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LOCAL ACTION WITH INTERNATIONAL COOPERATION TO IMPROVE AND
SUSTAIN WATER, SANITATION AND HYGIENE (WASH) SERVICES

Smart-phone drives performance and enhances WASH services delivery in communities in Nigeria

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The deployment of mobile technology has helped to transform data/evidence gathering in programme management and tracking results under the "Federal Government of Nigeria – UNICEF" Water, Sanitation & Hygiene (WASH) programme in Nigeria. UNICEF has demonstrated the use of smartphone-based real-time reporting to incite improved programme performance management and accountability. Smart-reporting involved Local Government Area (LGA) level coordinated planning, implementation, monitoring and reporting of results by field facilitators using mobile-app supported templates and online tools. This system, within the short time has improved the quality of planning and target setting; fostered greater accountability amongst team members; improved performance of staff and effective use of financial resources and other logistics and demonstrated greater attainment of results. The results so far clearly demonstrate the viability of the Smart-reporting system to improve accountability, advance the management and delivery of WASH programme results with potential for wider scale-up across the country.

Background

UNICEF is currently implementing one of the largest developmental WASH Programmes globally in Nigeria spread over 26,000 communities in nearly 100 LGAs in 2016 and with further expansion in 2017. WASH interventions in these communities comprise a mix of hardware and software interventions aimed at improving and sustaining access to WASH in the target communities. The rapid expansion of the WASH programme necessitated putting-in-place systems, developing guidelines and standardizing approaches to ensure overall quality of the WASH programme. The use of traditional (paper-based) monitoring and reporting tools proved inefficient in providing reliable and timely information to support decision-making and management of field activities and results at scale. Besides, software interventions, which are human resource intensive, were proving difficult to monitor and track. Reports and data from the field were often of poor quality and mostly inconsistent. Data collation and aggregation were complicated and slow and had negative impact on the pace of work and attainment of results. This led to the piloting of the smartphone-based real-time reporting ("Smart-reporting") in one of the project areas.

With over 80% of Nigerians having access to mobile communication service, UNICEF WASH section has been quick to harness the mobile technology to drive effective, community-based and real-time reporting. Some of these ICT-enabled interventions have included SMS-based real-time tracking of water-points' functionality, conduct of surveys, mapping and inventory of interventions and facilities. In 2016, UNICEF WASH section adopted the use of mobile technology to drive performance management in Chikun LGA, Kaduna State, Nigeria, by linking human resources at the LGA level to targeted results and tracking achievement of results in real-time basis using a mobile application.

Smart-reporting tool

The smart-reporting tool is part of the overall WASH Performance Management Portal (WASHPMP), which is a web-based user-friendly and interactive portal for managing dynamic data from multiple data

input interphase such as SMS, voice-SMS, online forms and other smart tools. The WASHPMP Smart-reporting Tool is for documenting, reviewing and analyzing programme results and targets as assigned to individuals, teams or intervention areas. This tool makes it possible for the project results to be disaggregated with specific targets attached to individuals/teams for a defined period and their performance tracked accordingly. The tool consist of: 1) a secured online database where users and targets are managed with an associated dashboard and 2) a mobile application, which is used for download, completion and submission of pre-defined data collection forms. The users and their respective targets are first defined and uploaded on the portal while progress in the course of programme implementation is captured using the mobile app and the performance of individuals or teams is then monitored and tracked on the portal dashboard.

This tool was developed as part of the overall sector information management systems in collaboration with Government partners with funding from the European Union and UKaid under the ongoing supports to WASH programme being implemented by UNICEF.
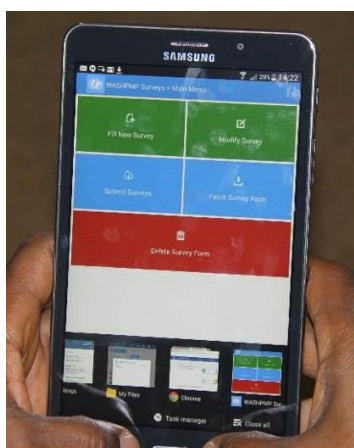
Photograph 1. WASHPMP mobile application

Source: UNICEF Nigeria

Strategy and implementation

The Smart-reporting system was piloted in Chikun LGA (one of the project LGAs in Kaduna State) in 2016 with funding from UKAid supported Sanitation, Hygiene and Water in Nigeria (SHAWN) Project. The choice of Chikun LGA was due the availability of a vibrant LGA team, a good mix of programme activities and interventions, good political-will by the LGA leadership and availability of LGA operational funds. The system was deployed to track project results and manage performance of field facilitators in the implementation of community level activities. Deployment of this system involved the following:

