 16.10 as at July, 2016 as against US $ 19.85 in July 2015. This is going to decline further once the beneficiary access increases.
- Cost per community achieving ODF certified status was US$ 1,866 in July 2016 as against US$ 2,179 in July 2015 and US$ 3,565 in 2013.
- Average cost per beneficiary (all expenditure) was US$ 8.02 in July 2016 as against US$ 10 in July 2015.

**Effectiveness**
- Total cost per person using improved water services was US$ 33.17 as at July 2016 as against
  US$ 42. 58 in July 2015 and US$ 20 in December 2014. The increase in unit cost over 2014
  benchmark was primarily because of significant increase in total cost for provision of water
  supply that now includes cost of more capacity building/development including WASHIMS,
  intensive WASHCOM training, facility tracking etc.
- Total cost per person using sanitation services in ODF certified communities is US$ 10.11 as at
  the cost is mainly due to the reduction in time lag between a triggered village and the village
  becoming an ODF certified one.

**Equity**
- No value has been assigned to this dimension of VFM. Nevertheless the process
  indicators linked to it do reflect the impact the project is likely to have in the project areas.
- For promoting CLTS the LGA-wide approach adopted by the project has brought down the intra LGA
  differences in the provision of sanitation services. Similarly, since the ODF
  villages are on the priority
list for providing safe water, the disparity in the distribution of safe water is automatically addressed.
- The project aimed at having 40% of WASHCOM members as women. The July 2016 report shows the actual membership going up to 38%, another example of equity.
- Similarly, in the Executive Body of WASHCOMs some of the members are women who work side by side with men and occupy important positions as office bearers.
- Calculating VFM for equity will be a challenge. It is of common knowledge that with the availability of water in the community and a toilet within the premises, women save a lot of

Figure 4: Joyful women WASHCOM members of Salihawa Community in Bakori LGA of Katsina State. Adequate women representation in WASHCOM brings equity that has several impact on VFM

Figure 5: Harmonised Procurement Guidelines contributes to cost saving in supplies, goods and services
Cost savings are also reported from certain other interventions like using the Smart Phone Tools for conducting Baseline Surveys in place of the conventional method that was time consuming and involved a lot of paperwork. Besides, the former (Smart Tools) is also contributing to improved data quality (See Box).

**Box: Economy in using Smart Tools for WASH Baseline Surveys**

As a part of its endeavour to save cost in WASH interventions, UNICEF Nigeria has shifted the method of carrying out Baseline Surveys in project areas from the conventional paper-based survey and enumeration to using digital template and GPS device. This involves an on-line mapping of facilities/inventories using smart phones and mobile applications (WASHPMP). Under this, baseline data at community level is no longer collected by a large team of investigators with a lot of paperwork. Instead, mapping the facilities including geo-referencing them and collecting information on their attributes is done by using smart phones with a pre-determined set of questions. This method has been found to be more efficient than the conventional survey for many reasons. First, less human resources are required in this method. Analysis shows that, while in the earlier method, 12 enumerators and 4 resource persons were required for each LGA, the same could now be done with only 4 enumerators and 1 resource person. Secondly, the real-time data coming through the smart phone is automatically uploaded in the data base created for this purpose and error proof.

Thirdly, the scope of the present survey is wider than the previous one. Besides mapping facilities, it also captures the geo-referencing and attributes of the facilities included in the inventory. Fourthly, it has a provision for logical check as well as real-time quality checks that could be done by the resource person on the computer dashboard where the system is loaded. This ensures better quality of data as errors are tracked and corrected on-line. Fifth, it consumes only one-third of the time for completing the data collection and analysis when compared to the conventional survey method. Last but not the least, the greatest advantage of this method is that it is cost saving; cost incurred is just one-tenth of the cost incurred in the conventional method.

**LESSONS LEARNT**

In spite of the fact that the adoption of a comprehensive VFM analysis is about two years old, the few lessons experienced is worth mentioning.
It is possible to include VFM concept into planning WASH services through the four dimensions viz., Economy, Efficiency, Effectiveness and Equity.

Results of VFM analysis helps to give direction and contributes to achieving effective investment planning in WASH Sector.

It serves as a good tool to advocate to the Government for increased investment in the sector.

It makes the planners and implementers of WASH service cost conscious without compromising the quality of services.

