Evaluation of the UNICEF supported Federal Government of Nigeria Water, Sanitation and Hygiene Programme (2014-2017)

FINAL REPORT
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Evaluation of Nigeria's Government & UNICEF Water, Sanitation and Hygiene (WASH) Programme 2014-2017

Final Report

Prepared for // UNICEF Nigeria, the Nigerian Government, and Donors

By // IOD PARC

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Preface

I am pleased to express the deep appreciation of the Government of Nigeria for the tremendous benefit to disadvantaged communities, children and women for the WASH Program 2014-2017 jointly funded by the Federal Government of Nigeria and State Governments, European Union, UK Department for International Development and UNICEF. Nigeria is committed to achieving the global agenda of SDG6.

This independent Evaluation Report has revealed the return of this large investment that has contributed to the reduction of the inequalities of access and use of improved water and sanitation services as part of the strategic objectives of our national programs (2016-2030) i.e. PEWASH and Roadmap for Eliminating Open Defecation towards the achievement of SDG6.

We value the results achieved vis-à-vis the huge expectations for the WASH Sector in Nigeria, such as 18,622 water points that were constructed or rehabilitated; 3,017,565 household latrines built by communities and families resulting in additional 12 million people living in the poorest rural areas having access to improved water sources (over 100% of the initial targets) and 12 LGAs (12,687 communities) becoming open defecation free. Many WASH departments and units have been created and empowered, and communities have been strengthened and are living up to their responsibility in driving and maintaining WASH services within the WASHCOM, and with an increasing leadership role for women.

I use this opportunity to commend UNICEF for their continuous value-added support for capacity development, for developing innovative approaches and strategies for the WASH sector in Nigeria, and for demonstrating efficiency and effectiveness in support of government efforts to achieve SDG6 and exclude no one from access to basic WASH Services in Nigeria. I can testify to the gratitude of the Government of Nigeria for the financial support of EU and DFID, who have invested at least US$188 million within the 2014-2017 WASH program.

I highly commend our State Governors and LGA Chairmen who have demonstrated serious commitment for WASH sector policy by ensuring the financial contributions of states and communities to make possible those achievements.

I reiterate the commitment of the government that has been strongly expressed by the President of Nigeria to make Nigeria free of open defecation by 2025. This high-level engagement has created a momentum that is driving a very large movement of public and private partnerships to make Nigeria a country of safety and well-being for its people.

We appreciate the good example and culture of learning and accountability for results that UNICEF has demonstrated by completing this independent evaluation. I call all actors and development partners of the WASH Sector, Academic Institutions and State Governments to use the findings to strengthen programmatic strategies and approaches to respond to the lessons learnt and address recommendations of the evaluation.

Foreword

This final evaluation report of the Government/**UNICEF Nigeria's** WASH Program 2014-2017 has been completed concurrent with the start of the 2020-2029 Decade of Action for the acceleration of the global agenda of SDGs 2030, the celebration of thirty years of child rights since the signature of the convention in 1989, and the midterm review of **Nigeria's** Government-UNICEF Country Program of Cooperation 2018-2022 planned during the last quarter of 2020.

Access to safe water and sanitation services represents a foundation for communities to secure the human capital for healthy lives, development and protection of children, and strong local investment in community-based infrastructures for a dynamic prosperity. UNICEF has been investing in joint efforts with development partners and the private sector to support government in developing adequate evidence-based policy and strategy for the WASH sector, and to empower state and local institutions and communities to ensure adequate sector coordination, ownership and sustainability of the water and sanitation ecosystem in Nigeria.

The progress made by Nigeria to achieve 68 per cent coverage in access to basic drinking water services in 2018 is commendable. However, the country is still behind the global transformative agenda of universal access to safe drinking water: 66 million Nigerians are deprived of a primary right to basic drinking water services and 47 million people are practicing open defecation, which exposes the population to risks of water-related diseases like diarrhea and cholera. There is an urgent need for the scaling up of innovative investments and to address social norms and behavior issues that can accelerate progress towards SDG6.

UNICEF is very encouraged by the high-level political commitment of the president of Nigeria, who signed an executive order in 2019 to end open defecation by 2025, along with the leadership of the Federal Ministry of Water Resources, state governors and state ministries of water resources, and also the engagement of the private sector to support the required investment for the WASH sector.

UNICEF is also very grateful to the EU and DFID and the different targeted states for their important financial contribution (US$188 million) to the WASH Program in Nigeria.

The findings of this evaluation show important results achieved in terms of increased access to WASH services in communities and institutions, capacitated institutions, and established communal management systems for sustaining provided services. However, they also remind WASH sector actors to break the vertical approach of operational interventions between WASH, health, nutrition and education if we want to drastically curb the under-five mortality in Nigeria as part of achieving SDG2, SDG3 and SDG4.

I take this opportunity to express my gratitude to all those involved in leading and managing this evaluation: the FMWR, the different RUWASSAs, the steering committee members, UNICEF WASH Section and Evaluation Unit and IOD PARC UK.

On behalf of UNICEF Nigeria Country Office, I take the opportunity to reiterate our commitment to continue supporting our partners for the realization of SDG6 through PEWASH and the National Road Map for ending open defecation. We look forward to continued partnership with the Federal Ministry of Water Resources, states, LGAs, private sector and development partners, and communities to help realize this common vision of SDG6 and ending open defecation in Nigeria by 2025.

Peter HAWKINS
UNICEF Country Representative in Nigeria

Acknowledgements

The evaluation team, on behalf of IOD PARC (the contractor) would like to express their thanks to UNICEF Nigeria for their guidance and support throughout the duration of this assignment, and for the engagement of key stakeholders throughout the process: the Government of Nigeria, DFID and EU.

We express our gratitude to the Federal and State Ministries of Water Resources, including members of the Evaluation Steering Committee (ESC), particularly Engr. Benson Ajisegiri, Director of Water Supply and Mr. Solomon Awe, Director of Water Quality Control and Sanitation, and their staff at federal and state levels for their views, coordination and access to information.

We take this opportunity to extend our appreciation to the UNICEF Nigeria team for their trust, guidance, support, valuable insights and quality assurance. Special thanks to Zaid Jurji, Chief of WASH; Dr. Robert Ndamobissi, Evaluation Manager; Oumar Doumbouya, WASH Specialist; Michael Forson, WASH Specialist; George Ugbong, WASH Specialist; Bioye Ogunjobi, WASH Specialist; Raphael Nwozor, WASH Specialist; Maingaila Moono Banda, WASH Research Specialist; and all WASH specialists at UNICEF Field Offices.

This report was prepared by a team of IOD PARC staff and associate experts, including Jerry Adams Team Leader and Principal Consultant; Sonia Pérez, Senior Consultant; and Dr Adam Biran and Dr Stuart Astill. Expert methodological advice and quality assurance was provided by Nick York, IOD PARC Director and Principal Consultant. Overall evaluation management and direction was completed by Matthew Crump.

The team would also like to thank all the participants to the household, school and health facility and WASHCOMS surveys led by Kantar Public, and all participants in interviews and focus group discussions led by Frademol & Associates. We are thankful to the communities represented by mothers, fathers, local leaders and volunteers for giving their valuable time and for sharing experiences, reflections and suggestions.

The report is informed by the opinions and suggestions of a variety of stakeholders.

Matthew Crump

Director of IOD PARC
Principal Consultant Lead

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Acronyms and Abbreviations

CATS	Community Approaches to Total Sanitation
CLTS	Community Led Total Sanitation
CPD	Country Programme Document
CSO	Civil Society Organization
DAC	Development Assistance Committee
DFID	Department for International Development
DHIS	Demography and Health Information System
EHC	Environmental Health Clubs
EU	European Union
FANTA III	Food and Nutrition Technical Assistance III
FCO	Foreign and Commonwealth Office
FCT	Federal Capital Territory
FGD	Focus Group Discussion
FGN	Federal Government of Nigeria
FMWR	Federal Ministry of Water Resources
HCF	Health Care Facility
HH	Household
HPBH	Handpump Borehole
IVRS	Information and Voice Record System
JMP	Joint Monitoring Programme
KAP	Knowledge, Attitudes and Practices
KII	Key Informant Interview
LAM	Local Area Mechanics
LGA	Local Government Area
MDG	Millennium Development Goals
MHM	Menstrual Hygiene Management
MICS	Multiple Indicator Cluster Survey
NDSP	Niger Delta Support Programme
NGO	Non-Governmental Organization
NDHS	Nigeria Demographic and Health Survey
NTGS	National Task Group on Sanitation
OD	Open Defecation
ODF	Open Defecation Free
OECD	Organization for Economic Co-operation and Development
PEWASH	Partnership for Expanded Water Supply, Sanitation & Hygiene
PHC	Primary Health Care
PSP	Public Health and Social Protection
PTA	Parent-Teacher Association
QA	Quality Assurance
RUWASSA	Rural Water and Sanitation Supply Agency
RWSS	Rural Water Supply and Sanitation Programme
SDG	Sustainable Development Goal
SGBV	Sexual and Gender Based Violence
SHAWN	Sanitation, Hygiene and Water in Nigeria
SHAWN II	Sanitation, Hygiene and Water in Nigeria Project II
SMBH	Solar Motorised Bore Hole
STGS	State Task Group on Sanitation
SUBEB	State Universal Basic Education Board

TANGO	Technical Assistance to NGOs International
TBO	Toilet Business Owners
ToC	Theory of Change
UNDAF	United Nations Development Assistance Framework
UNEG	United Nations Evaluation Group
UNICEF	United Nations International Children's Emergency Fund
USD	United Sates Dollar
VHP	Volunteer Hygiene Promoter
VLOM	Village Level Operation and Maintenance
WASH	Water, Sanitation and Hygiene
WASHCOM	Water, Sanitation and Hygiene Committee
WASHIMS	Water, Sanitation and Hygiene Information Monitoring System
WASHNORM	Water, Sanitation and Hygiene National Outcome Routine Mapping
WASHPMP	WASH Performance Management Plans
WSP	Water Safety Plans
WSSSRP II	Water Supply Sanitation Sector Reform Programme II
WSSSRP III	Water Supply Sanitation Sector Reform Programme III

Executive Summary

Introduction

This is the final report of an evaluation of the Federal Government of Nigeria (FGN) and UNICEF WASH Programme (2014-2017) funded by: i) donors' projects: the Department for International Development (DFID) funded project (SHAWN II) and three European Union (EU) funded projects (WSSSRP II, WSSSRP III and NDSP)[1]; ii) UNICEF regular resources; and iii) Federal and state governments. This Programme had combined donor's contributions of US$188.3 million.

Issues around water, sanitation and hygiene (WASH) still pose a great challenge to many countries across the globe. Nigeria ranks as one of the top three countries in the world in number of people living without access to safe water and sanitation[2], and ranks second for the number of people practicing open defecation (OD)[3]. According to water, sanitation and hygiene national outcome routine mapping (WASHNORM) data from 2018, 68 per cent of the population nationally have access to basic water supply, and progress towards achievement of universal and equitable access to basic water supply has been slow. Only 19 per cent of the national population use safely managed sanitation services, 24 per cent are still practicing OD in Nigeria and 30 per cent in rural areas. Unless this problem is effectively addressed, the current number of people still practicing OD is predicted to increase with population growth trends.

Nigeria did not achieve the WASH Millennium Development Goal (MDG) 2000-2015 and there is a high risk that Nigeria will not achieve the global agenda of the WASH Sustainable Development Goal (SDG) 6 of universal access to safely managed services.

WASH is a subcomponent of the child survival Programme component of UNICEF Nigeria's 2014-2017 country Programme, which aimed to increase access to and use of water sources, sanitation facilities and hygiene practices, particularly among vulnerable communities. The WASH Programme promoted low cost, community-based approaches such as community led total sanitation (CLTS) and village level operation and maintenance (VLOM), while also emphasizing the importance of child and gender-friendly WASH institutions in schools and health care facilities. The purpose of the 2014-2017 WASH Programme was, amongst others, to increase access to and use of improved water sources, sanitation facilities and hygiene practices, particularly among vulnerable communities.

UNICEF has worked with the FGN and its cooperating partners to increase access to and use of improved water sources, sanitation facilities and hygiene practice through a range of projects.

While the evaluation is for the entire FGN/UNICEF WASH Programme 2014-2017 in Nigeria, the sample cases were drawn from the four DFID and EU funded projects which are similarly focused on institutional strengthening and community empowerment to deliver comprehensive WASH interventions expected to improve health and livelihoods. The difference in each of the projects lies in the emphasis given to individual components of WASH. The three EU funded projects (NDSP, WSSSRP II & III) were primarily focused on sector reform, while DFID SHAWN II was focused on behavior change to drive sustainable sanitation. The

1 Sanitation, Hygiene and Water in Nigeria Project II (SHAWN II) spanned 2014-2018, extended to 2018 covering 8 states. It had total DfID contribution of £89.77m (US$ 117.47m) of which £75.07m (US$ 98.23m) released as of Nov 2019 (excludes national counterpart funding). Water Supply Sanitation Sector Reform Programme II (WSSSRP II) spanned 2012-2018, extended to 2019 and covered 6 states. It had total EU contribution of €30m (US$ 33.07m) of which €26.37m (US$ 29.07m) used as of 28 June 2018 (excludes national counterpart funding). Water Supply Sanitation Sector Reform Programme III (WSSSRP III) spanned 2013-2018, extended to 2020 and covered 3 states. It had Total EU contribution of €14.25m (US$ 15.7m) of which €10.93m (US$ 12.05m) used as of 1 May 2018 (excludes national counterpart funding). NDSP spanned 2012-2017, extended to 2020 and covered 5 states. It had total EU contribution of €20m (US$ 22.05m) of which €15.16m (US$ 16.71m) used as of 29 Oct 2018 (excludes national counterpart funding)

2 Based on an analysis of 'Drinking water, sanitation and hygiene, UNICEF, June 2019' (https://data.unicef.org/topic/water-and-sanitation/drinking-water/). Statistic also stated by UNICEF Nigeria in Terms of Reference

3 The Premium Times; 25th June 2019. https://allafrica.com/stories/201906260010.html

NDSP also had a broader objective of conflict resolution, peacebuilding and social cohesion with a specific focus on the Delta region of the country.

The beneficiaries of the WASH Programme 2014-2017, as per the CPD, are vulnerable children and their families, particularly women and girls and those living in rural areas. More specific beneficiaries of the four projects include state and local governments, due to the institutional strengthening element of the Programmes, as well as communities and households (HHs) within project targeted local government areas (LGAs).

Evaluation Purpose and Scope

The purpose of this evaluation is twofold: to contribute to both learning and accountability. To address accountability the evaluation assessed the extent to which the Programme fulfilled its expected objectives as per project documentation developed and agreed to with government, donors (DFID and EU) and UNICEF. With regards to learning**,** the evaluation intends to inform government and UNICEF Nigeria's current and future Programmes in the WASH sector, refining Programming and financing modalities where appropriate to support better WASH services for children and their communities.

The objectives of the evaluation are:

- To determine the intended and unanticipated impacts of key WASH interventions on the incidence of diarrheal diseases, nutritional status among children under five, enrolment and attendance levels, and sanitation and hygiene behavior among targeted populations. Behaviors which the Programme is expected to contribute to include the consistent use of improved sanitation facilities and hand-washing facilities.
- Analyze how the Programme strategies and supporting activities in combination contributed to the observed changes.
- Identify strengths and weaknesses in the Programme implementation, with a focus on the main Programmatic strategies and partnerships used.
- Identify recommendations that will help UNICEF optimize future implementation and scaling up.

The sample cases for the evaluation were drawn from the four projects funded by DFID and the EU that formed the major part of UNICEF Nigeria's WASH Programme in the 2014-2017 strategic period. The evaluation covers all the interventions conducted under the Programme within this time period, and also considers their implementation from 2017 to date given their relative time extensions. Interventions in the following states are within the thematic scope of the evaluation[4]:

- DFID SHAWN II - Benue, Bauchi, Jigawa, Katsina, Kaduna and Zamfara
- EU (WSSSRP II/III, NDSP) – Akwa Ibom, Bayelsa, Delta, Edo, Rivers, Anambra, Cross River, Kano, Jigawa, Osun, Adamawa, Ekiti and Plateau

Evaluation Design and Methods

A set of evaluation questions proposed by UNICEF Nigeria were addressed throughout the course of this evaluation based on the Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) criteria of relevance, effectiveness, efficiency, impact and sustainability, in addition to the cross-cutting criteria of gender and equity. A theory-based approach was utilized during this evaluation based on the WASH Programme's theory of change (ToC), and a mixed methods approach

[4] The intervention states of Kano and Yobe (SHAWN II) have been excluded. This is primarily because work has only recently started in 2018.

was used that drew on both primary and secondary data sources as well as both quantitative and qualitative methods.

Quantitative data collection was conducted in Benue, Jigawa, Katsina, Bauchi, Akwa Ibom, Anambra and Ekiti, and was based on an HH survey that included anthropometric measurements, schools and health care facility surveys, and a survey of water, sanitation and hygiene committees (WASHCOMs). The surveys utilized a cross-sectional study design with an intervention and comparison (non-intervention/control) arm. The selection of states visited was purposive. In each selected state, intervention and control LGAs were selected randomly, as were communities and HHs/schools within them.

Qualitative data collection was conducted in Abuja as well as in a sample of communities from LGAs within Akwa Ibom, Jigawa and Bauchi. Key informant interviews (KIIs), semi-structured interviews and focus group discussions (FGD)s were conducted with a range of stakeholders across four levels: national, state, LGA and community.

Ethical approval was gained prior to the data collection and the evaluation team adhered to United Nations Evaluation Group (UNEG)/UNICEF global standards for evaluation, giving specific attention to ensuring the collection of anthropometric data for assessing the Programme's contribution to reducing malnutrition was conducted in an ethical manner.

Limitations and challenges encountered throughout the evaluation included the absence of the baseline HH Knowledge, Attitudes and Practices (KAP) Survey from 2014 on WASH outcomes and impact indicators. That information was felt to be necessary to meet the objective of the evaluation regarding solid measurement of the impact and attribution of changes. Other limitations were related to documentation and HH survey sampling. The evaluation team mitigated these challenges through the use of mixed methods and existing multiple sources of data that enabled assessment of the impact of WASH interventions on health, nutrition and education in each state.

Findings and Conclusions

The operating context for the FGN/UNICEF Nigeria WASH Programme (2014 – 2017[5]) included weak sector indicators, the development of the 2016-2030 Partnership for Expanded Water Supply, Sanitation & Hygiene (PEWASH) Strategy and the National Roadmap for Eliminating Open Defecation.

The four key projects that formed UNICEF Nigeria's WASH Programme with the Government of Nigeria (WSSSRPII, WSSSRPIII, SHAWN II and NDSP) focused on:

1 Delivering and supporting safe access to WASH services.
2 Supporting community engagement in WASH for sustainability.
- Developing strong and effective systems for delivering and supporting a WASH sector-enabling environment.
- Developing appropriate evidence-based policy and programming, monitoring and evaluation, and learning frameworks.

Key parallel strategies developed and adopted by UNICEF to deliver these objectives included: i) CLTS, construction and rehabilitation of rural WASH facilities in conjunction with significant activities focused on institutional strengthening at all levels; ii) sanitation marketing and financing introduced as part of the effort towards improving and sustaining sanitation access; iii) evidence generation, knowledge management; and iv) capacity development.

[5] All of the projects had no cost extensions and revised end dates: WSSSRP II/III 2019; SHAWN II and NDSP 2020.

Triggering of CLTS was found to have driven sanitation facility construction and upgrading, enabling communities to begin moving up the 'sanitation ladder'. Generally, movement has been gradual, and many HHs constructed traditional pit latrines after their triggering. In addition, sanitation marketing and financing have been key Programme interventions that contributed to the acceleration of sanitation uptake.

Overall, based on the sample cases for the evaluation drawn from the four projects, the Nigeria WASH Programme has made an important contribution to addressing the water and sanitation challenge in the country, providing 8.1 million people in 2017 with access to an improved water source and 11.0 million people with access to sanitation.

The Programme is on track to achieve, and further build on, improvements beyond several of its initial targets by the end of the individual Programmes in 2019/2020. In 2019, for instance, 13.0 million people and 15.6 million people have access to improved water and sanitation, respectively (figures as of September 2019).

Overall, outcome indicators of use of improved drinking water sources and sanitation facilities have increased in those seven states. At the national level, the expected result of the country Programme 2014-2017 for WASH has almost been achieved as revealed by the findings from the WASHNORM HH Survey 2018, which showed 73.4 per cent of Nigerians using improved drinking water sources versus the initial nationwide target of 74 per cent.

While these achievements are encouraging, it is important to assess them in the context of the continuing significant challenges toward achieving the SDG6.

The evaluation draws the following conclusions, set out against the evaluation criteria:

Relevance

In assessing whether the intervention (WASH Programme) was doing the right things_(if intervention objectives and design respond to beneficiaries; global, country, and partner/institution needs; policies and priorities; and continue to do so if circumstances change), the evaluation team finds coherence with international normative frameworks such as the MDGs and SDGs, and consistency and alignment with National WASH priorities and strategies, which cascade to state and LGA priorities. Furthermore, strategies and activities are assessed as coherent and aligned with the overall UNICEF Global WASH Strategy (2016-2030) and designed to contribute to the achievement of outcomes and goals. The Programme takes into account inequalities by focusing on the most vulnerable and poorest population, specifically those in rural areas.

The evaluation showed that the interventions and outputs of the WASH Programme were broadly consistent with the expected results. UNICEF Nigeria worked both upstream, through influencing and advocacy work, and downstream through direct engagement with target LGAs and communities. Where challenges were encountered, these were for the most part beyond the control of UNICEF.

UNICEF has sought to apply principles of results-based management in its design, planning, and monitoring, using vertical and horizontal logical frameworks and theories of change (ToCs). Expected results of the Programme were defined, though the complexity and interrelatedness of challenges, assumptions and processes within the Programme design and ToCs were not fully considered or articulated and thus lack a precise identification of the problem to be addressed and the context. UNICEF actively considered these during annual work plan meetings and routine monitoring visits to the states and LGAs where the Programme was operational.

The Programme sets out levels of accountability for itself and partners clearly.

Efficiency

In assessing how well resources are being used and the extent to which the intervention delivers, or is likely to deliver, results in a cost effective and timely way, the evaluation team finds that UNICEF has ensured adequate consideration of value for money and quality inputs for quality outputs through a number of linked approaches, strategies and systems for procurement and contracting. UNICEF has worked consistently to manage the costs of sanitation, water supply and open defecation free (ODF) certification; and reductions were noted in the costs for a community to achieve ODF certified status due to more efficient conversion processes and engagement of local consultants to trigger and follow up with communities. Where costs have fluctuated, the evaluation finds this is due to the scaling up of sanitation marketing and financing interventions.

The evaluation notes that the Programme was able to reach more people as a result of a reduction in per capita cost (US$33 for SHAWN II, US$47 for WSSSRP II, and US$16 for WSSSRP III) of accessing improved water supply, due to enhanced procurement and contract management processes. For example, in one of the projects, the per capital cost dropped to $33 in 2017 from an initial $55 in 2014.

The evaluation found evidence of improved efficiency, at scale, with delivery of ODF results, as a result of effective triggering and the adoption of a revised approach for community led total sanitation (CLTS), with sanitation financing and marketing.

UNICEF supported a number of related initiatives (for example, VLOM and establishment of WASHCOM) to facilitate community ownership and sustainable management of water supply facilities. These efforts contributed to reducing the downtime of community water facilities.

While programmatic financial resources appear sufficient, challenges in counterpart funding[6] were encountered. Although funding increased significantly, there is not yet clear evidence of the presence of well-structured and supported WASH Departments across most intervention states.

In total, 18,622 water points have been constructed or rehabilitated, while 3,017,565 HH latrines have been built by communities and families. The UNICEF Nigeria WASH Programme shows evidence of timely deployment and delivery on key objectives. Timely delivery of key inputs, especially effective triggering, and the adoption of a revised CLTS approach with sanitation marketing and financing are notable examples of efficient delivery.

Effectiveness

In assessing whether the intervention is achieving its objectives, the evaluation team finds the WASH Programme effective up to 2019. The Programme surpassed targets as at September 2019, with 127 per cent for water and 137 per cent for sanitation, while in 2017, 96 per cent of the targets in sanitation and 89 per cent in water were achieved. As of 2017, the WASH Programme had succeeded in reaching 8.1 million people with access to an improved water source and 11.0 million people with access to sanitation, and as of 2019, 13.0 million and 15.6 million people have access to improved water and sanitation, respectively.

The evaluation notes that use of an improved water source has increased systematically across both intervention and non-intervention areas of the seven states, as has the practice of covering water storage vessels as indicated below.

[6] Agreed proportion (30 to 50%) of government and community contributions towards water facilities capital investment

Trend analysis of secondary data from NDHS 2013 to NDHS 2018 and WASH NORM Survey 2018 revealed an overall increase of more than 25 per cent in access to improved drinking water sources in the seven states the evaluation covered. This improvement was particularly high in two states: Bauchi (from 39.9 per cent in 2013 to 78.7 per cent in 2018) and Benue (from 38.4 per cent in 2013 to 60.4 per cent in 2018).

Secondary data also showed increases in the use of improved sanitation facilities when comparing NDHS 2013 figures with NDHS 2018 and WASH NORM survey 2018 figures for each of the seven states the evaluation covered. Increases during the five years were observed in Bauchi (from 18.3 per cent in 2013 to 56.1 per cent in 2018), Ekiti (from 18.4 per cent to 50 per cent) and Benue (from 15.4 per cent to 30.9 per cent). However, there was a decrease in Jigawa state in the use of improved sanitation facilities from 2013 to 2018 according to NDHS findings.

The WASH Programme was associated with a 9 per cent reduction in open defecation overall, but the pattern was not consistent across states. There was no overall effect of the Programme on prevalence of clean latrines.

Some enabling and undermining factors affecting programme implementation fidelity were identified. Enabling factors included the timely release of counterpart funds, improved planning and monitoring, and the building of political will and collaboration with the education and health sectors. Where counterpart funding was delayed or local ownership was weak due to expectations of payment or the perception that local volunteers were paid, implementation fidelity was undermined.

Implementation strategies as described in routine Programme reports were consistent with Programme design. Furthermore, annual workplans at the state level were used as a management tool to help ensure consistency with Programme design. These were supported with tailored capacity building activities at all levels.

Respondents at all levels were able to clearly articulate the aims of the Programme and their roles and responsibilities within it. Principal activities appeared to be managed as intended and the support provided through capacity building and training worked well.

Specific barriers to implementation included slow release of counterpart funding and failure to establish WASH departments, as well as local-level issues and the dual challenges of poverty and slow rates of behavior change.

There may be a case for review and for strategic decisions to be taken regarding future work towards the establishment of WASH departments and the continued existence and development of a permanent, WASHCOM federal structure. Resources for behavior change including communication and hygiene promotion could be improved, lower cost sanitation models could be promoted, and the availability of finance options increased.

The achievement of outcomes showed a mixed picture that was not consistent across all states. The reasons underlying this picture remain unclear and were not explained through multi-variable analysis using state-level indicators of the enabling environment. Given the lack of confirmatory analysis on the enabling environment there remains a range of potential explanations for the varying outcomes, including that the analytical assumption of equal baselines did not hold. None of these can be examined without baseline data or extensive further research.

Qualitatively, respondents reported increasing awareness and practice of handwashing as well as the provision of tippy taps in homes and institutions.

There were mixed results with respect to the extent of institutional reform achieved at state and LGA levels as indicated by the prevalence of funded WASH departments. These were widespread in some states but lacking in others. UNICEF continued efforts to build capacity of LGA WASH units and departments in various areas. This initiative was informed by capacity improvement plans, resulting in the roll out of rural drinking water monitoring and surveillance activities.

The evaluation found that the programme strategy of developing water safety plans has proved to be effective, providing a mechanism to build awareness of the importance of water quality.

The Programme contributed to improved capacity at state and LGA levels for ODF verification, Programme management, procurement and M&E. Water, sanitation and hygiene information monitoring system (WASHIMS) maintenance and expansion and the associated training of LGA staff has been one of the most significant achievements of the Programme, and the establishment of WASHCOMs and VLOM improved capacity at the community level.

There was evidence of WASHCOM involvement in non-WASH responsibilities, though the extent to which this was the case varied substantially between states and between projects. In EU funded states 52 per cent of WASHCOMs were involved in non-WASH responsibilities. In DFID funded states this rose to 82 per cent.

There was evidence that the Programme had supported and influenced the participation of women in decision making through the participation of women in WASHCOMs. In most states women comprised almost 40 per cent of WASHCOM members. It was common for women to hold the position of WASHCOM treasurer; though rare for them to hold the position of chair.

There was evidence that women were more likely to attend and speak at community meetings relating to WASH in intervention areas than non-intervention areas. This might reflect differences in the extent to which capacity needs have been met, though it might also be due to differences in the content or conduct of the meetings themselves.

There were mixed results on the validity of the Programme results, with various levels of progress and sustainability of ODF in many communities and a few LGAs across the Programme-assisted states. Good examples of sustainable project achievements were notable including support for the upgrading of existing HH latrines and servicing of the hygiene needs of users. As well, efforts are in progress to help the more widespread achievement of LGA-wide ODF. There was evidence of hygiene behavior transformation and compliance among community beneficiaries. However, diverse strategic challenges remain.

Impact of WASH Programme

While the WASH Programme has made significant achievements in terms of outcomes, this assessment of longer-term effects of WASH goes beyond this and considers evidence of the impact of the Programme, for example changes in final health, nutrition and education outcomes attributable to the WASH interventions, based on the quantitative and qualitative data collected. This is an important part of the purpose of this evaluation, though challenging in terms of data and methods. In the absence of a baseline HH survey, the evaluation team applied mixed methods and used multiple data sources in order to try to identify potential effects of WASH interventions on the reduction of diarrhea and stunting among under-five children and on the increase of primary school enrollment and attendance rates in those seven states.

Looking across the Programme as a whole, there was little evidence of systematic integration of WASH into other sector interventions. Therefore, it is unlikely that cross-sector integration played any significant

role in the results achieved. There was some evidence of collaboration with the education and health sectors in order to facilitate provision of institutional WASH facilities required for achievement of ODF status.

Impact of WASH on Health

Using the WASH evaluation HH survey data in the seven states which the evaluation covered, there was no significative evidence of systematic impact on diarrhea prevalence across the WASH Programme (18.0 per cent vs 19.5 per cent in the intervention and non-intervention areas, respectively). However, the states of Bauchi, Benue and Ekiti showed less prevalence of diarrhea among under-five children in LGAs exposed to WASH interventions compared to LGAs not exposed. Local multi-sectoral contextual and behavior factors may explain those differences of impact on health by state.

Using routine statistical data from the Ministry of Health, the evaluation team notes that the number of cholera cases in Anambra, Bauchi, Jigawa and Katsina states has declined progressively since 2013, notwithstanding major cholera outbreaks recorded for 2014 and 2018 (NCDC), which are anomalous years in the data set. Having said that, the available data do not allow the evaluation to assess whether the Programme impacted on cholera incidence

Secondary data from the NDHS HH survey did not provide evidence of an impact on diarrhea in six of the seven states the evaluation covered. Only Anambra state recorded a significant decrease of prevalence of diarrhea among under-five children during the five years, from 7.7 per cent in 2013 to 3.1 per cent in 2018. Overall, the prevalence of diarrhea in Nigeria increased slowly from 10.2 per cent in 2013 to 12.8 per cent in 2018 according, to Nigeria Demographic and Health Survey (NDHS) reports. Anecdotally, respondents in FGDs and KIIs reported having noticed a reduction in diarrhea prevalence at the community level and at health facilities.

Impact of WASH on Education

According to the evaluation HH survey, the evaluation team found positive effects in the states of Benue, Ekiti, Katsina and Akwa Ibom regarding a net difference in school enrolment rates when comparing WASH intervention LGAs and non-WASH intervention LGAs. In addition, sample statistics revealed a small reduction in absenteeism (0.3 days) between LGAs exposed to WASH interventions compared to LGAs not exposed. However, the pattern was not consistent across all states.

Trend analysis of demographic and health survey data shows that the states of Jigawa, Katsina and Anambra registered increases in their primary net attendance ratio during the five years: from 43.2 per cent in 2013 to 56.4 percent in 2018 for Jigawa, from 43.5 per cent to 68.3 per cent in Katsina and from 82 per cent in 2013 to 85.1 per cent in Anambra. In the other states, there was a decrease or stagnation of primary school attendance.

Impact of WASH on Nutrition

In the seven states the evaluation covered, it found no statistically significant evidence of an impact on malnutrition rates as indicated by stunting in WASH intervention areas compared with non-WASH intervention areas. However, the states of Anambra and Benue showed a positive impact, with the prevalence of stunting among under-five children higher in LGAs not exposed to WASH interventions compared to LGAs that benefited from a WASH Programme.

However, trend analysis of secondary data from NDHS 2013 to 2018 revealed a decline in the prevalence of stunting in under-five children in the states of Anambra and Akwa Ibom. In Anambra, prevalence fell from 18.4 per cent in 2013 to 14 per cent in 2018, and in Akwa Ibom, the decline was from 22.4 per cent

to 19.6 per cent. In the other five states, there was stagnation or an increase in prevalence of stunting similar to Nigeria's average of stunting of 36.8 per cent in 2013 and 2018.

Impact of WASH on Behavior Changes related to Hygiene and Social Role

There was evidence of an increase of 10 per cent in rates of self-reported handwashing with soap and an increase of 5 per cent in the perceived prevalence of handwashing with soap in the seven states the evaluation covered. There was also some evidence of a small, positive change in proxy indicators, such as the availability of handwashing hardware, but without strong statistical support.

Impact on Quality of Drinking Water and Beneficiary Satisfaction

Regarding drinking water, the evaluation team found that less than 15 per cent of heads of HH reported issues related to bad quality of drinking water used from boreholes, such as bad color, odor or unwanted taste. On average, there were few differences between LGAs exposed to WASH interventions, where 14.7 per cent of heads of HH mentioned bad color of water and LGAs not exposed to WASH interventions, where 16.8 per cent did so. However, Benue and Katsina stood out, showing a rate of 19.8 per cent in Benue and 15.8 per cent in Katsina in WASH intervention areas, compared with 41 per cent and 23.6 per cent, respectively, in non-intervention areas.

Notably, the Programme's success in increasing coverage of safe and convenient water and sanitation supplies were found to have helped reduce gender-based inequalities, and there were qualitative reports of women being able to take on more prominent community roles.

There was anecdotal evidence of communities asserting their rights to water and sanitation services and evidence of women's participation in WASHCOMs. Quantitative data also supported the perception of women's involvement in WASHCOMs. Respondents from WASHCOMS reported that, through capacity building workshops run by the Programme, communities had come to realize their right to WASH facilities. Since the inception of the Programme, the level of awareness of WASHCOMs with regards to their rights to benefit from WASH has increased. Overall, the evaluation found some qualitative evidence that communities are aware of their rights and that WASHCOMs are increasingly able to engage with local government systems to help ensure sustained access to water.

Regarding the measurement of impact, the lack of statistically significant results supporting the Programme effect does not necessarily indicate a lack of impact on health, nutrition and education. Even though the sample and the analysis were sufficient in their own right, there were many other inherent measurement issues. For example, pre-existing issues concerning the targeting of comparison groups and the absence of an initial baseline HH survey meant that there were considerable challenges involved in demonstrating a clear WASH intervention effect on other sectors. There are also significant qualitative impacts relating to gender inequalities, awareness and community participation. However, the study has established an important baseline for future impact assessment.

Sustainability

In assessing the extent to which outputs, outcomes and impact have persisted or are likely to persist during a significant time period (more than one or two years) after external technical and financial support has ended, the evaluation found that to date implementation of the WASH Programme has resulted in some positive changes at the community level, and to some extent at the LGA and state levels. This suggests there is a good likelihood that project outputs and outcomes will persist a year or more after support to beneficiaries ends. However, it is too early to fully evaluate sustainability at this stage and the evaluation notes that sustainability should be evaluated at an agreed point following completion of the Programme.

Overall**,** water and sanitation facilities provided through the Programme have been looked after by communities, with support from various stakeholders. This has been bolstered through the institutional strengthening and capacity building elements of the Programme.

Quantitative evidence from the HH survey revealed that the availability of drinking water from an improved source is guaranteed over the year, even during the dry season, for both communities benefiting from the WASH Programme (81.9 per cent) and communities not exposed (81.6 per cent). A notable difference was observed in Benue State where 54.4 per cent of HHs recognized the availability of improved drinking water during the dry season in LGAs exposed to the WASH Programme, compared with 35 per cent of availability in the non-intervention area. The ground area of water supply is very challenging in Benue State.

The extent of understanding by men and women in target communities regarding their role to maintain WASH installations is varied. There was recognition across the Programme that community ownership of WASH installations is key to long term sustainability, and the establishment and use of WASHCOMs has contributed to this. However, understanding and willingness to make user fee contributions to cover essential VLOM is not consistent.

VLOM units have been established at the LGA level across the Programme and are operating successfully. This has helped streamline costs and reduce facility downtime. However, there is scope for improvement as downtime targets are not consistently met across the Programme-targeted LGAs. There exists a good understanding of the referral process for VLOM at the community level, and communities have taken advantage of local area mechanics (LAMs) and spare part vendors to maintain their WASH facilities.

The evaluation team found evidence of the comparative advantage of the WASH Programme succeeding to establish a WASH community system and a level of accountability that ensures real time maintenance of improved drinking water sources. Fully 16.8% of heads of HH in communities exposed to WASH intervention recognized that the person responsible to ensure the water source is repaired in the event of a breakdown is within the WASHCOM. This compared with only 1.2 per cent of heads of HH interviewed in communities in non-intervention areas. It seems clear that the WASH Programme has helped empower WASHCOM for an adequate community-based institutional leadership role and ownership of water infrastructure in at least some states: Akwa Ibom, Bauchi, Ekiti and Jigawa.

Quantitative evidence from the HH survey revealed that on average the WASH Programme has developed strong local capacity for the maintenance of improved drinking water sources. For example, 20.8 per cent of heads of HHs in communities exposed to WASH intervention recognized that the repair of broken water sources is performed by a mechanic from the water committee, compared with only 8.5 per cent in communities in non-intervention areas, which depend mostly on government intervention or charitable rescue from other communities.

In response to the question, *"*To what extent are you satisfied with the activities of the entity responsible for ensuring access to clean water?", 51 per cent of heads of HH in the communities exposed to WASH intervention said they were extremely satisfied, while only 36 per cent said so in non-invention areas. Beneficiary satisfaction at the state level is very high in the WASH intervention areas compared with non-intervention areas in Akwa Ibom (23 per cent vs 2.8 per cent), Bauchi (46.7 per cent vs 30.2 per cent), Benue (28.8 per cent vs 13.9 per cent), and Ekiti (65.2 per cent vs 47.1 per cent).

Participation of HHs in the maintenance and management of improved drinking water sources through the payment mechanism required for HH/community users was not a common practice in either non-intervention communities (17.7 per cent) or intervention communities (17.4 per cent). The practice was more common in some states, and more so in non-intervention areas than intervention, such as in Akwa Ibom (56.2 per cent vs 41 per cent for non-intervention vs intervention) and Anambra (42.5 per cent vs 36 per cent).

Critically, budget allocations for WASH vary by state, but are overall considered inadequate to ensure the long-term sustainability of financial resourcing, with some WASH units still not having become WASH departments or having their own budget line. Risks associated with untimely and inappropriate counterpart funding have also been identified.

HHs in target communities have been upgrading or have replaced their sanitation facilities following initial triggering and demand creation, aided by sanitation marketing and the availability of both affordable and appropriate technological solutions. Further enquiry will be required to confirm whether facilities are being sustained and upgraded long after the initial triggering and behavior change.

Gender and equity

In assessing the extent to which WASH interventions have identified gender-based disparities in access to and use of safe water and sanitation facilities and have provided solutions to remove the existing barriers and close such gaps, the evaluation found evidence that the WASH Programme has identified and begun to address disparities in access to WASH facilities. It has made good progress towards addressing barriers to WASH by providing appropriate solutions, and, focusing on issues of equality and equity, it has sought to specifically target the most vulnerable.

Indeed, the evaluation found that gender equality and the empowerment of women and girls were well incorporated into the design, implementation and monitoring of interventions within the WASH Programme, and that their specific needs were considered throughout, such as through provision of gender segregated facilities. People with disabilities were considered to some extent through hardware design but this has not been sufficient and offers an area for improvement.

Using the HH survey data, the evaluation team assessed the merit of the WASH Programme towards gender equality using the following three prioritized dimensions:

1- *Women's Role in WASHCOMs*. There is evidence that women's participation in decision making about planning and management of water systems is well promoted in communities within the intervention compared with non-intervention communities:
   a. An average of 40.1 per cent vs 35.4 per cent of women caregivers of under-five children confirmed that they participated to meeting on community WASH facilities.
   b. The quantitative survey (see tables in 5.15) found women constituted 38.4 per cent of WASHCOM composition overall, including 35.4 per cent of WASHCOM composition across the DFID states and 42.5 per cent across the EU, though it was noted that only a sample of the targeted states was surveyed for this evaluation. Female representation in WASHCOMs sometimes outnumbered that of men in LGAs visited in Bauchi and Jigawa states, and the quantitative survey of WASHCOMs revealed that more than 50 per cent of WASHCOM members overall in Anambra state were women. Reporting for SHAWN II target areas indicated that 40 per cent of all WASHCOM members were female and 83 per cent had women in leadership positions.
   c. Fully 52 per cent vs 46.7 per cent indicated that they speak their opinion freely.
   d. As well, 46.3 per cent vs 40 per cent confirmed that the opinion of women is well considered by WASHCOM.

2- *Social role of women compared to men in collecting drinking water from improved water sources.* Although there was little found overall between intervention (23.8 per cent) and non-intervention areas (24.5 per cent), adult women were observed to play a more significant role in collecting water compared to their male counterparts in areas of Bauchi and Akwa Ibom not exposed to

the WASH Programme (23.9 per cent in intervention vs 35 per cent in non-intervention for Bauchi and14.2 per cent vs 16.5 per cent for Akwa Ibom).

3- *Women's empowerment to ensure the sustainability of improved water points.* There is evidence that WASH Programmes have successfully promoted gender equality in building local systems for maintenance of improved drinking water sources. A much greater percentage of heads of HH from communities within the intervention group recognized that women have been trained to repair water points (18.6 per cent vs 7.2 per cent). Meanwhile, differences regarding the practice of training women as LAMs for maintenance was noted in Akwa Ibom (13.2 per cent vs 0.8 per cent), Bauchi (25 per cent in intervention areas vs 11.6 per cent in non-interventions areas), Ekiti (15 per cent vs 1.4 per cent), and Benue (12.5 per cent vs 1.8 per cent).

The WASH Programme implicitly integrates a human rights-based approach into its design and implementation. This is due to its alignment with the overarching thematic and organizational strategy of realizing children's rights to survival and development through improved WASH. Issues around equality and equity are explicitly considered in Programme design through both site selection of the respective projects and through specific programming strategies. Design documents for the respective projects identified barriers for accessing WASH and their causes, and good efforts were made to address these throughout the course of the WASH Programme by focusing on provision of financing, appropriate solutions and increasing knowledge and education.

In sum, there is solid evidence of progress and change, but not yet compelling evidence of major shifts. At this point following Programme delivery, this is not particularly surprising. Encouragement can be taken from the changes identified, though for substantive changes to be observed it is essential to engage and work on the wider enabling environment at community, LGA and state levels to support and catalyze change.

In this respect, of greater significance is the contribution that UNICEF has made through its WASH programming approach to building a strong enabling environment, especially at the community and LGA levels. Evidence shows this strategy supports a stronger community voice and agency to actively engage in embedding sustainable WASH practices.

Learning

The inclusive participation of stakeholders -- from the national level (Federal Ministry of Water Resources), state WASH apparatus (Rural Water and Sanitation Supply Agency (RUWASSA)), LGA WASH departments and units, to community WASHCOMs -- contributed immensely to the results achieved. Furthermore, systems development by UNICEF helped establish RUWASSA in the intervention states. This, alongside engagement with civil society organizations (CSOs) and the private sector in the procurement of works and services, helped ensure provision of required services. Furthermore, the expansion of WASHCOMs to cover areas beyond WASH (i.e. water supply construction and maintenance management at the local level), such as birth registration, helped to embed improvements and changes in WASH KAPs in community health.

The programmatic approach recognized that the negative consequences of poor WASH provision fall disproportionately on women and girls. The achievement of the Programme's outcomes in sanitation and water supply have made a positive contribution to reducing associated gender inequities. Key to this has been the work addressing gender imbalance in the management of sustainable WASH infrastructure and practice through engaging women in WASHCOMS, including in management positions, and the training of

women as LAMs. There is some qualitative evidence that these efforts are contributing to more widespread, positive social change.

The 2014-2017 CPD expressed the intention to adopt a rights-based approach in UNICEF Programming for the period. This rights-based approach integrated a strong focus on access for all into the Programme, with clear targeting of the poorest and most vulnerable. The WASH Programme used multiple methods to engage poor and disadvantaged groups. An important example of this was through using microcredit and savings schemes, including the Adashe revolving savings and loan schemes.

Inclusive approaches to ensuring access to safe water and sanitation were extended to the design of sanitation facilities. There was awareness of the needs of physically disabled people, for example through the provision of ramps for wheelchair users. However, there was no evidence of real progress in understanding the multiple impacts and challenges of disability on access to services, and engagement of people with disabilities in the development and provision of services at an early stage.

Effective community engagement and action has been achieved through the development of a framework of WASH committees, WASHCOMs, and WASHCOM federations, the recruitment of cadres of volunteer hygiene promoters (VHPs), the development of water safety plans and water quality monitoring, the recruitment of LAMs and the use of VLOM as a strategy. Since the inception of the Programme, WASHCOM members have increased their level of awareness with regard to their right to benefit from WASH services. WASHCOM executive committees combine verbal and written requests to LGA WASH units and departments and to the WASHCOM federation to obtain needed facilities in their communities or to repair any broken facilities beyond their financial and technical capacities.

Monitoring and learning systems have been developed to enable communities to understand and act on water safety issues and to monitor and maintain infrastructure. Of specific importance are those systems that enable communities to self-monitor and thereby build their role and agency in the maintenance and improvement of the WASH environment.

It is critical to recognize that these initiatives are still very much a work in progress. Addressing operations and maintenance (O&M) expenditure is a long-term challenge. Contributions towards O&M by communities are often minimal, which adds a challenge to maintaining and replacing facilities at higher costs. However, improvements to the timeliness of repairs and consequent reduction in downtime from breakdowns may form part of a positive feedback loop which supports access to improved WASH as an expectation.