- Initial development and field testing of the tool in 8 communities
- Review of the tool with the LGA WASH team and rollout in over 850 communities
- Sensitization and training of field Facilitators, Ward Officers and LGA WASH Units Staff on the application of this tool
- Grouping of field facilitators into teams and appointment of team leaders (in Chikun LGA, there are 32 facilitators grouped into 8 teams)
- Equipping of the field facilitators with WASHPMP mobile-app enabled smartphones
- Clustering of the communities (by Council wards) and putting the various teams in charge of specific clusters
- Development of monitoring and performance checklist
- Training of the LGA Staff and Team leaders on the use of the Performance management portal for collation and analysis of results
- Assignment and agreeing on monthly group targets
- Monthly review of the groups progress against set targets for the month
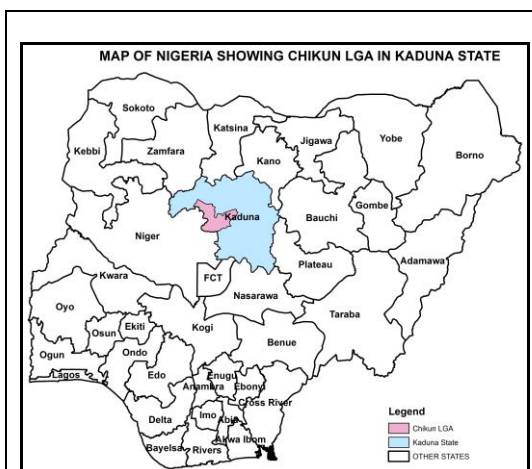- Assessment of performance and setting of targets for the next month

Figure 1. Map showing the location of Pilot State/LGA
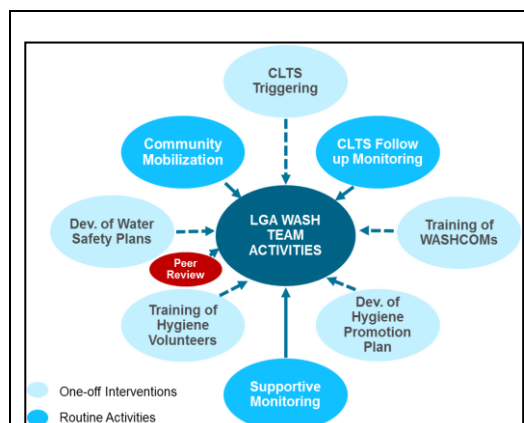
Source: UNICEF Nigeria

Figure 2. Activities of LGA WASH team

Source: UNICEF Nigeria

Photograph 2. Chikun WASH team displaying the smartphone based tool

Source: UNICEF Nigeria

Progress and results achieved

The community facilitators, with the aid of the Smart-reporting tool on their smartphones, are able to capture moments and field data in the course of their regular field activities. The performance management portal makes it possible for all data collected by the community facilitators to be collated, analyzed and displayed on the dashboard in real-time. The information collated on the portal helps the team leaders and the LGA WASH Coordinator to analyze and assess the following:

- The number of communities visited by a community facilitator or a team within the period;
- The nature and frequency of activities conducted by a community facilitator or a team within the period;
- The quality of engagements in the communities using number of participants, activity duration, and pictures captured during the activity;
- Number of WASH facilities (latrines, handwashing station, water points, etc.) completed and mapped within the period;
- Spatial coverage of the activities of a community facilitator or a team within the period
- Overall performance of the teams within the period, this is automatically analyzed and rated on the system dashboard

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Advantages of the smart-reporting tool for WASH performance management

- **It makes for realistic planning and setting of targets** – based on dedicated teams/facilitators delivering a set of results for the month;
- **It strengthens organization and tracking of project activities** as interventions and actions are jointly developed and reviewed by the teams;
- **It fosters greater accountability** amongst field facilitators and teams as their field activities can be tracked using activities' satellite map, which displays the frequency and spread of activities of any facilitator;
- **It gets communities and households interested** as they find documentation of results (especially pictures of activities, toilets), exciting and it has become a source of motivation for the communities/households to attain set targets;
- **It improves management of resources (human, financial and logistics)** - maximizing value for investments in field level activities.
- **It is cost effective to implement** – cost just 3,650 USD per LGA (about US¢ 1.8 per person – covering the cost of 20 smartphones, internet data and training of WASH Staff) to setup with an annual running cost (mainly for internet data) of 560 USD per LGA. It equally brings great return on investment as it leads to savings on the LGA operational funds
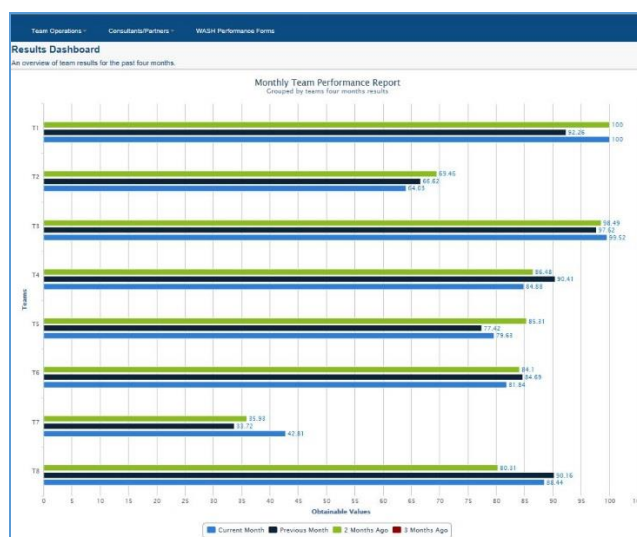
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Figure 3. Dashboard showing monthly performance of field facilitators