It contributes to reduce waste and expenditures for various WASH interventions thereby reaching more beneficiaries with the same amount of investment.

It brings with it a certain degree of standardisation in costing various WASH services across the States and LGAs while taking into consideration market realities.

**CHALLENGES AND THE WAY FORWARD**

As one proceeds with the implementation of VFM analysis, it may be necessary to look at what refinement needed to further enhance the utility of such analysis. Besides, it is also necessary to keep in mind the external factors that may affect the data needed for the analysis. Placed below are some points to ponder over.

- While collecting and analysing data on the unit cost of drilling, it may be worthwhile to look at the variation in the hydro-geological conditions since availability of water source, ground water depth, time taken for drilling etc. may affect unit cost of drilling. Hence instead of using the entire State or LGA for calculating the unit cost, it may be prudent to use certain homogenous zones and collect data from each zone for analysis. An analysis of the bidding price in different locations could give an insight for such variation.

- The location of the area from the nearest market centres may influence costing of WASH services. For example, LGAs that are far from the State headquarters or big market centres may tend to have a higher price for the same service than those near the market centres. To identify these variations will be a big challenge.

- In sanitation, the level of awareness among different communities may be different, that affects the cost of having it ODF certified. From the data generated from the field offices in different states, it may be possible to find out the cost variation at least across LGAs and reflect the same in the VFM analysis.

- For promoting sanitation, areas with difficult terrain, with recurring flood and high water table may take a longer time to improved in terms of sanitation thereby affecting the cost of reaching ODF status.

- Attempts will have to be made to collect data at input, output and outcome level to determine the value assigned to equity that is presently missing. Some OR studies may be required to achieve this.

- Similarly, it is worthwhile to take up a health impact study of WASH interventions in some of the UNICEF supported project areas to further strengthen the role of WASH in improving the health and well being of the people.
## VFM Indicator Template

### Annex -1

#### Category: Value for Money

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Description (including benchmark)</th>
<th>Average</th>
<th>Maximum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C) Economy unit costs</strong></td>
<td></td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
</tr>
<tr>
<td>1</td>
<td>Average cost per training one participant (one day)</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
<td>#DIV/0!</td>
</tr>
<tr>
<td>2</td>
<td>Cost of drilling HPBH</td>
<td>Average cost of drilling new hand pump bore hole in SHAWN States 2013</td>
<td>$4,679 (Range: 4,499 to 5,110)</td>
<td>N -</td>
</tr>
<tr>
<td>3</td>
<td>Cost of drilling MBH</td>
<td>Average cost of drilling new motorised pump bore hole in SHAWN States 2013</td>
<td>$29,990 (Range: 16,435 in Katsina and 43,545 in Enugu)</td>
<td>N -</td>
</tr>
<tr>
<td><strong>D) Efficiency unit costs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Cost per beneficiary with access to safe water</td>
<td>Total expenditure on Water related activities # beneficiaries (units). SHAWN I</td>
<td>benchmark $19.14</td>
<td>N -</td>
</tr>
<tr>
<td>2</td>
<td>Cost per community achieving ODF certified status</td>
<td>Total expenditure on Sanitation related activities/ # of certified communities (units). SHAWN I benchmark $3,565</td>
<td>N -</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>Average cost per beneficiary of SHAWN II</td>
<td>Total programme expenditure / total number of beneficiaries</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### E) Efficiency indicators

<table>
<thead>
<tr>
<th></th>
<th>Conversion rate through the three stages</th>
<th>This tracks the rate of conversion between the three stages: triggered; claimed and certified.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. a</td>
<td>pre-Triggered to Triggered</td>
<td>Total number of Triggered communities / total number of targeted communities</td>
</tr>
<tr>
<td>1. b</td>
<td>Triggered to Claimed</td>
<td>Total number of Claimed communities / total number of targeted communities</td>
</tr>
<tr>
<td>1. c</td>
<td>Claimed to Certified</td>
<td>Total number of Certified communities / total number of targeted communities</td>
</tr>
<tr>
<td>2</td>
<td>Ratio of completed to planned boreholes (on time and with quality assurance)</td>
<td>Number of completed boreholes per year / total number of planned boreholes per year</td>
</tr>
<tr>
<td>3</td>
<td>Ratio of planned ODF certified within one year</td>
<td>Number of certified ODF communities per year / total number of planned certified ODF communities per year</td>
</tr>
<tr>
<td>4</td>
<td>Number of additional LGAs with ODF plans</td>
<td>Evidence of additional non-SHAWN II LGAs with ODF plans as reported in quarterly reports</td>
</tr>
</tbody>
</table>