The Programme's work to strengthen government systems, primarily at the state level, has been the most challenging area to substantively implement. In this respect, the logical framework and outline ToC were not detailed enough to provide a framework for government to effectively engage in developing fully supportive and engaged WASH departments. There has been some progress towards the development of fully functioning WASH departments with adequate plans, funding and staffing, with a number of states providing substantive funding for WASH. However, progress is not steady, with many states still lacking adequate structures, plans, funding and staffing. It is critical that this is addressed as soon as possible, as the lack of an effective and supportive institutional environment is a key threat to the development of sustainable WASH in Nigeria.

The achievements of the UNICEF Nigeria WASH Programme, specifically in developing the enabling environment, has positioned the organization to make a substantive contribution to the Government of Nigeria's objective of ODF by 2025. For this to be taken forward it is essential that it is seen -- across the four levels of institutional strengthening, from national, state and local government to community structures -- producing effective WASH Programming, supporting community engagement, voice and agency, and developing an M&E framework that is dynamic and supports two-way learning. The challenge for UNICEF will be to move away from a focus on quantitative, hardware-focused outputs to a clear focus on supporting

both higher level outcomes and enabling environments at community, LGA and state levels through further capacity building and institutional strengthening work.

Using active LAMs/VLOMs for water facility maintenance along with the availability of local spare parts vendors reduces downtime, and the use of TBOs and the SanMark Programme can help achieve ODF status in communities. At the community level, functional WASHCOMs can help not only to ensure uninterrupted WASH services but also allow them to engage in non-WASH activities such as birth registration and nutrition by discovering and feeding the poor children in the communities.

In addition, the enabling environment coupled with trained implementers are essential for achieving maximum outputs in WASH service delivery. Collaboration and integration of WASH with other sectors (e.g. health, education and nutrition) reduces poverty, maximizes the use of human, financial and materials resources, and eliminates disease prevalence faster than stand-alone WASH Programmes. Furthermore, expansion of sanitation services and sustainability has been improved through Adashe (rotatory funding by community groups for latrine construction) and revolving funds (the state loan system through micro finance institutions in Bauchi and Jigawa). Meanwhile, a functional WASHCOM federation has ensured optimal provision of WASH facilities and their functionality through powerful representation at higher levels of governance, along with WASHIMS as an M&E framework that engages communities and LGAs. The represents a powerful tool with significant potential to support communities and LGA's to reflect on and improve practice.

Some states have demonstrated the potential impact of WASH interventions on health, nutrition and education that could serve as a promising pilot strategy for the scaling up of multi-sector downstream investment in integrated approaches for child survival.

Recommendations

Proposed recommendations have been reviewed and agreed with UNICEF and stakeholders to ensure coherence with the contextual situation and implementation with respect to the UNEG/UNICEF global standard of evaluation.

The steering committee has agreed to consider recommendations for each category of stakeholder as below:

A-Recommendations to Government of Nigeria:

Recommendation 1: Review and adopt Nigeria WASH Policy

The Federal Ministry of Water Resources should consider the development and subsequent adoption of a nationwide rural WASH policy to be domesticated at the state level. The policy could include the following elements: including vision, strategic direction, coordination and accountability mechanisms, principles for strategic public-private financing, and water resources management. This would further support the enhancement of an enabling environment to facilitate accelerated progress towards achieving SDG 6 in Nigeria.

Recommendation 2: Develop SDG6 TOC for Nigeria

Mobilize development partners and stakeholders of the WASH Sector, led by The Federal Ministry of Water Resources, to develop a comprehensive analytical SDG 6 theory of change for the WASH sector in Nigeria. This would serve as a coordination framework of integrated strategies and would stimulate actions towards effective scale-up of public-private financing towards universal coverage, access, and use of safely managed and sustainable WASH Services in Nigeria by 2030.

B-Recommendations to UNICEF:

Recommendation 1: Develop an SDG 6-Impact and Outcomes aligned ToC for better coherence of National Priorities with Global Agenda

The ToC developed for the WASH Programme 2014-2017 (presented in section 1.3) was simplified and did not provide clear and coherent links between specific activities and outputs to larger scale outcomes and impacts. The WASH Programme 2014-2017 and the four focal projects of this evaluation were initiated prior to the adoption of the SDGs. There is a need to develop a clearer and more detailed conceptual framework that aligns to the SDG outcomes to support future Programming, specifically geared towards access and use of safe and sustainable WASH for all.

Concrete actions could include: i) In collaboration with the government, developing a ToC for the FGN/UNICEF WASH Programme to align with the SDG 6, UNICEF's WASH Strategy 2016-2030 and national priorities through engagement with UN agencies, development partners and the private sector to support future Programming specifically geared towards access to and use of safe and sustainable WASH for all to impact on child survival and development, and ii) Engaging government at federal and state levels, UN agencies, development partners and the private sector to advocate for the development of a clearer and more detailed comprehensive conceptual framework of the WASH sector in Nigeria that is aligned to the SDG 6 and would impact child survival and development.

The conceptual framework/ToC should provide greater articulation of the complexity and interrelatedness of challenges, assumptions and processes in order to structure specific Programming interventions with a clear focus on UNICEF's contribution to the Government of Nigeria's PEWASH strategic objective for ODF by 2025.

The challenge for UNICEF will be to move away from a focus on quantitative, hardware-based outputs (numbers of people with access) to a clear focus on supporting higher level outcomes and supporting enabling environments at community, LGA and state levels. This must be accomplished while focusing on the concept of safely managed, sustainable and equitable access. Sanitation marketing, product development and finance are likely to be critical to expanding sanitation achievements, though it should be noted some other solutions may be needed to reach the poorest or most vulnerable.

As concrete action, UNICEF should make a Programmatic and accountability shift from a focus on hardware interventions to a clear focus on local fundraising for bridging service gaps and supporting higher level outcomes and enabling environments at community, LGA and state levels, while also focusing on the concept of safely managed and equitable and sustainable access.

Recommendation 2: Support the Government in strengthening the WASH enabling environment at Federal and State level

UNICEF should amplify its policy influence by further supporting a strong enabling environment at the state level, given its global comparative advantage of upstream influencing and convening. This will require working across multiple targeted areas including funding, planning, staffing, and monitoring. UNICEF should develop a suite of tools and approaches to enhance engagement with state government in supporting appropriate and sustainable system strengthening of WASH systems, structures, and processes. UNICEF should consider a communication strategy specifically targeted at political decision makers.

Recommendation 3: Support and further develop evidence-based Programming, learning and accountability for WASH Sector and SDG6

WASHIMS is a powerful tool with significant potential to support communities and LGAs to reflect on and improve practices. UNICEF should support and further develop adequate frameworks for regular evaluative thinking for the WASH sector in strengthening real time monitoring systems and the ecosystem of evaluation in order to drive Programme effectiveness. This should include:

1- Ensuring the completion of a baseline HH survey prior to the implementation of future large funded WASH Programmes that will secure rigorous end-line Programme impact evaluation.
2- UNICEF supporting and further developing an adequate framework for regular evaluative thinking for the WASH sector in strengthening real time monitoring systems and ecosystems of evaluation to drive Programme effectiveness.
3- UNICEF advocating government and development partners to undertake an independent evaluation of SDG6 by 2025 to learn of progress achieved in the government commitment to end ODF by 2025, as well as the way forward for SDG6.
4- further developing WASHIMS so that the data is timely in its collection, as well as analyzed and shared widely to support use by all stakeholders (including communities).
5- enhancing and developing WASHIMS and the community reporting systems as conduits for two-way messaging on hygiene behaviors and WASH-related health emergencies.

Recommendation 4: Support the accelerated use of microcredit and savings schemes

UNICEF should find adequate approaches to ensure the fulfillment of the equity principle (leave no one behind) in favor of the poorest or most vulnerable as part of sanitation marketing and financing. UNICEF should also support and build awareness for increased access to savings structures such as Adashe and microfinancing schemes to complement demand creation for improved HH sanitation, through sanitation marketing.

Recommendation 5: Support the evolution of WASHCOMS

UNICEF should support the evolution of WASHCOMS to continue their function as a community level platform for promoting and supporting the uptake of WASH services and good practices within the community, and should continue to support WASHCOMs in conducting activities that contribute to UNICEF's broader child survival and development component. This should include promoting uptake of services and behavior change in other outcome areas in addition to WASH, such as obtaining and disseminating information on immunization data, identifying HHs where children aren't immunized, and promoting birth registration. This support may need to include additional efforts to address the misperception that WASHCOMS comprise paid positions, and to ensure transparency and a gender balance that facilitates the meaningful participation of women. Given that effective and sustained support of WASHCOMS has the potential to be resource intensive for both UNICEF and LGAs, plans should also be made for a timely review of the effectiveness of this strategy.

Recommendation 6: Ensure and strengthen multisector integrated interventions and continued inclusive Programming

UNICEF should engage and facilitate the joint planning and effective operationalization of community based integrated multi sector interventions that align the targeting and delivery of basic services of water, sanitation and hygiene with RMNCH, nutrition, education, social protection and social mobilization. This should result in behavior changes that could result in greater impacts on child survival and development. UNICEF should also continue to ensure its Programming remains fully inclusive, with further targeted efforts required if Programming is to be inclusive of the needs of all vulnerable people, such as those with disabilities.

C-Recommendations to Donors:

Recommendation 1: Support for the global agenda of SDG6 in Nigeria in scaling up and sustaining gains achieved from successful WASH community-based models for the greater impact in improvement of child survival and development, local development and women empowerment in Nigeria. Continuation of development support to the WASH sector is critical at this point in time. Such support will continue to play a catalytic role in establishing the footing for successful intervention models, stimulating investments in hardware and software, and sharpening advocacy towards other players in the WASH sector for adequate involvement. This will help Nigeria reduce inequality vis-à-vis millions of vulnerable and poor people living without universal access to basic drinking water and sanitation facilities and being challenged by climate change.

Chapter 1: Introduction and Objectives of the Evaluation

This is the final report of an evaluation of the FGN/UNICEF Nigeria WASH Programme (2014-2017). The Programme was comprised of a DFID-funded project and three EU-funded projects that had combined donor contributions of US$188.3 million in addition to financial contributions from both UNICEF and the federal/state government.

The evaluation report is structured as follows:

1- An **Introduction** that sets out the background and context for the evaluation, providing information about the four projects comprising it.
2- **Evaluation Purpose and Scope**, which outlines the objectives of the evaluation, the evaluation criteria, specific research questions to be addressed, stakeholders involved and changes from the terms of reference (ToR).
3- **Evaluation Design and Methods**, outlining how the evaluation has been undertaken, describing the methodological approach and the quantitative and qualitative methods used for both data collection and analysis as well as ethical considerations and limitations of the study.
4- **Findings** that are structured around the six evaluation criteria (relevance, effectiveness, efficiency, impact, sustainability, gender and equity), and focused on answering the specific evaluation questions set out in the ToR.
5- **Conclusions** focused on interpreting the findings and reflecting reasonable evaluation judgments based on the answers to the evaluation questions.
6- **Recommendations**, suggesting actions for UNICEF Nigeria to consider moving forward. The recommendations will be refined and validated in early 2020, on presentation to UNICEF and stakeholders.

1.1 Background and Context

1.1.1 WASH Programme – Global Context

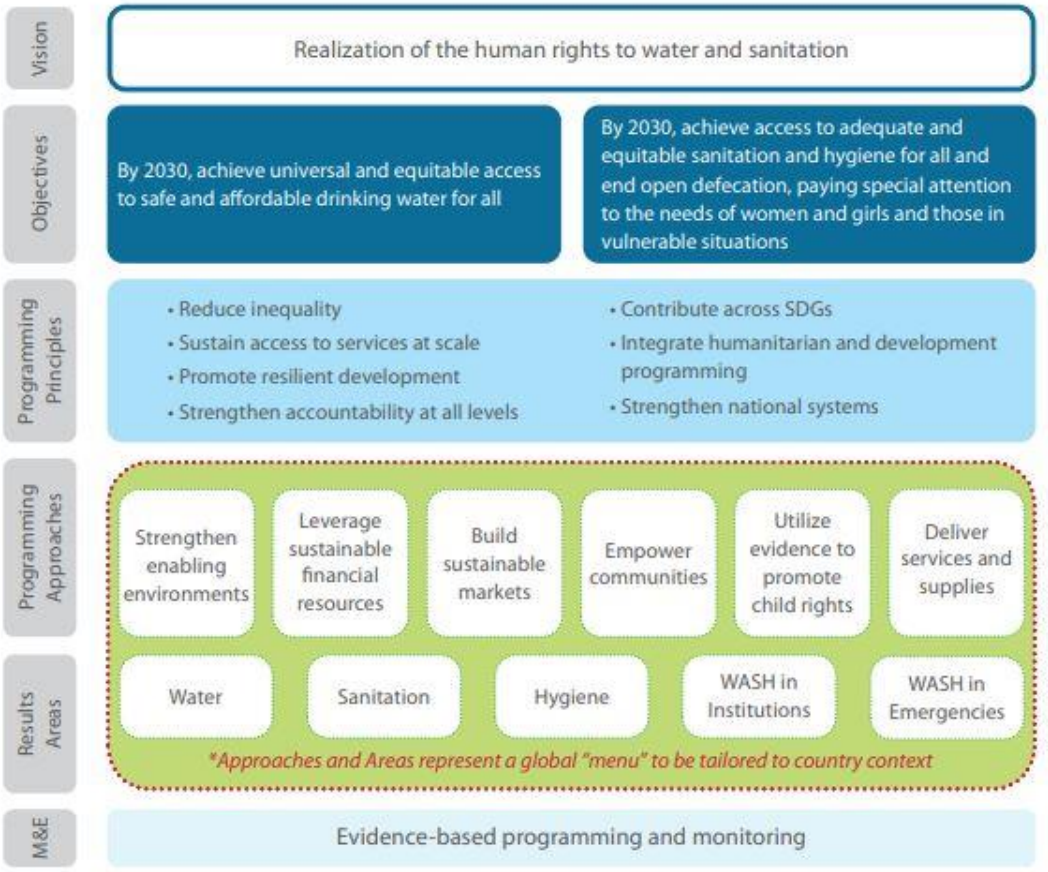
Issues around water, sanitation and hygiene (WASH) still pose a great challenge to many countries across the globe. The importance of WASH is reflected through Sustainable Development Goal (SDG) 6: "Ensure availability and sustainable management of water and sanitation for all"[7]. Targets 6.1 and 6.2 state that "by 2030 to achieve universal and equitable access to safe and affordable drinking water and sanitation for all". Worldwide, 29 per cent of people do not use a safely managed drinking water source and 55 per cent do not use a safely managed sanitation facility[8]. As well, sanitation coverage is low in many countries and millions of people are still engaged in the practice of OD. Gains in water supply coverage are unevenly spread; water quality is not assured, water scarcity is a growing problem, and the sustainability of WASH systems continues to pose challenges. The destructive impacts of climate change and emergencies are an increasing threat to water and sanitation systems and are contributing to disparities in access. Vulnerable groups including isolated communities, poor HHs, people with disabilities, and in particular women and girls, bear the brunt of inadequate WASH services[9].

UNICEF's approach to WASH is presented in the Global WASH Strategy 2016-2030, which presents how UNICEF intends to contribute to the achievement of the SDGs. Inherent in UNICEF's mandate and Programming is a focus on children (particularly the most vulnerable children) as a means to improve equity and equality, with an explicit emphasis now on human rights to water, sanitation and safely managed services in line with SDG 6.

7 https://sustainabledevelopment.un.org/sdg6
8 UN WATER, https://www.sdg6data.org/
9 https://www.unicef.org/wash/files/WASH_Strategy_2016_2030_Executive_Summary.PDF

The 2016-2030 strategy follows the 2006-2015 strategy which offered three distinct packages of support for WASH: basic, comprehensive and emergency, and was based on a balanced WASH Programme having three interdependent pillars of interventions to increase safe water and sanitation coverage, the promotion of behavioral change, and support of an enabling policy and institutional environment. The 2016-2030 WASH strategic framework, Figure 1, indicates that UNICEF will focus on five results areas: water, sanitation, hygiene, WASH in institutions, and WASH in emergencies. The actual scale, scope and nature of interventions in each of the five intervention areas will be based on specific contexts, needs and capacities of key stakeholders. Underpinning the focus on each of these five areas is UNICEF's core accountability to act where children do not have at least a basic level of service within each of the results areas. This is reflected in a series of seven stated 'Programming principles' and six Programming approaches.

Figure 1: 2016-2030 WASH strategic framework



1.1.2 WASH Programme – National Context

With a population of 192 million[10], Nigeria is the most populous country in sub-Saharan Africa. It also ranks as one of the top three countries in the world in terms of the numbers of people living without access to safe water and sanitation[11], and ranks second, after India, for the number of people practicing OD[12]. While

10 WASHNORM 2018
11 Based on an analysis of 'Drinking water, sanitation and hygiene, UNICEF, June 2019' (https://data.unicef.org/topic/water-and-sanitation/drinking-water/). Statistic also stated by UNICEF Nigeria in Terms of Reference
12 The Premium Times; 25th June 2019. https://allafrica.com/stories/201906260010.html

Nigeria met the MDG targets for water, it did not meet the sanitation targets, and the country has seen an overall decline in access to sanitation[13]. Meanwhile, the SDGs feature more ambitious targets for water and sanitation, aiming for higher quality service levels than the MDG targets.

According to WASH NORM data from 2018, 68 per cent of the population nationally have access to basic water supply, and progress towards achievement of universal and equitable access to basic water supply has been slow. Only 19 per cent of the national population use safely managed sanitation services and 30 per cent are still practicing OD in rural areas, compared to 11 per cent in urban areas[14]. Unless this problem is effectively addressed, the current number of people still practicing OD is predicted to increase over the next ten years in line with population growth trends. This is problematic for the population for various socio-economic reasons.

First, poor access to improved WASH contributes to high rates of morbidity and mortality for children under five as it increases their vulnerability to waterborne diseases; 45,000 deaths amongst children under five occur every year in Nigeria due to poor WASH habits[15]. When drinking water is contaminated, consumption can cause a variety of waterborne diseases such as dysentery, diarrhea and cholera. Inadequate access to clean water and proper sanitation therefore increases the risk of a range of health problems for both children and adults alike in Nigeria, but young children are particularly vulnerable due to their less developed immunity. Perpetuating this are the levels and quality of WASH facilities in health care facilities in Nigeria. A 2019 Joint Monitoring Programme (JMP) report indicates the average rural HCF had only one toilet for patients and these are not always clean[16].

Second, the lack of access to sanitation and hygiene facilities in schools is also a problem and sometimes has a stronger negative impact on girls than on boys[17]. It is widely accepted that attendance and academic performance, especially amongst girls, are influenced to a great extent by the availability, accessibility and quality of sanitation facilities[18]. Nigerian WASH NORM data from 2019 shows that only 16 per cent of schools have basic water and sanitation facilities, and that when basic hygiene is taken into account this decreases to just 7 per cent. Only 11 per cent have separate facilities for girls with provisions for menstrual hygiene management. Literature states that sick children lack the energy and ability to be active learners in the classroom since their attention is hindered, and ultimately a lack of access to improved sanitation in schools means a low-quality learning environment for millions of children in rural areas.

Third, women and girls are often more adversely affected through lack of WASH due to the burden of collecting water often falling on them[19]. In the context of the humanitarian crisis in North-Eastern Nigeria, assessments and studies have highlighted the links between emergency WASH Programming with human rights and gender, including heightened risks of sexual and gender based violence (SGBV), safety, privacy and dignity[20]. Generally, for the Nigerian WASH context though, wide disparities persist across zones and within states, especially those living in the lowest quintiles, which aggravates the situation and leaves more children and women vulnerable to sickness and poverty.

The problem of low coverage is coupled with weak sustainability, mainly resulting from lagging human resource capacity and low sector budgetary allocations for investments and operational costs[21]. Disparities

13 National Outcome Routine Mapping of Water, Sanitation and Hygiene Service Levels Nigeria: Summary of Survey Findings 2018.
14 WASHNORM
15 Terms of Reference of Final WASH Programme Evaluation
16 JMP WASH in Health Care Facilities 2019
17 WHO (2009) Water, sanitation and hygiene standards for schools in low-cost settings. Available from: https://www.who.int/water_sanitation_health/publications/wash_standards_school.pdf
18 Olukanni, D. 2013. Assessment of WASH Programme in Public Secondary Schools in South-Western Nigeria
19 Graham, J.P. et al. (2016) An Analysis of Water Collection Labour among Women and Children in 24 Sub-Saharan African Countries. PLoD One 11 (16).
20 Reliefweb. Minimum Standards on Gender.
https://reliefweb.int/sites/reliefweb.int/files/resources/122016_nga_minimum_standards_on_gender_age_wash_prog.pdf
21 MICS 2017.

in access to clean water and sanitation exist across sub-national levels, geographically, across urban and rural populations and among wealth quintiles.

A review of progress of the National Rural Water Supply and Sanitation Programme (RWSS), which ended in 2015, showed that while there had been an increase in access to water from 25 per cent in 1990 to 57 per cent there had been a decrease in access to improved sanitation from 38 per cent in 1990 to 25 per cent[22] in 2015 in rural areas. The Government of Nigeria recognized that in order to effectively address current and increasing demands a renewed approach was needed that would be significantly greater than its current Programming. To this end it has developed a Partnership for Expanded Water Supply, Sanitation and Hygiene (PEWASH) Programme Strategy that would bring all organizations working in WASH together to work towards achieving the SDG 6 targets by 2030.

The PEWASH Programme strategy has five major actions that are critical to addressing the challenges:

1- Rollout of the national Programme on PEWASH aimed at achieving the SDGs on universal access to water, sanitation and hygiene in rural areas.
2- Implementation of the National Open Defecation Free (ODF) Roadmap to eliminate OD in Nigeria with emphasis on scaling up strategies for behavior change communication, quality assurance (QA), sanitation marketing and financing for poor HHs.
3- Support the implementation of sub-national (state) ODF roadmaps.
4- Prioritizing rehabilitation of existing water and sanitation facilities with a focus on empowering communities and strengthening supply chains.
5- Scaling up WASHIMS across the country (the initial target is to reach 30 per cent of local government authorities in 2017) to better identify and target resources to improve coverage for vulnerable groups. Establish a sector learning and monitoring hub within the Ministry of Water Resources.

1.2 Purpose of the Programme

WASH is a subcomponent of the child survival Programme component as per UNICEF Nigeria's 2014-2017 Country Programme, which aims to increase access to and use of water sources, sanitation facilities and hygiene practices, particularly among vulnerable communities. The Programme promoted low cost, community-based approaches such as community led total sanitation (CLTS) and VLOM while also emphasizing the importance of child and gender friendly WASH facilities in schools and health care facilities. The purpose of the 2014-2017 WASH Programme was to:

1 increase the percentage of people with access to improved sanitation from 31 per cent (baseline) to 74 per cent (target) by 2017.
2 Increase the percentage of HHs with access to improved water supply from 58 per cent (baseline) to 90 per cent (target) by 2017.

The purpose of the proceeding Programme for 2018–2022 was to support the government in implementing the PEWASH, as described in Section 1.1, to ultimately end OD in the country by 2025 and provide access to basic water supply and sanitation to all rural inhabitants by 2030.

UNICEF has thus been working with the Government of Nigeria and its cooperating partners to address the challenges described in Section 1.1, through increasing access to and use of improved water sources, sanitation facilities and hygiene practice. Outside the temporal scope of the evaluation, the 2018-2022 Programme specifies four priority areas of (i) Sector-wide scaling up of data management and evidence

[22] JMP 2015. Figures taken from 'Partnership for Expanded Water Supply, Sanitation and Hygiene (PEWASH) Programme Strategy 2016 – 2030. Federal Government of Nigeria, Federal Ministry of Water Resources.

generation; (ii) Sustainability of WASH systems; (iii) Ending OD and increasing improved sanitation access; and (iv) Water safety planning. It intends to:

1- Decrease the proportion of the population practicing OD from 25 per cent (baseline) to 12 per cent (target) by 2022.
2- Increase the proportion of people using basic drinking water from 69 per cent (baseline) to 76 per cent (target) by 2022
3- Increase the number of schools and health care facilities with functional gender sensitive WASH facilities from 28 per cent (baseline) to 35 per cent (target).

The evaluation notes that, whilst the scope of this evaluation is 2014-2017, the four contributing DFID and EU projects sometimes pre-date this time period or exceed it.

1.3 Theory of Change (ToC)

A simplified ToC for the UNICEF WASH 2014-2017 Programme, Figure 2, was provided in the ToR and explains how activities are understood to produce a series of results that contribute to achieving the intended or observed impacts. In this situation, it is that increased access to community managed water and sanitation facilities operating in the context of a strengthened and improved institutional operating environment for LGA and state WASH will lead to improved health (reduced mortality and malnutrition) through a reduction in waterborne disease. Each activity shown in Figure 2 covers various specific interventions as listed in Section 2.4, comprising a mixture of both upstream and service delivery work. The underlying logic is that inputs in terms of human/financial resources, systems and processes (such as the donor funding) are both adequate and appropriate for conducting the various activities (such as rehabilitation of water points) and lead to outputs which have an effect in a community (such as increased access to improved water sources). If this is sustained through regular use, then an outcome would be behavior change and this should lead to a higher-level impact in the long term such as reduction in waterborne diseases and improved health.

This ToC was used to guide the theory-based evaluation approach, and more information can be found in Section 3.1 related to evaluation design.

1.4 Components

The four components of the 2014-2017 WASH Programme, around which is this evaluation is focused, are as follows:

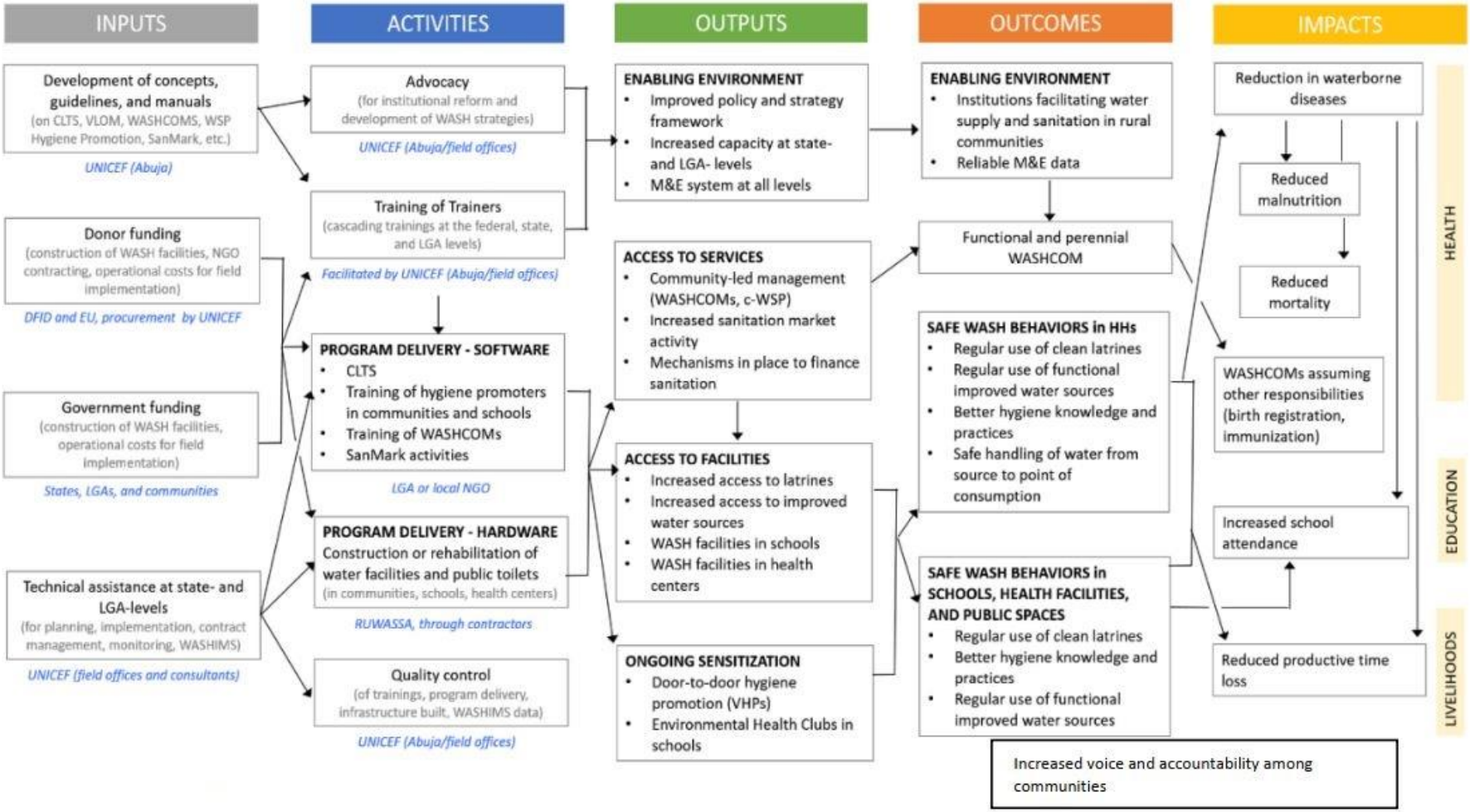
1- Sanitation, Hygiene and Water in Nigeria Project II (SHAWN II)
2- Water Supply Sanitation Sector Reform Programme II (WSSSRP II)
3- Water Supply Sanitation Sector Reform Programme III (WSSSRP III)
4- Niger Delta Support Programme (NDSP)

An overview of the projects, including their geographical coverage, timelines, financing and individual project objectives is presented in Table 1. The four projects have similarities focused on institutional strengthening to deliver comprehensive WASH interventions expected to improve health and livelihoods. The difference in each of the Programmes lies in the emphasis given to individual components of WASH. The three EU funded projects (NDSP, WSSSRP II & III) were primarily focused on sector reform while the DFID SHAWN II was focused on behavior change to drive sustainable sanitation. As well, the NDSP had a broader objective of conflict resolution, peacebuilding and social cohesion, and had a specific focus on the Delta region of the country.

SHAWN II is the successor for SHAWN I, a DFID funded Programme that was being delivered by UNICEF between 2014-2018 and has been extended to 2020. It focuses on a CLTS approach to encourage rural communities to end open defecation and adopt hygienic practices, alongside rehabilitating existing water points or constructing new ones where necessary. It focuses on eight states. Four of these were from SHAWN I (Bauchi, Benue, Jigawa and Katsina), two were added at inception in 2014 (Kaduna and Zamfara), and two more in 2018 upon the project's extension (Kano and Yobe)[23]. These eight states comprise 104 LGAs and Programme activities are being implemented in all of them, mainly through RUWASSA and LGA staff[24.] The Programme intends to reach 9.5 million people with a safe and reliable water supply and improved sanitation by the extension deadline of March 2020. The Programme has six targets: sanitation, hygiene, water, governance, social entrepreneurship, and sector coordination. A seventh target focusing on WASH in emergencies/conflict affected areas was added partway through the Programme. The challenge of this Programme is to deliver WASH benefits in a complex federal system (with responsibilities for WASH divided amongst federal, state and local governments), a testing security environment in Northern Nigeria, and limited state and local government resources. Phase I of SHAWN has demonstrated significant results and benefits and Phase II provides a valuable opportunity to build on this experience.

[23] SHAWN II 2018 Annual Report
[24] SHAWN II Intro and progress 2018 Power point

Figure 2: Simplified ToC



WSSSRP II was delivered between 2012-2018 and extended to 2019. It was designed to follow on from the previous WSSSRP I working in six focal states: Anambra, Cross River, Jigawa, Kano, Osun and Yobe. UNICEF has implemented the rural component of this in communities and schools spanning 39 LGAs across the states. Activities focus on capacity development and building improved systems in rural water and sanitation sector institutions. The focus of Phase II is to consolidate the gains from Phase I and address identified gaps. The overall objective is to increase access to safe, adequate and sustainable water, sanitation and hygiene, and provide between at least 1.5 and 3 million people with access to safe water supply and basic sanitation and hygiene[25]. It was granted a one year no-cost extension taking it to May 2019. Phase II is implementing activities such as upgrading WASH units and WASH departments in LGAs, providing capacity building for rural water and sanitation institutions at the state and LGA level, and developing the capacity at community-based institutions to effectively own and manage their WASH facilities. UNICEF's engagement is considered a strategic contribution to the ongoing efforts towards achieving the water-related goals under SDG 6. At the end of its sixth year in July 2018, UNICEF had achieved 72 per cent of the project targets in terms of water supply and 109 per cent in sanitation.[26]

The Rural Water Supply and Sanitation Project under WSSSRP Phase III began in 2013 and aimed to improve rural water and sanitation sector governance in three project states: Adamawa, Ekiti and Plateau. This was done by providing technical assistance and capacity development to sector institutions and agencies responsible for rural water and sanitation service delivery[27]. The project also aimed to contribute to increased access to safe water, and improved sanitation and hygiene practices in rural communities while supporting the development and strengthening of monitoring and evaluation systems. UNICEF has been promoting institutional reforms and strengthening the capacity of rural water and sanitation agencies in the three states to deliver improved WASH services as well as conducting advocacy initiatives, capacity building (including for CLTS) and helping to develop water safety plans (WSPs)[28].The challenge for this Programme has been weak institutional arrangements, absence of a regulatory framework, inconsistency in the implementation of policies, inadequate data, and effective us of funding, as well as inadequate maintenance and sustainability plans.

The NDSP was delivered over 2012-2017 with an extension to 2020, with the overall objective of helping mitigate the conflict in the Niger Delta by addressing the main causes of unrest and violence, namely bad governance, youth unemployment and poor delivery of basic services[29]. It is being implemented in five states: Akwa Ibom, Bayelsa, Delta, Edo, and Rivers, and it covers 17 LGAs[30] across these states. The rural component of the NDSP, which linked to the poor delivery of basic services, was implemented by UNICEF and aimed to support the institutionalization of RUWASSAs in the five states and provide support to WASH sector institutions to enable them to fulfil their mandates[31]. Specifically, local capacities were improved through mentoring mechanisms and training to sustain service delivery. Capacity support to CLTS approaches, community hygiene interventions, and the formation of environmental health clubs (EHC) for schools were also included. There was an emphasis on the participation and involvement of local communities, especially women, in the development and operation and maintenance (O&M) of WASH facilities. Other key interventions included the building of opportunities for cross-learning among communities through improved knowledge management and learning alliances during WASH clinics[32].

While the NDSP project had similar features to the WSSSRP projects it was focused on the wetland and riverine areas of the Niger Delta region of Nigeria. Human rights and good governance were also recognized as critically important objectives in this context.

25 Rural Component of the Water Supply and Sanitation Sector Reform Project Phase ii – revised logical framework
26 WSSSRP II 6th Report 16 July 2018. Narrative and financial progress report.
27 WSSSRP III 5th year narrative and financial progress report. 7 May 2018
28 WSSSRP III Progress report. May 2017
29 NDSP Indicative Log frame Final Nov 2012.
30 NDSP. 7th year work plan (Nov 2018 – Oct 2019)
31 NDSP 6th year progress report. Nov 2018.
32 NDSP 6th year progress report. Nov 2018.

1.5 Programme Beneficiaries

The beneficiaries of the WASH Programme 2014-2017, as per the country Programme document (CPD), are vulnerable children and their families, specifically women and girls and those living in rural areas. More specific beneficiaries of the four projects include state and local governments, due to the institutional strengthening element of the Programmes as well as communities and HHs within LGAs.

1.6 Stakeholders

The main stakeholders involved in the UNICEF 2014-2017 WASH Programme are UNICEF Nigeria (both WASH and other sections), the Government of Nigeria at all levels (federal, state and LGA), DFID and the EU. Further insight into their roles and how the evaluation will be useful for them is provided in in Section 2.6.

Table 1: Overview of projects

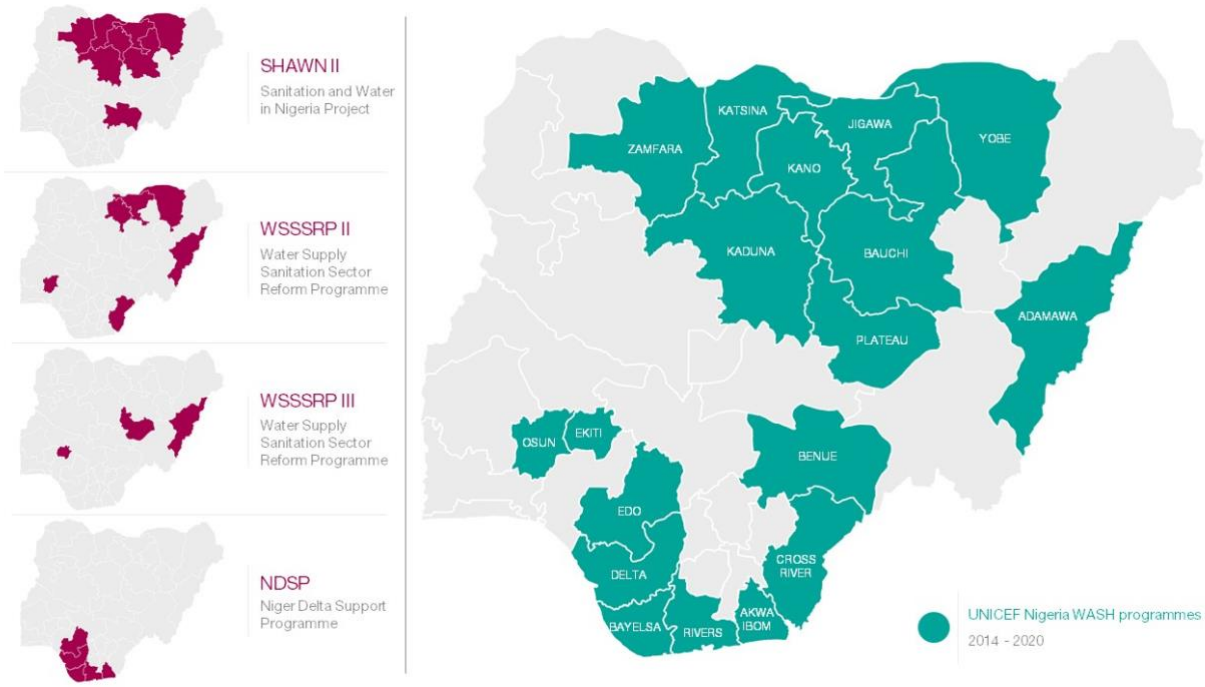
	DFID		EU	
	SHAWN II	**WSSSRP II**	**WSSSRP III**	**NDSP**
Geographical coverage	104 LGAs in 8 states (Bauchi, Benue, Jigawa, Kaduna, Katsina, Zamfara, Kano and Yobe)	20 LGAs, 6 states (Yobe Anambra, Cross River, Kano, Jigawa, Osun)	8 LGAs in 3 states (Adamawa, Ekiti, Plateau)	17 LGAs in 5 states (Akwa Ibom, Bayelsa, Delta, Edo and Rivers)
Timeline	2014-2018. Extended to March 2020 when Kano and Yobe were added and now extended to December 2020.	2012-2018, extended to 2019	2013-2018, extended to 2020	2012-2017, extended to 2020
History	Preceded by SHAWN I: 2010-2013, in 20 LGAs in 4 states	Preceded by WSSSRP I same LGAs	Preceded by WSSSRP II	NA
Financing[33]	Total DfID contribution of £89.77m (US$117.47m)	Total EU contribution of €30m (US$33.07m)	Total EU contribution of €14.25m (US$15.7m)	Total EU contribution of €20m (US$22.05m)
Project Objectives	**Output 1**: 10 million men, women & children have access to appropriate & safe sanitation. **Output 2**: 14.5 million men, women & children participated in hygiene promotion, reducing exposure to public health risks. **Output 3**: 11.5 million men, women & children have access to safe, reliable water supply. **Output 4**: RUWASSA, LGA Water Depts participated in training & provided support to men, women and children on WASH[34] **Output 5**: Social enterprise development: increased market activity by non-state actors in at least two States. **Output 6**: Strengthened capacity, coordination, funding at all government levels. **Output 7**: Strengthened govt capacity for emergency preparedness & response to 1 million affected people in SHAWN states & north east.	**Output 1**: At least 1.5 million additional people in the rural communities of six EU focal states have access to safe water supply. **Output 2**: At least 3 million additional people in the rural areas of the six EU focal states have access to basic sanitation and proper hygiene. **Output 3**: WASH departments established in LGAs in EU focal states and are supporting water supply and sanitation in rural communities.	**Output1**: 0.5 million people with access to safe water supply. - 1 million people with access to basic sanitation and proper hygiene. **Output 2**: 60 primary schools with safe gender-sensitive and inclusive WASH facilities. **Output3**: All LGA WASH units upgraded to WASH departments.	**Output 1**: 0.6 million people with access to safe water supply. **Output 2**:1.4 million people with access to basic sanitation and proper hygiene. **Output 3**:200 schools with safe water facilities, toilets, and practicing handwashing. **Output 4** All LGA WASH units upgraded to WASH Departments. **Output 5**: To establish a state level monitoring and evaluation (M&E) Integrated with the national M&E system.

[33] (Exchange rates as of January 2020: 1 GBP = 1.309 USD; 1 EUR = 1.102 USD)
[34] This Output appears to be written as an activity. However, in terms of engaging the RUWASSAs and getting them to support capacity development and training at community level it can be seen as an output with a potential link to Output 6.

1.7 Geographical Coverage

UNICEF's WASH Programme for 2014 – 2017 covered 18 of Nigeria's 36 states and the Federal Capital Territory (FCT)[35]. Figure 3 shows the coverage and extent of UNICEF WASH Programming across Nigeria.

Figure 3: Coverage of UNICEF WASH and of the four component projects



[35] The Federal Capital Territory is not officially designated as a separate State and is administered by the Federal Government

Chapter 2: Evaluation Purpose and Scope

2.1 Evaluation Purpose

The purpose of this evaluation is twofold: to seek to contribute to both learning and accountability. To address accountability the evaluation assessed the extent to which the Programme fulfilled its objectives as per project documentation developed and agreed to with donors. The evaluation findings will also be used, through the dissemination of the findings and conclusions, to provide accountability to the communities who were expected to benefit from the Programme. With regards **to** learning, the evaluation intends to inform UNICEF Nigeria's current and future work to support better WASH services for children and their communities. Findings and conclusions will be also be used by the EU and DFID. In addition, the findings, conclusions and recommendations will be used at local and regional levels both within UNICEF country and regional offices and amongst other development partners. The evaluation will provide critical learning to inform and where appropriate refine Programming modalities in the future.

2.2 Evaluation Objectives

The objectives of the evaluation, as per the ToR and the inception report are:

1- To determine the intended and unanticipated impacts of key WASH interventions on the incidence of diarrheal diseases, nutritional status among children under five, education enrolment and attendance levels, sanitation, and hygiene behavior among targeted populations. Behaviors the Programme is expected to contribute to include the consistent use of improved sanitation and hand-washing facilities.
2- To analyze how the combination of Programme strategies and supporting activities contributed to the observed changes.
3- To identify strengths and weaknesses in the Programme implementation, with a focus on the main Programmatic strategies and partnerships used.
4- To identify recommendations that will aid UNICEF in optimizing future implementation and upscaling.

2.3 Significance of the Evaluation

This evaluation is happening at a critical time in progressing towards the 2030 SDGs. Despite substantial achievements there are still large numbers of people who do not have access to safe water and sanitation or hygiene practices. It is clear that in order to achieve the objectives of the Nigerian government which, through its PEWASH Strategy, aims to eliminate OD by 2025 and achieve 100 per cent access to rural water supply and improved sanitation by 2030, substantial progress is needed at both upstream and downstream levels (e.g. a mix of institutional strengthening/capacity building and hardware service delivery).

2.4 Evaluation Scope

The evaluation focuses on the four projects funded by DFID and the EU, which form part of UNICEF Nigeria's WASH Programme in the 2014-2017 strategic period. The evaluation covers all the activities conducted under these Programmes within this time period, yet it is noted that the timelines for all the projects are slightly different and some have received no cost extensions. Interventions in the following states are within the thematic scope of the evaluation[36]:

[36] The intervention States of Yobe (SHAWN II) has been excluded. This is primarily because work has only recently started and security concerns.

1- DFID SHAWN II – Benue, Bauchi, Jigawa, Katsina, Kaduna, and Zamfara
2- EU (WSSSRP II/III, NDSP) – Akwa Ibom, Bayelsa, Delta, Edo, Rivers, Anambra, Cross River, Kano, Jigawa, Osun, Adamawa, Ekiti and Plateau

The following activities and strategies are included within the Programmes, and will be considered during the evaluation:

Community level:

- CLTS pre-triggering and triggering
- Establishment and training of WASHCOMS
- Selection of voluntary hygiene promoters (VHPs)
- Training of VHPs
- Water points rehabilitation/construction
- Training of local area mechanics (LAMs)
- WSPs
- Sanitation marketing (SanMark)

Schools:

- Water point rehabilitation/construction
- Construction of ventilated improved pit latrines (VIPs)
- Training of pupils in group handwashing
- Training of teacher, parent-teacher association (PTA) and school based management committee (SBMC) in establishment and operations of environmental health clubs

Health facilities:

- Water point rehabilitation/construction
- Construction of VIPs

2.5 Evaluation Criteria and Questions

The ToR outlined the OECD DAC criteria – relevance, impact, effectiveness, efficiency, and sustainability – which this evaluation used, along with a sixth cross-cutting criteria of gender and equity. The ToR provided a set of recommended evaluation questions to align with these criteria as shown in Table 2.

Table 2: Evaluation criteria and questions

Evaluation criteria	Evaluation questions
Relevance Assess implementation fidelity and design relevance. The extent to which the Programme is suited to the priorities and	R1: To what extent were the Programme interventions (strategies and activities) consistent with the overall goal and the country/state/LGA priorities?
	R2: To what extent were the results of the past Programme valid?
	R3: To what extent were activities and outputs of the Programme consistent with expected results?
	R4: To what extent were the expected results of the Programme clearly defined?