Source: UNICEF Nigeria

Chikun LGA has achieved remarkable results following the short period of implementation of this system. The system has helped the team leaders to monitor the performance of their respective team members based on clear evidence of actual work done. This has saved the LGA, over 40% of the operational funds meant for payment of field allowances. There has also been effective use and deployment of vehicles and other logistics based on clear plans and targets. A more realistic monthly plans and actions are now developed based on evidence of past progress and efforts put in.

Within a short period of implementation (about 6 months), Chikun LGA has been able to achieve 123 Open Defecation Free (ODF) certified communities against Nine ODF certified communities in over 18 months earlier. Some of the council wards are about to achieve ward-wide ODF. This has also improved the quality of follow up and supportive monitoring visits as they have become more result oriented and backed with evidence. There are already a good number of human-interest stories coming out of the communities on how the system has impelled them to take action to achieve key WASH results.

Photographs 2 & 3. Chikun LGA WASH team members mapping household latrines

Source: UNICEF Nigeria

Implementation challenges and way forward

- Continued provision of operational funds by the local government authority to ensure follow up and supportive monitoring of WASH activities in the field as this system can only thrive where such operational funds are available. There is thus need to institutionalize provision of operational funds in all project LGAs – e.g. in Chikun LGA, the Council provides a monthly operation funds of 750 USD for supportive monitoring of WASH activities;
- Initial subtle resistance by some field facilitators as the system blocks wastages, shows actual work done and tracks performance. There is thus the need to adequately sensitize the facilitations on the gains of the process and also consider incentives (could also be non-monetary such as awarding performance certificates at key events, etc.) for better performance;
- Varying level of ICT use amongst team members, thus the need to tailor the trainings to address the specific limitations of the different groups and arrange adequate exposure to practical exercises before commencement.

Lessons learned

- The implementation of the smart-reporting system in Chikun LGA showed that deployment of ICT in programme implementation has a huge positive effect on attainment and management of results. The system did not only ensure that quality and timely data are available for decision making, it equally contributed to improved implementation processes;
- This systems showed that the logic and sequence of community project implementation is critical to achieving and building on results and successes – as success in one area catalyses successes in another when the right implemented sequence is maintained;
- This process also showed that acknowledgment, commendation and documentation of communities' results enflames more actions and collective desire to achieve their set targets as households and communities compete to deliver results so that they can equally be documented as being progressive; and
- Improved programme accountability and transparency, as demonstrated by this system grows investors' confidence in projects and has attracted more government resources to the project.

Next steps and potential application

The UNICEF WASH programme in Nigeria has been deploying ICT technology for various uses (WASHIMS, Real-time tracking of water point functionality, baseline surveys) with good results. The use of smartphones to drive and monitor performance of LGA staff on a real-time basis has been an innovation with promising results and has a significant bearing on the future of results management. The Smart-reporting in its short period of implementation has proved to be a veritable tool in improving performance of staff & teams, leading to greater results. The tool is flexible and allows inclusion of a variety of interventions, for which targets can be set and monitored. As a result, it opens a plethora of opportunities even beyond the WASH sector. With an average one-time cost of 3,650 USD for setting up this system per LGA (1.8 cents per LGA inhabitant), this is a highly cost-effective intervention to generate evidence and improve performance across the project LGAs. With cost of smartphones and mobile communication going down, the smartphone based performance management has huge potential for scaling-up in the coming years

as the setup cost can easily be taken up by the local government as part of their operation funds for WASH activities.

In collaboration with the government partners, UNICEF plans to scale-up this pilot to the remaining 10 project LGAs in Kaduna state and expand it to an additional five states in 2017. The results from the smartphone based performance management system will further be linked to the overall sector WASH Information Management System (WASHIMS) in the country.

Acknowledgements

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