### F) Effectiveness and cost effectiveness indicators

<table>
<thead>
<tr>
<th></th>
<th>Reduction in diarrhoea morbidity amongst children under 5 by 20% in programme areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>% of people practicing handwashing</td>
</tr>
<tr>
<td>3</td>
<td>% of people using basic sanitation facilities in ODF Communities</td>
</tr>
<tr>
<td>4</td>
<td>Total cost per person using improved water services</td>
</tr>
<tr>
<td></td>
<td>Total cost per person using sanitation services in ODF-certified communities</td>
</tr>
</tbody>
</table>

### G) Equity indicators

<table>
<thead>
<tr>
<th></th>
<th>% of women attending hygiene sessions Number of women attending women only and mixed hygiene sessions, divided by total number of people attending sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>#DIV/0!</td>
</tr>
<tr>
<td>2</td>
<td>% women membership of WASHCOMS Average % of women membership of WASHCOMS. % is calculated as number of women members divided by total number of members</td>
</tr>
<tr>
<td></td>
<td>#DIV/0!</td>
</tr>
</tbody>
</table>

### H) Government Contributions

<table>
<thead>
<tr>
<th></th>
<th>From government cost sharing/ contribution to logistics/ admin arrangements All contributions in kind and financial to SHAWN II activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Actual expenditure on capital This tracks funds disbursed and utilised on capital by the State and Local Governments</td>
</tr>
<tr>
<td>3</td>
<td>Actual recurrent expenditure This tracks funds disbursed and utilised on recurrent expenditure by State and Local Governments</td>
</tr>
<tr>
<td>4</td>
<td>% of planned funds actually released This tracks % funds planned to be disbursed actually released (means of verification included in tracking tool)</td>
</tr>
<tr>
<td>Type or indicator or evidence of VFM</td>
<td>Guidance for generating indicators and evidence</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>A) SAVINGS (Economy)</td>
<td>Calculate the value of savings made through negotiating DSA rates; contracts; consultants fees.</td>
</tr>
<tr>
<td>B) SAVINGS (Efficiency)</td>
<td>Calculate savings and costs avoided through more efficient planning of activities and more efficient use of resources (DCTs; Workshops; Work planning; HR).</td>
</tr>
<tr>
<td>C) UNIT COSTS (Economy)</td>
<td>For each training, collect data on number of training participants attended and the costs of the training to calculate the unit cost per training participant per day. Compare between states and against benchmarks. Record the cost of each borehole – motorized and hand pump. Compare with targets and benchmarks.</td>
</tr>
<tr>
<td>D) UNIT COSTS (Efficiency)</td>
<td>Calculate the unit cost of reaching beneficiaries using community database for number of units together with the costs for reaching these beneficiaries. Compare with targets.</td>
</tr>
<tr>
<td>E) INDICATORS (Efficiency)</td>
<td>Collect data on the number of planned and actual: functional WASH committees; completed boreholes; ODF communities. Where there is overachievement, account for what the project was able to achieve more results with the same resources.</td>
</tr>
<tr>
<td>F) INDICATORS (Effectiveness)</td>
<td>Collect data on the planned and actual outcome level results to identify areas of over achievement. Calculate the difference between planned and actual. Where there is overachievement, account for how the project was able to achieve better results.</td>
</tr>
<tr>
<td>G) INDICATORS (Equity)</td>
<td>Collect data from routine monitoring to calculate % women attending hygiene sessions and % women membership of WASCHOMS.</td>
</tr>
<tr>
<td>H) INDICATORS (Government contributions)</td>
<td>Collect data on government contributions. This includes cost sharing of SHAWN activities as well as government investment (capital and recurrent) in WASH.</td>
</tr>
<tr>
<td>I) EVIDENCE</td>
<td>Gather examples from those people implementing SHAWN activities on ways in which the project is good value for money in terms of economy, efficiency, effectiveness and equity. Also capture examples of spin offs i.e. results achieved that are outside of the logframe. Refer to examples in the VFM framework above.</td>
</tr>
</tbody>
</table>