Evaluation criteria	Evaluation questions
policies of the (target) population.	R5: To what extent were lines of accountability between UNICEF and implementation partners/donors clearly defined? If clearly defined, how well were they respected in reality?
Effectiveness Assess whether the intended results of the Programme at outcome level have been achieved and why/why not.	E1: What are the factors that either enabled or undermined Programme implementation fidelity?
	E2: To what extent were the implemented activities consistent with the Programme design?
	E3: To what extent did the Programme key stakeholders have a clear understanding of their respective roles and responsibilities?
	E4: To what extent were the Programme key activities managed as intended and to what extent did the available (support) systems work well?
	E5: What were the specific barriers (if any) that hindered the successful implementation of the envisaged Programme activities?
	E6: For each one of the identified barriers what are possible solutions to overcome them?
	E7: To what extent have intended results at outcome level been achieved and why/why not?
	E8: What is the effect of the WASH Programme on improved hand washing in targeted communities?
	E9: What is the effect of the WASH Programme regular use of clean latrines in target communities?
	E10: What is the effect of the Programme on better hygiene knowledge and practices?
	E11: What is the effect of the Programme on safe handling of water-sources to point of consumption?
	E12: To what extent has the Programme contributed to institutional reform/improvement at state/LGA levels?
	E13: To what extent has the Programme contributed to improved capacity at state/LGA and community levels?
	E14: To what extent has the Programme contributed to WASHCOMS assuming non-WASH responsibilities (birth registration, immunization)?
	E15: To what extent has the WASH Programme supported and influenced the participation of women in decision making?
	E16: To what extent did the WASH Programme address the specific capacity needs of female WASHCOM members to voice and address women's and girls' concerns? (Can this question a sub of QE15?)
Efficiency Assess the extent to which the relationship between inputs and outputs is timely, cost effective and to expected standards.	Ey1: To what extent were the WASH Programme financial resources, human resources and supplies adequate in terms of quality?
	Ey2: To what extent were the WASH Programme financial resources, human resources and supplies sufficient in terms of quantity?
	Ey3: To what extent were the WASH Programme financial resources, human resources and supplies timely in deployment and delivery?
Impact Assesses the positive and negative, primary and	I1: To what extent did the integration of WASH into other sector interventions (health, nutrition[37], education) lead to the anticipated impacts as well as other unexpected/unanticipated long-term results in the targeted areas?

[37] See table in Section 6 Evaluation Criteria of the Terms of Reference (page 8).

Evaluation criteria	Evaluation questions
secondary long-term effects produced by the intervention, whether directly or indirectly, intended or unintended.	I2: To what extent has the Programme contributed to reduction in the incidence of diarrheal diseases among boys and girls under the age of five?
	I3: To what extent has the Programme contributed to a change in the school enrolment and attendance rate among boys and girls?
	I4: To what extent has the Programme contributed to a change in malnutrition among children under the age of five?
	I5: To what extent has the Programme contributed to a change in hand-washing practices?
	I6: To what extent has the Programme contributed to unexpected positive impacts in any of the four identified areas (health, education, nutrition and WASH)?
	I7: For each one of the observed impacts (expected and unexpected, positive/negative) what are the factors (internal/external to UNICEF) that contributed to them most?
	I8: To what extent has the Programme addressed the specific needs and interests of women and girls in WASH, for instance in relation to (i) water collection and water management; and (ii) safe and dignified hygiene in communities, schools and health facilities?
	I9: To what extent has the WASH Programme influenced a change/increase in community voice and accountability? If a change took place to what extent did it address gender inequalities and help advance the voice of women on WASH-related issues within the community?
	I10: To what extent have communities understood their rights to WASH services from authorities?
	I11: To what extent has communities' capacity to engage with the state government increased as measured by their level of rights awareness or budget literacy for WASH?
	I12: To what extent has the change in community voice led to an increase in access to WASH services or resources or responsiveness from authorities?
Sustainability Assess the extent to which outputs, outcomes and impact have persisted or are likely to persist during a significant time period (more than one or two years) after external technical and financial support has ended.	S1: To what extent have the Programme service delivery models and the interventions continued to be looked after by communities with support from government/authorities/implementing partners after the initial investment?
	S2: To what extent do men and women in the communities understand and implement their role to maintain WASH installations after they are provided?
	S3: To what extent have the communities taken advantage of existing local area mechanics and spare part vendors to maintain water facilities?
	S4: To what extent do communities understand the referral process for village level operation and maintenance?
	S5: To what extent does the LGA VLOM unit respond to maintenance cases referred to it?
	S6: To what extent have government partners reflected WASH services in budget allocations?
	S7: To what extent have HHs in communities been able to replace and/or upgrade their sanitation facilities long after the triggering process and initial change behavior?
Gender and Equity	G1: To what extent has the Programme incorporated considerations of gender equality and the empowerment of women and girls into the extent, design, implementation and monitoring of interventions?

Evaluation criteria	Evaluation questions
Assess the extent to which WASH interventions have not only identified disparities in access to and use of safe water and sanitation but have provided solutions to remove the existing barriers and close such gaps, especially among the most vulnerable, including adolescent girls and women.	G2: To what extent was a human rights based approach integrated into the Programme design and implementation?
	G3: To what extent did the Programme target the poorest and help reduce inequalities between the wealthier and poorer groups?
	G4: To what extent were the barriers (and their causes) to access basic services in the WASH areas in the targeted LGA's identified and addressed as part of the overall Programme strategy priorities?

2.6 Evaluation Stakeholders, Roles and Possible Uses

The evaluation team notes the importance of utility and sought to ensure that the evaluation will be of use to intended users and stakeholders. Table 3 specifies how the evaluation will be of use to each identified stakeholder as per the ToR.

Table 3: Stakeholders and evaluation use

Stakeholders	Evaluation Use
UNICEF WASH	Learning and improvement of the current Programme as well as fulfilling accountability requirements.
UNICEF Health and Education	Learning of how WASH contributes to education and health and how synergies/convergent strategies can be used to achieve desired results.
Government Institutions at federal, state (RUWASSA) and LGA level WASH depts/units).	Lessons from the four projects can be applied to the wider WASH Programme in Nigeria. The evaluation will help shape the effectiveness of government policies and will help demonstrate how policies translate into action and how those actions bring about improvement in the lives of citizens. This further informs future policies, planning and budgeting.
European Union delegation and DFID in Nigeria	This is part of aid/development effectiveness. The evaluation will help show if the intervention is still relevant within the context, is contributing to both national and human development and if the approaches are effective. The evaluation will also help structure future DFID- and EU-funded WASH Programmes.
Implementing partners of UNICEF (Non-Governmental Organization (NGOs) and CSOs).	Learning, particularly of which strategies and implementation modalities are more effective to achieve desired results. The evaluation will enhance the implementing capacity of implementing partners.

2.7 Changes to the Terms of Reference

A specific challenge for this evaluation has been how to assess the Programme's contributions to reducing malnutrition (unanticipated impact question[38]). Following a specific request from the Steering Committee - UNICEF, DFID, EU and the Government of Nigeria Federal Ministry of Water Resources (FMWR) - the IOD PARC evaluation team were asked to include the collection of data using anthropometric measures. This request was based on the statement in the ToR: *"It should be noted that in terms of impact, the evaluation will strive to address evaluation questions related to the anticipated impacts but will make special effort to answer the questions about unanticipated impacts, provided the conditions to do so are present, to serve the information needs of both UNICEF and the donors".*

Following the inception visit at the end of January 2019 the possibility of collecting anthropometric data was carefully researched and considered as discussed in Inception Report[39]. Extensive discussions were held between UNICEF and IOD PARC with relevant technical and sectoral specialist support. The conclusion of UNICEF, DFID, the EU and FMWR was that it was essential to include the collection of anthropometric data as part of the quantitative study.

UNICEF and the steering committee members agreed that the collection of anthropometric data would also provide the baseline for the next phase of WASH Programming. There was also agreement that such data could provide helpful insights alongside the collection of other qualitative data already planned.

In agreement with UNICEF, two reality check studies aimed at providing additional qualitative evidence were removed from the qualitative field work. Removing these activities was necessary given the additional HH surveys that had to be conducted as discussed in Section 3.6. It was envisaged that removing the reality check studies would impact least on the work plan and would not significantly impact the achievement of the objectives and deliverables of the evaluation.

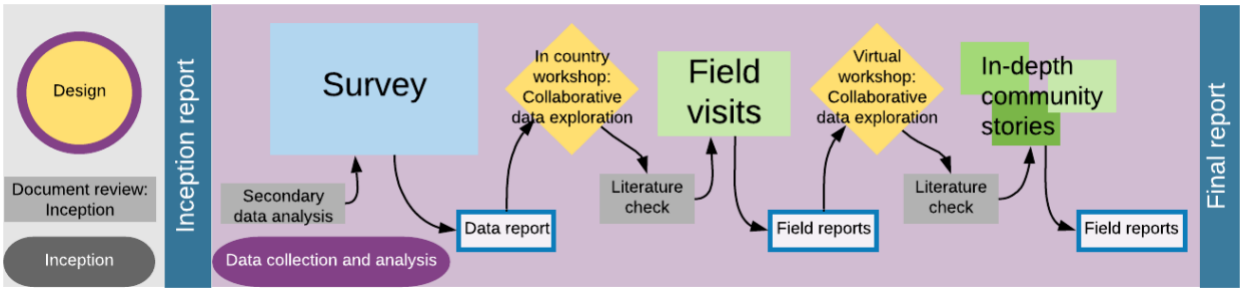
[38] Terms of Refence; Section 6: Evaluation Criteria table on OECD DAC Criteria. page 8
[39] Inception Report March 14th 2019: Section 1.1, page 6-7 provides a detailed overview.

Chapter 3: Evaluation Design and Methods

3.1 Evaluation Design

The evaluation comprised three main phases: i) inception; ii) data collection; and iii) reporting and communication of results as per Figure 4.

Figure 4: Phases of the evaluation



In order to adequately address the research questions presented in Table 2, the evaluation was designed to draw on both primary and secondary data through mixed methods, quantitative and qualitative. Quantitative data collection was based on a HH survey that included anthropometric measurements. This was followed by qualitative interviews with stakeholders at national, state, LGA and community levels. Further detail about the data collection tools can be found in Section 3.2.

A theory-based approach was utilized during this evaluation, based on the ToC presented in Figure 2 of Section 1.3 to help understand what elements of the Programme worked. This was done by assessing the changes brought about by the different interventions of the Programme and exploring why and how these worked.

3.2 Evaluation Methods

3.2.1 Document review

During the inception phase, a range of documents provided by UNICEF Nigeria were reviewed against the questions in the evaluation matrix attached as Annex A. The document review helped to frame the evaluation and allowed the evaluation team to identify gaps and focus areas for primary data collection.

Documents reviewed included UNICEF CPDs and annual reports, Programme documentation and reports from the four EU and DFID focal projects, along with various manuals and protocols developed as part of the Programme. During the evaluation, particularly during the country visit, further documents were provided to the evaluation team for systematic review. National data sets such as the Multiple Indicator Cluster Survey (MICS) 2016-2017 were also reviewed, in addition to baseline surveys when they existed[40]. A full list of documents reviewed is presented in Annex B.

[40] Baseline data sets were available regarding water supply health facilities and educational facilities was available for the EU projects only.

3.2.2 Quantitative data collection: Household Survey

Quantitative data were collected using questionnaire surveys and spot-check observation of WASH facilities in homes and institutions. For this, the evaluation utilized a cross-sectional study design with an intervention and comparison (control) arm. Survey tools included a household survey, schools survey, WASHCOMs survey and health care facilities survey.

The selection of states to visit was purposive, based on the criteria of active participation in the WASH Programme 2014–2017 and receiving the intervention for a minimum of three years. The objective was to select states where Programme involvement had been longest, including states involved in DFID-funded SHAWN I (subject to the first criteria).

In each selected state, intervention and control LGAs were selected randomly. In the DFID-funded states, four intervention and one non-intervention LGA were selected per state, and in the EU-funded states, two intervention LGAs and one non-intervention LGA were selected. The EU intervention covered fewer LGAs, which led to the selection of fewer LGAs in these states. Non-intervention states were selected from a list of all those which had received no known WASH intervention for a minimum of five years from UNICEF, JICA, WaterAid or World Vision. Selected states & LGAs are shown in Table 4.

Thirteen communities were selected in each of the DFID-funded LGAs, 25 were selected in each of the EU-funded LGAs, and 50 communities were selected in each of the control LGAs. In each community, 10 HHs were selected randomly from a comprehensive HH list using interval sampling based on the population size.

3.2.3 Quantitative data collection: School and Health Facilities Surveys

In each community one school was selected randomly from a list of all government secondary schools serving the community. In the event that no secondary school existed, a random selection was made from a list of primary schools. In each community one health center was selected at random from a list of those serving the community.

For the HH survey, respondents were male heads of HH and female primary caregivers. In each selected HH, anthropometric data were collected from all children under the age of five. For the school survey, respondents were the head teacher and two randomly selected students (one male, one female). For the WASHCOM survey, respondents were the head of the WASHCOM and the deputy, and for primary health centers it was the officer in charge.

Survey sample sizes were calculated to optimize statistical sensitivity for tests between the intervention and control groups, given resource constraints in the overall purposive design. A sample of 1,000 HH was calculated for each state, totaling a 7,000 HH sample in seven states. In each state an equal number of 500 HH sampled were attributed to the control and treatment groups.

The sample was designed to enable testing between intervention and control groups at the appropriate level for the population under consideration (state, DFID/EU intervention or overall population). We used the Technical Assistance to NGOs International (TANGO) guidance (Magnani 1999 ‘Food and Nutrition Technical Assistance III (FANTA III) Sampling Guide’) as our basis and built around meaningful minimum detectable effects for key variables within each survey. Assumptions were based upon a 95 per cent confidence level and 80 per cent power.

The sample was calculated using standard formulae (see Figure 5), and because we are mostly interested in results at the state level (rather than at an aggregated seven-state level) to inform our purposive design, we have equal samples in each state.

Figure 5: Standard formulae calculation using D, a design effect of 1.5

$$n = \frac{D * (Z_{1-a} + Z_{1-b})^2 * [p_1 (1 - p_1) + p_2 (1 - p_2)]}{(p_2 - p_1)^2}$$

Table 4: Survey coverage by State and LGA

Donor	Zone	Selected State	Intervention			Non-Intervention		
			Total LGAs	Selected LGAs	Number	Total LGAs	Selected LGAs	Number
DFID	North Central	Benue	8	Oju	125	14	Kwande	500
				Tarka	125			
				Katsina-Ala	125			
				Buruku	125			
	North West	Jigawa	18	Kiyawa	125	8	Kazaure	500
				Buji	125			
				Birninwa	125			
				Birnin Kudu	125			
	North West	Katsina	26	Bakori	125	13	Malumfashi[41]	500
				Dutsinma	125			
				Maiadua	125			
				Batagarawa	125			
	North East	Bauchi	10	Warji	125	9	Alkaleri	500
				Dass	125			
				Toro	125			
				Gamawa	125			
EU	South	Akwa Ibom	4	Nsit Atai	250	26	Abak	500
				Obot Akara	250			
	South East	Anambra	4	Aguata	250	16	Njikoka	500
				Anambra East	250			
	South West	Ekiti	2	Gbonyin	250	13	Ikere	500
				Ekiti West	250			
				Total	**3,500**			**3,500**
				Overall Total	**7,000**			

[41] This LGA had to be excluded and was replaced.

3.2.4 Qualitative data collection: Interviews and FGDs

Qualitative data collection was conducted in September 2019 in Abuja with a sample of 18 communities across six LGAs from three states: Akwa Ibom, Jigawa and Bauchi. These states provided coverage of SHAWN II, WSSSRP II and NDSP. A team of national consultants from Frademol conducted field visits to the states, and a team of three international consultants from IOD PARC conducted the visit to key stakeholders in Abuja.

Qualitative data collection took place after the quantitative survey for triangulation purposes. This allowed the evaluation team to explore stakeholder perspectives on the causes of any changes since the WASH Programme began, based on preliminary analysis of the quantitative survey. Overall, qualitative data collection aimed to enrich, test and validate the findings, and to draw out key learning elements for future Programming.

A variety of stakeholders were engaged in each site for KIIs or FGDs as appropriate. Stakeholders can be categorized into four different domains:

- National level (Federal Ministry of Water Resources, multilateral and bilateral agencies, including the EU, DFID, UNICEF Nigeria, WaterAid, World Bank)
- State level (WASH Programme coordinating ministry, RUWASSA, and WASH ministries, departments and agencies, CSOs, private sector, and state level WASHCOM federation)
- LGA level (local government chairperson/head of local government administration, WASH team members, local government education secretary, and head of primary health care (PHC) department, WASHCOM federation and LAM)
- Community level (WASHCOM, healthcare facility)

Table 5 shows that 73 individual interviews and 50 FGDs were conducted in total across all the sites, and Table 6 shows that 552 people were interviewed altogether. Tables 7, 8, and 9 show the distribution of respondents by state and gender at the state, LGA and community levels. Within communities, a series of transect walks and observations were also conducted.

All qualitative methods used a prepared qualitative tool manual with interview questions tailored to the different stakeholder groups and a checklist for observation exercises and transect walks. Notes were taken and written up following interviews.

Table 5: Number of individual interviews and FGDs conducted at each site

	Akwa Ibom	Jigawa	Bauchi	Abuja	Total
Individual interviews	19	14	26	14	73
FGDs	12	17	20	1	50
Total	**31**	**31**	**46**	**15**	**123**

Table 6: Distribution of all respondents by state and gender

Akwa Ibom		Jigawa		Bauchi		Abuja		Total	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
142	51	137	16	141	49	13	3	**433**	**119**
								552	

Table 7: Distribution of respondents at the state level by state and gender

	Akwa Ibom		Jigawa		Bauchi	
	Male	Female	Male	Female	Male	Female
WASH Programme Coordinating Ministry	2		1		4	
RUWASA	1		4		3	1
WASH MDA[42]	1		3	1		2
CSO	1				1	2
Private Sector	1				1	
Inception meeting (at RUWASA)	9	1	4		8	5
UNICEF staff	1		4		3	1
Total	**16**	**1**	**16**	**1**	**20**	**11**

Table 8: Distribution of respondents at the LGA level by state and gender

	Akwa Ibom		Jigawa		Bauchi	
	Male	Female	Male	Female	Male	Female
LGA Chairperson/Heads of LGA admin	1	1	5	-	6	-
WASH Departments/Units	17	9	6	1	13	3
Local Government Education Authorities	1	1	1	-	-	2
PHC Department	-	2	5	-	2	3
LGA WASHCOM Federation	4	-	1	-	6	-

[42] e.g. Ministry of Econ Planning, SUBEB, PHDA etc

	Akwa Ibom		Jigawa		Bauchi	
	Male	Female	Male	Female	Male	Female
LAM	5	-	9	-	3	2
VLOM	2	-	1	-	5	-
Inception meeting (at LGA Secretariat)	43	20	10	1	6	2
UNICEF staff	1	1	2	1	2	1
Traditional ruler	1	-	-	-	1	-
Total	**75**	**34**	**41**	**30**	**44**	**10**

Table 9: Distribution of respondents at the community level by state and gender

	Akwa Ibom		Jigawa		Bauchi	
	Male	Female	Male	Female	Male	Female
WASHCOM and transect walk	52	16	96	14	76	25
PHC	0	0	6	1	1	3
Total	**52**	**16**	**102**	**15**	**77**	**28**

3.3 Quantitative data analysis

In the analysis of the quantitative survey data, we analyzed the 'natural experiment' which the intervention had created using suitable quasi-experimental approaches, taking into account the lack of comparable baseline data. We used the appropriate statistical software (Excel, Stata and R) to manage and carry out our analysis. We primarily examined the intervention effect but also, secondarily, the impact of contextual and characteristic variables on the differing estimated intervention effects. This analysis comprised tabulation and calculation of population means, standard errors and confidence intervals as well as supplementing cross-tabulations with exploratory regression analysis as appropriate. We carried out some analysis of supporting secondary data to triangulate survey findings and to look to mitigate the lack of a comparable survey baseline for the intervention and control areas.

Due to the lack of a baseline for use in the quasi-experimental analysis, we looked at a range of existing qualitative and quantitative data to examine our initial assumption of equality between matched control and intervention areas at baseline (an assumption required to allow the use of any experimental method by setting that element of the regression analysis to constant). Our research showed that while this assumption could not be rejected which would have meant the entire quasi-experimental analysis being of

no value, there were nonetheless several important reasons to suppose that baselines were not necessarily equal. The most evident of these were:

- (from the quantitative data) some variables showing such strong variation in general across areas that it would be unwise to assume that control and intervention areas would be equal on that variable.
- (from the qualitative evidence) that intervention areas were selected to some extent to be those in need and, furthermore, that some intervention areas were chosen for the intervention as they were known to have certain factors that would make implementation more feasible.

The decision of the steering committee to introduce anthropometric data to the end line survey meant that for some of the variables within the survey (specific anthropometric measurements), our judgement is that an assumption of equality of baseline is definitively not valid. While we have presented some analysis of the survey data for these variables, the quasi-experimental comparison of control and intervention is not valid for inference. It should be noted that the relevant issue of baselines is not about whether the baseline of a variable differs from state to state, but if it differs within a state between the control and intervention samples. For the non-anthropometric data, we derived an approach that is statistically equivalent to a standard difference-in-difference regression analysis, which is explained in Box 1 but simplified by drawing on the equal baseline assumption.

The assumption of parallel trend that is required for this type of analysis is satisfied to a large extent by the study's effort to find control areas that have not only no intervention related to the study, but no other interventions. We also make the assumption that if the study was not operating in the treatment areas, then there would be no other WASH interventions and furthermore that it is WASH interventions that affect WASH outcomes.

The distinct samples (HH, children, women, schools, girls in schools, etc.) were analyzed independently and the results synthesized alongside the qualitative evidence to create the evaluative findings.

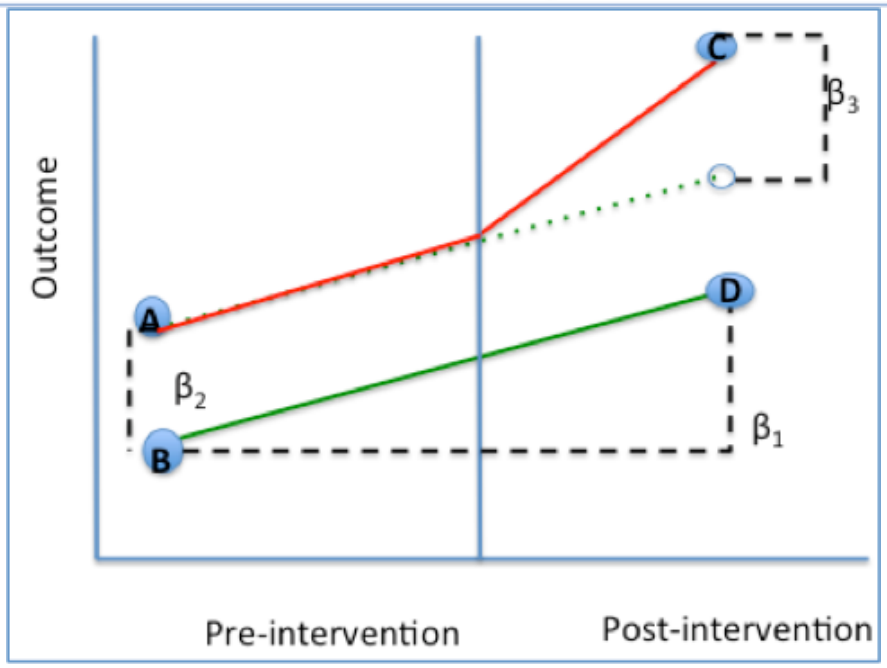
We present national and state level secondary data from the Nigeria DHS and WASHNORM. We discuss the trends represented by these data in Section 7. On examination, these data did not present opportunities for further, useful statistical analyses and should not be used for inference about the intervention. However, they do enrich the contextual understanding of the Programme.

Our primary survey analysis of control and intervention areas showed a notable difference in the existence and magnitude of the intervention effect across states. In order to further explore this variation, we performed multivariate analyses to examine the relationship between outcomes and a number of indicators of state-level enabling environment. These indicators were drawn from the WASHIMS database and set alongside the survey analysis outputs. It is clear from logic-based analysis of the tabulations that there is no consistent pattern emerging to support any hypotheses of the relationship between elements of the enabling environment being present and the intervention effect being significant or larger. Quantitative regression analysis of the variables only revealed what would be a spurious result (not supporting any a priori hypothesis) that some enabling environment variables were exceptionally related to a less good outcome.

Box 1: Difference-in-difference regression equation and explanation

$$Y = \beta 0 + \beta 1*[Time] + \beta 2*[Intervention] + \beta 3*[Time*Intervention] + \beta 4*[Covariates] + \varepsilon$$

Coefficient	Calculation	Interpretation
β_0	B	Baseline average
β_1	D-B	Time trend in control group
β_2	A-B	Difference between two groups pre-intervention
β_3	(C-A)-(D-B)	Difference in changes over time



(Columbia University Mailman School of Public Health https://www.mailman.columbia.edu/research/population-health-methods/difference-difference-estimation - this reference explains more fully the theory and assumptions behind D-i-D analysis)

3.3.1 Data Management and Quality Assurance (QA) of Data for the Quantitative Survey

We used an electronic data gathering system for the quantitative survey such that data will be uploaded daily to 'the secure cloud' allowing a real-time examination of data quality and daily feedback to the field teams if any problems with the data arose.

Our approach to analytical QA did not rest only on an ex-post assessment of the analysis but also on QA throughout the design, collection and analysis phases. The team ensured that when the quantitative results were put alongside the other parts of the analysis that necessary caveats and assumptions underpinning the applicability and generalizability of the analysis were clear.

3.4 Quality Assurance and Evaluation Management

QA processes were built into the evaluation from the initial proposal and inception through to reporting and dissemination. A gender-balanced team with mixed and complementary skill sets ensured field visits and data collection could be structured to maximize opportunities to gather data and perspectives from different stakeholders, especially those who could easily be overlooked or excluded. For the quantitative survey, enumerators were fully briefed and trained prior to deployment in the field. For the qualitative data collection, tools were developed prior to field visits and reviewed by UNICEF Nigeria before their use.

IOD PARC has an internal QA process with a specific staff member who has significant expertise in WASH and an understanding of the Nigerian context. This is to provide feedback and advice throughout the process, including before the submission of deliverables. UNICEF Nigeria's evaluation manager provided timely technical guidance, support and a liaison to the team throughout all steps of the evaluation and ensured adequate QA.

3.5 Ethics

The consultant team adhered to and considered the following principles as per UNICEF expectations and in line with UNEG/UNICEF global standards for evaluation:

- respect for dignity and diversity
- fair representation
- compliance with codes for vulnerable groups (e.g., ethics of research involving young children or vulnerable groups)
- redress
- confidentiality
- avoidance of harm

A specific ethical challenge for this evaluation was how to assess the Programme's contribution to reducing malnutrition (unanticipated Impact question[43]). IOD PARC originally recommended that collecting anthropometric data would not be useful due to:

1- A lack of baseline data. Possible comparative data sources only had information at state levels.
2- The low likelihood of being able to statistically identify an evidence-based impact channel from WASH to nutritional status.
3- The ethical challenges of expecting parents to allow their children to be weighed and measured without any clear sense of how the data would be used.

Given the specific requirement from UNICEF and donors to collect anthropometric data as part of the quantitative study (see section 2.7), the team carefully considered how anthropometric data collection on a sample of under-five children could be done in line with UNEG norms and standards, specifically Norm 2 (utility), Norm 4 (ethics), Norm 8 (human rights) and Norm 10 (professionalism).

It was determined that Norm 4 and Norm 8 were addressed given that the collection of anthropometric data would provide the baseline for the next phase of WASH Programming. The recognition of value as a potential contribution to this evaluation addresses the requirements of Norm 2 and Norm 4. IOD PARC ensured that UNICEF and the steering committee obtained ethical clearance at the national level for conducting anthropometric data collection.

[43] Terms of Refence; Section 6: Evaluation Criteria table on OECD DAC Criteria. page 8

3.6 Limitations, Constraints and Challenges

A series of challenges were encountered during the evaluation process as summarized below.

Baseline data: There was an absence of HH survey baseline data at the beginning of the WASH Programme in 2014. A baseline KAP survey was done in 2015 in states covered by WASH projects funded by DFID. The analysis of differences using this 2015 base line HH KAP survey in order to determine the effective attribution to WASH Programme outcomes and impact could not be used for fair objective assessment of other projects funded by EU without an initial HH base line survey.

Documentation: We did not have access to monitoring data due to access restrictions and had to depend on verbal impact statements by interviewed stakeholders to determine the trend of effects at institutional and population levels in the purposively selected states. This was further hindered by the lack of a baseline study for the UNICEF WASH Programme. In addition, the team was sometimes challenged to obtain timely, additional project documents.

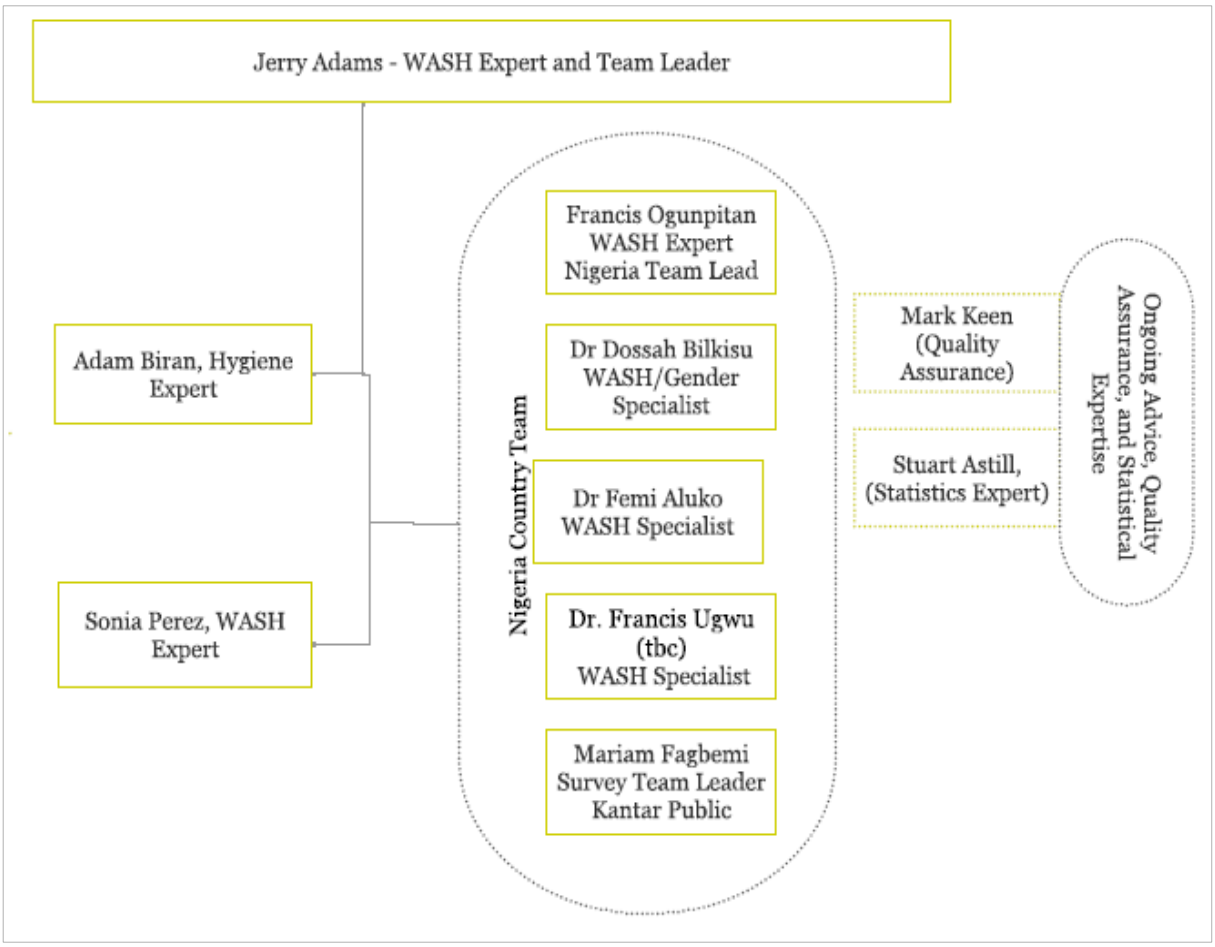
Quantitative study: Around 900 HHs surveyed as part of the control group were in fact in receipt of the intervention. When this was realized, the same number of surveys had to be resurveyed in an actual control area. This had implications on both time and resourcing for the evaluation.

Qualitative study: The qualitative interviews took place at a time when public and private schools in Nigeria were on vacation. Therefore, interacting with teachers and pupils was not possible, except in some cases where meetings were pre-arranged with teachers and headteachers beforehand. However, the evaluation team had successfully completed the quantitative school surveys with each sampled pupil before the school holidays. Also, last minute changes had to be made to the field visits. Originally, state visits were to be conducted by teams comprising both national and international consultants, but the security situation in some places made this unviable for international consultants based on UK Foreign and Commonwealth Office (FCO) advice.

3.7 Evaluation Management

A mixed-level, gender-balanced team, meeting the criteria of the ToR, conducted this evaluation. Figure 6 shows the evaluation team composition. The approach was one of pooled skills, combining the leadership and management capability needed, with wide-ranging technical expertise. National firms (Kantar and Frademol) led on the quantitative and qualitative elements of the evaluation respectively as it was both practical and culturally appropriate to compliment the international IOD PARC team with this. An evaluation steering committee co-chaired by UNICEF and the FMWR was also involved throughout. This steering committee was comprised of representatives from DFID, EU and UNICEF at national and regional levels.

Figure 6: Composition of the evaluation team



Chapter 4: Evaluation Findings and Analysis

4.1. Relevance of WASH Programme

This section provides an assessment of the relevance of the Programme design and fidelity of its implementation, and the extent to which the Programme was suited to the priorities and policies of the target population.

In assessing whether the intervention (WASH Programme) is doing the right things, the evaluation team finds coherence with international normative frameworks such as the MDGs and SDGs; and consistency and alignment with national WASH strategies, which cascade to state and LGA priorities. Furthermore, strategies and activities are assessed as coherent and aligned with the overall UNICEF Global WASH Strategy (2016-2030) and designed to contribute to the achievement of outcomes in the UNICEF Country Programme Plan and associated WASH Programme overall goals.

There were mixed results on the validity of the Programme results. There were various levels of progress and sustenance of ODF in many communities, and a few LGAs across the Programme assisted states. Good examples of sustainable project achievements are noted, including supporting the upgrading of existing HH latrines and servicing the hygiene needs of users, and efforts are underway to help the achievement of LGA-wide ODF. There was evidence of hygiene behavior transformation and compliance among community beneficiaries. There remain diverse strategic challenges.

The evaluation showed that interventions and outputs of the UNICEF WASH Programme were broadly consistent with the expected results, making achievement relevant to the Programme's goals. UNICEF Nigeria worked both upstream, through influencing and advocacy work, and downstream through direct engagement with target LGAs and communities through a range of activities aligned to the government's PEWASH strategy and UNICEF's own priorities at country level and globally. The Programme sets out levels of accountability for itself and partners clearly. Where challenges were encountered, these were for the most part beyond the control of UNICEF.

UNICEF has sought to apply the principles of results-based management in its design, planning, and monitoring, using vertical and horizontal logical frameworks and theories of change (ToC). Expected results of the Programme were defined; however, the complexity and interrelatedness of challenges, assumptions and processes within the Programme design and ToC are not fully considered or articulated and thus lack a precise identification of the problem to be addressed and its context. UNICEF actively considered these intricacies during annual work plan meetings and routine monitoring visits to the states and LGAs where the Programme was operational.

4.1.1 To what extent were Programme interventions (strategies and activities) consistent with the overall goal, and with National/State/LGA priorities?

The evaluation finds coherence with international normative frameworks, such as the MDGs and SDGs; and consistency and alignment with national WASH strategies, which cascade to state and LGA priorities. Furthermore, strategies and activities are assessed as coherent and aligned with the overall UNICEF Global WASH Strategy (2016-2030) and designed to contribute to the achievement of outcomes in the UNICEF Country Programme Plan and associated WASH Programme overall goals.

Alignment with overall goal

The Programme has contributed to the revitalization of the WASH sector priorities of both government and beneficiary communities. Stakeholders at state, local government and community levels recognized the

importance of the main goal of the WASH Programme: poverty reduction through access to WASH. The ultimate shared aim of reduced feco-oral disease prevalence at all levels involves several areas of work, including improving access to basic water supply services, potable water and a safe water chain; to the construction and use of HH sanitation including toilets and quick repair of water facilities; to changing attitudes to HH sanitation and hygiene practices; and improving WASH behavior, knowledge and practices.

Aligned with National priorities and MDGs/SDGs

The 2014-2017 FGN-UNICEF Nigeria WASH Programme is firmly aligned with Nigeria Vision 20: 2020, the Government of Nigeria's statement of national development priorities, in particular Pillar 1 with a focus on the wellbeing of the population, especially the under-privileged, women and children. Critically, Nigeria Vision 20:2020 promotes a decentralized approach to the development and implementation of pro-poor Programmes to: *"ensure that federating units are able to adapt strategies to their respective circumstances, constituencies and development challenges. By this, the citizens will have full ownership of pro-poor strategies, with greater prospects that the strategies will be translated into budgets, Programmes and concrete results, and will benefit the intended groups".*[44] This is relevant to what the Programme set out to achieve in terms of institutional strengthening of national and state RUWASSA and capacity building at the community level.

The FGN-UNICEF WASH Programme is likewise aligned with the national WASH strategy, including the national revitalization of the WASH sector strategy, as well as national Programmes including PEWASH 2016-2035 and the Roadmap for Eliminating Open Defecation. As such, the UNICEF WASH Programme aligns with national needs to bridge gaps in coverage, access, staff capacity and LGA prioritization of WASH, and it has contributed to progress in achieving ODF Nigeria by 2025. Consistent with the SDGs, UNICEF has sought to embed an inclusive approach to working on access to water and sanitation and 'leaving no one behind'. The ODI flagship report *'Leaving No-One Behind'*[45] highlighted the need to make progress in this critical area within the first 1,000 days of the SDGs.

Learning from the implementation of the MDGs showed the importance of strong and effective relationships between donors and implementing agencies, specifically governments. As chair of the WASH Development Partner's Group, UNICEF embraced this learning and has been able to inform and influence the Nigerian Government's 2016-2030 Partnership for Expanded WASH strategy and National Roadmap for eliminating open defecation in Nigeria through contributing to its development, launch and subsequent delivery.

Consistent with UN and UNICEF priorities

At the global level, the UNICEF Nigeria WASH Programme 2014 – 2017 is aligned with the SDGs (specifically SDG 6) and the UNICEF Global WASH Strategy (2016-2030) in several key ways. The Programme aims to increase access to safely managed water and sanitation facilities and move all communities up the sanitation ladder to achieve at least basic access. Furthermore, several Programme activities aimed for 100 per cent coverage at the LGA level, with the exception of the NDSP, where LGAs were self-selected for water supply interventions. The WASH Programme also had a clear focus on women and excluded groups.

The Programme approach included a mixture of upstream and downstream strategies; for example through its focus on capacity building of RUWASSA and on water point rehabilitation, respectively, making it

[44] Nigeria Vision 20:2020 (2009) page 30.
[45] Stuart, E. et al. (2016) 'Leaving no one behind: a critical path for the first 1,000 days of the Sustainable Development Goals'. London: Overseas Development Institute.

relevant to some of the six Programming approaches presented in UNICEF's global WASH Strategy (depicted in Figure 1).

At the national level, the Programme was designed to contribute to the achievement of outcomes in the UNICEF Country Programme Plan, captured in the summary results matrix[46]; specifically, United Nations Development Assistance Framework (UNDAF) Outcome 5, on WASH: *"By 2022, Nigerians, with a focus on the most disadvantaged, have sustainable access to and use safe and affordable water and sanitation services; adopt good hygiene practices; and live in an open defecation free environment."*

Consistent with State and LGA priorities

The FGN-UNICEF WASH Programme objectives were considered appropriate and relevant by the government to the state development agenda, supporting government efforts to provide basic water supply services towards achievement of SDG 6.2, and to increase access to at least basic sanitation services and reducing OD in focal LGAs.

The FGN-UNICEF WASH Programme supported the development of relevant structures at state and LGA levels, with counterpart funding from state and local government structures (RUWASSA and WASH Departments). This formed a key pillar in the development of clearly mandated, supported and funded institutions to support the hardware components of water supply in communities, and the construction of water supply, sanitation and hygiene facilities in public spaces and institutions such as primary schools and healthcare facilities.

4.1.2 To what extent were the results of the Programme (2014-2017) valid?

There were mixed results in the validity of Programme results. Good examples of sustainable project achievements are notable, including support for the upgrading of existing HH latrines and servicing the hygiene needs of users, and efforts are in progress to help the achievement of LGA-wide ODF. There was evidence of hygiene behavior transformation and compliance among community beneficiaries. There remain diverse strategic challenges. This is relevant to what the Programme set out to achieve.

There were varying levels of progress and sustenance of ODF in many communities, and a few LGAs across the Programme-assisted states. While some LGAs, such as Dass (Bauchi state) and Roni (Jigawa state) had achieved sustained ODF status, others such as Toro (Bauchi state) and Nsit Atai (Akwa Ibom state) are striving to mentor their communities towards ODF. The evaluation notes that in all communities assessed, most of the HH sanitation facilities were unimproved and required upgrading. Good examples of system support mechanisms were shown in Jigawa and Bauchi states to support the upgrading of existing HH latrine and service the hygiene needs of users.

There were mixed results in the validity of the Programme's past results. Progress has been achieved through the establishment of state-level WASH institutions (RUWASSAs) in the intervention states, and WASH departments already established and funded by government through budgetary appropriations, such as in Jigawa. This is in contrast to the presence of WASH units rather than departments in all 20 LGAs in Bauchi state, and in only the four assisted LGAs in Akwa Ibom State, respectively. Despite these institutional contrasts, Dass (Bauchi state) and Roni (Jigawa state) LGAs were good examples of sustainable project achievements, with institutional systems (for example, local Adashes in Jigawa and state revolving funds in Bauchi) to support the continuous upgrading of HH toilets. WASHCOMs also actively promote hygiene at all times in these communities.

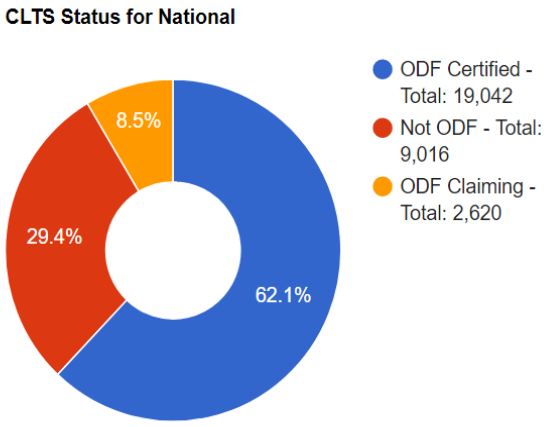
[46] UNICEF CPD 2014 – 2017 (Annex A Summary Results Matrix)

There was evidence of hygiene behavior transformation and compliance among community beneficiaries, with tippy tap handwashing facilities often close to toilet facilities. Furthermore, positive change was observed among healthcare facilities where WASH facilities have been provided. The results of the Programme were reviewed at the community level by the water, sanitation and hygiene committee (WASHCOM) and according to existing protocol for certification and verification of ODF and total sanitation.[47] A community's claim of ODF is firstly verified by the LGA WASH unit through unscheduled visits, and then by the state RUWASSA agency. ODF certification is then conducted first by the state and then National Task Groups on Sanitation (STGS and NTGS), comprising relevant government ministries, departments and agencies, as well as NGOs, donors and other development partners. No official certification is given until ODF status has been sustained by communities for at least six months. It is noted that:

1- All communities are at various levels of ODF attainment. Some have been validated by the NTGS, while others are certified by STGS and are awaiting the validation process.
2- Community members of the various communities visited can differentiate between the water facilities provided by different organizations.
3- The female members of the WASHCOM were aware of the location of new and rehabilitated water facilities, its functionality status and other community support processes designed to ensure the sustainability of the WASH Programme in their communities.

There have been notable delays in obtaining verification, with a backlog of communities awaiting ODF verification and certification. The WSSSRP II 6th Annual Report noted 63 per cent of communities claiming ODF had been certified at the time of this evaluation. To address this, the project focused efforts on reducing the gap between the percentage of communities claiming and receiving certification of ODF, through reinforcement of the capacity of the STGS. In addition, third-party re-certification was carried out across a number of states. The re-certification findings were then used to retrain the STGS and NTGS for effective certification and validation. This has improved the quality of certification and deterred premature certification. See Figure 7 for data from the WASH Information Management System (WASHIMS).

Figure 7: CLTS status data from WASHIMS: CLTS status data from WASHIMS



[47] Government of Nigeria and UNICEF 2012 protocol for certification and verification of ODF and total sanitation communities

The maintenance of ODF status is a further challenge. The SHAWN II 2018 Programme Report noted that the Programme had managed to achieve 70 per cent maintenance of ODF status against a target of 66 per cent. This is particularly challenging where communities have unimproved sanitation.

Examples of respondents' opinions regarding the relevance of the Programme are as follows:

"...the basic needs identified in Bauchi state, even from politicians, is the people demanding for safe water, let us have good water. …. now, because of the SHAWN II Programme that has brought awareness for sanitation, people demand sanitation now ..." - GM RUWASSA, Bauchi state

"The mandate of the LGA is complimented by the SHAWN project." - Head of LGA, Toro LGA

4.1.3 To what extent were Programme activities and outputs consistent with the expected results?

The evaluation showed that the activities and outputs of the UNICEF WASH Programme were broadly consistent with the expected results. UNICEF Nigeria worked both upstream, through influencing and advocacy work, and downstream through direct engagement with target LGAs and communities. Where challenges were encountered, these were for the most part beyond the control of UNICEF.

The evaluation selects and showcases the following activities and outputs to highlight consistency with the expected results: i) training; ii) developing a system for maintenance of water supplies; iii) Developing community financing; and iv) strengthening community institutions.

Training

As noted from the qualitative field assessment, the training of state and LGA staff was considered critical to ensuring effective triggering and support to communities, in recognition of the role of good quality training in enabling CLTS Programming to go to scale[48].

At the state level, the evaluation showed that STGS had been set up and trained in Akwa Ibom, Bauchi and Jigawa states. Several trainings of trainers had been implemented for the STGS, as well as staff of the RUWASSA, selected civil society organizations, staff from LGA WASH departments/units, local construction, and maintenance experts. Data on the number of communities triggered and then later verified points to the contribution of training to the improvement of ODF sustainability in communities. However, it is important to note that the Programme supported a number of activities to reinforce ODF sustainability beyond the triggering processes, including engaging WASHCOMs and VHPs. The SHAWN II ratings found that 15,170 communities certified ODF, of which 3,972 were certified ODF during the review period. Eighty per cent of assessed communities maintained ODF certified status, and 69.12 per cent of triggered communities were then ODF certified (SHAWN II 2019 Report).

Developing a system for maintenance of water supplies

The development of a system for water supplies maintenance was an equally critical component necessary for the smooth running of the Programme, and addressing the up-keep, maintenance and repair of water supplies. Under the system, the local government water supply unit is responsible for establishing a VLOM support system for communities. The breakdown of any WASH facility is advised through the established interactive voice response system (IVRS), a platform to ensure real-time responses to repair dysfunctional water supply facilities. The IVRS alerts the nearest Local LAM, whose capacity has been built and who

[48] (Cavill, S. with Chambers, R. and Vernon, N. (2015) 'Sustainability and CLTS: Taking Stock', Frontiers of CLTS: Innovations and Insights Issue 4, Brighton: IDS)

have been supplied toolkits to aid their repair services. However, development of such systems has not always functioned as expected; in Jigawa, for example, the state government procured and freely distributed spare parts for hand pump boreholes to communities without considering the long-term sustainability implications, and bypassed indigenous stockists trained in the art of spare parts sales at reduced costs. The same state government provided solar-powered motorized boreholes to 250 communities without resources for maintenance. Notwithstanding this, the lines of roles and responsibilities were adequately demarcated and known to stakeholders in other states and were observed to ensure the smooth running of the Programme.

Developing community financing

Under the Programme, financial self-help systems were introduced to support the promotion of latrine uptake in line with the improved sanitation access result. These included the use of Adashe saving schemes to increase the number of HH sanitation facilities. The first type of Adashe is a rotating savings fund where several stakeholders contribute money every month, and the total is given to one of them to construct a HH toilet. It prioritizes the most vulnerable, such as widows and the elderly, until the last contributor has received one. The second form sees the community WASHCOM giving loans to HHs to repay with interest within six months, increasing WASHCOM finances and facilitating toilet ownership by HHs in their settlements.

In addition, the Bauchi State government implemented a revolving loan microfinance initiative - the Sanitation Pool Fund - through a local NGO (the Rahama women's development Programme). This loan was paid to toilet business owners (TBOs) in eight LGAs, who in turn, built latrines for recipient beneficiaries who paid back the loan to Rahama with very little interest.

Strengthening community institutions

Under the Programme, key institutions have been developed level enabling communities to achieve and sustain ODF. This includes the formation of WASHCOM, the evolution of natural leaders and the creation of voluntary hygiene promoters. WASHCOMs are accepted by the communities as the focal point for WASH support. For example, communities in Akwa Ibom have a water supply facility manager to ensure smooth operation and report repair needs to WASHCOM. The WASHCOM then calls the trained LAM to make repairs when the need arises, with the consent of the LGA VLOM unit. In Bauchi and Jigawa States, repair time has been reduced through a system whereby the WASHCOM calls the VLOM trained artisan or LAM for repairs.

4.1.4: To what extent were the expected results of the Programme clearly defined?

A framework for clearly defining results was present but results were not always clearly articulated and the logic behind them not always robust. UNICEF has sought to apply principles of results-based management in its design, planning, and monitoring, using vertical and horizontal logical frameworks and ToC. While expected results of the Programme were defined, the complexity and interrelatedness of challenges, assumptions and processes within the Programme design and ToCs were not fully considered or articulated and thus lack a precise identification of the problem to be addressed and the related context.

The evaluation noted some challenges with aspects of the Programme design and ToC, such as in addressing the development of fully funded and staffed LGA state level WASH departments. In this regard, the ToC is somewhat cursory in how it sees these complex processes happening, yet the achievement of significant elements of the Programme – most notably the funding of water points – are dependent on effective counterpart funding coming from the states. More on the issue of counterpart funding is presented under 4.3.3 in Box 4.

Analysis of the ToC shows a strong element of log frame thinking in its construction, with a logical progression from inputs to outputs to outcomes and impact. Taking this approach is not the same as developing a ToC which would start with the main problems and challenges to be addressed and higher-level outcomes that would be addressed through multiple pathways. Taking this approach is essentially rotating the log frame through 90 degrees and then getting caught up in input output terminology. In fact, the development of WASH departments that provide WASH funding specifically to contribute to the funding of water points is in effect an outcome in the ToC, which then provides higher value inputs. The WSSSRP II Log frame (see Figure 8) provides a refined articulation of the process steps, though it still places the achievement of this objective early in the Programme:

Figure 8: WSSSRP II Logframe extract

Project Objective 1: To upgrade Local Government Areas' WASH Units to WASH Departments and strengthen the capacity to implement rural WASH projects.			
Result 1.1: Local Government Scheme of Service is reviewed to incorporate the establishment of LGA WASH Departments; **Result 1.2:** Local Government reviewed accommodate the establishment of the LGA WASH Departments	Reviewed local government scheme of service adopted by the States' Local Government Service Commission by Dec. 2014 (BL – 1, TG – 6) Local Government Law reviewed by the State house of assembly by 2015 (BL – 3, TG – 6) All WASH Units in project States upgraded to WASH Departments by end of 2015 Annual Work Plans are drawn from the LGAs LIP and forms the basis for the LGA annual WASH budget Budget provided for the Department in LGA's annual budget as from 2015 fiscal year	Reviewed Scheme of Service Government gazette Progress Reports LGAs' Annual budget	State and LGA's are willing to reform and State will provide adequate budget timely and consistently. Improved autonomy for the LGAs

Nonetheless, UNICEF actively considered these during annual work plan meetings and routine monitoring visits to the states and LGAs where the Programme was operational.

4.1.5: To what extent were the lines of accountability between UNICEF and implementation partners/donors clearly defined? How well were they respected in reality?

The Programme sets out levels of accountability for itself and partners clearly**.** The Programme's logical frameworks provided a line of accountability and results from delivery frameworks which led into annual work plans of states and LGAs. UNICEF reinforced this accountability through workshops and seminars with its different stakeholders (federal and state government, LGAs, partners, public health and social protection (PSP), and WASHCOMs) to ensure effective responsiveness to the needs of users, or rights-holders.

Prior to implementation, the roles and responsibilities of different partners were clearly defined to avoid conflict and duplication of activities, as well as to ensure maximum performance and utilization of financial, human and material resources at all levels. This included conflict resolution strategies for WASHCOM members.

The evaluation notes that donors (EU and DFID) were expected to provide funds for the implementation of Programme activities promptly, and UNICEF was to ensure timely allocation and devolvement of money committed in annual national, state and local government work plans. The UNICEF Harmonized Approach

to Cash Transfers (HACT) system was developed and applied to promote responsive accountability, with a process whereby milestones are achieved prior to payment for works and services. States were responsible to ensure that robust procurement processes were in place for contracting and for the establishment of institutions at the state level. LGAs were responsible for the formation and mentoring to maturity of WASHCOMs, and accountable for the budgeting and timely release of counterpart contributions to facilitate the procurement of WASH facilities in assisted LGAs.

4.2. Effectiveness of WASH Programme

This section provides an assessment of whether the intended results of the Programme at output and outcome levels have been achieved, and why or why not.

The WASH Programme is a combination of projects, including four funded in partnerships by the EU, DFID, UNICEF and the Government of Nigeria, comprising different logframes with different targets set by and with different donors. We have disaggregated Programme results by constituent project and have provided aggregate totals across the entire Programme where possible.

The achievement of outcomes showed a mixed picture that was not consistent across all states. The reasons underlying this picture remain unclear and were not explained through multi-variable analysis using state-level indicators of enabling environment. It is possible that the selected intervention and non-intervention areas were not comparable at baseline.

In the absence of a specific question in the ToR dedicated to the assessment of outputs, Section A provides an assessment as to the level of achievement of outputs of the Programme and is proceeded by an assessment of the level of achievement of outcomes. Section B provides an overview of effectiveness in relation to the evaluation questions.

4.2A. Accountability vis-à-vis expected Outputs and Outcomes

To what extent has the WASH Programme been effective in achieving expected Outputs and reaching targeted beneficiaries?

The effectiveness of the WASH Programme varied across outputs and across projects. Effectiveness was highest for access to an improved water source (above 100 per cent of target) and lowest for establishment of WASH departments (60 per cent of target).

With respect to the ToC and evaluation questions, the independent evaluation has made an assessment of results achieved vis-à-vis expected outputs and outcomes agreed to within the results framework (logframe) of the Programme. This has been done based on data reported by UNICEF and no independent verification of these data has been carried out. It should be noted that the four component projects of the WASH Programme were extended beyond their initial 2017 end dates (SHAWN II to December 2020, WSSRP 2 to May 2019, WSSRP3 to March 2020 and NDSP to October 2019). These different end dates need to be kept in mind when making comparisons across projects when using data (such as those from 2019 reporting) that were collected prior to the end of the project, since projects differed with respect to how close they were to completion at the time of data collection.

As of 2019, the WASH Programme has reached 12.96 million beneficiaries with an improved water source and 15.55 million with sanitation. It has reached 4,071 schools with an improved water source and/or sanitation and has successfully advocated for the creation of 88 LGA WASH departments. These achievements equate to more than 100 per cent of target in terms of the number of beneficiaries gaining access to an improved water source, 85 per cent of the target in the number of people accessing improved sanitation, 79 per cent of the target for schools having improved sanitation, 70 per cent of the target for access to an improved water source in schools and 60 per cent of the target for establishing WASH departments. Achievements with respect to water supply were highest in the WSSSRP projects and lowest in SHAWN II. Achievements in access to sanitation in schools were highest in the NDSP and WSSSRP 2 projects. These data are shown in Table 10.

Table 10: Number and percentage of Beneficiaries who have access to improved Water and Sanitation Facilities per Project in 2019 in comparison to initial targets

	SHAWN II		WSSSRP 2		WSSSRP 3		NDSP	
End-date	December 2020		May 2019		March 2020		October 2019	
Data Source	August 2019 Annual review		Mar/Apr 2019 Dashboard		31 March 2019 Dashboard		30 April 2019 Dashboard	
	Target	**Achieved (%)**	**Target**	**Achieved (%)**	**Target**	**Achieved (%)**	**Target**	**Achieved (%)**
Water	10m	9.3 m (98)	1.5m	2.2m (150)	0.5m	0.51m (102)	0.6m	0.95m (160)
Sanitation	14.5m	12.0 m (126)	2.7m	2.1m (80)	1m	0.46 (47)	1.4m	0.99 (74)
School Sanitation	3500	2,789 (79.6)	510	413 (81)	98	140 (143)	243	182 (75)
School Water			350	347 (99)			230	200 (87)
WASH Departments	104	71	20	13	6	4	17	0

Achievements against 2017 targets

As of 2017, in total 8,110,223 people had benefited from access to improved water sources against a target of 9,100,000 (89 per cent). In total 10,968,000 people had access to improved sanitation facilities, just short of the target of 11,400,000 (96 per cent). The results versus targets varied across projects, ranging from a meagre 13 per cent (WSSRP 3) to a strong 123 per cent (SHAWN II) as shown in Table 11. Regarding OD, the percentage of target communities declared ODF varied across the projects, ranging from 23 per cent (WSSRP 3) to 105 per cent (SHAWN II) as of 2017. These data are shown in Table 12 (Programme totals are not presented due to differences in reporting metrics).

Table 11: Number and percentage of Beneficiaries who have access to improved Water and Sanitation Facilities per Project for the evaluation period 2014-2017 in comparison to initial targets[49]

	SHAWN II	WSSSRP 2	WSSSRP 3	NDSP
Previous End-date	**31 December 2017**	**31 December 2017**	**1 May 2017**	**November 2017**
Data Source	SHAWN II Project Document, UNICEF, 2014; SHAWN II Annual Review debrief	WSSSRP II Project Reports: July 2013-July 2014, July 2014-Aug 2015, Aug 2015-July 2016 Narrative	WSSSRP III Reports: May 2013-April 2014, May 2014-April 2015, May 2015-May 2016, May 2016-May 2017	Narrative and Final Progress Report, Nov 2017

[49] Blanks cells, where not otherwise explained, indicate either that data was neither applicable nor available in the reviewed reports.

	SHAWN II		WSSSRP 2		WSSSRP 3		NDSP	
Previous End-date	**31 December 2017**		**31 December 2017**		**1 May 2017**		**November 2017**	
	presentation, 2017[50]		and Financial Report, 2017					
	Target	**Achieved (%)**	**Target**	**Achieved (%)**	**Target**	**Achieved (%)**	**Target**	**Achieved (%)**
Water	7,000,000	6,770,000 (97)	1,000,000	944,537 (94)	500,000	159,595 (32)	600,000	236,091 (39)
Sanitation	7,000,000	8,000,000 (114)	2,000,000	2,463,000 (123)	1,000,000	125,734 (13)	1,400,000	379,330 (27)
School Sanitation	3,500 schools	1,152 (33)	-	234 schools	50,000 children	55,273 (111)	100,000 children	33,516 (34)
School Water			200 (2013 target) 600 (2019 target) schools	234 (117% of target set in 2013)			100,000 children	33,516 (34)
WASH Departments	-	-	All WASH units converted to WASH departments in 6 states	4/6 states (62 departments established in 2 states)	All WASH units converted to WASH departments in 6 LGAs	2/6 LGAs	All WASH units converted to WASH departments in 10 LGAs	0/10 LGAs

Table 12: Number of Communities and People declared OD Free during the evaluation period 2014-2017

State	Target of Communities to be ODF by 2017	Achieved Number of Communities ODF as of 2017	% Achievement	Target of Population to be ODF by 2017	Achieved Number of Population ODF as of 2017	% Achievement
SHAWN II	9,000	9482	105%	7,000,000	7,910,000	113%
WSSSRP II	2786	2312	83 %	3,000,000	3,260,254 (to July 2018)	109%

[50] The SHAWN II targets and achievements as appearing in the project documents and progress reports are in fact an accumulation of what has been achieved under SHAWN I, stretching from 2010 to 2014.

WSSSRP III	50% of communities certified ODF	514	23% of communities certified ODF	1,000,000	244,169	24%
NDSP	640	379	59%	ODF not extrapolated to population level in reporting.		
Total	(targets not comparable)	12,687	n/a	-	-	-

Assessment of Expected Outputs related to Systems Strengthening and Institutional Capacity Building

Based on periodic progress reports delivered to donors, the Programme has achieved mixed results in system strengthening and capacity development for the WASH sector at state, LGA and community levels. Against a 2019 target of 147 WASH departments to be established, a total of only 88 (60 per cent) have been established. In total, 23,865 WASHCOMs have been established (total target across the Programme is not known) These data are shown in Table 13.

Observations during community visits in Jigawa and Bauchi suggested that most HHs, healthcare facilities and schools had functional and hygienic latrines with handwashing facilities. There was no OD seen anywhere in the area. We were also informed that several HHs had benefitted from the sanitation pool fund loans, and the Adashe support system to upgrade their sanitation facilities.

Table 13: WASHCOMS formed 2014-2019 (unless otherwise indicated) by state[51]

	SHAWN II		WSSSRP II		WSSSRP III		NDSP	
	Target	**Achieved**	**Target**	**Achieved**	**Target**	**Achieved**	**Target**	**Achieved**
Akwa Ibom	WASHCOM creation not disaggregated by state under annual reporting.		-	-	-	-	Not reported	136
Anambra			Not reported	530	-	-	-	-
Bauchi			-	-	-	-	-	-
Benue			-	-	-	-	-	-
Ekiti			-	-	536	149	-	-
Jigawa			Not reported	918	-	-	-	-
Katsina			-	-	-	-	-	-
Other			-	1624	1400	1049	Not reported	459

[51] Blanks cells, where not otherwise explained, indicate either that data was neither applicable nor available in the reviewed reports.

	SHAWN II		WSSSRP II		WSSSRP III		NDSP	
	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
TOTAL	[52]	19000[53]	2449	3072	1936	1198	Not reported	595

To what extent have intended results at outcome level been achieved and why or why not?

The achievement of outcomes showed a mixed picture that was not consistent across all states. The reasons underlying this picture remain unclear and were not explained through multi-variable analysis using state-level indicators of enabling environment. It is possible that the selected intervention and non-intervention areas were not comparable at baseline.

Secondary data point to a mean overall increase of 25 per cent with respect to access to an improved drinking water source since 2013 and some increase in access to improved sanitation, but with marked state-level differences. HH survey data collected in the course of this evaluation found rates of access to an improved drinking water source to be high, with no increase in access associated with the Programme. Secondary data sources also provided some evidence of an increase in access to improved sanitation, though this was not consistent across all seven states. The HH survey data collected for the current evaluation showed a mixed picture, with an increase in HH sanitation in four states (Benue, Katsina, Ekiti and Jigawa). In Anambra, there was a decline against the non-intervention group, and in the remaining two states no change was noted. Access to improved drinking water and improved sanitation in schools showed similar patterns.

There was little difference between intervention and non-intervention groups in terms of access to an improved drinking water source in schools but an increase in access to improved sanitation in schools was noted, except in Bauchi and Jigawa states. With respect to access to improved WASH facilities in health centers, Akwa Ibom, Benue and Katsina showed an increase in access to an improved drinking water source, but no strong evidence of a difference in access to improved sanitation was found.

Qualitative data provided examples of local implementation successes and delays but did not explain the variable overall picture. A multi-variable analysis was performed using data from WASHIMS to explore the possible additional effect of the state-level enabling environment. However, this analysis too was unable to explain the pattern of differences across states. The possibility that intervention and non-intervention groups were not comparable at baseline remains a plausible explanation.

Effectiveness of WASH Programme for Access to improved drinking water sources

Secondary data from the NDHS and WASHNORM surveys revealed an increase with respect to access to an improved drinking water source during period 2013-2018 in all seven states of the Programme but with notable differences between states and a range from 12.3 per cent to 97.2 per cent. The increase would be consistent with an expected effect of the Programme, though a causal link is not demonstrated

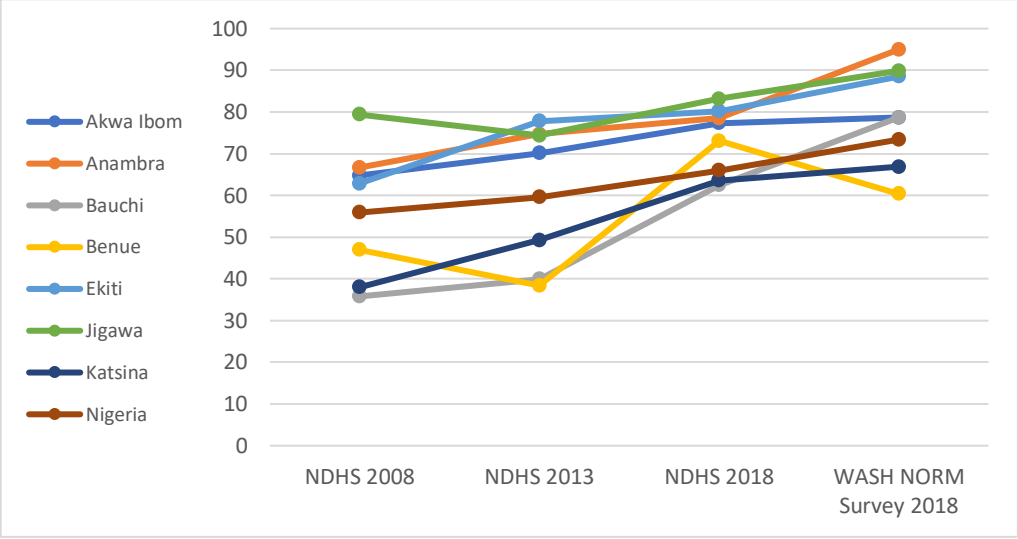
[52] Aug 2019 milestone for WASHCOMs as per SHAWN II Logframe: "Communities in 70 SHAWN LGAs across 6 States have established citizen's Agencies (LGA WASHCOM Association) to press for actualization of citizen's WASH rights".
[53] WASHCOMs formed under SHAWN Phase 1 included under this figure.

by the data and, in view of the similar trend seen in data for Nigeria nationally as well as a similar increase in the pre-intervention period (2008-2013) in four of the seven states, a secular trend also seems likely. The improvement was very high in Bauchi (from 39.9 per cent in 2013 to 78.7 per cent in 2018) and Benue (from 38.4 per cent in 2013 to 60.4 per cent in 2018). These data are shown in Table 14 and the trend in Figure 9.

Table 14: Percentage (%) of Population having access to Improved Drinking Water Source per State of the Programme from 2008 to 2018

State	NDHS 2008	NDHS 2013	NDHS 2018	WASH NORM Survey 2018	% Increase 2013-2018
Akwa Ibom	64.8	70.1	77.3	78.7	12.3
Anambra	66.7	74.7	78.5	95	27.2
Bauchi	35.8	39.9	62.5	78.7	97.2
Benue	47.0	38.4	73.1	60.4	57.3
Ekiti	62.9	77.8	80.2	88.5	13.8
Jigawa	79.4	74.4	83.2	89.9	20.8
Katsina	38.0	49.3	63.6	66.9	35.7
Nigeria	**55.9**	**59.6**	**66**	**73.4**	**23.2**

Figure 9: Percentage of HH members who have access to Improved Drinking Water Source from 2008 to 2018 per State of WASH Programme



Effectiveness of WASH Programme with respect to Access to Improved Sanitation

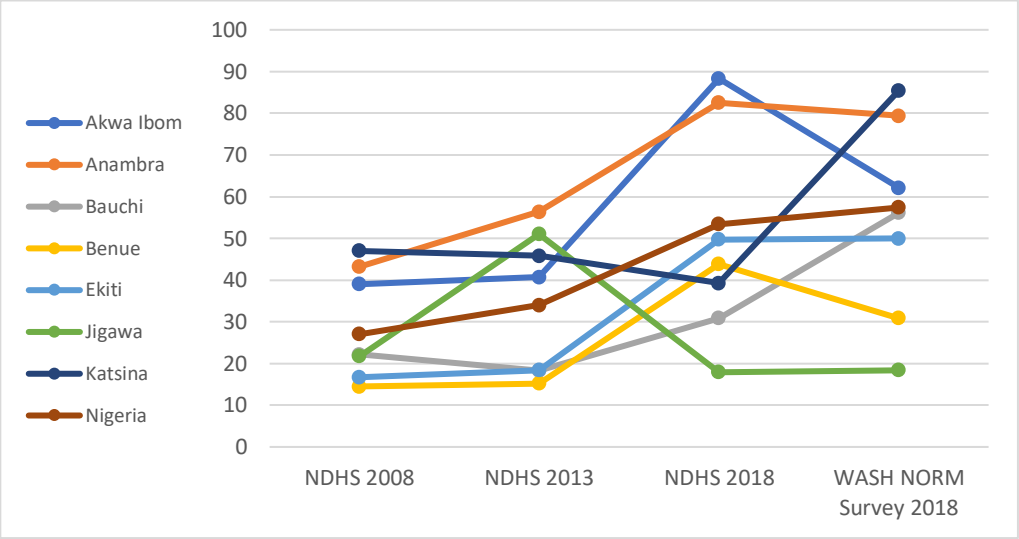
As with the data on access to an improved water source, data from the NDHS and WASH NORM surveys point to an overall increase in the proportion of HHs having access to improved sanitation in the period 2013 – 2018, with little change evident in the five years prior to the Programme (2008-2013). These results

are consistent with a positive effect of the Programme. Bauchi state again showed the greatest increase (206.6 per cent), with Ekiti state second (171.7 per cent) and Benue third (103.3 per cent). Jigawa, however, showed a sharp drop during the 2013-2018 period and a slight decline overall from 2008. Katsina also showed a decrease from 2008 according to the NDHS data though this is contradicted by the WASH NORM data. The reason for the large discrepancy between these two datasets is not known to the evaluation team. Primary data from the evaluation's HH survey was used to make an assessment of expected outcomes related to access to improved water facilities and improved sanitation. These data are shown in Table 15 and Figure 10.

Table 15: Percentage (%) of HHs having access to Improved Sanitation per State of the Programme from 2008 to 2018

State	NDHS 2008	NDHS 2013	NDHS 2018	WASH NORM Survey 2018	% Increase 2013-2018
Akwa Ibom	39.0	40.7	88.3	62.1	52.6
Anambra	43.2	56.4	82.5	79.4	40.8
Bauchi	22.2	18.3	30.9	56.1	206.6
Benue	14.5	15.2	43.8	30.9	103.3
Ekiti	16.7	18.4	49.7	50	171.7
Jigawa	21.8	51.0	17.9	18.4	-63.9
Katsina	47.0	45.8	39.3	85.4	86.4
Nigeria	**27.0**	**34.0**	**53.4**	**57.4**	**68.8**

Figure 10: Percentage of HH population members who have access to Improved Sanitation Facilities from 2008 to 2018 per State of WASH Programme



Access to an improved drinking water source

Access to an improved drinking water source was 80 per cent or above in intervention and control groups across all states, with the exception of the intervention group in Akwa Ibom (75 per cent). In Akwa Ibom and Bauchi states, access in the control group exceeded that level among LGAs exposed to the intervention. In Anambra the intervention was associated with improved access. Other states showed little difference. These data are shown in Table 16.

Table 16: Comparison of % access to improved drinking water sources between treatment group and control group LGAs

State	Treatment Group	Control Group
Akwa Ibom	75.3	85.8
Anambra	95.1	90.6
Bauchi	87.7	96.7
Benue	80.2	80.6
Ekiti	94.5	98.6
Jigawa	97.3	97.3
Katsina	97.3	93.4

Access to an improved sanitation

The pattern of access to improved HH sanitation was not consistent across all states. Three states (Benue, Ekiti and Jigawa) showed results suggesting a positive effect of the Programme. Three states showed no evidence of an effect of the Programme (Akwa Ibom, Bauchi and Katsina) One state (Anambra) showed results suggesting a negative effect. These results are shown in Table 17.

Table 17: Comparison of access to improved sanitation facility between treatment group and control group LGAs[54]

State	Treatment Group	Control Group
Akwa Ibom	54.6	53.3
Anambra	59.8	71.7
Bauchi	33.1	35.8
Benue	35.2	18.4
Ekiti	46.8	27.1
Jigawa	22.4	8.9
Katsina	27.4	32

[54] Table populated using survey data. 'Improved sanitation facility' includes: Flush to piped sewer system, Flush to Septic tank, flushed to pit latrine, Ventilated Improved Pit Latrine, Pit latrine with slab, Twin Pit with slab, Composting toilet

Primary data from the evaluation's school and facilities surveys was used to make an assessment of expected outcomes related to access to improved water facilities and improved sanitation.

School access to an improved drinking water source

As with other outcomes, the pattern of schools' access to an improved source of drinking water in intervention and control LGAs was not consistent across states. Ekiti and Jigawa showed clear increases in access to improved drinking water associated with the Programme, while in Bauchi the schools in the control group had better access. The remaining states showed no clear evidence of a difference associated with the Programme. These data are shown in Table 18. Table 19 shows data for school access to improved sanitation.

Table 18: Comparison of % of schools with access to improved drinking water sources between treatment group and control group LGAs[55]

State	Treatment Group	Control Group
Akwa Ibom	88.8	83.6
Anambra	97.2	93.8
Bauchi	83.2	94.0
Benue	84.9	80.0
Ekiti	100.0	85.7
Jigawa	95.9	85.4
Katsina	100	95.9

[55] Table populated using survey data. 'Improved sanitation facility' includes Populated with data from UNICEF WASH Head Teacher Ng_Tables v1.1 17Jan2020 "improved sanitation facility" = all responses, excluding pit latrine without slab, hanging toilet, dig and bury, and no facility

Table 19: Comparison of Students' access to improved sanitation facility between treatment group and control group LGAs

State	Treatment Group	Control Group
Akwa Ibom	84.4	68.2
Anambra	90.0	86.0
Bauchi	66.3	72.0
Benue	88.5	50.0
Ekiti	69.4	56.8
Jigawa	25.0	53.1
Katsina	77.6	48.0

Health facility access to an improved drinking water source

The pattern of access to improved drinking water sources in health centers, comparing intervention with control LGAs, was not consistent across states. Akwa Ibom, Benue and Jigawa showed evidence of increased access associated with the Programme. However, in Katsina the figures suggest a possible problem with the data from the control group. In Anambra and Bauchi, it was health centers in the control group that had better access. Ekiti showed no significant difference. These data are shown in Table 20.

Table 20: Comparison of Health Workers/Patients Access to improved drinking water sources between treatment group and control group LGAs[56]

State	Treatment Group	Control Group
Akwa Ibom	90.5	82.0
Anambra	93.3	100.0
Bauchi	91.1	100.0
Benue	100.0	86.0
Ekiti	83.8	87.9
Jigawa	100.0	94.0
Katsina	88.4	12.5

[56] Populated with survey data from based on 'QW1 - What is the main water supply for the facility?' Improved drinking water sources = all responses, excluding unprotected well, unprotected spring and surface water

Health facility access to improved sanitation

The majority of health centers had access to improved sanitation, and there was little difference between intervention and control groups. In Jigawa, health centers in the control group had somewhat better access than those in the Programme LGAs. These data are shown in Table 21.

Table 21: Comparison of Health Workers/Patients access to improved sanitation facility between treatment group and control group LGAs[57]

State	Treatment Group	Control Group
Akwa Ibom	97.6	98.0
Anambra	100.0	100.0
Bauchi	100.0	98.1
Benue	100.0	100.0
Ekiti	100.0	100.0
Jigawa	70.1	100.0
Katsina	79.1	89.6

Qualitative data collection also provided insight into the achievement of outcomes. Site visits from the evaluation team and respondent interviews confirmed that, to a considerable extent, participating communities have good WASH facilities. Water facilities were functional in all the communities visited, and where solar motorised boreholes (SMBH) were not functional, VHPs provided information on how to treat the unimproved water before drinking as a temporary alternative solution. In addition, community members in all the LGAs confirmed that a maximum 3–day downtime was reported by the LAMs.

Open defecation was observed in some of the communities visited in Akwa Ibom and Bauchi states, whereas all sites visited in Jigawa state were devoid of flies and odour. Focus groups in all the communities with WASHCOMs, VLOMs, community development organizations and community health center managers asserted that WASH-related diseases had declined.

TBOs in most communities reported being gainfully employed as a result of the intervention, and LAMs earned income by carrying out repairs on community water facilities. In a number of communities, women claimed that they were able to participate in more economic activities since they did not have to travel far to fetch water for HH use. The following quotes illustrate these points:

"If you go to all these LGAs, maybe they can't give you figures, but anecdotal evidence from clinics claims that the attendance in clinics has dropped over the years, since the introduction of the SHAWN Programme." - GM, RUWASSA Bauchi state

[57] Populated with survey data based on. QS1. What types of toilets/latrines are at the facility for patients? "improved sanitation facility" = all responses, excluding pit latrine without slab, hanging toilet, dig and bury, and no facility

"Before the intervention of UNICEF, we must get to the next community to fetch water which is almost 3 km from here." - Woman, Nanumawa, Roni, Jigawa

"The only patient medicine store closed down. Likewise, the clinic only attends to maternity issues due to absence of regular diseases before now." - Chief of Bagas, Dass LGA, Bauchi state

Reasons why WASH outcomes have increased significantly in some states:

1- Acceptance of the SHAWN II WASH support Programme in Bauchi and Jigawa states, leading to budgeting and prompt payment of counterpart contributions for procurement and rehabilitation of works. Also having an impact was the establishment of an LGA WASH department in Jigawa state and a WASH unit in Bauchi state, with direct funding and allocation of monthly financial support to WASH units in Programme LGAs.
2- The support of the Emir of Dass in Dass LGA, to the extent of a threat to remove a community leader whose community regressed from ODF to OD.
3- The introduction of the sanitation pool funds in Bauchi state as well as Adashe thrift supported the provision, uptake and upgrade of sanitation facilities in Bauchi and Jigawa states.
4- An increase in the number of staff deployed to assisted LGAs in Bauchi state, in contrast to non-assisted LGAs.

Reasons for WASH outcome stagnation or decrease in some states:

1- Non-payment of counterpart contributions in Akwa Ibom state.
2- A delay in the provision of water supply facilities in some communities in Bauchi state.
3- Delays in WASHCOM training for as long as two years prior to triggering for ODF drive in Toro LGA, Bauchi state.
4- Construction of latrines in hard-to-reach riverine, swampy, and rocky communities in Akwa Ibom, Bauchi and Jigawa state.

Multivariate analysis at state level of WASHIMS and HH survey data

We have examined WASHIMS state level indicators for the enabling environment, as well as a proxy variable from our HH survey (aggregated to state level) of 'main caregiver attendance at meetings', in order to come up with a state-level measure of propensity for community engagement. We have set these alongside a set of key outcome variables represented by the state-level difference between intervention and non-intervention.

We have carried out a series of basic statistical tests to ascertain if there is a relationship whereby the state-level environment appears to explain the variation in the presence, or absence, of a significant intervention outcome.

The first series of tables was to investigate our hypothesis that the enabling environment of 'WASH policy', 'RUWATTSA by law', and 'LGA WASH' structure combined with the HH survey 'engagement [QSDM4]' could explain differences in the intervention effect at the state level.

The tables [see Annex C] show quite clearly that there is no discernible explanatory power of this hypothesis. 'RUWATTSA by law' cannot be part of an explanatory effect as it is unchanging across all states and in every other case similar combinations of explanatory variables produce opposing outcomes, thus precluding their ability to explain the outcome.

We then looked at the full set of WASHIMS enabling environment variables (WASH policy, RUWATTSA by law, LGA WASH structure, water laws, investment plans, implementing CLTS, M&E, VLOM, donor funding) with the HH survey 'engagement [QSDM4]'. [See Annex D]

Five of these variables were unchanging across states (indicating they have no explanatory power for our question), so we reduced the analysis to cover only the HH survey 'engagement [QSDM4]' and the four WASHIMS variables that varied by state [Annex E]. We then analyzed these but saw the same indications as for our original hypothesis, namely that opposing outcomes of the intervention occurred under the same set of variables.

Some multivariate regression analysis revealed only one effect that had been missed by the graphical analysis: that the M&E environment being present actually *reduced* the likelihood of seeing an effective outcome. As this would not even be a tenable hypothesis to test, we can assume that such an analysis is flawed.

We conclude that while there are no grounds for rejecting the hypothesis that the state level enabling environment would explain some of the differences in the effectiveness of the intervention as measured by the HH survey, it is not possible to separate such effects from any effects that arise from the analytical assumption of the HH survey analysis that the baselines for control and intervention areas were equal. As we explain elsewhere, this 'equal baselines' assumption was needed due to a lack of a baseline HH survey, meaning that a difference-in-difference analysis of the HH data could not be carried out.

4.2B. Explanations–Determinants Factors of Effectiveness

4.2.1: Why-How: What factors enabled or undermined Programme implementation fidelity?

A range of factors were identified that enabled or undermined Programme implementation fidelity. The timely release of counterpart funds, improved planning and monitoring, building of political will and collaboration with the education and health sectors were enabling factors. Where counterpart funding was delayed or local ownership was weak because of expectation of payment or the perception that local volunteers were paid, implementation fidelity was undermined.

Enabling factors included:

1- Building of political will at local levels and provision of support for local implementation through regular monitoring and mentoring visits from LGAs.
2- Planning and coordination of activities at state and LGA levels by UNICEF.
3- Development of annual work plans and their implementation by state RUWASSAs, as well as LGAs WASH departments/units allowing effective monitoring of Programme activities.
4- Local government annual plans harmonized with state plans to ensure the Programme was kept on track. UNICEF assessed achievements against log-frames and identified areas for future focus.
5- Timely release of counterpart funds; when this occurred, improved planning, monitoring and building of political will.
6- Collaboration with state level education boards and primary healthcare development agencies helping ensure fidelity in relation to provision of institutional water and sanitation. Through collaboration with the states' universal education boards and primary healthcare development agencies, health workers and teachers have been signed up to promote hygiene in health

facilities and schools. However, schools run by religious institutions are not targeted through the Programme, which may undermine the effort to achieve full ODF in targeted LGAs.

7- Mainstreaming costs of water supply procurement cost budget (funding) in Bauchi and Jigawa states. RUWASSA budget has made the release of funds for counterpart easier and allowed procurement schedule to run smoothly.
8- The recruitment and training of artisans as LAMs meaning communities do not have to travel outside the LGA to access services of technicians to repair water supply facilities.
9- The VLOM strategy effectively allowing people to access mechanics for repairs and maintenance. This was aided by the community information voice recording alert system, which helped reduce time taken to repair water supply facilities.

Undermining factors:

1- Competing demands on the time of staff seconded to WASH units.
2- Delays to counterpart funding impeding implementation in some states.
3- Weak local ownership in some communities.
4- The perception that WASHCOM volunteers were paid to promote particular behaviors and the expectation of payment by WASHCOM members, as well as unrealistic expectations or unmet needs at the community level impeded implementation in some communities.
5- In Bauchi state, funds were inadequate to procure water supply services at once in all assisted communities in the selected LGAs, and this made the government embark on phased, annual procurement financing through budgetary provisions. This caused apathy among the 1,150 communities in Toro LGA, where the expectation of water supply provision was prolonged.

Qualitative opinion of some respondents are as follows:

"We have not received any money from the LGA administration for four months and have been monitoring the Programme activities from our salaries." - WASH Coordinator, Obot Akara LGA, Akwa-Ibom state

"We continue to monitor until the results are achieved." - WASH Coordinator, Toro LGA, Bauchi state

"We received N100,000 every month from RUWASSA for routine Programme level activities, including monitoring to sustain ODF achieved in the LGA." - WASH Coordinator, Dass LGA.

4.2.2 To what extent were implemented activities consistent with Programme design?

Implementation strategies as described in routine Programme reports were consistent with programme design. Annual workplans at the state level were used as a management tool to help ensure consistency with Programme design, and implementation activities were in accordance with these workplans These were supported with tailored capacity building activities at all levels.

There were some weaknesses in the technical design of hardware in relation to the needs of disabled people when rehabilitating facilities. The needs of the disabled were considered for new facilities in such places but not in the rehabilitation of dysfunctional ones.

4.2.3 To what extent did key Programme stakeholders have a clear understanding of their respective roles and responsibilities?

Respondents at all levels were able to clearly articulate the aims of the Programme and their roles and responsibilities within it.

Key informants in Akwa Ibom understood the roles and responsibilities of state-level RUWASSA staff members. These were also found to be clearly stated in policies and were reinforced through training Programmes and review meetings. At the LGA level roles and responsibilities were understood, but funds were not always provided consistent with these. At the community level the roles and responsibilities of WASHCOMs, a community level management structure, were established and reinforced through workshops and were documented in the minutes of meetings.

Evaluation respondents at all levels clearly articulated the aims, roles and responsibilities in the Programme, in ways consistent with the Programme design.

At the state level, WASH facilitators were expected to help the state plan and implement the Programme, while the state RUWASSA agency would facilitate the annual work plan based on inputs from LGA WASH units or departments, as well as develop and implement proposals and report directly to UNICEF. This involves departments for water supply, sanitation and hygiene, in addition to system strengthening and collaboration with other WASH ministry departments and agencies (MDAs), to ensure convergence. KIIs in Akwa Ibom verified that the RUWASSA staff felt that their roles and responsibilities were clear, and that they had a good understanding of what they should do in the Programme in situations where funds did not constitute an impediment; as well, WASH roles and responsibilities were clearly stated in policies and project implementation documents and were emphasized during training Programmes and review meetings.

At the local government level, the WASH coordinator was expected to harness human resources to support the WASH Programme and collaborate with the LGA WASH facilitators and state RUWASSAs to coordinate water supply, maintenance, sanitation and hygiene sub-Programmes. The LGA WASH department facilitated community-level implementation of WASH activities with support from the WASH facilitators and RUWASSA and with periodic coordination clinics to review progress and set achievement milestones.

LGAs understood their role in providing funds for logistics to sustain WASH departments and units but this was not always fulfilled. Evidence showed that LGA counterpart operational funds for WASH for LGAs under the SHAWN II project were paid in Bauchi by the state government through Bauchi RUWASSA, in Jigawa state through the appropriation of LGA budgets, and in Akwa Ibom state by the four supported LGAs.

The WASHCOM federation also actively played a supportive role, including supporting WASHCOMs to ensure the functionality of their facilities and accessing technical support where needed, as well as early identification of issues and provision of timely support to resolve them, and monitoring of the various Programme activities including budget, construction and CLTS processes and procurement.

At the community level, the WASHCOM links the WASH unit to the community. While it is not possible to provide a comparison between communities as the evaluation was not designed to do this, the evaluation team found that the respective roles and responsibilities of WASHCOMs and communities were agreed to and aligned with the Programme over several meetings and documented in WASHCOM minutes. The overall picture was that WASHCOM officers, other WASHCOM members, and VHPs, all understood their roles and responsibilities as individuals and collectively:

"… the WASHCOM makes sure that WASH facilities provided in the community are always maintained to function and satisfy the needs of the users in that area." - WASHCOM Chairman, Jigawa

"We have planned to get a farm in the name of Udubo WASHCOM, cultivate it, sell the products and keep the money in WASHCOM account for the purpose of maintaining our facilities" - WASHCOM chairman, Bauchi

Communities are solely responsible for providing and paying for HH latrines and for upgrading them on the sanitation ladder. Community members through WASHCOM are responsible for the costs of operation and maintenance of community water facilities, but community contributions were defined in different ways. Some communities agreed with their WASHCOM for HHs to contribute a fixed regular amount to support water-related O&M services in their communities while others implemented a pro-poor strategy where poorer HHs and widows only paid what they could afford. Other communities agreed that HHs would only contribute when water supply facilities broke down or in an emergency situation with their community water facilities. In some other instances wealthy and elected office holders were contacted to help with financing repairs if the costs were beyond the immediate capacity of WASHCOM, and/or the community concerned.

There was also a good knowledge of the Programme strategies and expected outputs and outcomes. The communities were aware of Programme expectations in terms of reaching ODF status. This was assisted by the activities of voluntary hygiene promoters (VHPs) and WASHCOM federations, who pay routine visits respectively to HHs for monitoring and mentoring, and to all communities.

4.2.4 To what extent were key Programme activities managed as intended, and to what extent did the available (support) systems work well?

Principal activities appeared to be managed as intended and the support provided through capacity building and training worked well.

Principal activities were managed as intended at all levels, allowing results to be achieved. Support was provided effectively through needs-based training and capacity building at state, LGA and community levels. This was reinforced through post-training reporting and review meetings. Support to local government was also provided by the state-level RUWASSAs, particularly with respect to procurement and contracting of services for water-supply infrastructure.

The evaluation found that the Programme's activities were managed effectively at the state, local and community levels by management structures, including' RUWASSA, WASH departments/units and WASHCOMs.

In Akwa Ibom state, the sound procurement process had delivered 103 out of 106 solar powered borehole facilities planned. It was also reported in Jigawa and Bauchi states that no procured water supply intervention had been abandoned since inception. The VLOM system established with the community information voice recording system has also aided sound functionality of the water supply facilities.

4.2.5 What were the specific barriers (if any) that hindered the successful implementation of the envisaged Programme activities?

Specific barriers to implementation included slow release of counterpart funding and failure to establish WASH departments, as well as local-level issues, the challenges of poverty and slow rates of behavior change.

Specific barriers included:

1- State-level delays in implementing national WASH policy.
2- A lack of human resources for WASH units.
3- A lack of financial resources for WASH units.
4- A lack of capacity at RUWASSA to support LGAs.
5- The slow release of state and local government counterpart contributions.
6- Local issues including a shortage of tools and spares, misperceptions regarding payments, and challenging hydrogeological conditions.

7- Poverty and the slow pace of behavior change.

There were several specific barriers that hindered the successful implementation of envisaged activities. These included the failure of states to implement WASH policy to establish WASH departments in place of WASH units, the lack of financing provided to the WASH units by the LGAs, a lack of staff within state-level RUWASSAs to provide adequate support to LGAs, and the slow release of counterpart funding. There were also more localized problems which included the provision of incorrect tools to LAMs, threats of violence from groups of youths demanding payment from contractors, and misperceptions regarding the payment of WASHCOMs. Poverty and the slow rate of behavior change at the HH level were also identified as challenges.

State-level delays in implementing national WASH policy

The partial implementation of the 2011 National WASH policy by Bauchi state government led to the establishment of WASH units, rather than WASH departments in 20 LGAs. In Bauchi state, the WASH policy was awaiting executive approval to come into force. Akwa Ibom State had no WASH policy, implementation guidelines or water law. UNICEF had been unable to get state executives to approve the WASH policy or to get the draft WASH law processed through the state house of assembly.

Delays in implementation of a national WASH policy at a state level may have stemmed from the absence of a national-level regulatory instrument combined with a lack of political will at state level.

Failure to establish fully funded WASH departments at the LGA level meant that, rather than a staff dedicated to WASH, members were deployed from other departments. WASH units also lacked the dedicated budget that would be afforded to a WASH department.

Lack of human resources for WASH units

WASH units were also lacking adequate numbers of staff members. The number of staff members in WASH units in SHAWN-assisted LGAs ranged from 37 in DASS LGA to 40 in Toro LGA.

In Akwa Ibom, WASH units were established under the department of works in 2017 with no statutory budgetary allocation, but at the mercy of the LGA administrations. Discussion with stakeholders at the state RUWASSA and within LGAs revealed that the WASH units were an ad-hoc arrangement to satisfy donor requirements and drew staff members from other departments. Currently, staff members seconded to WASH units retain their primary responsibility to their parent department and are borrowed periodically to service their primary functions. This arrangement is not considered sustainable and may dissolve with the Programme when UNICEF WASH support to Akwa -Ibom state government ends.

Lack of financial resources for WASH Units

One of the main challenges for WASH units was that they had no Programmatic/budgeted funding support. This is a key indication of poor political support for the Programme by the local governments. The lack of planned support also extended to the provision of staff.

In Bauchi state, the WASH units in SHAWN LGAs received N100,000 every month to service their operational activities from the state RUWASSA, while routine support from the LGA administration was occasional and inadequate. In the spirit of decentralization of WASH responsibilities, it is an anomaly that the state was funding the Programme at the LGA-level directly through the RUWASSA, and not through disbursement through the local government service commission. This is a temporary solution to solve the routine monitoring of WASH-assisted Programme finance when the LGAs are non-responsive and non-committal to their responsibility to the Programme.

WASH units in Akwa Ibom state did not receive any allocation except project funds directed to implement target WASH activities. The logistic support from the LGA was also irregular and depended on the discretion of the LGA administration. A WASH coordinator in Akwa Ibom said that they had not received any form of logistic support from the LGA for the previous four months before the evaluation and had been monitoring CLTS in triggered communities with money from their monthly salaries. WASH units function with Programme funds transferred by the state RUWASSA, but the primary responsibility for maintaining the WASH department or WASH unit rests with the LGA, a support that was absent in Akwa Ibom and Bauchi states.

Lack of capacity of RUWASSA to support Programme LGAs

Another factor has been the capacity of the RUWASSA to support WASH units. At the time of the evaluation, in Bauchi State, the SHAWN Programme was being implemented in 12 LGAs, and RUWASSA had 95 staff members, a reduction from about 200 at inception. Therefore, providing the necessary support to these LGAs had become more challenging vis-à-vis other responsibilities to LGAs not participating in SHAWN.

In Akwa Ibom state, the RUWASSA lacked financial ability due to non-release of appropriated budgetary provisions, and therefore could not adequately support a WASH Programme in the state. In Bauchi state, the 95 staff members supported 20 LGAs, not just 12 SHAWN assisted LGAs.

The general manager (GM) of the RUWASSA in Bauchi state cited the case of many staff retiring and some dying without replacement as the reasons. Therefore, many of their activities suffered, though they were helped by trained staff members at LGA WASH unit level.

The late payment of state and local government counterpart contributions

The state counterpart contribution was not paid at inception and the first payment was made for the state and local government contributions in 2016. This delayed the provision of water supply in communities and institutions, and sanitation in institutions and markets in beneficiary communities. More on counterpart funding is presented in 4.3.3 in Box 4.

Local lack of tools and spares

Another factor was the lack of repair tools for additionally trained LAMs in Bauchi state and the lack of an effective system for ensuring commensurate compensation for LAMs based on services provided. All the water supply facilities in Akwa Ibom provided by the Programme were motorized. However, genuine fast-moving spare parts for their repair were not provided as part of supplies for trained LGA traders/stockists.

In Akwa Ibom state, all the intervention water supply facilities were solar-powered motorized boreholes, but trained LGA level traders/stockists of genuine spare parts were only supplied seed spare parts for handpump boreholes (HPBHs) by the donor. This forced them to source spare parts from the state RUWASSA and the private sector with difficulty and variations in costs. Furthermore, only half of the LGA-trained LAM in Bauchi state were given work kits, while the four LAMs were given advanced repair toolkits to service all manner of repairs. LAMs are generally poorly rewarded for the repair services to communities who are often unable to pay the fixed repair service cost. This was evident in all states where community members presumed that WASHCOM were being paid to carry out the work or expected incentives to be paid by the Programme.

Misperception by community segments of incentives from government by WASHCOM members and local political problems

There were issues in some communities around what community members expected with regard to incentives from the Programme. In some communities visited it was reported that HHs were resistant to supporting the WASHCOMs because of a belief that WASHCOM members were being paid for their activities and were acting out of self-interest rather than for the benefit of the community. This view was reinforced by the fact that in other projects, implementing agencies have indeed provided some payment to community-level workers. A related issue was that some WASHCOM members believed that they should be paid for their efforts and some were also aware other Programmes provided payment for similar efforts. This made WASHCOM members less motivated to perform their duties on a purely voluntary basis.

Local hydrogeological conditions and climate

Other local conditions, including rocky terrain, high water tables and loose soil made implementation and construction challenging. The rainy season made it difficult to engage local volunteers and decision makers who were mostly engaged in their farms at the time.

4.2.6 For each of the identified barriers what are possible solutions to overcome them?

There may be a case for review and for strategic decisions to be taken regarding future activities to work towards the establishment of WASH departments and support the continued existence and development of a permanent WASHCOM federal structure. Materials for behavior change communication and hygiene promotion could be strengthened, lower cost sanitation models promoted, and availability of finance options increased.

In this section we outline some possible routes to addressing specific identified barriers. These are offered as a starting point for further exploration and discussion between UNICEF and implementing partners at all levels.

The upgrading of WASH units to WASH departments, intended to improve the sustainability of Programme achievements, was one of the outcomes which proved problematic. It may be worth reviewing the effectiveness of this strategy against possible alternatives to establish i) whether there is good evidence that the creation of a WASH department leads to greater political and financial commitment to WASH at LGA level, or whether the creation of a WASH department is indicative of existing high levels of political and financial commitment; and ii) whether the process of advocating for and establishing WASH departments through state legislation supports or detracts from other WASH activities at state and LGA levels.

There are then broadly two possible routes to addressing the issue. The first, if the establishment of WASH departments is deemed critical, is to increase the intensity and effectiveness of advocacy and withhold resources in the absence of sufficient evidence of progress. The second route is to more tightly define a core (possibly reduced) set of service and support activities and to establish the most appropriate and sustainable ways to provide these in the absence of a WASH department, whether through strengthening commitment to existing WASH units or increasing use of non-government partners.

Slow release of counterpart funding was in some cases compensated for by the use of other funding from within the Programme resources. However, as with the establishment of WASH departments, the issue of counterpart funding seems likely to be indicative of insufficient political support for WASH activities. The solution may lie, at least in part, with a renewed approach to advocacy, which could potentially include a dedicated communication campaign directed at political decision makers.

The expectation of payment on behalf of WASHCOM members and the perception among non-members that WASHCOMs are paid agencies threaten the sustainability of the WASHCOM structure. This structure has been a central part of the Programme, and considerable efforts have been made to build a complex civil society structure (the federation of WASHCOMs), and to extend the activities of WASHCOMs into other spheres. A strong and extensive WASHCOM structure can provide resources for community-level activities and a voice for civil society. However, there are costs associated with this in terms of the resources required for long-term support as well as the time costs, which fall on the volunteers themselves.

As with any organizational structure, there is also potential for abuse and the capture of resources by individuals or groups. The payment issues point to the vulnerability of this structure in the long term. As with the WASH departments, there may be a choice to make between increasing the advocacy, training and support provided to maintain and expand the WASHCOM structure or scaling back the use of WASHCOMs to focus on the short-term goals associated with achieving ODF. In the latter case, sustainability of water infrastructure would continue to be through VLOM, relying on a small number of individuals with dedicated responsibilities. Sustainability of sanitation, through the upgrading of HH latrines, would be through sanitation marketing activities, with external support.

Behavior change in WASH is challenging and can be a slow process. CLTS has a good record of achievement in the Programme. However, the materials for behavior change communication, particularly with respect to handwashing, are somewhat dated and there would be scope to revise and refresh these, possibly increasing the use of mass media and marketing events to deliver behavior change communication and sanitation marketing messages.

The issue of poverty cannot easily be overcome. It may be addressed by more widespread sanitation finance options. Community-level savings groups may do this to some extent, but their rates of disbursement will restrict the scale of impact they can deliver. Sanitation marketing may need to target selected market segments where sufficient HH-level resources are available. This, in combination with improved, lower-cost products may increase the rate of uptake.

This was broadly the approach being taken by the Programme's sanitation marketing efforts, though these were in an early stage and relatively small in scale. To overcome difficulties in implementing activities and loose soil leading to pit collapse, during the rainy season steps were taken to adjust the timing of activities and to introduce appropriate latrine options for collapsing soils.

4.3. Efficiency of WASH Programme

This section provides an assessment of the extent to which the Programme represents value for money and to which the relationship between inputs and outputs is timely, cost effective and meets expected standards.

The evaluation found evidence of improved efficiency, with faster delivery of ODF villages, as a result of effective triggering and the adoption of a revised approach for community led total sanitation (CLTS), with sanitation financing and marketing.

UNICEF continued to build capacity of LGA WASH departments in various areas, informed by capacity improvement plans, resulting in the rollout of rural drinking water monitoring and surveillance activities, amongst other achievements. The evaluation found that the Programme strategy of developing water safety plans has proved to be effective, providing a mechanism to build awareness of the importance of water safety.

While Programmatic financial resources appear sufficient, challenges in counterpart funding have been encountered. Although funding increased significantly there is not yet clear evidence of the presence of well-structured and supported WASH departments across all intervention states.

The UNICEF Nigeria WASH Programme shows evidence of timely deployment and delivery on key objectives. Timely delivery of key inputs, especially effective triggering, and the adoption of a revised CLTS approach with sanitation marketing and financing are notable examples of this.

4.3.1 To what extent were the WASH Programme financial resources, human resources and supplies adequate in terms of quality?

The evaluation explored whether the Programme inputs were bought at the appropriate quality and at the right price. The UNICEF WASH Programme actively sought to ensure quality inputs for quality outputs through a number of linked approaches, strategies and systems for procurement and contracting.

UNICEF has worked consistently to manage the costs of sanitation, water supply and ODF certification, with reductions noted in the cost of a community achieving ODF certified status due to more efficient conversion processes and engagement of local consultants to trigger and follow up communities. Where costs have fluctuated, the evaluation finds this is due to the scaling up of sanitation marketing and financing interventions. The evaluation notes a reduction in total cost per person of using improved water supplies, resulting from an increase in beneficiaries accessing water.

UNICEF supported a number of related initiatives to facilitate community ownership and sustainable management of water supply facilities and jointly contributed to reducing the downtime for breakdowns of community water facilities.

Strategies and frameworks for efficiency and cost effectiveness

At the input stage, a series of procedures were designed to ensure that construction contracts were procured through a competitive and transparent process and that works were implemented in line with accepted and agreed technical specifications. Specific guidelines to facilitate this included: the Harmonized Procurement Guidelines[58]; Contract Management Guidelines; and Third-Party Supervision Guidelines. These guidelines were first introduced in 2014 and underwent a number of reviews in partnership with the FMWR to address potential grey areas or those requiring additional clarity.

In support of this, data collected through the WASH Information Management System (WASHIMS) shows that there was a reduction of downtime of water resources, strongly suggesting sustained quality and efficient use of inputs[59].

At the output stage quality is further supported through embedding routine monitoring and surveillance of rural drinking water quality every six months through the Rural Drinking Water Quality Monitoring and Surveillance System. Data from a sample survey showed that the highest level of contamination of water is at the storage stage and least at the water source[60].

[58] UNICEF Procurement Guidelines were developed in 2014. These have been regularly reviewed and updated . most recently in March 2018, in collaboration with FMOWR.
[59] real time functionality tracking with data available at State, LGA and community levels. WASHIMS data is still improving, specifically in terms of frequency of collection, quality of data entry and use of information.
[60] NDSP 6th Year Report

As a result of these findings, the project further strengthened the implementation of hygiene promotion through Volunteer Hygiene Workers and Promoters, including messages on safe water practices and behaviors in the HH.

The Programme developed a strategy to address the challenge and impact of breakdowns in water pumps using VLOM[61]. VLOM units are responsible for monitoring that the system of 'community caretakers' is effectively monitoring pumps and reporting breakdowns, and that LAMs repair pumps within 48 hours. The evaluation found evidence that this contributed to addressing this challenging area. For example, the WSSSRPII 2018 annual report noted that "*VLOM units and local area mechanics to address breakdowns/need for repairs promptly (through a local foundation),[62] that has reduced the downtime of water pumps to an average of three days."*

While significant progress has been made, this is still a challenging area. According to the WSSSRPII logframe, the project expected 70 per cent functionality with 80 per cent of communities having improved and functional water supply facilities. However, at the time of this evaluation functionality was at 64 per cent[63]. Tables 28 and 29 show the progress, by state and by project, regarding the number of water points and sanitation facilities constructed.

Table 22: Total Number of Services of Water Points constructed by WASH Programme in 2014-2019 (new and rehabilitated water points)[64]

State	SHAWN II		WSSSRP 2		WSSSRP 3		NDSP		Total achieved
	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved[65]	
Akwa Ibom	Water point construction and rehabilitation not disaggregated by state in annual reporting.		-	-	-	-	95	110 (110.5%)	110
Anambra			n/a[4]	72	-	-	-	-	72
Bauchi			-	-	-	-	-	-	
Benue			-	-	-	-	-	-	
Ekiti			-	-	536	149 (27.8%)	-	-	149
Jigawa			n/a[4]	952	-	-	-	-	952
Katsina			-	-	-	-	-	-	
Other			n/a[4]	2,019	1400	1049 (74.93%)	268	244 (91.04%)	
TOTAL	**[66]**	**14,032**	**n/a[67]**	**3,043**	**1936**	**1,198 (61.88%)**	**363**	**349 (96.14%)**	**18,622**

Table 23: Total Number of Services of Sanitation Facilities built by WASH Programme in 2014-2019[68]

[61] SKINNER, B. and SHAW, R. (1999) *VLOM Pumps.* Technical Brief 41 , WEDC , Loughborough University , Loughborough, UK
[62] The Tulsa Chanrai Foundation
[63] WSSSRP III Report
[64] Blank cells, where not otherwise explained, indicate either that data was neither applicable nor available in the reviewed reports.
[65] Number of water source projects completed to specification.
[66] Aug 2019 target = 85% of HH samples in SHAWN LGAs have access to an improved water point within 500m / 9 million people in SHAWN LGAs have access to an improved water point.
[67] Target = 2200 communities, schools, and health facilities to be covered by new/rehabilitated by mid-2018.
[68] Blanks cells, where not otherwise explained, indicate either that data was neither applicable nor available in the reviewed reports.

State	SHAWN II		WSSSRP 2		WSSSRP 3		NDSP	
	Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
Akwa Ibom	Sanitation facility construction not disaggregated by state in annual reporting		-	-	Not disaggregated by state[69]		50,052	40,211 (80.34%)
Anambra			0	3,542			-	-
Bauchi			-	-			-	-
Benue			-	-			-	-
Ekiti			-	-			-	-
Jigawa			63,357	48,351 (76.32%)			-	-
Katsina			-	-			-	-
Other			51,615	174,934 (338.29%)	-		110,042	54,193 (49.25%)
TOTAL	**-**	**2,583,217[70]**	**114,972**	**226,827 (197.29%)**	**-200,000**	**66,421 (33%)[71]**	**160,094**	**141,200[3,72] (88.20%)**

Coupled with increased efforts to address quality, the WASH Programme managed to keep costs to within or below budgeted levels. Data from the SHAWN Programme showed that actual input costs were consistently lower than budgeted for two types of hardware. This was primarily due to competition between multiple qualified contractors at the bidding stage bringing costs down.

Managing the costs of sanitation, water supply and ODF certification

The SHAWN II 2019 Report showed that the cost of a community achieving ODF certified status was US$1,680.34, lower than the US$2,179.00 required in July 2015 and the SHAWN I benchmark amount of US$3,565.00. Furthermore, the total cost per person accessing sanitation in ODF-certified communities was US$9.59 in July 2018, compared to US$13.07 in July 2015. The general reduction in unit cost is due to more efficient conversion processes, and the engagement of local consultants to trigger and follow up communities has reduced the cost of ODF certification.

Costs rose again in 2017, mainly due to the scaling up of sanitation marketing and financing interventions. However, the evaluation recognizes the added value of the WASH Programme's additional focus in the areas of sanitation marketing[73], specifically following up on the declaration of ODF by communities with efforts to move up the sanitation ladder, such as by transitioning from OD and no facilities to basic, or from basic to improved facilities. The 2014 evaluation of the UNICEF Community Approaches to Total Sanitation (CATS) Programme noted that "Follow-up and reinforcement are critical for sustainable ODF status but have been widely neglected. ODF certification has often been treated as a final event, leaving post-ODF

69 Monitored on a number of people per community, rather than per HH basis with a target of 80% coverage.
70 Source DFID 2018 and 2019 Reports
71 Source 2018 WSSSRP III Donor Report
72 Source 2019 NDSP Final Report
73 Cavill, S. with Chambers, R. and Vernon, N. (2015) 'Sustainability and CLTS: Taking Stock', Frontiers of CLTS: Innovations and Insights Issue 4, Brighton: IDS Sustainability and CLTS: Taking Stock. Issue 4. Feb 2015.

sustainability to take care of itself".[74] This learning was clearly taken on board in the development of the Nigeria WASH Programme. The slight increase in unit cost in 2018 is due to the acceleration and scaling up of sanitation marketing interventions in 60 LGAs.

In July 2018, the total cost per person of using improved water supply was US$28.71, a 33 per cent decrease compared to July 2015 (US$42.58). Various factors contributed to this decrease, including an increase in beneficiaries accessing water and a reduction in costs due to the rehabilitation of 30 per cent of the water facilities in 2017.

Quality and sustainability of ODF triggering

The evaluation found evidence of improved efficiency (faster) delivery of ODF villages, as a result of effective triggering and the adoption of a revised approach for CLTS with sanitation financing and marketing. The 2018 SHAWN II report noted that 70 per cent of ODF communities maintained their ODF status through supportive supervision and follow-up, provided through community structures such as WASHCOMs, voluntary hygiene promotors (VHPs) and staff of rural water supply agencies trained by SHAWN II. The SHAWN project achieved 12,070 ODF communities, covering 9.98 million people and surpassing the target of 11,600 ODF communities in 2018.

Water Safety Plans and quality monitoring

UNICEF continued to build capacity of LGA WASH departments in various areas, informed by capacity improvement plans starting from the 2017 capacity assessment of state RUWASSAs and LGA WASH departments. This approach included training on WASHIMS, WASH Performance Management Portal (WASHPMP), local investment plans, community management processes, community-based monitoring and reporting, and real-time facility functionality tracking. During the period under review, 38 officials from state and local government were trained in the supervision of WASH facility construction and on the monitoring and surveillance of rural drinking water quality. This resulted in the rollout of rural drinking water monitoring and surveillance activities in three focal LGAs in Osun state. Additionally, members of the STGS across the states received training to ensure proper adherence to the certification protocol for ODF claiming communities.

The evaluation found that the Programme strategy of supporting communities to develop water safety plans has proved to be effective, providing a mechanism to build awareness of the importance of water quality.

Capacity building

The Programme has supported a suite of capacity building activities for state, local government and community personnel. A number of challenges were faced due to lack of adequate staffing. These include staff turnover and a lack of permanent staff where LGAs have established WASH units. This has led to gaps in skills and human resources and has a material effect on fully establishing and staffing WASH

[74] UNICEF (2014) Evaluation of the WASH Sector Strategy "Community Approaches to Total Sanitation" (CATS), UNICEF, www.unicef.org/evaluation

departments. In relation to capacity building efforts in LGAs, 50 per cent of recipients of training in Akwa Ibom were women while in Jigawa and Bauchi states, there was a greater weighting towards men.

Findings from the qualitative fieldwork noted that respondents said the quality of human and material resources for the implementation of projects and activities was adequate. The evidence further suggests that quality standards are followed, resulting in high quality facilities being built.

Sustainability of water facilities

UNICEF supported a number of related initiatives to facilitate community ownership and sustainable management of water supply facilities, including:

- the establishment of community management structures, or WASHCOMs.
- the establishment of VLOM units in LGAs.
- training of LAMs.
- mobilization and training of water facility caretakers in communities across the LGAs to carry out routine reporting to LAMs.

These initiatives jointly contributed to reducing the downtime for breakdowns of community water facilities to an average of three days, a reduction from a week or longer previously. In addition, WASHCOMs were trained using the expanded guidelines for the collection of user charges for maintenance of water facilities and are assisting communities through supportive monitoring.

Box 2: Determinants Analysis of Efficiency

Determinant Analysis of Efficiency

The main factors for the noted improvements in efficiency include:

- The engagement of local resource persons with appropriate capacities (known as barefoot consultants), including essential leadership skills in the CLTS process.
- The negotiated payment of a daily subsistence allowance to state and LGA partners.
- The competitive procurement process allowing bidders to bring down the cost of hand pumps, boreholes and latrines.
- The involvement of LGA consultants and third-party entities in monitoring construction works being key to ensuring the quality of outputs, as well as faster delivery time.

Tables 24-28 show financial analysis of the Programme.

Table 24: Analysis of Budget Utilization of WASH Programme in 2014-2019[75]

(All figures in USD, contemporaneous exchange rates used where not provided, percentages not provided where release and usage dates not in alignment).

Programme Year	SHAWN II[76]		WSSSRP 2		WSSSRP 3		NDSP	
	Released (sum of tranches disbursed)[77]	Used (cumulative)	Allocated (sum of pre-financing)	Used (cumulative)	Allocated (sum of pre-financing)	Used (cumulative)	Allocated (sum of pre-financing)	Used (cumulative)
2014 (1€ = US $1.28)	10,913,000	9,993,698 (91.58%)	14,370,502	8,246,098 (57.38%)	3,048,358	2,422,979 79.48%)	24,786,414 [Programmable funds for project duration]	4,977,147
2015 (1€ = US $1.27)	23,149,040	22,244,498 (96.09%)	21,522,546	14,595,287 (67.81%)	7,298,085	4,565,845 (62.56%)	9,795,024	6,737,479 (68.78%)
2016 (1€ = US $1.20)	42,877,040	41,972,498 (97.89%)	21,522,546	19,500,025 (90.60%)	7,298,085	6,909,030 (94.67%)	9,795,024	8,816,797 (90.01%)
2017 (1€ = US $1.217)	64,585,040	63,412,498 (98.18%)	27,650,053	26,318,911 (95.19%)	11,480,382	9,646,404 (84.03%)	14,775,362	14,078,116 (95.28%)
2018 (1€ = US $1.272)	82,193,533	81,014,999 (98.57%)	36,253,425	33,544,256 (92.53%)	12,171,088 (figure not updated from prev.)	13,900,104	29,286,427	19,279,834 (65.83%)
2019	88,762,286 (to Apr 2019)	94,155,320 (to Aug 2019)	-[78]		Not reported.	Not reported.	Not reported.	Not reported.
TOTAL	88,762,286 (to Apr 2019)	94,155,320 (to Aug 2019)	36,253,425 (to June 2018)	33,544,256 (92.53% to June 2018)	18,126,712	13,900,104 (76.68% to May 2018)	29,286,472 (to 2018)	19,273,834 (65.83% to 2018)

[75] N.B. Annual reporting dates don't align with the calendar year and are different across projects. The annual report with the greatest coverage of that year was used in each case.
[76] 2014, 1 GBP = US$1.56; 2015, 1 GBP = US$1.48; 2016, 1 GBP = US$1.23; 2017, 1 GBP = US$1.34; 2018, 1 GBP = US$1.40; 2019, 1 GBP = US$1.31;
[77] N.B. Tranches were disbursed on an as-requested basis, these figures are expenditure *of tranches disbursed* and mask a lower-than-planned usage rate.
[78] 2019 Annual Report not provided.

Table 25: Analysis of Government Financial Contribution to WASH Programme in 2014-2019[79,80]

(All figures in USD, contemporaneous exchange rates used where not otherwise provided)

State	SHAWN II		WSSSRP 2[81]		WSSSRP 3		NDSP	
	Planned	Disbursed (cumulative)	Planned	Disbursed (cumulative)	Planned	Disbursed (cumulative)	Planned	Disbursed (cumulative)
2014 (1 Naira = US $0.00546451)	Not reported	316,941 (approx.)	-[82]	0	Not reported	Not reported	4,340,874	0 (0%)
2015 (1 Naira = US $0.0050244944)	Not reported	3,622,660	3,793,493	Not reported	Not reported	150,734 (approx.)	3,991,332	158,794 (3.98%)
2016 (1 Naira = US $0.0032873108)	11,775,147	7,366,863	2,292,247	1,750,924 (73.38%)	Not reported.	Not reported[83]	2,611,357	419,970 (16.08%)
2017 (1 Naira = US $0.0028026287)	10,408,962	6,877,650	2,071,320	Not reported	1,915,036	1,382,452 (72.19%)	2,226,338	1,990,454 (89.40%)
2018 (1 Naira = US $0.0027434703)	12,521,198	7,519,852	Not reported	Not reported	1,874,613	1,584,030 (84.50%)	4,929,193	2,357,270 (47.82%)
2019 (1 Naira = US $0.002758509)	Not reported	8,827,228	-[84]		Not reported	Not reported	Not reported	Not reported

[79] Missing % indicate that the planning period and reporting period were different and therefore not directly comparable.
[80] N.B. Annual reporting dates don't align with the calendar year and are different across projects. The annual report with the greatest coverage of that year was used in each case.
[81] Note that while reporting of figures was inconsistent throughout the annual reporting, all annual reports indicated difficulty with both securing counterpart commitments and their disbursement.
[82] Workplan activities for 2013-2014 were dedicated to supporting fundraising of counterpart funds, rather than disbursement/use.
[83] "During the reporting period, substantial progress was recorded in Adamawa state where the government has released counterpart funds for construction of water points. However, in spite of the various advocacy efforts, Ekiti and Plateau states are yet to release counterpart funds for the projects."
[84] 2019 Annual Report not provided.

Table 26: Cost Benefit Analysis of Access to Improved Water Sources

(contemporaneous exchange rates used where not provided)

Programme year	SHAWN II[85]			WSSSRP II			WSSSRP III		
	Number of beneficiaries	Total Expenditure (in USD)	Unit cost in USD	Number of beneficiaries	Total expenditure[86] (in USD)	Unit cost in USD	Number of beneficiaries	Total expenditure[87] (in USD)	Unit cost in USD
2014 (1 EUR = $ 1.2848 US)	486,000	Per-workstream financing not available	Not reported	0	1,840,678	-	0	1,413,292	-
2015	1,903,502		42.58	133,094	4,807,545	36.12	111,970[88]	1,448,725	12.94
2016	1,600,308		31.07	625,000	5,888,849	9.42[89]	125,674[90]	1,618,286	12.88
2017	990,000		24.29	144,500	10,273,331	71.09	159,595	3,076,260	19.28
2018	433,200		28.71	174,656	12,208,823	69.90	219,559	4,308,058	19.62
2019	1,230,000		38.10	WSSSRP II 2019 Report not provided			508,973 (March 2019)	2019 Financial reporting not provided	
TO-TAL	6,643,010	-	32.95	2,249,858 (2019)	35,019,226 (excl. 2019)	46.63[91]	508,973 (March 2019)	11,864,621 (excl. 2019)	16.18[92]

Table 27: Cost Benefit Analysis of Access to improved sanitation facilities (contemporaneous exchange rates used where not provided)

Programme year	SHAWN II			WSSSRP II			WSSSRP III		
	Number of communities certified ODF	Total Expenditure (in USD)	Unit Cost in USD (per certified community)	Number of communities certified ODF	Total expenditure[93] (in USD)	Unit cost in USD	Number of beneficiaries in ODF certified communities	Total expenditure (in USD)	Unit cost in USD
2014 (1 EUR = $ 1.2848 US)	1,204	Per-workstream financing not provided	Not reported	258	1,368,598	5,304	0	16,527	-
2015	1,622		2,179	110	2,129,033	19,354	27,771	692,489	24.94
2016	1,719		1,813	547	3,039,048	5,555	166,318	1,201,739	7.23
2017	2935		1,594	710	3,537,670	4,982	125,734	1,795,740	14.28
2018	2,588 (148,843[94] beneficiaries)		1,680	526	4,674,778	8,887	12,281[95]	1,907,833	155.34

85 Unit costs provided in SHAWN II Annual Review Debrief Presentation, August 2017. Figures derived from annual reporting. A difference in calculation methodology may explain why the rows don't sum as expected. The lack of cost-breakdowns makes this hard to test.
86 Logframe ACT. # 19: "Support to procurement of contracts (rehabilitation/new water points) and supervision in communities using the harmonized procurement guidelines."
87 N.B. Expenditure used: overall expenditure on "Sanitation (CLTS Approach) and Hygiene Promotion".
Footnotes indicate deviations in the calculation method for given cells.
88 Not reported in 2015, calculated from annual achievement in subsequent years until, and cumulative project achievement in, 2018.
89 Outlier unit costs may be explained by reporting overlap introducing misalignment between reporting and funding periods.
90 Figure is for Adamawa and Ekiti states, no other states data recorded.
91 Mean across available years.
92 Mean across available years.
93 N.B. Expenditure used: overall expenditure on "Sanitation (CLTS Approach) and Hygiene Promotion". Footnotes indicate deviations in the calculation method for given cells.
94 SHAWN 2018 Annual Review Report, p18
95 Figure not reported, but calculated based on previous annual totals and cumulative total in 2018. Overlap between the reporting periods /double-counting within annual figures may explain the excessive unit cost here, although the security situation is reported as having hampered implementation.

2019	3,072		1,814[96]	WSSSRP II 2019 Report not provided.			469,716 (March 2019)	2019 Financial reporting not provided.	
TOTAL	15,170	-	1,816[97]	2,151 communities covering 3,260,254 beneficiaries (June 2018)	14,749,127 (excl. 2019)	6,857 USD per community 4.52 USD per beneficiary	469,716 (March 2019)	5,614,328 USD (excl. 2019)	50.45[98]

Table 28: Cost Benefit Analysis of Access to improved Water source in School (& Healthcare Facilities, contemporaneous exchange rates used where not provided)

Programme year	SHAWN II			WSSSRP II			WSSSRP III		
	Number of schools (+ health centers)	Total expenditure (in USD)	Unit cost-USD	Number of beneficiaries	Total expenditure[99] (in USD)	Unit cost-USD	Number of beneficiaries	Total expenditure[100] (in USD)	Unit cost-USD
2014 (1 EUR = $ 1.2848 US)	Not reported	Per-workstream financing not provided.	-	0	0	-	0	0	-
2015	160 (80)		-	22,388	744,166	33.24	0	21,338	-
2016	220 (109)		-	54,612	1,192,833	21.84	13,418	185,969	13.86
2017	756 (337)		-	39,925	1,861,987	46.63	41,855	520,137	12.43
2018	1,297 (374)		-	-[101]	1,936,749	-	33,518	538,927	16.07
2019	546 (525)		-	WSSSRP II 2019 Report not provided.			73,691 (March 2019)	2019 Financial reporting not provided.	
TOTAL	2,243 (820)	-	-	133,356[102] (2019)	5,735,735	33.90[103]	73,691 (March 2019)	1,226,371	14.12[104]

4.3.2 To what extent were the WASH Programme financial resources, human resources and supplies sufficient in terms of quantity?

While Programmatic financial resources appear sufficient, challenges in ensuring that counterpart funding is allocated and disbursed in a timely manner have been encountered.

From a human resource perspective, the overall thrust of the UNICEF WASH Programme was to build and sustain change through good quality training and the development of a strong 'multi-layered' enabling environment at LGA levels. At the LGA level, the 2018 and 2019 SHAWN II reports demonstrate strong progress in numbers of VHPs, LAMs, TBOs and WASHCOMs, the latter with a focus on engaging women members. Furthermore, the development of water safety plans, water quality monitoring and improvements

96 SHAWN II Extension Proposal, 2019.
97 Mean of available years.
98 Mean across available years.
99 Logframe ACT. # 20: "Procurement for construction of school water and sanitation, and hand washing facilities in selected schools"
100 N.B. Expenditure used: overall expenditure on "Sanitation (CLTS Approach) and Hygiene Promotion". Footnotes indicate deviations in the calculation method for given cells.
101 Number of beneficiaries not indicated in 2018 Annual Report. A total of 417 schools were provided with water supplies from inception to 2018 reporting period end.
102 WSSSRP II Project Dashboard, 2019.
103 Mean across available years.
104 Mean across available years.

in the maintenance and repair of water sources underpin and give added meaning to these reported quantitative increases.

In contrast to progress at the LGA level, obtaining sufficient counterpart funding and developing strong and effective state WASH departments has been a far slower and more challenging journey. Progress in obtaining counterpart funding was slow and irregular for a substantial part of the Programme life with varied commitment levels in a number of areas. More on this issue is presented in 4.3.3 in Box 4.

Furthermore, while funding increased significantly there is no clear evidence of the presence of well-structured and supported WASH departments across all intervention states. There has been a delay in upgrading WASH units to WASH departments, and this has been particularly challenging in the NDSP where only two of the project states have RUWASSAs established by law. There are a number of reasons for this, including a lack of human resources, low prioritization of WASH, and the need more evidence-based planning to support appropriate and effective budget allocation.

4.3.3 To what extent were the WASH Programme financial resources, human resources and supplies timely in deployment and delivery?

The UNICEF Nigeria WASH Programme shows evidence of timely deployment and delivery on key objectives. One example of this is the establishment of WASH departments across project LGAs under WSSSRP II as summarized in Table 35. The achievement of these results was made possible by a strategic mix of LGA and community level activities, supported by advocacy work with key stakeholders.

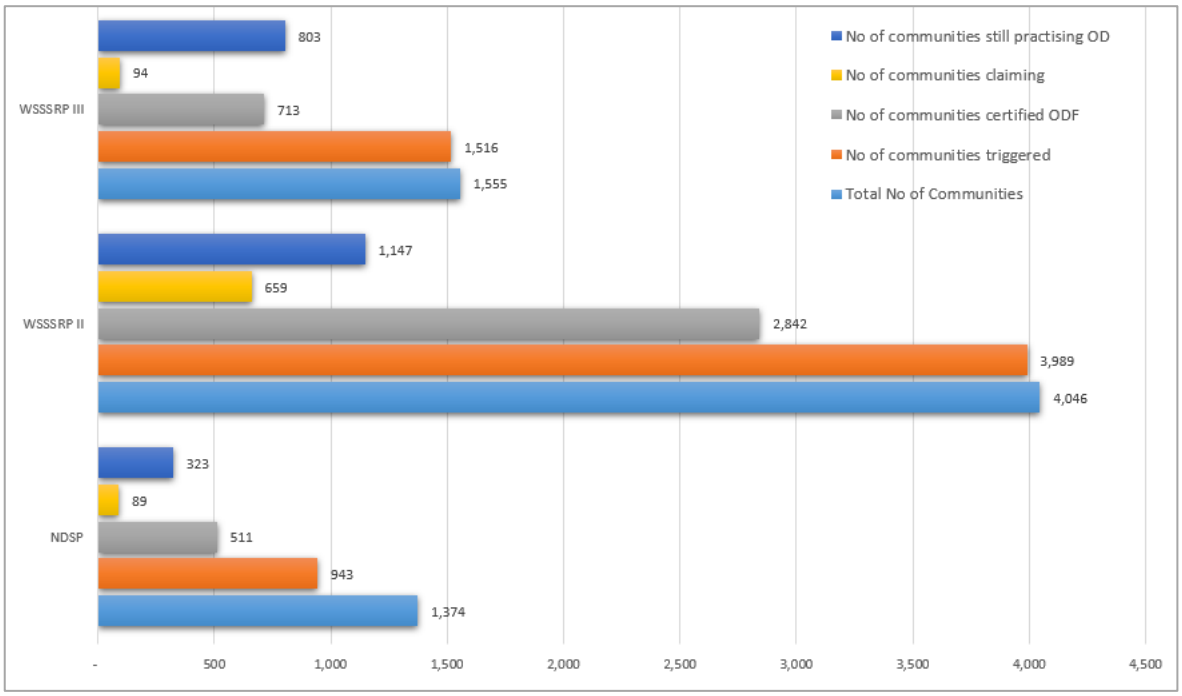
Table 29: State of establishment of WASH departments across project states

Project State	Establishment of WASH Departments
Anambra	Established but not yet fully functional
Cross River	Established
Jigawa	Established
Kano	Established in the 44 LGAs
Osun	Established
Yobe	Not yet established

Timely delivery of key inputs, especially effective triggering, and the adoption of a revised CLTS approach with sanitation marketing and financing in parallel supports a more efficient delivery of ODF villages which in turn supports sustainability and potential impact. In addition, education and health work has focused on collaboration with the states' universal education boards and primary healthcare development agencies. Through these initiatives, health workers and teachers have been enrolled to promote hygiene in health facilities and schools.

A major barrier to timeliness has been delays in verifying the status of communities that claim ODF status. Figure 14 illustrates the progress of EU supported projects. This was addressed through the use of the third-party consultants to provide the necessary capacity to backstop project implementation and monitoring.

Figure 11: Progress of EU supported projects[105]



The issue of delayed counterpart funding impacted the Programme, causing delays and consequent impacts on delivery of outputs. For example, in Akwa Ibom state the provision of water supply hardware was delayed for three years prior to the commencement of a procurement process that saw the completion and payment of the contract for 103 solar powered motorized boreholes. More about counterpart funding is provided in Box 4.

A further example of timeliness was the provision of water supply works in Akwa Ibom state. Though works were undertaken in a timely manner in Bauchi and Jigawa states, they were delayed in Akwa Ibom until counterpart funds were released in 2016. This meant that facilities were provided to communities in Akwa Ibom three years late, affecting quality and effectively denying people access and leaving them at risk of attendant water-related diseases.

[105] Update on EU funded WASH Projects (NDSP, WSSSRP II & WSSSRP III). July 2019. PowerPoint presentation

Box 3: Counterpart funding

Counterpart funding

Securing counterpart funding was a critical part of the Programme, and one on which other Programme areas depended for timeliness and adequacy. A key challenge for the Programme was the achievement of adequate and timely counterpart funding from state-level RUWASSA. Project narratives showed that the provision of state-level funding was dependent on a number of interlinked processes, notably a review of the 'Local Government Scheme of Service' that would form the legal basis for states to upgrade WASH units to WASH departments, and for these to develop plans, allocate staff and develop budgets. In reality the process was time consuming and dependent on each individual state adopting and then implementing the commitments of the revised scheme of service. Delays in this process led to significant delays in the upgrading of WASH units to departments at the LGA, and also to the provision of timely and adequate funding.

Though SHAWN II reported an increase in counterpart funding in 2018 to above the milestone for the first time, the 2019 SHAWN report noted that a major challenge to the Programme was "the slow rate of expenditure under the project, especially in new target states (such as Yobe), and low level of release of counterpart funding." This has understandably impacted LGAs and communities as a WASH coordinator in Bauchi State explained, "There are many communities that are yet to be served in the LGA due to scarcity of government counterpart contributions, and need to be procured in phases."

The lead time for counterpart funding to take off was long. While it has significantly increased (to beyond target levels in some states), the effectiveness and application of these funds are still an issue. Some of the challenges to counterpart funding included both over and under resourcing with no reference to a budget or impact on longer term sustainability.

The main result of counterpart funding was the establishment of WASH departments at state level to support institutional capacity building. While activities were consistent with achieving expected results, the timing of individual states in setting up, staffing and funding WASH departments, and for those departments to develop their own plans and specific budgets, was for the most part beyond the control of UNICEF.

4.4. Impact of WASH Programme

This section assesses the positive and negative, primary and secondary long-term effects produced by the intervention -- whether direct or indirect, intended or unintended.

With respect to the ToR, one of the main objectives of this independent evaluation was to assess the impact of this large investment (US$188 million) on child health, nutrition and education. The main purpose of measuring the multisector impact of WASH interventions on child survival and development, women and communities, is acquiring knowledge for better future WASH sector policies and strategies. What works, what did not work, why, what could be done differently?

In summary, there was little evidence of systematic integration of WASH into other sector interventions and no evidence was found of impact on diarrhea prevalence, malnutrition or school enrolment rates.

However, there was some evidence of an impact on behavior change through increased handwashing, and anecdotal evidence of impact on gender-based inequalities and women's participation in WASHCOMS.

Health, nutrition and education are downstream impacts that are potentially influenced by numerous factors lying beyond the scope of the Programme. Furthermore, data on these impacts may be of variable quality, which complicates comparisons across different times or locations. For these reasons, it is widely accepted that impact data are not the best indicators of Programme performance. In the case study of Nigeria's impact evaluation, there is the additional complication of a lack of a baseline HH survey.

In the absence of base line HH survey at the beginning of the WASH Programme, a mixed method of data analysis has been performed by the evaluation team to try to show some probable evidence of possible effects of WASH interventions on improving children's health (reduction of diarrhea), nutritional status (reduction of stunting) and learning (increase of primary school attendance ratio) as requested by the evaluation's commissioners. Quantitative information was taken from secondary data from nationwide HH surveys completed from 2008 to 2018 in Nigeria (NDHS and WASH NORM Survey) and from the statistical routine data of the Ministry of Health regarding diseases (cases of diarrhea and cholera). It was also sourced from primary data collected during the evaluation of HH surveys undertaken in seven states by applying the quasi experiment design comparing impact indicators of LGAs exposed to the WASH Programme with LGAs not exposed. In addition, qualitative information generated from FGDs and KIIs were used to complement and reinforce findings from quantitative data.

This requires the evaluation to make an assumption that interventions and control communities were equal at baseline and would have had a shared trajectory with respect to these impacts in the absence of any intervention. This seemed a reasonable assumption with respect to WASH outcomes, which may be unlikely to show rapid change in the absence of a targeted WASH intervention, but it may arguably be less reasonable to make this assumption with respect to health and education indicators.

In this section, we have included data from secondary sources where appropriate and available to complement the primary data collected through surveys, FGDs and interviews. We present secondary data on diarrheal disease, school attendance and stunting from the Nigeria DHS. These data give an indication of trends across three time points (2008, 2013 and 2018). The final point (2018) falls within the implementation period of the Programme, shortly after the Programme's initial, 2017 end date. However, these are state-level data which do not allow us to draw conclusions about the additional effects of the WASH Programme or its constituent projects. These data allow us to look for patterns consistent with an effect of the Programme, though they do not provide strong evidence of Programmatic impact.

4.4.1: To what extent did the integration of WASH into other sector interventions (health, nutrition education) lead to the anticipated impacts as well as other unexpected/unanticipated long-term results in the targeted areas?

Looking across the Programme as a whole, there was little evidence of integration of WASH into other sector interventions and therefore it is unlikely that cross-sector integration played any significant role in the results achieved. There was some evidence of collaboration with the education and health sectors as needed to facilitate provision of institutional WASH facilities required for achievement of ODF status.

Perceptions from KIIs noted that initially integration/convergence was limited. However, it was further noted that: *"the state planning commission that coordinates development in the sector is ensuring the avoidance of duplication, which has been helping to ensure convergence is sustained."*

Evidence further shows that this experience is typical of the situation in other recipient states. It should be noted that some partners from other sectors in Akwa Ibom were unwilling to participate in the evaluation and appeared uninterested in the issue of convergence.

In the area of health and nutrition, there was no integration at the level of the WASH Programme, but there was some local integration at the level of LGA, and some geographical overlap with SHAWN II activities in Jigawa state. The general manager of the Bauchi State RUWASSA explained that:

"… there is a collaboration between RUWASSA and health in establishing the community management of acute malnutrition centers. RUWASSA provided safe water and sanitation facilities while the PHC provides the nutrition components."

A respondent from the Ministry of Health in Jigawa said, *"Now when we are planning for construction of new health centers, we involve RUWASSA since they provide toilets and water, working together produce more result".*

UNICEF staff were positive about the idea of using WASHCOMs for the delivery of nutrition interventions in future.

UNICEF respondents noted that convergence between WASH and other sectors was desirable but had not happened in a systematic or widespread manner during the Programme. They suggested that ideally convergence would come about through geographical overlap, the use of shared delivery platforms and targeting of the same beneficiary HHs. However, integration was considered to be challenging because different sectors have different indicators and different selection criteria for intervening. This can make it difficult to move beyond the level of geographic convergence, which was nevertheless regarded as potentially useful. Additionally, WASH is considered a right and an objective in itself, making it problematic to frame as a component of another sector intervention.

The evaluation notes that the number of cholera cases in Anambra, Bauchi, Jigawa and Katsina states has declined progressively since 2013, taking account of major Cholera outbreaks recorded for 2014 and 2018 (NCDC), which are anomalous years in the data set. This data is shown in Table 36. The available data do not allow the evaluation to assess whether the Programme impacted on cholera incidence.

Table 30: Trend of Number of Cholera Cases at Health Facilities

State	2013	2014	2015	2016	2017	2018	2019
Akwa Ibom	0	0	0	0	0	0	0
Anambra	43	291	169	112	0	23	0
Bauchi	73	148	131	97	0	9405	5
Benue	0	0	0	0	0	0	1
Ekiti	0	0	0	0	0	0	0
Jigawa	106	121	197	66	17	15	0
Katsina	523	53	53	14	0	7400	1
Nigeria	6,600	35,996	5,298	768	5,268	43,996	15,837

4.4.2 To what extent has the Programme contributed to reduction in the incidence of diarrheal diseases among boys and girls under the age of 5?

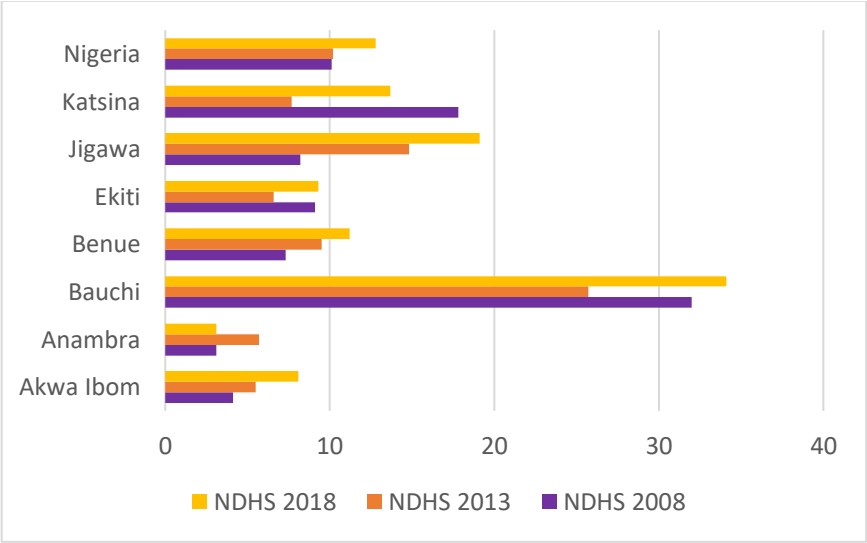
The evaluation found no strong evidence of impact on diarrhea prevalence across the Programme (18.0 per cent vs 19.5 per cent in the intervention and non-intervention areas respectively).

Secondary data from the NDHS HH survey, presented in Table 37 and Figure 15, did not provide evidence of a reduction in the prevalence of diarrhea disease among under-five children in six of the seven states which the evaluation covered. Only Anambra state recorded a 2.6 percentage point decrease in the prevalence of diarrhea among under-five children during the last five years from 5.7 per cent (NDHS 2013) to 3.1 per cent (NDHS 2018). This brought the state back to its 2008 level. All other states showed an increase in diarrhea rates in children under five over the period of Programme implementation. In Benue, Ekiti and Katsina, an increase between 2013 and 2018 followed an initial decrease prior to the Programme, between 2008 and 2013. In general, in Nigeria, the prevalence of diarrhea has increased somewhat from 10.2 per cent in 2013 to 12.8 per cent in 2018 according to NDHS Reports.

Table 31: Prevalence (%) of Diarrhea among U5 Children from 2008 to 2018 in 7 States of WASH Programme using secondary data of NDHS

State	NDHS 2008	NDHS 2013	NDHS 2018
Akwa Ibom	4.1	5.5	8.1
Anambra	3.1	5.7	3.1
Bauchi	32	25.7	34.1
Benue	7.3	9.5	11.2
Ekiti	9.1	6.6	9.3
Jigawa	8.2	14.8	19.1
Katsina	17.8	7.7	13.7
Nigeria	**10.1**	**10.2**	**12.8**

Figure 12: Evolution of Prevalence (%) of Diarrhea among U5 Children from 2008 to 2018 in 7 States of WASH Programme using secondary data of NDHS



Primary data collected throughout the course of the evaluation found no evidence of systematic impact on diarrhea prevalence across the overall Programme (18.0 per cent vs 19.5 per cent in the intervention and non-intervention areas, respectively). When looking at the pattern across individual states, the results were mixed. In Benue, rates were significantly lower in the intervention group (13.9 per cent in intervention LGAs vs 29.6 per cent in non-intervention LGAs), while in Jigawa they were higher (22.7 per cent in intervention vs 15.2 per cent in non-intervention LGAs). Similarly, in Katsina somewhat higher rates were seen in the intervention group (7 per cent in intervention vs 5 per cent in non-intervention LGAs). These data are presented in Table 38 and Figure 16.

Qualitatively, respondents reported having noticed a reduction in diarrheal disease prevalence. Secondary data from the NDHS survey also did not provide evidence of an impact on diarrheal disease.

The evaluation assessed the prevalence of diarrheal disease in children aged five years and under through a questionnaire asking the heads of HHs of these children whether the under-five child had experienced diarrhea in the two weeks prior to the survey. These data are presented in Table 39.

Table 32: Evidence of impact of WASH Programme on Diarrhea among Children under 5 years – Difference between Treatment Group and Control Group

State	Treatment Group	Lower CI-Upper CI	Control Group	Lower CI-Upper CI
Akwa Ibom	10.3	6.4-16.1	12.7	8.1-19.6
Anambra	-	-	-	-
Bauchi	21.9	18.8-25.4	33.6	28.1-39.5
Benue	13.9	9.4-20	29.7	23.4-36.7
Ekiti	4.3	1.9-9.5	9.2	4.5-18.2
Jigawa	22.7	19.2-26.6	15.2	11.7-19.5

Figure 13: Comparison of prevalence of Diarrhea (%) among U5 Children between Treatment Group and Control Group LGAs, Evaluation HH Survey 2019

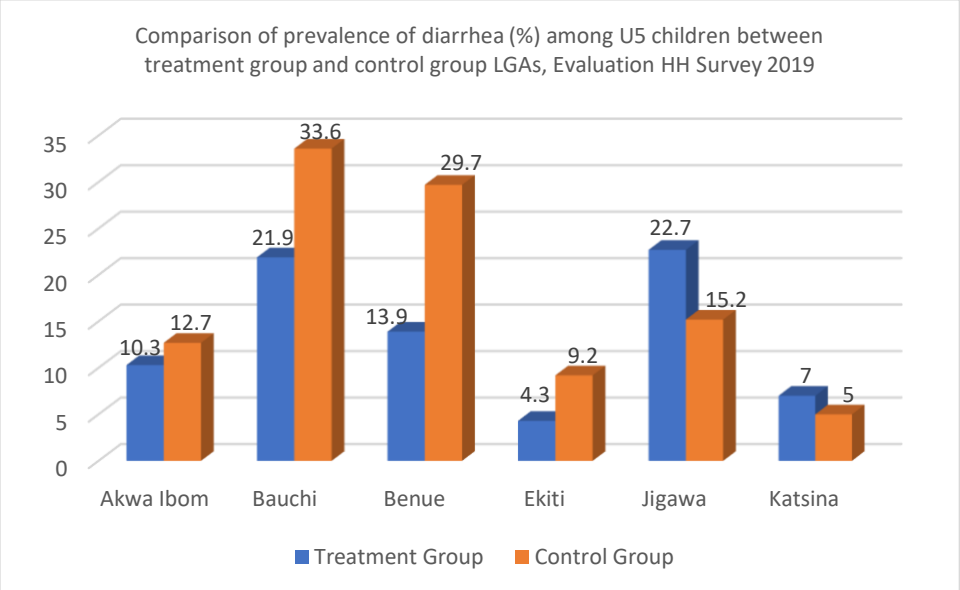


Table 33: Percentage of School Pupils who have experienced Diarrhea during the last 2 weeks[106]

State	Treatment Group	Std. error	Lower CI-Upper CI	Control Group	Std. error	Lower CI-Upper CI
Akwa Ibom	7.8	2.81	3.8-15.5	9.1	4.48	3.3-22.5
Anambra	2.7	1.89	0.7-10.2	1.3	0.93	0.3-5.2
Bauchi	2.4	0.93	1.1-5.1	0	0	0
Benue	3.2	1.33	1.4-7.2	4.9	2.17	2-11.4
Ekiti	3.9	1.76	1.6-9.3	4.1	2.08	1.5-10.8
Jigawa	19.4	2.71	14.6-25.3	8.0	2.25	4.6-13.7
Katsina	2.6	1.27	1.0-6.7	2.7	1.29	1.0-6.8
EU	4.4	1.20	2.6-7.5	3.8	1.23	2.0-7.1
DFID	7.0	0.85	5.5-8.8	3.9	0.84	2.5-5.9
Total	6.1	0.69	4.9-7.6	3.9	0.7	2.7-5.5

There was a perceived reduction of diarrhea reported in several communities and LGAs. In FGDs with WASHCOMs, several members testified to a reduction. PHC facilities visited at Dolenkwana in Birniwa and Dansauri in Roni LGAs also reported a perceived reduction in the number of children under five suffering from diarrheal disease. The reduction was attributed to the increased availability of WASH facilities and access to safe water.

"It has been long we do not have influx of people to the clinic with diarrheal cases unlike before, that at this period of raining season, over 20 cases of diarrhea will be recorded daily." - LGA Health facility manager, Jigawa

"For three months now, we have had about one diarrheal case in a day showing a decline in occurrence as against previous years when we recorded over 10 cases per day." - Officer-in-charge, PHC, Birniwa LGA, Jigawa state

"Except in January 2019 when we had an upsurge in diarrhea cases, the prevalence in Dass LGA is consistently low." - Director of PHC, Dass LGA, Bauchi state

However, community members in Tudu Baba said*: "It will be a thing of shame to any HH that comes down with diarrhea disease in their community",* an attitude to bear in mind when interpreting the self-reported diarrheal disease data from both the HH survey and qualitative methods.

A study exploring the contribution of WASH to health, nutrition and educational outcomes between 2013-2017 in select LGAs of the SHAWN-supported states Bauchi, Benue and Katsina found mixed results in relation to diarrhea prevalence[107]. In Bauchi, a significant reduction in the number of children under five who had diarrhea was found in one of the two treatment LGAs where the SHAWN Programme is being implemented (Warji), and relative stability in the other (Dass), aside from a rise in 2017. There was an increase in diarrhea prevalence in the control LGA of Itas/Gadau. In Benue, both the control (Ushongo) and two treatment LGAs (Buruku and Tarka) recorded higher cases of diarrhea among under-fives

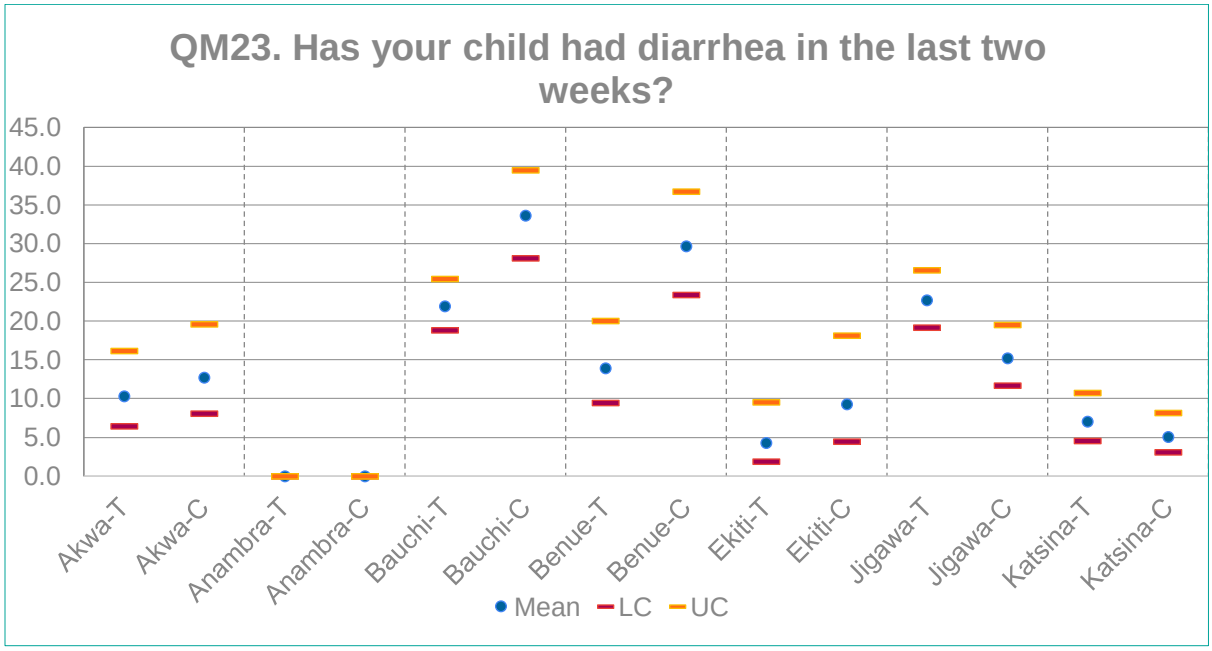
[106] Based on the survey data 'WASH_Ng_students' and question 'Did you have diarrhea in the last 7 days?' on 'Diarrhea' tab
[107] Rapid Assessment of contribution of WASH in Health, Nutrition and Educational outcomes within SHAWN states. Bauchi, Benue and Katsina states of Nigeria. January 2019.

between 2013-2017 but no deaths due to diarrhea were recorded. In Katsina, two treatment LGAs (Kaita and Mai'Adua) recorded higher cases of diarrhea among under-five children throughout the study period and reported higher figures than the control LGA (Mashi), though the control LGA also experienced an increase between 2013 and 2017.

There were qualitative reports of wider health gains, including changes in disease prevalence and reporting, reduced patronage at hospitals, and time and money savings from health visits and medications.

In summary, while there were qualitative reports of a perceived reduction in diarrheal disease there was no quantitative evidence of a reduction in diarrhea in children under five, as shown in Figure 17. A substantial reduction was noted in Benue and also in Bauchi, but this pattern was not consistent, and in some states an increase was noted; overall there was a reduction in four states but an increase in two. Possible explanations include the fact that intervention areas had higher baseline rates than controls and that, in the absence of true baseline data, this masked any reduction. However, it is also possible that the multiple transmission routes for diarrheal infections rendered the Programme outcomes insufficient to realize a detectable impact. In light of other recent findings from rigorous intervention trials, these results are not surprising, and it would be simplistic to argue that efforts to improve WASH outcomes are without value.

Figure 14: Children with Diarrhea in last two Weeks



4.4.3 To what extent has the Programme contributed to a change in the school enrolment and attendance rate among boys and girls?

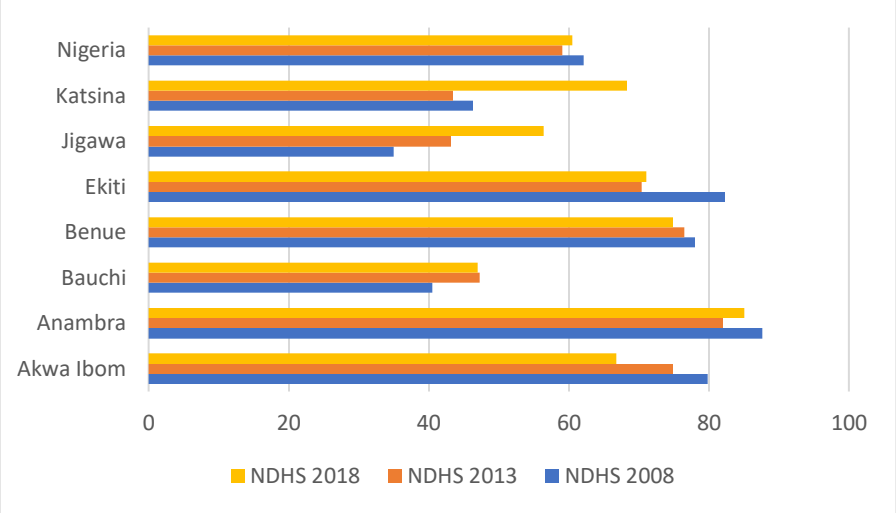
The evaluation found no difference in school enrolment rates when comparing intervention and non-intervention areas. There was a small reduction in absenteeism (0.3 days), but the pattern was not consistent across all states and cannot be clearly attributed to the Programme.

Table 40 and Figure 18 present secondary data from the NDHS surveys since 2008 relating to the primary school net attendance ratio and show an overall decline in net attendance for the 10 years under review between 2008 and 2018.

Table 34: Net Attendance Ratio (%) in Primary School from 2008 to 2018 in 7 States of WASH Programme using secondary data of NDHS

State	NDHS 2008	NDHS 2013	NDHS 2018
Akwa Ibom	79.8	74.9	66.8
Anambra	87.6	82	85.1
Bauchi	40.5	47.3	47
Benue	78	76.5	74.9
Ekiti	82.3	70.4	71.1
Jigawa	35	43.2	56.4
Katsina	46.3	43.5	68.3
Nigeria	**62.1**	**59.1**	**60.5**

Figure 15: Evolution of Net Attendance Ratio (%) in Primary School from 2008 to 2018 in 7 States of WASH Programme using secondary data of NDHS



Absence rates were low across the Programme, but lower in the intervention areas (an average of 0.3 days in the past week) compared with non-intervention areas (average of 0.6 days in the past week). There was no difference associated with gender. The pattern was not uniform across all states, and Akwa Ibom, Benue and Katsina showed no difference associated with the Programme.

The evaluation HH survey asked, for each school-aged child identified by the head of HH, whether the child was enrolled in school and how many days the child had been absent from school in the past week. The evaluation team found a positive effect in the states of Benue, Ekiti, Katsina and Akwa Ibom, with a

net difference in school enrolment rates when comparing WASH intervention LGAs and non-WASH intervention LGAs. This data is shown in Table 41.

Table 35: Evidence of impact of WASH Programme on increase in preschool/nursery enrolment ratio – Difference between Treatment Group and Control Group

State	Treatment Group	Std. error	Lower CI-Upper CI	Statistically significant?	Control Group	Std. error	Lower CI-Upper CI	Statistically significant?
Akwa Ibom	95.2	1.27	92-97.2		90.5	2.07	85.6-93.9	
Anambra	99.7	0.34	97.7-99.9		99.0	0.77	95.7-99.8	
Bauchi	66.2	3.16	59.8-72.1		67.5	3.59	60.1-74.1	
Benue	92.9	1.51	89.3-95.3		85.3	2.30	80.2-89.3	borderline
Ekiti	82.5	4.04	73.1-89.1		70.0	4.93	59.5-78.7	borderline
Jigawa	52.1	3.95	44.3-44.7		53.1	4.27	44.7-61.3	
Katsina	49.5	5.42	39.0-6.0		35.6	3.76	28.6-43.2	
EU	92.3	1.47	88.9-94.7		87.4	1.80	83.4-90.6	
DFID	60.4	2.09	56.2-64.4		57.7	1.99	53.8-61.6	
Total	66.2	1.72	62.8-69.5		64.1	1.63	60.9-67.3	

Secondary data from the NDHS showed that Jigawa, Katsina and Anambra states registered increases in primary net attendance ratios between 2013 and 2018 of 13.2 percentage points, 24.8 percentage points and 3.1 percentage points in Jigawa, Katsina and Anambra respectively. In Jigawa this appears to be a continuation of an upward trend which preceded the Programme. In Katsina and Anambra the increase follows a period of decrease, but in Anambra the 2018 figure remains below that recorded in 2008. Bauchi and Ekiti show no change between 2013 and 2018.

Qualitatively, there was a reported increase in school enrolment and retention attributed to a more conducive learning environment engendered by the WASH in school Programme. The establishment of environmental health clubs was said to have improved retention in classes as children did not have to go home to defecate during school hours. The head of education in Roni LGA explained:

"Menstrual hygiene management facilities have been incorporated into the latrines for the girls, thereby reportedly increasing their attendance and retention in school. The increase in girls' attendance was reported to have encouraged the boys to enroll and remain in school."

Altogether, absence rates were not high. There was evidence of a slight reduction in absence associated with the Programme, but this was not consistent across all states. The reason for the difference between Programme and non-Programme LGAs is not known, and in view of the lack of impact of the Programme on diarrheal disease, a reduction in these infections was probably not the cause.

4.4.4 To what extent has Programme contributed to a change in malnutrition among children under 5?

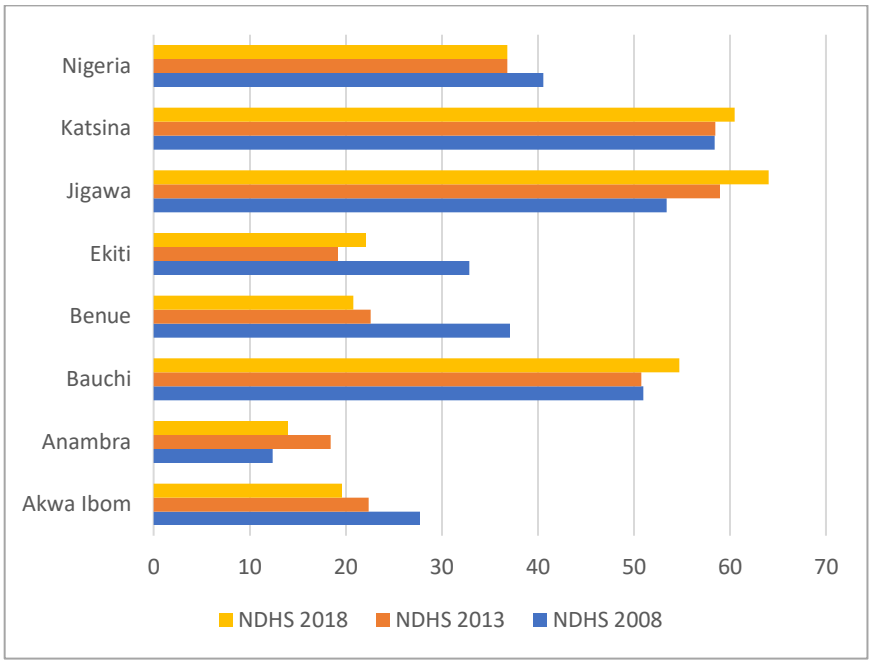
The evaluation found no evidence of an impact in malnutrition rates as indicated by stunting.

Secondary data from NDHS, 2008, 2013 and 2018 (presented in Tables 42 and Figure 19) do not show a clear pattern of change in nutritional status across the seven study states. Stunting in Akwa Ibom shows evidence of slight decline (2.8 percentage points) as it does in Benue. In both these states this is a continuation of a decline from their 2008 levels. Anambra shows a decline in stunting of 4.4 percentage points between 2013 and 2018 but remains 1.6 points above its 2008 level. In Bauchi, Ekiti, Jigawa and Katsina stunting rates show an increase between 2013 and 2018, though in Katsina this is very slight. In Jigawa the increase appears to be a continuation of the trend prior to 2013. In Bauchi and Katsina the increase follows a period of little change. However, these are state-level data which do not allow a comparison of areas where the Programme was implemented with those where it was not. There is some evidence of a secular trend in that national level data show a slight decline in stunting.

Table 36: Prevalence of Stunting (%) among U5 children from 2008 to 2018 in 7 States of WASH Programme using secondary data of NDHS

State	NDHS 2008	NDHS 2013	NDHS 2018
Akwa Ibom	27.7	22.4	19.6
Anambra	12.4	18.4	14
Bauchi	51	50.8	54.7
Benue	37.1	22.6	20.8
Ekiti	32.9	19.2	22.1
Jigawa	53.4	59	64
Katsina	58.4	58.5	60.5
Nigeria	**40.6**	**36**	**36**

Figure 16: Evolution of Prevalence of Stunting (%) among U5 children from 2008 to 2018 in 7 States of WASH Programme using secondary data of NDHS



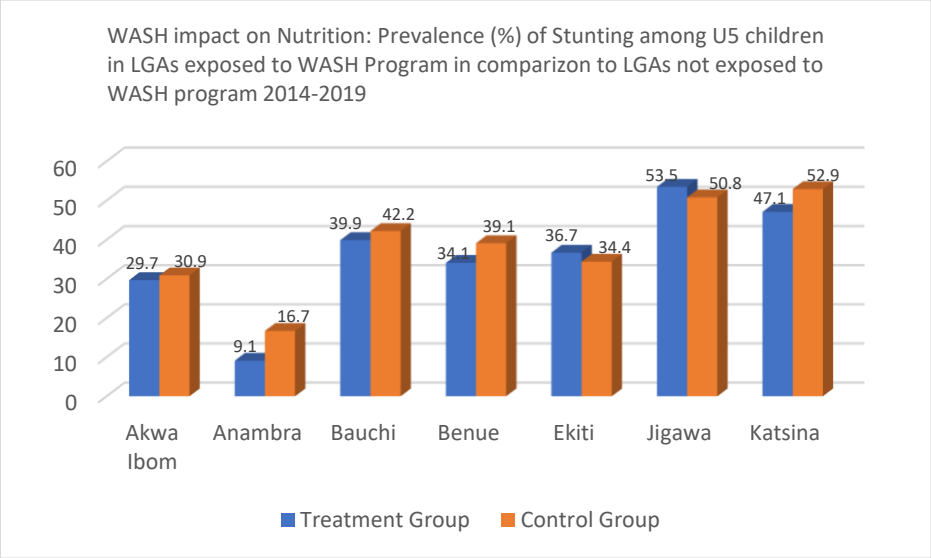
The evaluation assessed height/length for all children aged five years and under. Rates of stunting were above the national average of 32 per cent, possibly reflecting relative deprivation in the areas of focus for the Programme. On average, the evaluation found no evidence of any difference between intervention and non-intervention LGAs (42.7 per cent and 44 per cent respectively) and this pattern was consistent across all states.

In the seven states that the evaluation covered, the evaluation found no statistically significant evidence of an impact on malnutrition rates as indicated by stunting when comparing findings in WASH intervention areas with non-WASH intervention areas. However, the states of Anambra and Benue presented positive effects as the prevalence of stunting among under five children is higher in LGAs not exposed to WASH interventions in comparison to LGAs that benefited from a WASH Programme (16.7 per cent vs 9.1 per cent in Anambra and 39.1 per cent vs 34.1 per cent in Benue). This data is presented in Tables 37 and Figure 17.

Table 37: WASH impact on Nutrition: Prevalence (%) of Stunting among U5 children in LGAs exposed to WASH Programme in comparison to LGAs not exposed to WASH Programme 2014-2019

State	Treatment Group	Control Group
Akwa Ibom	29.7	30.9
Anambra	9.1	16.7
Bauchi	39.9	42.2
Benue	34.1	39.1
Ekiti	36.7	34.4
Jigawa	53.5	50.8
Katsina	47.1	52.9

Figure 17: WASH impact on Nutrition: Prevalence (%) of Stunting among U5 children in LGAs exposed to WASH Programme in comparison to LGAs not exposed to WASH Programme 2014-2019



4.4.5 To what extent has the Programme contributed to a change in handwashing practices?

There was evidence of an increase of about 10 per cent in rates of self-reported handwashing with soap and an increase of 5 per cent in the prevalence of handwashing with soap as normative. There was some evidence of a small, positive change in proxy indicators, such as availability of handwashing hardware, but without strong statistical support.

The evaluation was not able to assess actual handwashing practices and therefore relies on a number of proxy indicators, normative beliefs and self-reported practice. The team used spot-check observations to look for the presence of a handwashing facilities (tippy tap or cup and basin) and the presence of soap and water. Proxy indicators such as these provide an indication of the relative likeliness of handwashing taking place regularly. Self-reported indicators showed some evidence of an increase in intervention areas compared with non-intervention areas. Changes in handwashing hardware were positive but very slight.

Self-reported data show a reasonably consistent pattern of a modest increase (about 10 per cent) in regular handwashing with soap at critical times. This data is presented in Figure 21 and for water alone in Figure 22. The evaluation asked community members to self-report on how often they washed their hands with soap before eating and after defecation. Respondents rated their practice as always/almost always, sometimes or rarely/never. Across the Programme, there was an increase in the prevalence of respondents reporting that they washed hands always or almost always at both of these times. The rate for washing hands with soap always or almost always before eating was 37.2 per cent in intervention LGAs vs 26.9 percent in non-intervention LGAs. Similarly, for washing hands with soap after defecation the rates across the Programme as a whole were 49.5 per cent vs 39 per cent in intervention and non-intervention LGAs, respectively. Looking at the pattern across individual states, in all states there were higher rates of handwashing with soap always or almost always reported in intervention LGAs both before eating and after defecation. The strength of statistical support for these differences was variable.

The results for self-reported handwashing by female caregivers (arguably of greater importance from a child health perspective) were similar. Among female primary caregivers, self-reported handwashing with soap always or almost always before feeding a child and after cleaning up children's faeces showed differences of 9.4 percentage points (27.5 per cent vs 18.1. per cent) and 10 points (35.4 per cent vs 25.4 per cent) between intervention and non-intervention LGAs, respectively. The self-reported use of soap or a soap substitute for handwashing also increased in this group (55.1 per cent vs 42.2 per cent for intervention and non-intervention LGAs, respectively).

The evaluation asked for perceptions of behavioral norms, asking how common people thought it was for others in the community to wash hands with soap before eating and after defecation. Across the Programme there was a 4.6 point increase in the perception of handwashing with soap before eating as normative (15 per cent vs 10.4 per cent). A similar change was seen in handwashing with soap after defecation (15.6 per cent vs 10.9 per cent). This data is presented in Figure 23.

Spot-check observations of hardware show much smaller increases than self-reported practice, suggesting that either the indicators were not valid (as perhaps people are using other devices for handwashing or are able to find necessary equipment at the point of need) or that the rise in self-reporting points to increased awareness of good practice rather than actual behavior change.

During transect walks in the communities visited for the qualitative study, handwashing facilities such as tippy taps were observed inside and beside latrines in some HHs, schools, offices and primary health facilities. At marketplaces visited, water and soap were provided for latrine users. Staff at two health centers in Dolenkwana, Birniwa LGA and Dansauri, Roni LGA, showed us tippy taps constructed for use there. It was also reported that a talk was delivered for about 10–15 minutes every day emphasizing the importance of handwashing.

Despite observations during the qualitative work, the quantitative survey found that overall, tippy taps were extremely rare across the Programme but were slightly more common in intervention LGAs (2.4 per cent) than non-intervention (0.8 per cent). There was almost no difference in the prevalence of a cup and basin across the Programme (30.8 per cent vs 32.2 per cent for intervention and non-intervention LGAs respectively). Ekiti and Bauchi showed slightly greater prevalence in intervention LGAs, but the numbers were very low (1.9 per cent and 9.4 per cent in intervention LGAs in Ekiti and Bauchi, respectively vs 0 per cent in non-intervention LGAs). Furthermore, the apparent complete absence of a non-intervention result in these two states suggests there may be a problem with the way data were recorded.

There was a slight increase in the prevalence of soap and water close to latrines in intervention LGAs, but the numbers were again very low and the differences small (9 per cent vs 6 per cent for water and 6.4 per cent vs 3.9 per cent for soap). When looking at the pattern for individual states, only Bauchi showed a decrease in presence of water (5.3 per cent vs 2.6 per cent) while for presence of soap or a soap substitute Bauchi, Benue and Jigawa all showed a slight increase. Other states showed no difference.

In summary, self-reports of practices and perceptions of norms suggest that the Programme has at least achieved an increase in the extent to which washing hands with soap is perceived as the right thing to do. It is plausible that this has also led to a change in actual practice, though the availability of soap and water to facilitate and encourage regular practice was not evident.

Figure 18: Prevalence of hand washing with soap after defecation

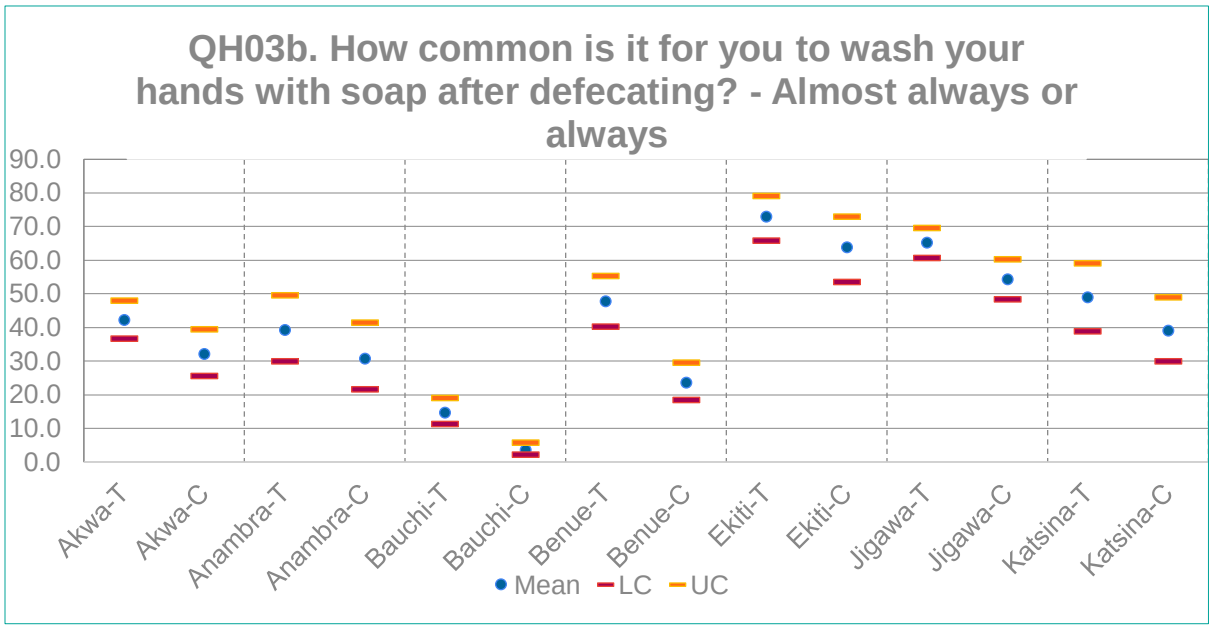


Figure 19: Prevalence of hand washing with water alone

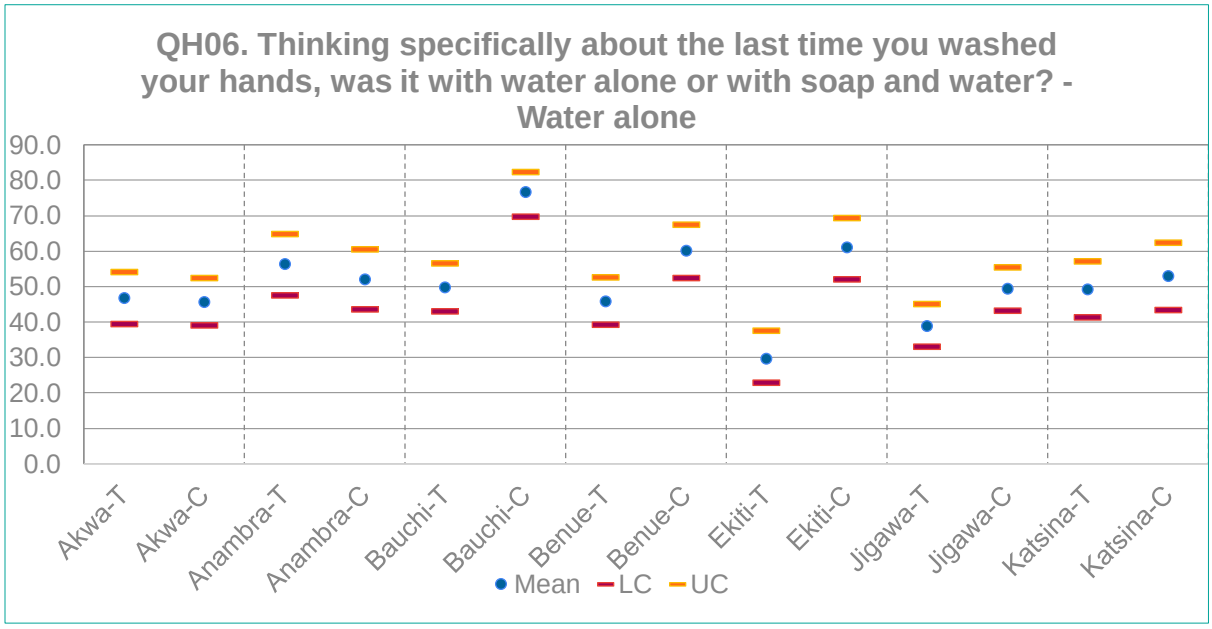
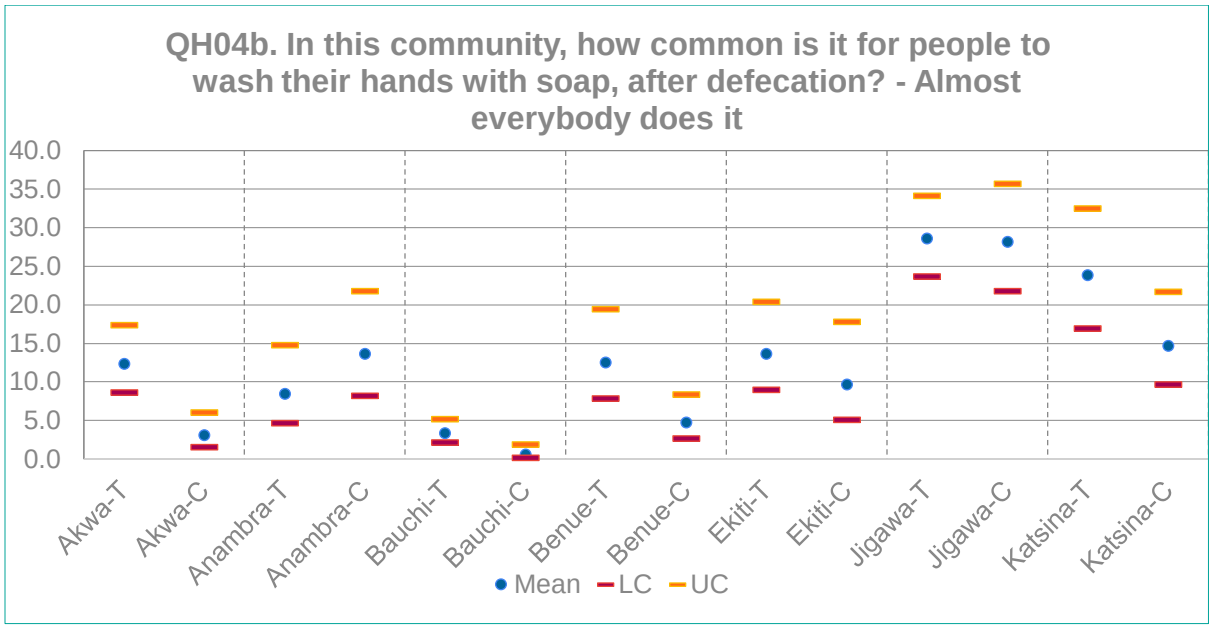


Figure 20: Prevalence of hand washing after defecation within community



4.4.6 To what extent has Programme contributed to unexpected positive impacts in any of the four identified areas (health, education, nutrition and WASH)?

This question was amalgamated with 4.4.7 below.

4.4.7 For each one of the observed impacts (expected and unexpected, positive/negative) what are the factors (internal/external to UNICEF) that contributed to them most?

Regarding an impact on behavior change, there was evidence of an increase in the seven states covered of 10 per cent in rates of self-reported handwashing with soap and an increase of 5 per cent in the perceived prevalence of handwashing with soap. There was some evidence of a small, positive change in proxy indicators, such as availability of handwashing hardware, but without strong statistical support.

Regarding the impact on quality of drinking water, the evaluation team founds that less than 15 per cent of HH heads have reported issues related to bad quality (color, odor or unwanted taste) of drinking water used from boreholes. On average, there were few differences between LGAs exposed to WASH Interventions and LGAs not exposed to WASH interventions (14.7 per cent vs 16.8 per cent of HH head mentioned bad color of water). However, data from Benue and Katsina showed that the WASH Programme had a significant impact on safe quality of water when comparing intervention areas (19.8 per cent in Benue and 15.8 per cent in Katsina) with non-intervention areas (41 per cent in Benue and 23.6 per cent in Katsina).

Table 38 shows some of the factors affecting various impacts of the Programme.

Table 38: Impacts and Factors Affecting

Impact	Factors Affecting
Establishment of RUWASSA in the states of intervention	• Systems development by UNICEF • Multi-stakeholder participation from the national level (Federal Ministry of Water Resources), to state WASH apparatus, starting with the state RUWASSA, to the LGA WASH staff departments and units, and to the community WASHCOMs
Improved planning and expansion of access to water supply, sanitation and hygiene	• Development and use of WASHIMS
Improved provision of services	• Implementation of robust procurement procedures through the harmonized guidelines • Use of CSOs and the private sector in the procurement of works and services

Overall summary explanation factors of WASH impact:

1- A combination of factors which create an enabling environment for an observable impact.
2- Political will and active participation from state to local level.
3- Effective collaboration with and use of private sector.
4- Establishment of and effective support for local structures (WASHCOMs and VLOM capacity).

4.4.8 To what extent has the Programme addressed the specific needs and interests of women and girls in WASH, for instance in relation to (i) water collection and water management; and (ii) safe and dignified hygiene in communities, schools and health facilities?

The Programme's achievements of outputs in increasing coverage of safe and convenient water and sanitation supplies are believed to have helped reduce gender-based inequalities and address the needs of women and girls. In addition, there were qualitative reports of women being able to take on more prominent community roles.

Women are believed to suffer more adverse consequences of poor WASH provision than men as they are usually responsible for the greater share of water collection, placing a burden on their time and placing them at risk of violence. Safe, dignified menstrual hygiene management (MHM) also requires adequate WASH provision. Therefore, the achievement of Programme outputs in increasing coverage of safe and convenient water and sanitation supplies help to reduce gender-based inequalities and address the needs of women and girls.

The evaluation found that the UNICEF WASH Programme has enabled women to take on more prominent community roles, most notably in the northern states. The Programme issued guidance on the formation of WASHCOMs to try to ensure gender balance among membership and executive positions, and the inclusion of women as LAMs and TBOs. In some communities, for example Magama, in Toro LGA, more than half of WASHCOM members were women, while in Dolenkwana LGA half of WASHCOM executive

committee members were women, and in Maiso LGA, six out of 15 were women. In Jigawa state, 50 per cent of all VHPs were women.

The evaluation team gained feedback from several girls and women regarding Programme facilities. One girl fetching water from the community borehole expressed her joy that the presence of a convenient water point meant that she could now fetch enough water in time to be able to go to school early and stay until the close of school. Women and girls interviewed at the health center in Dolenkwana expressed appreciation of the gender segregated latrines and MHM facilities provided by the Programme in schools and health centers. This was endorsed by one health officer who stated: "*Before the provision of WASH facilities in this health center, the women and girls were impatient waiting due to lack of conveniences. But now, you can see them relaxed till they are given attention.*"

In summary, the achievement of Programme outcomes in sanitation and water supply are expected to have made a positive contribution to reducing gender inequities associated with poor WASH provision. Furthermore, the Programme has taken steps to ensure gender balance in the management of sustainable WASH infrastructure and practice through its guidelines on the gender composition of WASHCOMs and the training of women as LAMs. There is some qualitative evidence that these efforts are contributing to more widespread positive social change.

4.4.9 To what extent has the WASH Programme influenced a change/increase in community voice and accountability? If a change took place to what extent did it address gender inequalities and help advance the voice of women on WASH-related issues within the community?

Qualitatively there was anecdotal evidence of communities asserting their rights to water and sanitation services and evidence of women's participation in WASHCOMs. Quantitative data supported the perception of women's involvement in WASHCOMs.

The evaluation found evidence during field work that people are realizing their rights to water and sanitation and making their voices heard. For example, one LGA WASH coordinator from Jigawa state commented that "*Communities visit my office with letters requesting for WASH facilities. Through WASH Programme, they have come to realize that it is their right to have access to water and sanitation facilities prompting these requests.*"

The evaluation found that women participating in WASHCOMs and VHP initiatives are empowered to have a voice, as discussed further in Chapter 9. One woman WASHCOM member from Dansuri stated that "*We could not come out to talk about sanitation and hygiene in public in the past but being members of WASHCOM executive, we can now discuss on challenges faced and way forward especially as it concerns houses that we enter."*

In response to the question: *"To what extent are you satisfied with the activities of the entity responsible for ensuring access to clean water?",* 51 per cent of heads of HHs in the communities exposed to WASH intervention said they were extremely satisfied, compared with 36 per cent in non-invention areas. Beneficiary satisfaction vis-à-vis WASHCOM or WASH units was very high in the WASH intervention areas compared with non-interventions area in the following states: Akwa Ibom (23 per cent vs 2.8 per cent), Bauchi (46.7 per cent vs 30.2 per cent), Benue (28.8 per cent vs 13.9 per cent), Ekiti (65.2 per cent vs 47.1 per cent).

4.5. Sustainability of WASH Programme

This section provides an assessment of the extent to which outputs, outcomes and impacts have persisted or are likely to persist during a significant time period (more than one or two years) after external technical and financial support has ended. Box 5 provides insight into sustainability within the context of UNICEF Nigeria.

The evaluation found that, to date, implementation of the WASH Programme has resulted in some positive change at the community level, and to some extent at LGA and state levels. This suggests there is a good likelihood that project outputs and outcomes will persist a year or more after support to beneficiaries ends. However, it is too early to fully evaluate sustainability at this stage; it should be evaluated at an agreed point following completion of the Programme.

Overall, service delivery models and interventions such as CLTS and rehabilitation of water points have been looked after by communities, with support from various stakeholders. This has been bolstered through institutional strengthening and capacity building elements of the Programme. The extent of understanding by men and women in target communities regarding their role to maintain WASH installations is varied. There was recognition across the Programme that community ownership of WASH installations is key to long-term sustainability, and the establishment and use of WASHCOMs has contributed successfully towards this. However, understanding and willingness to make user fee contributions to cover essential VLOM costs is not consistent.

VLOM units have been established at the LGA level across the Programme and are operating successfully, which has helped streamline costs and reduce facility downtime. However, there is scope for improvement as downtime targets are not consistently met across the Programme-targeted LGAs. There is a good understanding of the referral process for VLOM at the community level, and communities have taken advantage of LAMs and spare part vendors to maintain their WASH facilities.

Budget allocations for WASH vary by state but are overall considered inadequate to ensure long term sustainability of financial resourcing, with some WASH units still not having become WASH departments or having their own budget line. Risks associated with untimely and inappropriate counterpart funding have also been noted.

HHs in target communities have been upgrading or replacing their sanitation facilities following initial triggering and demand creation, aided through sanitation marketing and availability of both affordable and appropriate technological solutions. Further enquiry at a later date will be required to confirm whether facilities are being sustained and upgraded long after the initial triggering.

Box 4: Sustainability in the context of UNICEF and the Government of Nigeria

The UNICEF Nigeria Country Programme Document (CPD) 2018-2021 gives emphasis to the *sustainable* access to and use of WASH. Sustainability is a prerequisite for long term impacts, and for the purposes of this evaluation has been defined as: "*the ability of prevailing national and local structures, processes and people to continue their role and functions after the withdrawal of all forms of support from the external development agency.*[108]" UNICEF Nigeria engages in both service delivery and upstream advocacy work with the goal "*to empower government to create/strengthen necessary systems, structures and processes required for provision of sustainable WASH services*.[109]"

The Government of Nigeria aims to eliminate OD by 2025 and provide access to basic sanitation and water supply to all rural inhabitants by 2030. In the context of the Sustainable Development Goals, this is being driven by the Partnership for Expanded Water Supply, Sanitation and Hygiene spearheaded by the Ministry of Water Resources with the WASH Development Partners Forum, co-chaired by UNICEF[110]. As such, the achievement and sustainability of the results of the UNICEF WASH Programme are crucial, underpinning wider national goals.

4.5.1 To what extent have the Programme service delivery models and the interventions continued to be looked after by communities with support from government, authorities, and implementing partners after the initial investment?

The evaluation found that, overall, Programme service delivery models and interventions deployed as part of the Programme have so far been looked after by communities with support from various stakeholders. A key element of the Programme has been institutional strengthening through capacity building and reform, which has enabled stakeholders within government to provide the necessary support at the community level to look after interventions. Several service delivery models and interventions at the community level, comprising both software and hardware were expected to contribute to sustainability, including CLTS, application of ODF certification and monitoring, and the creation of WASHCOMs and federations.

Institutional Strengthening and Interventions

The four projects (SHAWN II, WSSSRP II, WSSSRP III and NDSP) comprising the WASH Programme all have explicit focus on institutional strengthening for sustainability. For example, the NDSP and WSSSRP projects particularly emphasize policy, capacity building and reform. In its business case the SHAWN Programme emphasizes: *"tackling the risk of relapse and sustainability*[111]*"*, and the WSSSRPP II project documents state that "*UNICEF will endeavor to ensure the overall ownership and sustainability of projects".*[112]

Key to sustainability has been the establishment of and support to WASH structures at different levels of government, including RUWASSA at state levels, WASH units or departments in LGAS, and WASHCOMs at the community level, as well as the selection and training of individual health promoters and mechanics to ensure sustainability of hardware and behavior change in communities. For example, WSSSRP project documentation stated that: "*UNICEF will ensure the establishment and strengthening of structures and*

108 WASH Impact Evaluation Evaluability Assessment
109 WSSSRP II: 6th Narrative and financial progress report
110 UNICEF Nigeria Country Programme Document 2018-21

111 SHAWN II Business Case
112 WSSSRP II: Description of the Action

institutions, especially at the local government level, to drive community level implementation in a sustainable manner. Strengthening of the LGA WASH departments will be at the center of this as well as the formation and strengthening of the Federation of WASHCOMs".[113]

Capacity building

Several project documents point to capacity building and training activities which are expected to lead to greater sustainability through behavior change monitoring, ensuring that WASH stakeholders are well positioned to provide support to communities, and creating sustainable capacity to maintain WASH standards and ODF status in project communities.

For example, project documentation showed that training took place in Adamawa and Plateau states to strengthen the capacity of local government staff to implement the CLTS approach at the community level.[114] Fieldwork verified that there have been several training Programmes targeting LGA staff and CSOs to build their capacity for conducting triggering and monitoring, and to support communities to achieve ODF through CLTS. This is important, as stated in the Guidelines for Hygiene Promotion: *"WASH intervention benefits are sustainable if appropriate behavior change takes place among the targeted segments of the population".* [115]

The trainings were considered successful; one WASH coordinator from Toro LGA indicated the uptake of VHPs to conduct routine monitoring house to house has been widespread*: "After triggering, we continue to monitor the communities… until the results are achieved."*

However, project reporting and fieldwork do not provide evidence to verify that this has yet contributed to such change.

Capacity building of RUWASSA and LGA staff for developing community based WSPs and water quality testing (WQTs) was conducted under WSSSRP II[116], and expected to be used to train WASHCOMs to better carry out routine monthly water quality testing for monitoring quality from source to point of use. Fieldwork verified that water safety plans are being utilized across the visited states and there was evidence of capacity building in water safety plans. This was noted particularly in Jigawa where water storage practices such as covering water vessels and using two cups to draw water were repeatedly observed both inside and outside of HHs. Respondents in communities that were visited talked readily about training they had received relating to WSPs.

Community level service delivery models

Beyond institutional structures, the projects all deliver a similar set of interventions and service delivery models at the community level, designed to contribute to an enabling environment for sustaining achievements. These include community led total sanitation (pre-triggering and triggering) with parallel sanitation marketing, ODF certification and monitoring, the establishment of WASHCOMS and WASH clinics (software), and water point/sanitation rehabilitation or construction (hardware).

Community Led Total Sanitation

The community led total sanitation approach was used "*as the major approach to rapidly increase sustainable rural sanitation development in the project states, with a main goal of achieving community-wide elimination of open defecation through awareness raising and affordable sanitation options".*[117] The

113 WSSSRP II: Description of the Action
114 WSSSRP III: 5th year narrative and financial
115 Guidelines for Hygiene Promotion
116 WSSSRP II: 6th Narrative and financial progress report
117 WSSSRP II: 6th Narrative and financial progress report

premise behind CLTS is that communities are motivated to take action for improving their WASH situations themselves. However, given relapse rates noted in the global literature on CLTS 'slippage'[118], it was important for UNICEF to ensure ongoing support to communities throughout the duration and beyond the Programme intervention in individual communities and LGAs. The evaluation found that community-led processes have been key to achieving ownership and sustainability by ensuring that communities take the lead and responsibility at all levels of project implementation. One WASH evaluation respondent from Kudu LGA considered that: *"Communities fully participated in the implementation of all aspects of WASH Programme intervention. Ownership has been ensured with respect to management".*

Sanitation marketing has complemented the CLTS as discussed further in 8.7.

ODF certification and monitoring

The drive for eliminating OD is aided by periodic 'WASH clinics' that review progress and agree on milestones to help communities move towards ODF status. A National Open Defecation Free Protocol produced in June 2017 stipulates processes for follow-up, verification, certification and validation of ODF and total sanitation communities. It explains the role of LGA WASH units and departments, RUWASSA and other partners in conducting official and unannounced visits to verify ODF claims, as well as ongoing random monitoring visits to triggered communities. This activity contributes to support of communities by looking after service delivery models and keeping them accountable and on track. One WASH evaluation respondent from Kudu LGA explained that: *"Every [WASH] stakeholder in the state is aware of its roles and responsibilities so that there will be commitment in sustaining these facilities. Since inception, no WASH project has been abandoned in the state".*

UNICEF established WASHCOMS, responsible for maintenance, collection of tariffs, hygiene promotion and water safety plans, and these continue to function and flourish at the community level with support from the federation of WASHCOMs in some LGAs. Where federations of WASHCOMs exist, they were found to be empowering communities to engage with the government regarding improved service delivery, thereby facilitating communities in looking after their interventions. Where federations of WASHCOMs were yet to be established, activities of WASHCOMS were reduced to the community level, but support was noted at the community level for looking after interventions. For example, a WASH Coordinator from Akwa Ibom state noted that: *"In the community level, we have volunteers, like VHPs, providing free services, as part of the human resources available, and we have partnership with community organizations, natural leaders, that provide services and support the sustenance of services".*

It is noted though that fieldwork revealed that there is a perception across states (Bauchi, Jigawa and Akwa Ibom) that WASHCOM members are being paid and that this can affect community ownership and willingness to engage and cooperate with the WASHCOM. More about WASHCOMs can be found in Box 6.

4.5.2 To what extent do men and women in the communities understand and implement their roles to maintain WASH installations after they are provided?

The extent of understanding by men and women in target communities of their role to maintain WASH installations is varied. There was recognition across the Programme that community ownership of WASH installations was key to long term sustainability, and that the establishment and use of WASHCOMs has contributed successfully towards this. There remain gaps, however, in the understanding and willingness of both men and women to make user fee contributions to cover essential VLOM, which are sometimes uncoordinated and inadequate. Community-based monitoring systems and hygiene promotion also

[118] Most recently by the CLTS Knowledge Hub in 'Frontiers of CLTS: Innovations and Insights'; September 2019: https://www.communityledtotalsanitation.org/sites/communityledtotalsanitation.org/files/Issue%2014_Tackling%20slippage_FINAL.pdf

provide opportunities for men and women to participate in maintaining WASH facilities, such as through implementing WSPs, and engaging VHPs.

The understanding of both men and women in target communities regarding their role maintaining WASH installations was found to vary. As discussed in 8.1, there was recognition across the Programme that community ownership of WASH installations was key to long term sustainability. For example, a key informant from RUWASSA in Bauchi said that: *"At community level, we need community buy in and support to sustain the achievement".*

The WSSSRP II project specifies a specific result (result 2.4) as 'community ownership and management strategy for rural water supply facilities is developed and implemented', and the evaluation noted the establishment and use of WASHCOMs has contributed successfully to such results.

WASHCOMs are a key mechanism to ensure that initiatives promoting community ownership are rooted in the local context and help both men and women implement their respective roles in maintaining installation. One respondent explained that WASHCOMs are "… *the driving force to ensure WASH services are there and being used".* One of the stated roles and responsibilities of the WASHCOMs is to *"mobilize the community to source money for contributions and operations under the Programmes"*[119]*.* They are also expected to open and maintain a bank account for lodging all WASH funds. Programme documentation for WSSSRP II suggests that communities are expected to raise 5 per cent of the cash required upfront for operation and maintenance and to deposit it in their bank accounts before construction of a facility commences[120]. Project documentation does not stipulate any suggested rates for user fees.

The 'Expanded Guidelines for WASHCOMs' contains a series of modules for training WASHCOM members, including 'community financial management system and WASH project resource mobilization' which states that the "*Community will need resources to implement their WASH projects and pay counterpart contributions. Often, communities tend to say there is no money, but communities are richly endowed with resources that can finance WASH Projects."* WASHCOM members are trained in financial management systems and in how to create a financial management plan. They are also trained in how to identify the needs and potential modes for water user fees and how to mobilize community resources to start a WASH project, including a social subsidy plan for the poor.

Varying levels of adherence were noted during the field work regarding contributions to VLOM, and user fees are not always collected. While some community members claimed they were contributing to user fees, WASHCOM records showed that contributions were low and uncoordinated, and that some people *"donate at free will or not at all".* In other communities, for example Maiso, Dolen Kwana in Jigawa, communities have adopted a scheme where each community member contributes N50 per month for essential VLOM, and the cost of more expensive repairs is shared among members. A monthly user fees collection system was also observed in Obot Akaram, Akwa Ibom.

The evaluation notes that lower collection rates may be experienced more in communities where the WASHCOM is not functioning as it should, or where community members are not clear about the roles of the WASHCOM. Fieldworkers observed cases in Akwa Ibom and Bauchi where communities thought the WASHCOM was being paid by the government to perform their role and distrusted them to the point of not wanting to pay user fees or other VLOM costs. Some community members did not think they should have to pay for water, believing that donors should provide it free of charge. WASH department staff and WASHCOM members were making efforts to sensitize the community to understand that they and other volunteers, such as VHPs, are not rewarded or compensated in any way.

[119] Expanded Guidelines for WASHCOMS
[120] WSSSRPP II: Description of the Action

Community-based monitoring systems and hygiene promotion also provide opportunities for men and women to participate in maintaining WASH facilities. Project reports suggest that communities have been implementing WSPs under WSSSRP II to protect their water sources and achieve the aims of community action plans[121]. The NDSP project has trained communities to use simple water quality monitoring techniques such as H2S vials[122]. Project reporting emphasizes how the implementation of the community VHP approach under the National Hygiene Promotion Strategy[123] has contributed to the construction of handwashing facilities and practicing handwashing at critical times. The project report states that: *"The engagement of volunteer hygiene promoters has helped to sustain the promotion and reporting of hygiene improvement in the communities".* [124]

4.5.3 To what extent have communities taken advantage of existing local area mechanics and spare part vendors to maintain water facilities?

The evaluation found that, overall, communities have taken advantage of and utilized both existing and newly trained LAMs to maintain water facilities. The establishment of LAM sections at the LGA level helps to ensure sustainability of water facilities and is a positive result of the Programme to date. LAMs trained as part of the Programme include both men and women and were considered to be of good quality, having helped to both streamline the cost of repairs and reduce facility down time, especially of HPBHs. The evaluation noted that there have been challenges with regards to communities' payments to LAMs for their services; for example, when payment is made in kind rather than cash. Communities have also to a lesser extent taken advantage of spare parts vendors.

The evaluation team found evidence of the comparative advantage of the WASH Programme succeeding to build WASH community systems and accountability that ensure real time maintenance of improved drinking water sources. Fully 16.8 per cent of heads of HH in communities exposed to WASH intervention recognized that the person responsible for ensuring the water source is repaired in the event of a breakdown is within the WASHCOM, compared with only 1.2 per cent of heads of HH interviewed in communities in non-intervention areas. Indeed, the WASH Programme has helped empower WASHCOM for a community based institutional leadership role and ownership of water infrastructure in the states of Akwa Ibom, Bauchi, Ekiti and Jigawa.

Quantitative evidence from the HH survey revealed that on average the WASH Programme has developed strong local capacity for the maintenance of improved drinking water sources. For instance, 20.8 per cent of heads of HH in communities exposed to WASH intervention recognized that the repair of broken water sources is performed by a mechanic from the water committee, compared with only 8.5 per cent in communities in non-intervention areas which depend mostly on government intervention or charitable rescue from other communities.

The evaluation found that, overall, communities have been making good use of both existing and newly trained LAMs to maintain water facilities. This has been particularly evident in EU-funded Programmes. Project reporting for the NDSP confirms that: *"Local area mechanics (LAMs) are deployed to communities based on their proximity and were eligible to repair the broken-down hand pump boreholes within these communities with involvement of community caretakers",* and that*: "communities are now… able to approach trained mechanics on their own".*[125]

This is a good indicator of sustainability and has helped streamline the cost of repairs and reduce facility downtime. KIIs suggested that the main sustainability indicator is the functionality of facilities, closely linked

121 WSSSRP II: 6th Narrative and financial progress report
122 NDSP: Narrative and financial 6th year progress report
123 WSSSRP II: 6th Narrative and financial progress report
124 WSSSRP III: 5th year narrative and financial
125 NDSP Narrative and financial 6th year progress report

to breakdown times and time taken to attend these. The establishment of LAM sections at LGA level helps to ensure sustainability of water facilities and is a positive result of the Programmes to date.

Fieldwork confirmed that the trained LAMs are good quality and utilized by communities, fixing dysfunctional water facilities and reducing their down time, especially of HPBHs. One WASH Coordinator in Toro LGA noted that a newly trained, female LAM in the community *"…has perfected the art of borehole repairs, especially for handpump boreholes. People prefer her as the first point of call above others".*

LAMs interviewed for the evaluation explained how they have trained others as apprentices under their supervision, who are also '*very competent and actively repairing boreholes*'.

As noted in section 8.2, WASHCOMs collect money in the form of user fees to contribute to VLOM costs and pay LAMs, but evidence suggests such fees are not always adequate. The evaluation notes that some payments are made in kind rather than in cash and some LAMs have experienced challenges with regards to payment for their services. For instance, one LAM from Toro LGA in Bauchi complained that: *"After I have completed the repairs, the community will start bargaining to reduce the agreed cost of such repairs… after agreeing to the extent and cost of repairs and the repair is done, 'the story will change' and the bargaining for cost of repairs will start again".*

Based on evidence from the evaluation HH survey, the participation of HHs in the maintenance and management of improved drinking water sources through the payment mechanism required of HH/community users is not a common practice in either non-intervention communities (17.7 per cent) or intervention communities (17.4 per cent). The practice was higher in some states, and more so in non-intervention areas than intervention area such as Akwa Ibom (56.2 per cent vs 41 per cent for non-intervention vs intervention) and Anambra (42.5 per cent vs 36 per cent).

There was also evidence to suggest that communities take advantage of spare parts vendors. In Jigawa, the state government sourced and stocked large quantities of spare parts for repair purposes. One VLOM member from Gamawa, Jigawa stated that: *"If any report comes from the community, the community brings the money and we buy the spare parts from the local dealer in the LGA at subsidized prices. These spares he procures from Kano are of high quality and have never disappointed us".*

However, the evaluation observes that this may hinder long term sustainability should the government change and the arrangement be discontinued. Challenges regarding the supply of spare parts for motorized boreholes were also noted in Akwa Ibom.

Box 5: WASHCOMs

The evaluation found the establishment of WASHCOMS to be a key output of the WASH Programme contributing towards its sustainability. WASHCOMs are a platform being institutionalized at the community level to manage and better sustain access to WASH in a community, forging strong collaborations between stakeholders at various levels involved in WASH service delivery.

WASHCOMS have been formed at the community level where there has been a UNICEF WASH intervention and intent to promote and support the uptake of services in communities. They are particularly important in O&M and the performance monitoring functionality of water facilities. UNICEF's document on an 'expanded role of WASHCOMS'[126] articulates the standard approach for setting up WASHCOMS and provides guidance as to their expected composition and structuring. At least half of the WASHCOM members should be women and the treasurer position is also reserved for a woman. These criteria were generally well observed during the field visit.

WASHCOMS are considered a key structure for linking the community to government officials, empowering and sensitizing people to realize their WASH needs and make demands at the LGA level.

As a community becomes more WASH secure, WASHCOMS should evolve to conduct activities that contribute to UNICEF's broader child survival and development component, promoting uptake of services and behavior change in other outcome areas in addition to WASH. Benue, Jigawa and Bauchi are examples of states where the WASHCOMs are now doing other roles such as obtaining and disseminating information on immunization data, identifying HHs where children aren't immunized or don't have birth registration and elevating those cases up.

4.5.4 To what extent do communities understand the referral process for village level operation and maintenance?

The evaluation found good understanding of the referral process for VLOM at the community level, aided by the government and UNICEF's national VLOM strategy, which aims to establish and operationalize VLOM across Nigeria, clearly outlining institutional arrangements, roles and responsibilities and supplementing them with various manuals and protocols. VLOM units have been established at the LGA level across the Programme. These consist of both RUWASSA and LGA staff responsible for post-construction monitoring using a facility tracking system. Programme beneficiaries at the community level were able to explain the procedure for referral to the VLOM unit through the facility caretaker appointed by the WASHCOM.

The evaluation found good understanding of the referral process for VLOM at the community level. This was aided by the national VLOM strategy, published in January 2018 in draft by the FMWR, with support from UNICEF Nigeria, and with a goal *"to ensure sustainability and functionality of water supply facilities in all rural communities in Nigeria".* The overall objective of the strategy is stated as: "*To establish and operationalize an effective VLOM concept in all the states and LGAs across the country with a mandate for 100 per cent functionality of all water points".*

The strategy provides for institutional arrangements, roles and responsibilities. Various manuals and products have been developed to support implementation of the VLOM strategy such as the 'Operations and Maintenance Manual for Motorized Rural Water Supply Schemes in Nigeria", which emphasizes the importance of systematic processes for managing scheduled and non-scheduled tasks to achieve sustainability.

[126] Expanded Guidelines for WASHCOMS

It should be noted that the evaluation team have not seen the draft national VLOM strategy but drew the aforementioned information from project documentation[127] and a recently published academic paper.[128]

WSSSRP II project documentation states that community-based management underpins the achievement of project goals and recognizes 'VLOM of facilities' as a key aspect, which *"focuses on transferring ownership, operation and maintenance of projects to the beneficiaries through a series of participatory engagement and capacity building processes"*[129]. VLOM starts with the involvement of communities in making informed choices about the nature, type and location of facilities they require and involves establishing structures and mechanisms for management of interventions, developing human capacity to manage the facilities, and creating an enabling environment for community-based management. VLOM units sign agreements with local mechanics and traders to conduct repair work[130].

UNICEF has engaged local partners such as the Tulsi Chanrai Foundation (TCF) to institutionalize VLOM of water facilities by supporting the development of VLOM units at the LGA level as part of both the DFID and EU funded projects[131]. Trained artisans in both Bauchi and Akwa Ibom mentioned TCF training during the field work, as did a LAM interviewed in Bauchi. The VLOM units consist of both RUWASSA and LGA staff responsible for post-construction monitoring using a facility tracking system. As explained in section 8.3, LAMs have been trained on how to repair facilities. A facility caretaker at the community level is appointed by the WASHCOM to manage the water point and alert the VLOM unit when it malfunctions[132] so that LAMs can attend to it.

KIIs verified that communities understand the process of referral for VLOM through discussion of what is done and who is involved. Programme beneficiaries explained the full procedure for requesting and receiving repair of a faulty borehole. In Akwa Ibom it was explained: *"Communities…have water supply facility manager, who ensures smooth operation, and report repair needs to WASHCOM, and the WASHCOM calls the trained LAM when the need arises, with the consent of the LGA VLOM unit to facilitate repairs".*

In Bauchi:

"the WASHCOM calls the VLOM-trained artisan or LAM for repairs, which has reduced the dysfunctionality-to-repair timeline in Bauchi state"[133].

4.5.5 To what extent does the LGA VLOM unit respond to maintenance cases referred to it?

As explained in section 8.4, UNICEF and partners have supported the development of VLOM units at the LGA level to respond to maintenance cases. A platform known as information and voice record system (IVRS),is used to log any issues as soon as they are apparent, and this contributes to real time responses of the VLOM unit and LAMs, and consequently a reduction in breakdown time[134]. There is a target for responding to cases within 48 hours[135] to prevent long downtimes of facilities that could hinder long term use and sustainability. However, project reporting suggests that this timeline is not always met due to the remote positioning of some communities.

Quantitative evidence from the HH survey revealed that on average the WASH Programme has developed strong local capacity for the maintenance of improved drinking water sources, as 20.8 per cent of heads of

129 WSSSRP II: Description of the Action
130 NDSP Narrative and financial 6th year progress report
131 WSSSRP II: 6th Narrative and financial progress report; WSSSRP III: 5th year narrative and financial
132 WSSSRP II: 6th Narrative and financial progress report
133 Frademol data
134 KII
135 Khan https://www.unicef.org/nigeria/media/1666/file/NIgeria-WEDC-international-conference-Khan-3047.pdf%20.pdf

HH in communities exposed to WASH intervention recognized that the repair of broken water sources is performed by a mechanic from the water committee compared with only 8.5 per cent in communities in non-intervention areas. Those areas depend mostly on government intervention or charitable rescue from other communities.

Interviewees from qualitative assessments suggested that faults do not usually cause downtimes of more than a day, but that it can sometimes take longer due to the process of assessing the fault, raising the money for spare parts and getting to the community. One WASH coordinator from Birniwa in Jigawa state noted that: *"it is difficult to find a dysfunctional borehole lasting for more than three days downtime in the LGA due to regular borehole maintenance by LAM and VLOM aided by the presence of local spare parts dealer".*

Another from Toro LGA in Bauchi stated that: *"A lot has changed, in terms of … availability of water facilities in the communities generally. What is happening now with the existing VLOM network. If a water facility is faulty, within three to seven days, it will be fixed unlike before".*

This represents a considerable improvement to past downtime lengths, which some KIIs reported had been of up to four months for a borehole to be repaired, if it was repaired at all. Data collected by the field team shows that: *"The Programme has been able to evolve a system for timely repairs of non-functional safe water sources in the Programme beneficiary communities that reduced breakdown time"*[136].

4.5.6 To what extent have government partners reflected WASH services in budget allocations*?*

The evaluation noted that budget allocations vary by state but are overall considered inadequate to ensure long term sustainability of financial resourcing at this level. Good progress upgrading WASH units to WASH departments has been made in some states such as Jigawa, but where this had not happened, they are operating with limited financial and human resource capacity. There is an assumption that state governments are willing to adequately fund the WASH sector and that, alongside LGAs they are willing to provide the required budgetary provisions on a timely and consistent basis. The evaluation notes the implications this could have for long term sustainability, coupled with the added risk when counterpart funds are not provided in a timely or appropriate manner, as experienced for example in Akwa Ibom.

NDSP project reporting notes that, as of November 2018, none of its 17 project LGAs had transitioned from WASH units to departments, therefore all were operating with limited financial and human resource capacity. Some good progress was noted in two LGAs within Rivers state where the state government released N3,000 000 from LGA budget lines for WASH department operational budgets.[137]

WSSSRP II reporting indicates that, as of July 2018, there had been no release of operational funds to support the establishment of WASH departments and indicated that continued advocacy was required. Likewise, WSSSRP III reporting stated that none of its target LGAs had a defined budget for WASH funded directly to them.[138]

Fieldwork for this evaluation found that in Bauchi and Jigawa budget lines for the implementation of WASH activities have been created. WASH has also been mainstreamed into LGA budgets in Jigawa through the WASH department budgets, providing resources for monitoring WASH activities. In Bauchi, where there are not yet WASH departments, funding goes through the state RUWASSA and N100,000 is provided to the WASH units as a monthly recurrent expense. Plateau state has institutionalized reforms and amended its laws to provide budget for all of its 15 LGAs. In Bauchi, fieldwork observed that the State Universal

[136] Frademol data
[137] NDSP Narrative and financial 6th year progress report
[138] WSSSRP III: 5th year narrative and financial

Education Board (SUBEB) now has a budget line for WASH which is good evidence of sustainability and means that WASH in schools will be able to carry on beyond the WASH interventions.

The evaluation noted several challenges regarding the provision of counterpart funding. In Akwa Ibom for example, under NDSP, evaluation informants told of delays of up to three years before hardware construction began, due to non-release of government counterpart contributions. When counterpart funds were received, they ended up covering 100 per cent of costs rather than encouraging contributions. This could have implications for sustainability, undermining the key principle of community ownership. SHAWN II reporting also notes challenges securing counterpart funding from some of its target states and LGAs, especially Zamfara, Yobe and Kano where it has "failed to materialize"[139]. However, the 2019 annual report explains that UNICEF advocacy has resulted in the release of N270 million by Kaduna, Katsina and Bauchi states to set up sanitation pool funds, disbursable to eligible MFIs[140].

4.5.7 To what extent have HHs been able to replace and/or upgrade their sanitation facilities long after the triggering process and initial change behavior?

The evaluation found that HHs in target communities have been upgrading or replacing their sanitation facilities following initial triggering processes and behavior change campaigns conducted as part of the WASH Programmes, which has created demand for improved facilities. This has been bolstered through sanitation marketing and the prominence of TBOs promoting both affordable and appropriate technological solutions that facilitate movement 'up the sanitation ladder'. While this looks promising, the evaluation notes that changes observed are within the time scope of the respective Programmes, and further enquiry at a later date is required to confirm whether facilities are being replaced or upgraded long after the initial triggering and behavior change.

HHs in target communities have been upgrading or replacing their sanitation facilities following initial triggering processes and behavior change campaigns of the WASH Programmes. Triggering through CLTS was a key strategy for Programme impact sustainability, as discussed in 8.1, and as explained in the WSSSRP project plans: *"Outcomes from the states show that CLTS implementation has been able to trigger communities to build their latrines based on their economic and social wellbeing status instead of a subsidy-driven sanitation promotion approach. Different technology options are often adopted by the various HHs. This will be the key approach in sanitation promotion under this project while more efforts will be put to getting HHs and communities to move up the sanitation ladder in the medium and long term*"[141].

Triggering through CLTS was found to have ignited the process of latrine construction and upgrading, so that communities are beginning to move up the sanitation ladder. Generally, movement has been gradual with many HHs having constructed traditional pit latrines after their triggering. SHAWN project reporting indicates that HHs built or upgraded 183,255 sanitation facilities, over half of which were improved under the SHAWN Programme in the 2019 reporting period.

Sanitation marketing has been another important Programme intervention, especially under the SHAWN project, to facilitate the replacement or upgrading of HH sanitation facilities. This is considered important to build on demand generated under CLTS and behavior change campaigns to facilitate moving up the sanitation ladder. A respondent from Birnin Kudu LGA explained that: *"Sanitation marketing is sustaining latrine construction so that the people will move up the sanitation ladder. Water supply has been constant and water chain observed and contamination/pollution has been reduced drastically due to the protection of water sources".*

139 SHAWN II 2019 Annual review draft
140 SHAWN II 2019 Annual report.
141 WSSSRP II: Description of the Action

Similarly, a key informant from RUWASSA in Bauchi stated: *"We have a lot of people now investing personal money on sanitation in public places and we have communities providing sanitation facilities in schools that we have not covered".*

Entrepreneurs known as TBOs are well positioned in communities to assist individual HHs in latrine construction and maintenance of both appropriate and affordable options. UNICEF has helped establish links between TBOs and HHs interested in constructing improved latrine designs and the SHAWN II annual report for 2019 reports over 16,000 improved 'smart toilets' built. The report states: "*The implementation of a holistic approach which addresses demand, supply chain and financing mechanisms in SHAWN II states is more effective for sustainable sanitation promotion. Branding improved toilets as 'smart toilets' promotes an aspirational identity for HHs"*[142]. Fieldwork also revealed evidence of communities using TBOs, particularly in Bauchi where the sanitation pool fund is being channeled through TBOs and used for upgrading or constructing sanitation facilities at the HH level.

In 2016, the SHAWN Programme introduced sanitation financing to complement the sanitation marketing approach, predominantly through microfinancing loans and the Adashe Scheme which have helped HHs to construct or upgrade their latrines. Further information about this can be found in sections 4 and 9.

4.6. Gender and Equity within WASH Programme

This section provides an assessment of the extent to which WASH interventions have identified disparities in access to and use of safe water and sanitation facilities, and the extent to which they have provided solutions to remove the existing barriers and close such gaps, especially among the most vulnerable, including adolescent girls and women. Box 7 provides some insight into gender and equity within the context of UNICEF Nigeria.

The evaluation found the WASH Programme to have identified disparities in access to WASH facilities, having made good progress towards addressing barriers to WASH by providing appropriate solutions. Focusing on issues of equality and equity, the Programme specifically targeted the most vulnerable which includes women and children.

The WASH Programme generally targeted the most vulnerable or those with the greatest need for WASH interventions in its design and implementation, focusing specifically on women, girls and people with disabilities. The evaluation found that gender equality and the empowerment of women and girls were well incorporated into the design, implementation and monitoring of interventions within the WASH Programme. Additionally, their specific needs were considered throughout such as through provision of gender segregated facilities. People with disabilities were considered to some extent through hardware design but this has not been sufficient and offers an area for improvement.

The WASH Programme implicitly integrates a human rights-based approach into its Programme design and implementation. This stems from the overarching thematic and organizational strategies to which it is aligned, specifically a focus on realizing children's rights to survival and development through improved WASH. Issues around equality and equity are explicitly considered in Programme design through both site selection of the respective projects and through specific Programming strategies. Design documents for the respective projects identified barriers for accessing WASH and their causes, and good efforts were made to address these throughout the course of the WASH Programme by focusing, for example, on provision of financing, appropriate solutions and increasing knowledge and education.

Box 6: Gender and Equity in the context of UNICEF and the Government of Nigeria

[142] SHAWN II 2019 Annual report.

UNICEF Nigeria's Country Programme 2014-2017 has an overall goal to *"accelerate the realization of the rights of all children and women to survival, development, protection and participation"* across all its component areas, *"adopting a rights-based approach and gender lens"*. WASH is a subcomponent of the country Programme's 'child-survival' component, and *"aims to increase access to and use of improved water sources, sanitation facilities and hygiene practices, particularly among vulnerable communities".*[143]

UNICEF Nigeria's subsequent CPD for 2018-2022 builds on this under its 'Child Survival and Development' component and Outcome 3, where it states: *"Nigerians, especially women, girls and those in vulnerable situations in rural and urban settings have equitable and sustainable access to and use safe and affordable water supply, sanitation and hygiene practices in communities and institutions and live in an open-defecation free environment.*[144]*"*

The UNICEF WASH Programme 2014-2017 placed strong emphasis on identifying and addressing disparities in access to safe water and sanitation facilities across its target intervention areas. The Programme targeted those with the greatest need for water and sanitation, a group that according to project documentation generally consists of poor people, women and children. All projects within the Programme made explicit efforts to address gender and equity, although WSSSRP III did so to a lesser extent.

4.6.1 To what extent have the Programme-incorporated considerations of gender equality and the empowerment of women and girls into the, design, implementation and monitoring of interventions

Gender equality and the empowerment of women were explicitly considered at Programme design stage, which is reflected in the individual project's charters and reporting as well as UNICEF Nigeria's Country Programme Document for the period under review. Various manuals and protocols developed collaboratively by UNICEF and donors facilitate women's inclusion in implementing and monitoring activities across the Programme, for example the 'National Hygiene Promotion Strategy' and the 'Expanded Guidelines for WASHCOMs'. The specific needs and interests of women were considered in relation to water collection and water management; accessibility and usability of latrines, such as through gender segregated facilities; and women's empowerment pursued though their involvement in decision making and leadership positions within WASHCOMs.

The evaluation found that gender equality and the empowerment of women and girls were well incorporated into the design, implementation and monitoring of interventions within the WASH Programme. The basis for this design is in the CPDs covering the period under review. The 2014-2017 CPD notes an objective to achieve "*Improved access to and use of high-quality and high-impact health, WASH and nutrition interventions by children and women",* to be realized partially through greater engagement of women. The subsequent 2018-2022 CPD explicitly specifies intent to *"deliver safe, equitable, sustainable and affordable drinking water; eliminate OD and ensure the safety and dignity of girls and women by involving them in design choices for facilities"* and to provide gender sensitive facilities in schools and health centers. Various manuals and protocols for use in WASH Programmes, developed collaboratively by UNICEF Nigeria, with the Government of Nigeria, DFID and the EU, demonstrate how gender equality and

143 UNICEF Nigeria Country Programme Document 2014-17
144 UNICEF Nigeria Country Programme Document 2018-21

empowerment of women have been considered in Programme design. The National ODF Protocol stipulates that women should be part of teams visiting communities for verification, certification and validation of ODF and total sanitation.

The 'National Hygiene Promotion Strategy' indicates that it will include the active involvement of women (and youth groups) at a grassroots level for propagating, practicing, and monitoring hygiene promotion activities, including MHM in both primary schools and communities. The 'Expanded Guidelines for WASHCOMS' recognizes that women are most affected when WASH facilities break down and thus *"should be considered when planning access to water supply, control and sustainability of the water sources".*

These guidelines articulate the modalities for establishing WASHCOMs and provide content and tools for their training structured around ten modules. Module 8, 'Gender and Poverty Sensitive Approach' contains four units as follows: Unit 1: Understanding gender; Unit 2: Access and Control of resources; Unit 3: Gender task Analysis; and Unit 4: Women in Operation and Maintenance. Furthermore, the expanded guidelines for WASHCOMs stipulate the requirement for gender balance on a WASHCOM, with a target of 50:50 male: female representation and a minimum of 40 per cent women. Either the chair or vice-chair of the WASHCOM must be a woman.

As for individual projects, SHAWN II and WSSSRP II documentation show that gender and the empowerment of women are explicitly considered in their Programme designs. The business case for SHAWN II recognizes that "the impacts of poor WASH fall disproportionately on women and girls as the primary water fetchers and carriers for sick children and family members[145]", and notes four key economically quantifiable benefits of WASH interventions for women and girls: less time spent gathering water, reduced health costs and use of medical care associated with decline in water-borne diseases, reduced sick days and mortality quantified in terms of disability adjusted life years (DALYs) averted, and savings from procuring water from a lower cost source. WSSSRP II also recognizes the importance of gender equality and empowerment of women in its Programme design stating: *"Gender mainstreaming will …ensure that the women, men, girls and boys are given equal opportunity to participate in decision making and project implementation processes[146]."*

The quantitative HH survey showed that in both Intervention and non-Intervention states, the burden for fetching water for cooking and drinking from the main water source tended to fall to women and young girls (47.7 per cent for Intervention and 46 per cent for non-intervention). When children were added to the measurement the figures rose 65.3 per cent for Intervention and 62.8 per cent for non-intervention.

SHAWN II examines various issues on gender in its implementation planning, specifically how male and female representation and involvement in community-based WASH can be strengthened. This includes sex-disaggregated hygiene promotion (school health clubs, women's health groups, mosque committees) as an opportunity to optimize WASH interventions, in addition to the following five initiatives to increase the participation of men, women and children:

1- Working with other DFID Programmes such as Maternal and Child Health and "Women in Health" and developing female-to-female training. It is expected that female CHEWs, who provide outreach services, can be co-opted to provide training around women's health issues, particularly to young teenage girls.
2- Identifying older women from the communities who are respected by their peers, and who increase the voice of women and girls in the Programme.
3- Identifying and implementing context-specific, demand-based economic activities by user groups to enhance the usefulness and vibrancy of WASHCOMs and respond to local opportunities.

145 SHAWN II Business Case
146 WSSSRP II: Description of the Action

4- Working with Imams and mosque/church committees to develop male-to-male activities aimed at reducing ODF and increasing hand-washing and other positive hygiene behaviors.
5- Working with school health clubs and school teachers to develop school-based health education activities, including child-to-child activities, school theatre groups, games and competitions.

Project reporting suggests that the WASH projects have successfully implemented effective gender-sensitive strategies to improve service uptake and behavior change: *"SHAWN II implemented effective gender-sensitive strategies that helped improve service uptake and behavior change "*[147].

This was validated during field work which confirmed that gender was considered in terms of ensuring women's involvement in leadership positions and monitoring their active participation in decision making processes. Female representation in WASHCOMs sometimes outweighed that of men in LGAs visited in Bauchi and Jigawa states, and the quantitative survey of WASHCOMs revealed that more than 50 per cent of WASHCOM members overall in Anambra state were women, as described in section 5.15. Reporting for SHAWN II target areas indicated that 40 per cent of all WASHCOM members were female and 83 per cent had women in leadership positions.

The quantitative survey (see tables in 4.2) found women to constitute 38.4 per cent of WASHCOM composition overall, including 35.4 per cent of WASHCOM composition across the DFID states and 42.5 per cent across the EU, though it is noted that only a sample of the targeted states was surveyed though for this evaluation.

In addition, the 2019 annual report notes that "*significant numbers of women are part of the pool of resource persons being engaged in SHAWN implementation"*[148]*.*

A WASH Coordinator from Kudu LGA claimed*: "There has been increased voicing of the women through participation in WASH activities such as undertaking leadership roles in WASHCOMs, participating in workshops, demanding for their rights such as access to water and sanitation facilities at all times to sustain their families".*

The quantitative HH survey showed that women predominantly occupy the treasurer position in WASHCOMs (53.8 per cent for DFID and 82. Per cent for EU). Sometime the head of the WASHCOM was also reported as a woman (5.7 per cent in EU states and 3.2 per cent in DFID states on average) indicating good progress towards the project aims of at least 40 per cent composition of women in WASHCOMs and the positioning of women in leadership/'executive' positions.

Fieldwork also confirmed that the specific needs and interests of women were considered in relation to water collection and water management, accessibility and usability of latrines. This was mainly evident through the functioning of WASHCOMs.

One WASHCOM chairperson from Jigawa state related that: *"Fifty per cent inclusion of women in the WASHCOM has increased accountability in the provision of WASH facilities…Instead of men planning alone like before, both men and women plan together to achieve better results with each gender given its rights in the community".*

Gender segregated facilities were observed in public places including schools during field work within all communities visited, and the quantitative survey revealed that 83.4 per cent of schools in intervention areas had gender segregated facilities[149]. A total of 60.3 per cent of girl's toilet facilities were lockable from the

147 SHAWN II 2019 Annual report.
148 SHAWN Annual report 2019
149 compared to 75.4% in non-intervention (this is not statistically significant).

inside in intervention areas compared to 48.8 per cent in non-intervention, and 23.3 per cent contained anal cleansing materials compared to 15.9 per cent in non-intervention.

4.6.2 To what extent was a Human Rights Based approach integrated into the Programme design and implementation?

The WASH Programme implicitly integrates a human rights-based approach into its Programme design and implementation. This is in line with the overarching thematic and organizational strategies to which it is aligned, such as UNICEF Nigeria's 2014-2017 CPD and UNICEF's global WASH strategy, which focus on realizing children's rights to survival and development through improved WASH. The United Nations considers access to domestic water supply a human right and the WASH Programme has focused on the most vulnerable areas where access was lacking.

UNICEF's global WASH Strategy 2006-2015[150] was live at the time of development of the UNICEF Nigeria 2014-2017 Country Programme and the SHAWN, WSSSRP and NDSP Programmes. The overall objective of the 2006-15 WASH strategy was to contribute to the realization of children's rights to survival and development through improved WASH, based around two core human rights instruments: the Convention on the Rights of the Child; and the Convention on the Elimination of All Forms of Discrimination against Women. It should also be noted that the UN declared access to domestic water supply a human right in 2002. The 2014-2017 CPD expresses an intent to adopt a rights-based approach to its Programming.

The Rural Water Supply and Sanitation Project of the NDSP is in line with the primary objective of EU development policy, which is to eradicate poverty in the context of sustainable development. Human rights and good governance are recognized as critically important objectives in this context, with Programme documentation stating that, "*Access to water is a human right, yet billions of people across the globe are still faced with daily challenges accessing even the most basic of services".*

4.6.3 To what extent did the Programme target the poorest and help reduce inequalities between wealthier and poorer groups?

The WASH Programme generally targeted the most vulnerable or those with the greatest need for WASH interventions in its design and implementation, focusing specifically on women, girls and people with disabilities. Issues around equality and equity were explicitly considered in Programme design. This was ensured through site selection of the respective projects, based on levels of need, inequality, poverty, a focus on rural areas, and also through specific Programming strategies such as micro financing and the 'Adashe scheme'. People with disabilities were considered to some extent through hardware design but this has not been sufficient and offers an area for improvement.

The results matrix for the 2014-2017 UNICEF CPD specifies 'vulnerable children and their families' as the predominant target group for gaining access to and use of sustainable WASH and expresses intent to "*focus on the states and LGAs with the highest disparities and worst child development indicators"*[151]*.* While these were often the poorest by default, the most vulnerable were identified as women, girls and people with disabilities. The 2016 annual report for UNICEF Nigeria states that: "*Country Programme strategies continue to identify and analyses inequalities through our work with implementing partners by collecting accurate data and promoting evidence-based planning. WASH captured data on inequities including disabilities to better target the most excluded.*[152]*"*

[150] UNICEF's global WASH Strategy 2006-2015
[151] UNICEF Nigeria Country Programme Document 2014-17
[152] Country Office Annual Report 2016 for : Nigeria

SHAWN II explicitly refers to 'vulnerable people' in its project outcome and the EU projects specifically consider equality and equity in Programme designs. The NDSP aims "to address inequities in the provision of sustainable water supply, sanitation and hygiene services in rural communities[153]", indicating that an LGA-wide approach has been adopted to reach everyone with access to WASH. WSSSRP II also commits to *"address inequities in the provision of sustainable water supply, sanitation and hygiene services in rural communities"* and indicates it will "ensure that the views of the poor, the vulnerable and the marginalized are captured through creating platforms for equal participation"[154].

Equity through site selection

At Programme design stage, the initial selection of LGAs considered the needs of the communities and targeted the poorest through its focus on rural areas. For example, a WASHCOM chair from Gaza LGA noted that: *"Rural dwellers are made up more of poor people and the WASH Programme targets rural areas. So, it is actually a Programme for the poor".*

For SHAWN II, the criteria for selection of the target states were based on levels of need and inequality.[155] SHAWN II project documentation explained a ranking and selection process that categorized LGAs into 'progressive', 'medium-served' and 'underserved'.[156]

For several of the projects, the selection processes induced a selection bias aimed at targeting need, making communities receiving the intervention more likely to be poorer. This included a three-step process to identify Programme target areas and beneficiaries:[157]

1- States were prioritized by donors based on development indicators, and states with responsive governments selected.
2- LGAs were selected based on need, such as poverty levels and health indicators, and for the EU projects a self-selection process was also applied whereby only LGAs explicitly showing interest in engagement were selected.
3- Communities were then prioritized based by need, but with the whole LGA targeted.

Other projects also used a self-selection process. For example, WSSSRP II used a demand responsive approach (DRA) to self-select project LGAs and communities which *"critically looks at the need to respond to demand while focusing on the poor and vulnerable[158]"*. Project documentation noted that *"DRA ensures that the project responds to genuine demands from beneficiaries. Under DRA the beneficiaries do not only identify their needs but go further to demand for change"* and described it as *"…a multi-dimensional social process that helps people gain control over their own lives and provides level playing field for all parties within the community; especially women, the poor and the vulnerable".[159]*

The NDSP operated in the Niger Delta region where around 70 per cent of the population live below the poverty line, thus making the self-selected LGAs amongst the poorest. Project documentation notes that *"Most of these rural settlements lack essential amenities, such as health care facilities, market access, water supply, power supply, good transportation systems and access to improved sanitation"[160]*. However, some interviewees noted that in Akwa Ibom only three LGAs participated in the process for selection of the two most vulnerable states. Seventeen LGAs in Akwa Ibom did not participate as *"doubts of how real the Programme would be created apathy"*. Therefore, it is possible that, in this state, the most vulnerable

153 WSSSRP III: 5th year narrative and financial
154 WSSSRP II: Description of the Action
155 SHAWN II Business Case
156 SHAWN II LGA Selection criteria
157 WASH Impact Evaluation Evaluability Assessment
158 WSSSRP II: Description of the Action
159 WSSSRP II: Description of the Action
160 NDSP Narrative and financial 6th year progress report

LGAs may not have been targeted for intervention due to non-engagement with the self-selection process, despite *"demonstrable advocacy and awareness".*

Programme strategies for equity

During fieldwork, the Adashe Scheme was highlighted as a strategy to target the less privileged and poorest, and to increase the number of poorer HHs with sanitation facilities. The savings and loan, or rotating loan scheme, described in Section 4 above, prioritizes the most vulnerable and needy by ensuring they are the first beneficiaries served. Fieldwork showed that in Bauchi state, this scheme helped Dass and Warji LGAs move closer to ODF certification.

Another financing mechanism used to support those who cannot afford latrine construction was micro-finance in Bauchi state through the 'Rahama Women Development Programme', an NGO which provides sanitation loans to poor HHs at reduced interest rates of around 9 per cent. Rahama assesses the ability of a HH to pay back the loan and offers loans between N35,000 - N50,000, payable within seven months. They are currently experiencing a 99 per cent repayment rate, working with TBOs to build latrines for their beneficiaries. The evaluation found that 533 HHs are currently receiving credit, and 300 previously did. Female-headed HHs were the preferred recipient of micro-finance loans as they have a better reputation for paying the loans back.

In some cases, the ultra-poor have received extra support from other community members to enable them to build latrines, and examples were given of youths providing construction support to widows in Mbat Esigon and Ikot Imo as part of a drive to ODF certification. Another community extended a water supply pipeline to the house of a woman with special needs to help her access water safely and easily.

A WASHCOM chair from Jigawa state commented that: *"Though there are rich people in this community, the rich help the poor, especially PLWD and financially handicapped, and also making cash contributions alongside the community to enable these people to have toilets constructed for them free of charge in their domains".*

Researchers conducting field interviews summarized the sentiment they encountered: *"The UNICEF WASH Programme intervention has helped the less privileged with the feeling of importance and not being forgotten through gender-segregated toilets with provisions made..."*

People with disabilities were considered through the use of special designs appropriate for them including ramps, handrails and ropes at institutional settings such as schools, health centers, markets and motor parks. However, project reporting suggested that this has not been sufficient,[161] and recently SHAWN II reported the intention to further strengthen its focus on increasing access to WASH services for people with disabilities[162]. This decision came as operational research focusing on disabilities found only 6.94 per cent of latrines to be 'disability-friendly[163]', although it is unclear what definition of disability was is used.

4.6.4 To what extent were the barriers (and their causes) to accessing basic services in the WASH areas in the targeted LGA's identified and addressed as part of the overall Programme strategy priorities?

While the 2014-2017 Country Programme Document did not explicitly identify barriers for accessing WASH and their causes, design documents for the respective projects did, and good efforts were made to address these throughout the course of the WASH Programme. Finance due to poverty was addressed by promoting low-cost, community-based approaches such as CLTS, VLOM and microfinancing. Limited opportunity for constructing both appropriate and affordable options due to challenges with geography,

161 SHAWN II 2019 Annual report
162 SHAWN II 2019 Annual review draft
163 SHAWN II 2019 Annual report

location and finance was addressed through sanitation marketing and training of TBOs who can offer suitable solutions. Limited knowledge of the importance of good hygiene and proper use of WASH facilities due to lack of awareness and long ingrained attitudes and beliefs were addressed through education and awareness campaigns facilitated through VHPs, WASHCOMs and WinS initiatives.

UNICEF Nigeria CPD 2014-2017 did not explicitly identify barriers to accessing WASH and their causes, though this was found in specific implementing project documentation for that period. Barriers and their causes identified in project documentation are summarized in Table 45. The 2018-2022 CPD identifies some barriers, such as: inadequate coverage of services, predominantly in rural areas; limited institutional and human resource capacity, particularly at the state and LGA level; and conflict, especially in North Eastern Nigeria, which has destroyed 75 per cent of WASH infrastructure. It also identifies the following mix of service delivery approaches to be conducted in target LGAS: systems strengthening including scaling up the WASH-MIS; community engagement and women's participation in WASH committees; behavior change communication and hygiene promotion through schools; and expanding partnerships with the private sector for market shaping and innovation.

Fieldwork for this evaluation showed that finance was a major barrier to accessing WASH, and the WASH Programme placed an emphasis on promoting low-cost community-based approaches including CLTS and VLOM as a solution. Measures were taken to enable HHs to cover the upfront costs of building latrines and water facilities, such as the Adashe scheme and microfinance loans as discussed in 9.3. KIIs at RUWASSA revealed that these were successful. For example in Bauchi it was explained that: *"I was pessimistic when the Adashe groups concept started. But today the state has over 800 Adashe groups in communities that are contributing money to provide improved latrines in HHs".*

Another barrier to accessing WASH was the limited scope for constructing both appropriate and affordable facilities, including the barriers posed by topography and geography; flooding and soil type was observed in Jigawa and highwater tables coupled with loose soil in Akwa Ibom. This has been addressed through a focus on sanitation marketing promotion and developing the capacities and skills of individuals at the community and LGA levels to become TBOs and offer suitable solutions. This has been particularly successful in Bauchi and Jigawa, considered by the field team to have robust sanitation marketing initiatives in place.

The evaluation found there to currently be 138 TBOs in Bauchi, each with four trained masons (552 masons in total). A key informant in Bauchi RUWASSA said: *"We are one of the states to first implement the sanitation marketing initiatives. We have a lot of people now investing personal money in sanitation in public places and we have communities providing sanitation facilities in schools that we have not covered".*

Another respondent from Birnin Kudu LGA commented that: *"Sanitation marketing is sustaining latrine construction so that the people will move up the sanitation ladder."*

Another major barrier to access WASH was limited knowledge and education of the importance of good hygiene and proper use of WASH facilities. HHs did not understand the importance of accessing basic WASH, and as a consequence were not motivated to do so. The use of the CLTS approach to educate and catalyze behavior change, alongside the work of WASHCOMS and village health promoters, contributed to addressing this barrier. Programme activity centered around WASH in schools has also contributed to improving knowledge and WASH related practices. Field interviews provided evidence that attitudes and beliefs are changing. For example, one WASHCOM member from Roni LGA stated: *"We could not come out to talk about sanitation and hygiene in public in the past but…we can now discuss challenges faced and the way forward".*

Table 39: Barriers to accessing WASH services identified by the contributing WASH projects

Barriers to accessing WASH	Causes	Solution/How addressed
HH Socio-Economic Status	• Low HH incomes/poverty • Significant HH contributions required for constructing facilities	• CLTS approach • Sanitation Marketing; promotion of Innovative approaches and options that are affordable • Microfinancing, 'Adashe' scheme and use of TBOs
Wide disparities in coverage	• Unserved/underserved areas • Inadequate/poor data for planning and needs assessments • Functionality and sustainability of facilities; no maintenance sustainability plans • Lack of service providers	• Use of LGA wide approach • Promotion of Innovative approaches and options that are appropriate and affordable • Promoting enabling environment for improved participation of private sector
Institutional WASH Access limited	• Institutional WASH access has over the years received little or no attention	• Focus on WASH in schools (WinS) and other institutions.
Disability	• Disability poorly understood • Stigma around disability • Facilities not appropriate	• Promotion of Innovative approaches and options that are appropriate • Education and awareness raising
Gender (being a women)	• Religious beliefs • Cultural traditions and norm	• Education and awareness raising • Establishment of WASHCOMs and women's roles in them • Inclusion of women in decision making
Weak institutional arrangements/ sector governance at state and LGA level	• The complex federal government system (with responsibilities for WASH divided amongst federal, state and local governments) • Gaps in institutional capacity at LGA level • Limited/slow implementation of national policies at federal level and most of the policies are yet to gain wide acceptance in the States and the absence of clear mechanisms for translating policies into actions • Poor application of sector policies	• Institutional strengthening, upgrading WASH units to WASH departments • Capacity building and training of government staff • Promotion of enabling environment for improved participation of NGOs and private sector
Limited state and local government financial resources	• Funds provided under the federal and state budgets are not used effectively because of corruption and mismanagement	• Institutional strengthening, upgrading WASH units to WASH departments • Advocacy for creation of budget lines

Chapter 5: Conclusions

The operating context for the Govt/UNICEF Nigeria WASH Programme included high levels of commitment to ending OD, the declaration of a WASH state of emergency, and the development of the PEWASH strategy by the Government of Nigeria amongst other considerations.

The four key projects that formed UNICEF Nigeria's WASH Programme with the Government of Nigeria (WSSSRPII, WSSSRPIII, SHAWN II and NDSP) focused on:

1- Delivering safe access to WASH
2- Supporting community engagement in WASH for sustainability
3- Communal, local and state levels capacity building and in support to a strong and healthy WASH enabling environment
4- Developing appropriate monitoring and learning systems

Key parallel strategies to deliver these objectives included: CLTS, construction of institutional WASH facilities, and the rehabilitation and construction of water facilities in conjunction with significant activities focused on institutional strengthening at all levels. Sanitation marketing and financing were introduced as part of the effort towards increasing sanitation access post-CLTS. WASHIMS and associated training has also been a key strategy deployed by UNICEF for enhanced monitoring and evidence generation.

Triggering through CLTS was found to have driven latrine construction and upgrading, enabling communities to begin 'moving up the sanitation ladder'. Generally, movement has been gradual, and many HHs constructed traditional pit latrines after their triggering. In addition, sanitation marketing has been a key Programme intervention with early signs of development, facilitating the replacement or upgrading of HH's sanitation facilities, and building on demand generated under CLTS and behavior change campaigns to facilitate moving up the ladder.

Overall, based on the sample cases for the evaluation drawn from the four projects, the Nigeria WASH Programme has made an important contribution to addressing the water and sanitation challenges in the country by providing 8.1 million people in 2017 with access to an improved water source and 11.0 million people in 2017 with access to sanitation.

The Programme is on track to achieve, and further build on, increases above several of its initial targets by the end of the individual Programmes in 2019/2020; in 2019, 13.0 million people and 15.6 million people have access respectively to improved water and sanitation (figures as of September 2019[164]).

Overall outcomes indicators of use of improved drinking water sources and sanitation facilities have increased in those seven states. At the national level, the expected result of the country Programme 2014-2017 for WASH has almost been achieved as revealed in the findings of the WASH NORM HH Survey 2018 (73.4 per cent achieved against the initial nationwide target of 74 per cent regarding the use of improved drinking water sources by Nigeria's population).

While these achievements are encouraging it is important to assess them in the light of the continuing enormous challenges towards achieving the SDG6.

[164] See table 6.3 page 46

The evaluation draws the following conclusions, set out against the evaluation criteria:

Relevance

In assessing whether the intervention (WASH Programme) was doing the right things_(if intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies and priorities, and continue to do so if circumstances change), the evaluation team finds coherence with international normative frameworks, such as the MDGs and SDGs; and consistency and alignment with National WASH priorities and strategies, which cascade to state and LGA priorities. Furthermore, strategies and activities are assessed as coherent and aligned with the overall UNICEF Global WASH Strategy (2016-2030) and designed to contribute to the achievement of outcomes and goals. The Programme takes into account inequalities by focusing on the most vulnerable and poorest population in rural areas.

The evaluation showed that the interventions and outputs of the WASH Programme were broadly consistent with the expected results. UNICEF Nigeria worked both upstream through advocacy work, and downstream through direct engagement with target LGAs and communities. Where challenges were encountered, these were for the most part beyond the control of UNICEF.

UNICEF has sought to apply principles of results-based management in its design, planning, and monitoring, using vertical and horizontal logical frameworks and theories of change (ToCs). Expected results of the Programme were defined, though the complexity and interrelatedness of challenges, assumptions and processes within the Programme design and ToCs are not fully considered or articulated and thus lack precision. UNICEF actively considered these during annual work plan meetings and routine monitoring visits to the states and LGAs where the Programme was operational.

The Programme sets out levels of accountability for itself and partners clearly.

Efficiency

In assessing how well resources are being used and the extent to which the intervention delivers, or is likely to deliver, results in a cost effective and timely way, the evaluation team finds that UNICEF has ensured adequate consideration of value for money and quality inputs for quality outputs through a number of linked approaches, strategies and systems for procurement and contracting. UNICEF has worked consistently to manage the costs of sanitation, water supply and ODF certification, with reductions noted in the cost of a community achieving ODF certified status due to more efficient conversion processes and engagement of local consultants to trigger and follow up communities. Where costs have fluctuated, the evaluation finds this is due to the scaling up of sanitation marketing and financing interventions.

The evaluation notes that the Programme was able to reach more people as a result of reduction in the per capita cost (US$33 for SHAWN II, US$47 for WSSSRP II, and US$16 for WSSSRP III)) of accessing improved water supply, due to enhanced procurement and contract management processes. For example, in SHAWN II, the per capital cost dropped to US$33 in 2017 from an initial US$55 in 2014.

The evaluation found evidence of improved efficiency, at scale, with delivery of ODF results, as a result of effective triggering and the adoption of a revised approach for community led total sanitation (CLTS), with sanitation financing and marketing.

UNICEF supported a number of related initiatives, such as VLOM and establishment of WASHCOMs, to facilitate community ownership and sustainable management of water supply facilities, which jointly contributed to reducing the downtime of community water facilities.

While Programmatic financial resources appear sufficient, challenges in counterpart funding were encountered. Although funding increased significantly, there is not yet clear evidence of the presence of well-structured and supported WASH departments across most intervention states.

In total, 18,622 water points have been constructed or rehabilitated and 3,017,565 HH latrines have been built by communities and families. The UNICEF Nigeria WASH Programme shows evidence of timely deployment and delivery on key objectives. Timely delivery of key inputs, especially effective triggering, and the adoption of a revised CLTS approach with sanitation marketing and financing are notable examples of efficient delivery.

Effectiveness

In assessing whether the intervention is achieving its objectives, the evaluation team finds the WASH Programme to be effective up to 2019; the Programme surpassed its targets for water and sanitation as at September 2019 by 126 per cent and 137 per cent, respectively, while in 2017, 96 per cent of the targets for sanitation and 89 per cent for water were achieved. The WASH Programme succeeded in reaching 8.1 million people in 2017 with access to an improved water source and 11.0 million people with access to sanitation (figures as of September 2019[165]). As of 2019, 13.0 million and 15.6 million people have access respectively to improved water and sanitation.

The evaluation notes that the use of an improved water source has increased systematically across both intervention and non-intervention areas of the seven states, as has the practice of covering water storage vessels.

Trend analysis of secondary data from NDHS 2013 to NDHS 2018 and WASH NORM Survey 2018 revealed an overall increase of more than 25 per cent of access to improved drinking water sources during the last five years in the seven states that the evaluation covered. This improvement is comparably high in two states: Bauchi, which showed an increase from 39.9 per cent access in 2013 to 78.7 per cent in 2018, and Benue, which improved from 38.4 per cent in 2013 to 60.4 per cent in 2018.

Secondary data also shows positive overall improvements in the use of improved sanitation facilities, highlighting an increase of use of improved sanitation facilities when comparing the NDHS 2013 figure with NDHS 2018 and the WASH NORM survey 2018 figure for each of the seven states. Increases during the last five years were observed in Bauchi, which rose from 18.3 in 2013 to 56.1 per cent in 2018; Ekiti, which climbed from 18.4 per cent to 50 per cent;, and Benue, which rose from 15.4 per cent to 30.9 per cent. However, there is an observable decrease in the use of improved sanitation facilities in Jigawa state from 2013 to 2018 according to NDHS findings.

The WASH Programme was associated with a 9 per cent reduction in OD overall, but the pattern was not consistent across states. There was no overall effect of the Programme on the prevalence of clean latrines.

A number of enabling or undermining factors that impact on Programme implementation fidelity were identified. Enabling factors included the timely release of counterpart funds, improved planning and monitoring, building of political will, and collaboration with the education and health sectors. Where counterpart funding was delayed or local ownership was weak due to expectation of payment or the perception that local volunteers were paid, implementation fidelity was undermined. Implementation strategies as described in routine Programme reports were consistent with Programme design. Furthermore, annual workplans at state level were used as a management tool to help ensure consistency with Programme design. These were supported with tailored capacity building activities at all levels.

Respondents at all levels were able to clearly articulate the aims of the Programme and their roles and responsibilities within it. Principal activities appeared to be managed as intended and the support provided through capacity building and training worked well.

Specific barriers to implementation included slow release of counterpart funding and failure to establish WASH departments, as well as local-level issues and the challenges of poverty and slow rates of behavior change.

There may be a case for review and strategic decisions to be taken regarding future work towards the establishment of WASH departments and support for the continued existence and development of a permanent WASHCOM federal structure. Materials for behavior change, communication and hygiene promotion could be strengthened, lower cost sanitation models promoted, and availability of finance options increased.

The achievement of outcomes showed a mixed picture that was not consistent across all states. The reasons underlying this picture remain unclear and were not explained through multi-variable analysis using state-level indicators of the enabling environment. Given the lack of confirmatory analysis on the enabling environment there remains a range of potential explanations for the varying outcomes, including that the analytical assumption of equal baselines did not hold. None of these can be examined without baseline data or further extensive research.

Respondents reported increasing awareness and practice of handwashing as well as provision of tippy taps in homes and institutions.

There were mixed results with respect to the extent of institutional reform achieved at state and LGA levels as indicated by the prevalence of funded WASH departments. These were widespread in some states but lacking in others. UNICEF continued efforts to build capacity of LGA WASH units and departments in various areas, informed by capacity improvement plans and resulting in the rollout of rural drinking water monitoring and surveillance activities, amongst other achievements.

The evaluation found that the Programme strategy of developing water safety plans has proved to be effective, providing a mechanism to build awareness on the importance of water quality.

The Programme contributed to improved capacity at state and LGA levels for ODF verification, Programme management, procurement and M&E. WASHIMS maintenance and expansion, and the associated training of LGA staff has been one of the most significant achievements of the Programme. Establishment of WASHCOMs and VLOM improved capacity at the community level.

There was evidence of WASHCOM involvement in non-WASH responsibilities, though the extent to which this was the case varied substantially between states and between projects. In EU funded states 52 per cent of WASHCOMs were involved in non-WASH responsibilities. In DFID funded states this rose to 82 per cent.

There was evidence that the Programme had supported and influenced the participation of women in decision making through the participation of women in WASHCOMs. In most states women comprised almost 40 per cent of WASHCOM members. It was common for women to hold the position of WASHCOM treasurer and rare for them to hold the position of chair.

There was evidence that women were more likely to attend and speak at community meetings relating to WASH in intervention areas than non-intervention areas. This might reflect differences in the extent to which capacity needs have been met, though it might also be due to differences in the content or conduct of the meetings themselves.

There were mixed results on the validity of the Programme results. There were various levels of progress and sustainability of ODF in many communities, and a few LGAs across the Programme assisted states. Good examples of sustainable project achievements are notable, and efforts are in progress to help the more widespread achievement of LGA-wide ODF. There was evidence of hygiene behavior transformation and compliance among community beneficiaries. However, there remain diverse strategic challenges.

Impact of WASH Programme

While the WASH Programme has made significant achievements in terms of outcomes, this assessment of longer-term effects of WASH goes beyond this and considers evidence of the impact of the Programme, such as changes in final health, nutrition and education outcomes attributable to the WASH interventions based on the quantitative and qualitative data collected. This is an important part of the purpose of this evaluation, although challenging in terms of data and methods. In the absence of a base line HH survey, the evaluation team applied mixed methods and used multiple data sources in order to try to discover potential effects of WASH interventions on the reduction of diarrhea and stunting among under-five children, and the increase of primary school enrollment or attendance rates in those seven states.

Looking across the Programme as a whole, there was little evidence of systematic integration of WASH into other sector interventions, and therefore it is unlikely that cross-sector integration played any significant role in the results achieved. There was some evidence of collaboration with the education and health sectors as needed to facilitate provision of institutional WASH facilities required for achievement of ODF status.

Impact of WASH on Health

Using the WASH evaluation HH survey data in the seven states which the evaluation covered, there is no significative evidence of systematic impact on diarrhea prevalence across the WASH Programme, as data showed 18.0 per cent vs 19.5 per cent in the intervention and non-intervention areas, respectively. However, Bauchi, Benue and Ekiti states have shown a net difference of less prevalence of diarrhea in LGAs exposed to WASH interventions in comparison to high prevalence among under-five children in LGAs not exposed to interventions. Local multi sectoral, contextual, and behavioral factors may explain those divergent differences of impact on health by state.

Using routine statistical data from the Ministry of Health, the evaluation team notes that the number of cholera cases in Anambra, Bauchi, Jigawa and Katsina states has declined progressively since 2013. This takes into account the major cholera outbreaks recorded for 2014 and 2018 (NCDC), which are anomalous years in the data set.

Secondary data from the NDHS HH survey did not show evidence of a decrease in disease in six of the seven states which the evaluation covered. The exception was Anambra state, which recorded a decrease among under-five children from 7.7 per cent in 2013 to 3.1 per cent in 2018. In general, the prevalence of diarrhea in Nigeria has increased slowly from 10.2 per cent in 2013 to 12.8 per cent in 2018, according to NDHS Reports.

Qualitatively, respondents to FGDs and KIIs reported having noticed a reduction in diarrhea disease prevalence at community level and health facilities.

Impact of WASH on Education

According to evidence from the HH survey, the evaluation team found positive effects in school enrolment in the states of Benue, Ekiti, Katsina and Akwa Ibom when comparing WASH intervention LGAs and non-WASH intervention LGAs. In addition, sample statistics revealed a small reduction in absenteeism (0.3 days) between LGAs exposed to WASH interventions compared to LGAs not exposed. However, the pattern was not consistent across all states.

Trend analysis of demographic and health survey data shows that Jigawa, Katsina and Anambra states all have registered increases in primary net attendance ratios during the last five years: from 43.2 per cent in 2013 to 56.4 per cent in 2018 in Jigawa, from 43.5 per cent to 68.3 per cent in Katsina, and from 82 per cent to 85.1 per cent in Anambra. In the other states, there has been a decrease or stagnation of primary school attendance.

Impact of WASH on Nutrition

In the seven states covered, the evaluation found no statistically significant evidence of an impact on malnutrition rates as indicated by stunting when comparing findings of the evaluation HH survey in WASH intervention areas with non-WASH intervention areas. However, the states of Anambra and Benue presented positive effects, with the prevalence of stunting among under five children higher in LGAs not exposed to WASH interventions compared with LGAs that benefited from WASH Programmes (from 16.7 per cent 9.1 per cent in Anambra and 39.1 per cent vs 34.1 per cent in Benue).

Trend analysis of secondary data of NDHS 2013 and 2018 has revealed four points of decline in the prevalence of stunting of under-five children in the states of Anambra and Akwa Ibom from 18.4 per cent (NDHS 2013) to 14 per cent (NDHS 2018) and from 22.4 per cent in 2013 to 19.6 per cent in 2018, respectively. In the other five states, there is stagnation or an increased prevalence of stunting in line with Nigeria's average of stunting of 36.8 per cent in 2013 and 2018.

Impact on Behavior Changes related to Hygiene and social role

There was evidence of an increase in the seven states the evaluation covered of 10 per cent in rates of self-reported handwashing with soap and an increase of 5 per cent in the perceived prevalence of handwashing with soap. There was some evidence of a small, positive change in proxy indicators, such as availability of handwashing hardware, but without strong statistical support.

Impact on Quality of drinking water and Beneficiary Satisfaction

Regarding the quality of drinking water, the evaluation team found that less than 15 per cent of heads of HH reported issues related to bad quality (bad colour, odour or unwanted taste) of drinking water used from boreholes. On average, there were few differences between LGAs exposed to WASH interventions (14.7 per cent mentioned bad color of water) and LGAs not exposed to WASH interventions (16.8 per cent). However, Benue and Katsina did show a notable impact of WASH on safe quality of water when comparing intervention areas (19.8 per cent in Benue and 15.8 per cent in Katsina) with non-intervention areas (41 per cent in Benue and 23.6. per cent in Katsina).

The Programme's achievements of outputs in increasing coverage of safe and convenient water and sanitation supplies were found to have helped reduce gender-based inequalities and addressed the needs of women and girls. In addition, there were reports of women being able to take on more prominent community roles.

Qualitatively, there was anecdotal evidence of communities asserting their rights to water and sanitation services and evidence of women's participation in WASHCOMs. Quantitative data also supported the perception of women's involvement in WASHCOMs. Respondents from WASHCOMS reported that, through capacity-building workshops run by the Programme, communities had come to realize their right to WASH facilities. Since the inception of the Programme, the level of awareness of WASHCOMs with regards to their rights to benefit from WASH has increased. Overall, the evaluation found evidence that communities are aware of their rights and that WASHCOMs are increasingly able to engage with local government systems to help ensure sustained access to water.

Regarding the measurement of impact, the lack of statistically significant results in support of the Programme effect does not necessarily indicate a lack of impact of the WASH Programme on health, nutrition and education; though the sample and the analysis were sufficient, there were many other inherent measurement issues. For example, pre-existing issues concerning the targeting of comparison groups and the absence of an initial baseline HH survey mean that there are considerable challenges involved in demonstrating a clear effect of WASH interventions on other sectors, given the many other factors at work. There are also significant qualitative impacts in relation to gender inequalities, awareness and community participation. The study has also established an important baseline for future impact assessment.

Sustainability

In assessing the extent to which outputs, outcomes and impact have persisted or are likely to persist during a significant time period (more than one or two years) after external technical and financial support has ended, the evaluation found that, to date, implementation of the WASH Programme has resulted in some positive changes at community level and to some extent at the LGA and state level. This suggests there is a good likelihood that project outputs and outcomes will persist a year or more after support to beneficiaries ends. However, it is too early to fully evaluate sustainability at this stage and the evaluation notes that sustainability should be evaluated at an agreed point following completion of the Programme.

Overall**,** water and sanitation facilities provided through the Programme have been looked after by communities, with support from various stakeholders. This has been bolstered through the institutional strengthening and capacity building elements of the Programme.

Quantitative evidence from the HH survey revealed that the availability of drinking water from an improved source is guaranteed over the year, even during the dry season, for both communities benefiting from the WASH Programme (81.9 per cent) and communities not exposed to the WASH Programme (81.6 per cent). A notable difference was observed in Benue state where 54.4 per cent of HHs recognized the availability of improved drinking water during the dry season in LGAs exposed to the WASH Programme, compared with 35 per cent of availability in the non-intervention area. The ground area of water supply is very challenging in Benue state.

The extent of understanding by men and women in target communities regarding their roles in maintaining WASH installations is varied. There was recognition across the Programme that community ownership of WASH installations is key to long term sustainability, and the establishment and use of WASHCOMs has contributed successfully towards this. However, understanding and willingness to make user fee contributions to cover essential VLOM is not consistent.

VLOM units have been established at LGA level across the Programme and are operating successfully. This has helped streamline costs and reduce facility downtime. However, there is scope for improvement as downtime targets are not consistently met across the Programme-targeted LGAs. There exists a good understanding of the referral process for VLOM at the community level, and communities have taken advantage of LAMs and spare part vendors to maintain their WASH facilities.

The evaluation team found evidence of the WASH Programme successfully building WASH community systems and accountability that ensure real time maintenance of improved drinking water facilities. A total of 16.8 per cent of heads of HH in communities exposed to WASH intervention recognized that the person responsible to ensure the water facility is repaired in the event of a breakdown is within the WASHCOM, in comparison to only 1.2 per cent of heads of HH interviewed in communities in non-intervention areas. The WASH Programme has helped empower WASHCOMs for an adequate community-based institutional leadership role and ownership of water infrastructure in the five states of Akwa Ibom, Bauchi, Ekiti and Jigawa.

Quantitative evidence from the HH survey revealed that on average the WASH Programme has developed strong local capacity for the maintenance of improved drinking water sources; 20.8 per cent of heads of HH in communities exposed to WASH intervention recognized that the repair of broken water facility is performed by a mechanic from the water committees, compared with only 8.5 per cent in communities in non-intervention areas that depend mostly on government intervention or charitable rescue from other communities.

In response to the question: *"To what extent are you satisfied with the activities of the entity responsible for ensuring access to clean water",* 51 per cent of heads of HH in the communities exposed to WASH intervention said they were extremely satisfied, compared with only 36 per cent in non-invention areas. Beneficiary satisfaction vis-à-vis WASHCOM or WASH unit is very high in the WASH interventions areas in the following states: Akwa Ibom (23 per cent vs 2.8 per cent in non-intervention areas), Bauchi (46.7 per cent vs 30.2 per cent), Benue (28.8 per cent vs 13.9 per cent), Ekiti (65.2 per cent vs 47.1 per cent).

Participation of HHs in the maintenance and management of improved drinking water sources through the payment mechanism required to HH/community users is not a common practice in either non-intervention communities (17.7 per cent) or intervention communities (17.4 per cent). The practice was more common in some states and more so in non-intervention areas than intervention areas such as Akwa Ibom (56.2 per cent vs 41 per cent for non-intervention vs intervention) and Anambra (42.5 per cent vs 36 per cent).

Critically, budget allocations for WASH vary by state, but are overall considered inadequate to ensure long term sustainability of financial resourcing, with some WASH units still not having become WASH departments or having their own budget line. Risks associated with untimely and inappropriate counterpart funding are also present.

HHs in target communities have been upgrading or replacing their sanitation facilities following initial triggering and demand creation, aided through sanitation marketing and availability of both affordable and appropriate technological solutions. Further enquiry at a later date will be required to confirm whether facilities are being sustained and upgraded long after the initial triggering and behavior change.

Gender and equity

In assessing the extent to which WASH interventions have identified gender based disparities in access to and use of safe water and sanitation facilities, and have provided solutions to remove the existing barriers and close such gaps, the evaluation found evidence that WASH Programme has identified and begun to address disparities in access to WASH facilities. It has made good progress towards addressing barriers to WASH by providing appropriate solutions. Focusing on issues of equality and equity, the Programme sought to specifically target the most vulnerable, which includes women and children.

The WASH Programme generally targeted the most vulnerable or those with the greatest need for WASH interventions in its design and implementation. The evaluation found that gender equality and the empowerment of women and girls were well incorporated into the design, implementation and monitoring of interventions within the WASH Programme, and that their specific needs were considered throughout,

for example through provision of gender segregated facilities. People with disabilities were considered to some extent through hardware design but this has not been sufficient and offers an area for improvement.

Using the HH survey data, the evaluation team assessed the merit of the WASH Programme towards gender equality using the following three prioritized dimensions:

1- *Women's Role in WASHCOMs*: There is evidence that women's participation in decision making about planning and management of water systems is well promoted in communities within the intervention compared with non-intervention communities. The survey found that:
    a. An average of 40.1 per cent vs 35.4 per cent of women caregivers of under-five children has confirmed that they participated to meeting on community WASH facilities.
    b. The quantitative survey (see tables in 4.2 and 4.4) found women to constitute 38.4 per cent of WASHCOM composition overall, including 35.4 per cent of WASHCOM composition across the DFID states and 42.5 per cent across the EU, though it is noted that only a sample of the targeted states was surveyed for this evaluation. Female representation in WASHCOMs sometimes outweighed that of men in LGAs visited in Bauchi and Jigawa states, and the quantitative survey of WASHCOMs revealed that more than 50 per cent of WASHCOM members in Anambra state are women, as described in section 5.15. Reporting for SHAWN II target areas indicated that 40 per cent of all WASHCOM members are female and 83 per cent have women in leadership positions.
    c. Fifty-two per cent vs 46.7 per cent indicated that they speak out their opinion freely.
    d. Fully 46.3 per cent vs 40 per cent confirm that the opinion of women is well considered by WASHCOM.

2- *Social Role of Women in comparison to men in collecting drinking water from improved water sources:* Although no difference was found overall between intervention (23.8 per cent) and non-intervention areas (24.5 per cent), adult women were found to play the most important role in collecting water compared to their male counterparts in areas of Bauchi and Akwa Ibom not exposed to the WASH Programme (23.9 per cent in intervention vs 35 per cent in non-intervention for Bauchi and 14.2 per cent vs 16.5 per cent for Akwa Ibom).

3- *Women's empowerment to ensure the sustainability of improved water points:* There is evidence that the WASH Programme has successfully promoted gender equality in building local systems for maintenance of improved drinking water sources. A much greater percentage of heads of HH from communities within the intervention group recognized that women have been trained to repair water points (18.6 per cent vs 7.2 per cent), and differences regarding the practice of training women as LAMs for maintenance was noted in Akwa Ibom (13.2 per cent vs 0.8 per cent), Bauchi (25 per cent in intervention areas vs 11.6 per cent in non- interventions areas), Ekiti (15 per cent vs 1.4 per cent), and Benue (12.5 per cent vs 1.8 per cent).

The WASH Programme implicitly integrates a human rights-based approach into its Programme design and implementation, given the overarching thematic and organizational strategies to which it is aligned, which focus on realizing children's rights to survival and development through improved WASH. Issues around equality and equity are explicitly considered in Programme design through both site selection of the respective projects and through specific Programming strategies. Design documents for the respective projects identified barriers for accessing WASH and their causes, and good efforts were made to address these throughout the course of the WASH Programme. These efforts included focusing on the provision of financing, as well as seeking appropriate solutions, and the increase of knowledge and education.

In sum, there is solid evidence of progress and change, but not yet compelling evidence of major shifts. At this point in time following Programme delivery, this is not particularly surprising. Encouragement can be taken from changes identified, though for substantive changes to be observed it is essential to engage and work on the wider enabling environment at the community, LGA and state levels to support and catalyze change.

In this respect, of greater significance is the contribution that UNICEF has made through its WASH Programming approach to building a strong enabling environment, especially at the community and LGA levels. Evidence shows this strategy supports a stronger community voice and agency to actively engage in embedding sustainable WASH practices.

Lessons Learnt

The inclusive participation of stakeholders - from the national level (Federal Ministry of Water Resources), state WASH apparatus (RUWASSA), LGA WASH departments and units, to community WASHCOMs - contributed immensely to the results achieved. Furthermore, systems development by UNICEF helped establish RUWASSA in the intervention states. This alongside engagement with CSOs and the private sector in the procurement of works and services, with robust procurement procedures through harmonized guidelines, helped in ensuring the provision of required services. Furthermore, the expansion of WASHCOMs to cover areas beyond WASH (i.e. water supply construction and maintenance management at the local level), such as birth registration, helped to embed improvements and changes in WASH KAPs in community health.

The Programmatic approach recognized that the negative consequences of poor WASH provision fall disproportionately on women and girls. The achievement of the Programme's outcomes in sanitation and water supply have made a positive contribution to reducing associated gender inequities. Key to this has been the work on addressing gender imbalance in the management of sustainable WASH infrastructure and practice through engaging women in WASHCOMS, including in management positions, and the training of women as LAMs. There is some qualitative evidence that these efforts are contributing to more widespread, positive social change.

The 2014-2017 CPD expressed the intention to adopt a rights-based approach in UNICEF Programming for the period. The rights-based approach integrated a strong focus on access for all into the Programme, with clear targeting of the poorest and most vulnerable, and the WASH Programme used multiple methods to engage poor and disadvantaged groups. An important example of this was through using microcredit and savings schemes, like the Adashe revolving savings and loan schemes.

Inclusive approaches to ensuring access to safe water and sanitation were extended to the design of sanitation facilities. There was awareness of the needs of physically disabled people, for example through the provision of ramps for wheelchair users. However, there was no evidence of real progress in understanding the multiple impacts and challenges of disability on access to services, and engagement of people with disabilities in the development and provision of services at an early stage.

Effective community engagement and action has been achieved through the development of a framework of WASH committees, WASHCOMs and WASHCOM federations, the recruitment of cadres of VHPs, the development of water safety plans and water quality monitoring, the recruitment of LAMs and the use of VLOM as a strategy. Since the inception of the Programme, WASHCOM members have increased their level of awareness with regards to their rights to benefit from WASH services. WASHCOM executive committees combine verbal and written requests to LGA WASH units and departments and to the WASHCOM federation to obtain needed facilities in their communities or to repair any broken facilities beyond their financial and technical capacities.

Monitoring and learning systems have been developed to enable communities to understand and act on water safety issues, and to monitor and maintain infrastructure. Of specific importance are those systems that enable communities to self-monitor and thereby build their role and agency in the maintenance and improvement of the WASH environment.

It is critical to recognize that these initiatives are still very much a work in progress. Addressing O&M expenditure is a long-term challenge. Contributions towards operations and maintenance by communities are often minimal, which adds to the challenge of maintaining and replacing facilities. However, improvements to the timeliness of repairs and consequent reduction in downtime from breakdowns may form part of a positive feedback loop which supports access to improved WASH as an expectation.

The Programme's work to strengthen government systems, primarily at the state level, has been the most challenging area to substantively implement. In this respect, the logframe and outline ToC were not detailed enough to provide a framework for government to effectively engage in developing fully supportive and engaged WASH departments. There has been some progress towards the development of fully functioning WASH departments with adequate plans, funding and staffing, with a number of states providing substantive funding for WASH. However, progress is not strong, with many states still lacking adequate structures, plans, funding and staffing. It is critical that this is addressed as soon as possible, as the lack of an effective and supportive institutional environment is a key threat to the development of sustainable WASH in Nigeria.

The achievements of the UNICEF Nigeria WASH Programme, specifically in developing the enabling environment, has positioned the organization to make a substantive contribution to the government of Nigeria's objective of ODF by 2025. For this to be taken forward it is essential that it is seen -- across the four levels of institutional strengthening, from national, state and local government to community structures -- producing effective WASH Programming, supporting community engagement, voice and agency, and developing an M&E framework that is dynamic and supports two-way learning. The challenge for UNICEF will be to move away from a focus on quantitative infrastructural outputs (numbers of people with access) to a clear focus on supporting higher level outcomes and supporting enabling environments at community, LGA and state levels through further capacity building and institutional strengthening work.

Use of active LAMs/VLOMs for water facility maintenance with the availability of local spare parts vendors reduces downtime and the use of TBOs, and the SanMark Programme can help to sustain ODF status in communities. At the community level, functional WASHCOMs can help not only to ensure uninterrupted WASH services but also allow them to engage in non-WASH activities such as birth registration and nutrition by discovering and feeding the poor children in the communities.

In addition, the enabling environment coupled with trained implementers is essential for achieving maximum outputs in WASH service delivery. Collaboration and integration of WASH with other sectors such as health, education and nutrition reduces poverty, maximizes the use of human, financial and materials resources, and eliminates diseases prevalence faster than a WASH Programme being a stand-alone. Furthermore, sustainability has been improved through elements such as Adashe (rotatory funding by groups for latrine construction), a functional WASHCOM federation which ensures optimal provision of WASH facilities through powerful representation at higher levels of governance, and WASHIMS as an M&E framework that engages communities and LGAs.

Some states have demonstrated potential impacts of WASH interventions on health, nutrition and education that could serve as promising pilot strategies for the scaling up of multi-sector downstream investment in integrated approaches for child survival.

Good Practices

1- The uptake of sanitation marketing and sanitation financing, including the establishment of sanitation pool funds.
2- Use of community funds (contributions) to maintain broken-down handpumps and boreholes in the communities.
3- Timely response by the LAMs/VLOMs to effect repairs in the communities.
4- Availability of local and genuine spare parts dealers in the LGAs.
5- Use of Adashe to provide improved toilet facility needs of members.
6- User fees by some WASHCOMs for revenue generation for O&M of water facilities.
7- Use of TBOs/SanMark approach to upgrade and construct new latrines.
8- Inclusion of 30 – 40 per cent women into WASHCOM executives.

Chapter 6: Recommendations

Informed by the analysis, assessment and findings set out in this report, the evaluation makes the following six recommendations.

Recommendations

Proposed recommendations have been reviewed and agreed to with UNICEF and Stakeholders to ensure coherence with the contextual situation and the implementation in respect to UNEG/UNICEF global standards of evaluation.

The steering committee has agreed to consider recommendations for each category of stakeholders as below:

A-Recommendations to Government of Nigeria:

Recommendation 1: Review and approve Nigeria WASH Policy: The Federal Ministry of Water Resources to consider the development, and subsequent adoption, of a nationwide rural WASH policy to be domesticated at state level. The policy could include the following elements: including vision; strategic direction; coordination and accountability mechanisms; principles for strategic public-private financing and water resources management. This would further support the enhancement of an enabling environment to facilitate accelerated progress towards achieving SDG 6 in Nigeria.

Recommendation 2: develop SDG6 TOC for Nigeria: Mobilize development partners and stakeholders of the WASH Sector, led by The Federal Ministry of Water Resources, to develop a comprehensive analytical SDG 6 Theory of Change for the WASH sector in Nigeria; serve as a coordination framework of integrated strategies and stimulate actions towards effective scale-up of public-private financing towards universal coverage, access and use of safely managed and sustainable WASH Services in Nigeria by 2030.

B-Recommendations to UNICEF:

Recommendation 1: Develop an SDG 6-Impact and Outcomes aligned ToC for better coherence of National Priorities with Global Agenda: The ToC developed for the WASH Programme 2014-2017 (presented in section 1.3) was simplified and did not provide clear and coherent links between specific activities and outputs to larger scale outcomes and impacts. The WASH Programme 2014-2017 and the four focal projects of this evaluation were initiated prior to the adoption of the SDGs. There is a need to develop a clearer and more detailed conceptual framework (ToC) that aligns to the SDG outcomes to support future Programming, specifically geared towards access and use of safe and sustainable WASH for all.

Concrete actions could include: i) In collaboration with the government, develop a ToC for the FGN/UNICEF WASH Programme to align with the SDG 6, UNICEF's WASH Strategy 2016-2030 and national priorities. This would be accomplished through engagement with UN agencies, development partners and private sectors to support future Programming, specifically geared towards access to and use of safe and sustainable WASH for all and impacting on child survival and development; and ii) Engage government at federal and state levels, UN agencies, development partners and private sectors to advocate for the development of a clearer and more detailed comprehensive conceptual framework (ToC) for the WASH sector in Nigeria that is aligned to the SDG 6 and impacts on child survival and development.

The conceptual framework/ToC should provide greater articulation of the complexity and interrelatedness of challenges, assumptions and processes relevant to structuring specific Programming interventions with a clear focus on UNICEF's contribution to the government's PEWASH strategic objective for ODF by 2025.

The challenge for UNICEF will be to move away from a focus on quantitative, hardware-based outputs (numbers of people with access) to a clear focus on supporting higher level outcomes and supporting enabling environments at community, LGA and state levels while focusing on the concept of safely managed, sustainability and equitable access. Sanitation marketing, product development and finance are likely to be critical to expanding sanitation achievements, though it should be noted some other solutions may be needed to reach the poorest or most vulnerable.

As concrete action, UNICEF should make a Programmatic and accountability shift from a focus on hardware interventions to a clear focus on local fundraising for bridging service gaps and supporting higher level outcomes and enabling environments at community, LGA and State levels.

Recommendation 2: Support the Government in strengthening the WASH enabling environment at Federal and State level: UNICEF should amplify its policy influence by further supporting a strong enabling environment at the state level, given its global comparative advantage of upstream influencing and convening. This will require working across multiple targeted areas including funding, planning, staffing, and monitoring. UNICEF should develop a suite of tools and approaches to enhance engagement with state government to support appropriate and sustainable strengthening of WASH systems, structures and processes. UNICEF should consider a communication strategy specifically targeted at political decision makers.

Recommendation 3: Support and further develop evidence-based Programming, learning and accountability for WASH Sector and SDG6: WASHIMS is a powerful tool with significant potential to support communities and LGAs to reflect on and improve practice. UNICEF should support and further develop an adequate framework for regular evaluative thinking for the WASH sector in strengthening its real time monitoring system and ecosystem of evaluation to drive Programme effectiveness. This should include:

1- Ensuring the completion of a base line HH survey prior to the implementation of a future large funded WASH Programme that will secure rigorous end-line Programme impact evaluation.
2- UNICEF supporting and further developing an adequate framework for regular evaluative thinking for the WASH sector in strengthening a real time monitoring system and ecosystem of evaluation to drive Programme effectiveness.
3- UNICEF advocating government and development partners to undertake an independent evaluation of SDG6 by 2025 to learn of progress achieved of the government commitment for ending ODF by 2025 and way forward SDG6.
4- Further developing WASHIMS so that the data are timely in its collection, analyzed and shared widely to support use by all stakeholders (including communities).
5- WASHIMS and the community reporting systems being enhanced and developed as conduits for two-way messaging, providing essential messages on hygiene behaviors and WASH-related health emergencies.

Recommendation 4: Support the accelerated use of microcredit and savings schemes: Proposed actions are as follows: i) UNICEF should find adequate approaches to ensure the fulfillment of the equity principle (leave no one behind) in favour of the poorest or most vulnerable as part of sanitation marketing and financing in expanding and sustaining sanitation achievements; ii) UNICEF should support and build awareness for increased access to savings structures such as *Adashe* and microfinancing schemes to complement demand creation for improved HH sanitation, through sanitation marketing.

Recommendation 5: Support the evolution of WASHCOMS

UNICEF should support the evolution of WASHCOMS to continue their function as a community level platform for promoting and supporting the uptake of WASH services and good practices within the community. UNICEF should continue to support WASHCOMs to conduct activities that contribute to UNICEF's broader child survival and development component; promoting uptake of services and behavior change in other outcome areas in addition to WASH such as i) obtaining and disseminating information on immunization data; ii) identifying HHs where children aren't immunized; and iii) birth registration and elevating these cases up. This support may need to include additional efforts to address the misperception that WASHCOMS comprise paid positions and to ensure transparency and a gender balance that facilitates the meaningful participation of women. Given that effective and sustained support to WASHCOMS has the potential to be resource intensive for both UNICEF and LGAs, plans should also be made for a timely review of the effectiveness of this strategy.

Recommendation 6: Ensure and strengthen multi-sector integrated interventions and continued inclusive Programming: UNICEF should engage and facilitate the joint planning and effective operationalization of community-based integrated multi-sector interventions that align the targeting and delivery of package of basic services of water, sanitation & hygiene with RMNCH, nutrition, education, social protection and social mobilization for behavior changes that could result in greater impact on child survival and development. UNICEF should continue to ensure its Programming remains fully inclusive, with further targeted efforts required if Programming is to be responsive to the needs of all vulnerable people, such as those with disabilities.

C-Recommendations to Donors:

Recommendation 1: Support the global agenda of SDG6 in Nigeria in scaling up and sustaining gains achieved from successful WASH community-based models for the greater impact in improvement of child survival and development, local development, and women empowerment in Nigeria. Continued development support of the WASH sector is critical at this point in time. Such support will continue to play a catalytic role in establishing the footing for successful intervention models, stimulating investments in hardware and software, and sharpening advocacy towards other players in the WASH sector. This will help Nigeria reduce inequality vis-à-vis millions of vulnerable and poor populations living and falling behind the global agenda of universal access to basic drinking water and sanitation facilities and being challenged by climate change.

Evaluation of Nigeria's Government & UNICEF Water, Sanitation and Hygiene (WASH) Programme 2014-2017

Annexes

Prepared for // UNICEF Nigeria, the Nigerian Government, and Donors

By // IOD PARC

Date // 19 May 2020

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Annex A: Evaluation Framework

Relevance: Assess implementation fidelity and design relevance. The extent to which the programme is suited to the priorities and policies of the (target) population.			
Evaluation questions	Sub questions	Tools for data collection	Comments
R1: To what extent were the programme interventions (strategies and activities) consistent with the overall goal and the Country/State/LGA priorities?	How well did the programme intervention aligned with overall goal and country/State/LGA priorities? To what extent have the intervention strategies and activities aligned with the national and state WASH policies? How well did the intervention strategies and activities fit with development priorities - How well did the State/LGA/ community accept them? To what extent were the WASH programme interventions (strategies and activities) consistent with the overall goal and national/State/LGA priorities? Which state agency is also providing WASH services? - How relevant and effective are their WASH programmes?	KII with national level stakeholders (e.g. FMB&NP, FMWR and development partners) KII with State Ministries of Water Resources, RUWASSA KII with LGA Department Coordinators	Secondary data analysis of programme documents, government strategies, policies (Country and State) Note improved emergency capacity in North East of country and SHAWNII States
R2: To what extent were the results of the past programme valid?	What were the results of the past programme? To what extent could you attribute the programme results to the WASH programme? How sustainable and valid were the programme results?	KII with national level stakeholders (e.g. FMB&NP, FMWR, Development partners) KII with state/LGA and private sectors actors FGD with communities	Secondary data analysis of programme reports, Key datasets (GLAAS) will be conducted
R3: To what extent were the activities and outputs of the programme consistent with the expected results?	To what extent were the programme activities and outputs relevant to the achievement of project results? How well did the programme outputs contributed towards expected results?	KII with national level stakeholders (e.g. FMB&NP, FMWR, FMOH, Development partners) KII with state/LGA FGD with communities	Secondary data analysis of programme reports will be done Important to recognise that all programmes have had no cost extensions. This needs to be analyses. Also did the earlier programmes have NCE's? If so for what reasons were these adequately addressed in the new programme designs?

R4: To what extent were the expected results of the programme clearly defined?	How clear and interpretable are the programme results defined? Do stakeholders at all levels understand the expected programme results?	KII with national level stakeholders (e.g. FMB&NP, FMWR, Development partners) KII with state/LGA	This question could be stratified by programme intervention domains
R5: To what extent were the lines of accountability between UNICEF and the implementation partners/Donors clearly defined? If they were clearly defined, how well were they respected in reality?	What are the various accountability levels established by the programme? Are partners true to the accountability responsibilities at all levels? What were the challenges against a sustainable accountability structure established by the programme?	KII UNICEF (HQ and Zonal Offices) and at the Development partners and state levels	
Impact: Assesses the positive and negative, primary and secondary long-term effects produced by the intervention, whether directly or indirectly, intended or unintended.			
Evaluation questions	Sub questions	Tools for data collection	Comments
I1: To what extent did the integration of WASH into other sector interventions (health, nutrition, education) lead to the anticipated impacts as well as some other unexpected/unanticipated long-term results in the targeted areas?	How has the synergy and relationship between WASH and other sector interventions worked in reality? What is the programme relationship among various WASH related MDAs? How likely are conflicts of interests in WASH programme synergy at all levels? To what extent are the synergistic effects of WASH collaboration with other sector interventions? What are the incidental positive and negative impacts of the integration? What are the enabling and demotivating factors that aided collaboration of WASH and other sector programmes?	In-depth Interview with schools, health institutions and LGAs, KII with WASH and relevant Federal and State MDAs stakeholders (health, nutrition, education)	Refer to points raised in DFID SHAWN II Business Case p18 - 28
I2: To what extent has the programme contributed to reduction in the incidence of diarrhoeal diseases among boys and girls under the age of 5?	What is the trend of diarrhoea among boys and girls under 5 between 2014 and now? How has the programme affected diarrhoea situation (incidence, prevalence and spread before the programme debuts, at the end of the programme, and now among boys and girls under the age of 5?	KII with health officials, RUWASSA and LGA WASH and Primary healthcare departments Review of secondary hospital data Disease surveillance and epidemiological weekly (Secondary data) Baseline and current survey results comparison	Assumption: There are trend data and up to date records

	To what extent has there been a change in diarrhoea incidence and prevalence at population level		
I3: To what extent has the programme contributed to a change in the school enrolment and attendance rate among boys and girls?	Has school enrolment and attendance rate increased or decreased between 2014and now? Has the programme increased the enrolment and attendance of boys and girls? Could the change be attributed to the WASH programme alone, or in synergy with other programmes?	Summary trend data of school enrolment and attendance rate among boys and girls (Secondary data) Baseline and current survey results comparison KII with SUBEB and Ministry of education officials	Assuming there are genuine trend data and up to date records
I4: To what extent has the programme contributed to a change in malnutrition among children under the age of 5? (Can't this question be subset of question I1?)	What strategies have contributed to a change in malnutrition among children under 5? To what degree can we ascribe the change in malnutrition status to the programme? Are there other programmes that could also ensure the reduction in malnutrition status of children under the age of 5 intervention? Has the malnutrition among children under the age of 5 changed and what could have aided this to happen?	KII with FMoH, SMoH RCA in selected communities Secondary data and reports review Baseline and end of term survey results comparison	Assuming there are genuine trend data and up to date records
I5: To what extent has the programme contributed to a change in hand-washing practices?	To what extent has the behaviour and ownership of handwashing change from baseline, till the end of the intervention and now?	In-depth interview, KII, FGD, secondary data on number of households in programme locations at baseline, end-term and now with handwashing facilities	
I6: To what extent has the programme contributed to unexpected positive impacts in any of the four identified areas (health, education, nutrition and WASH)?	How has the observed unexpected positive impacts in health, education, nutrition and WASH ascribed to the programme?	KII-national/state/LGA FGD with relevant MDAs RCA–selected community	
I7: For each one of the observed impacts (expected and unexpected, positive/negative) what are the factors (internal/external to	What major factors aided the expected/unexpected, positive/negative health impacts? What major factors aided the expected/unexpected, positive/negative education impacts?	KII -UNICEF WASH/ Education/Nutrition/Health KII-National/State MDA stakeholders	

UNICEF) that contributed to them most?	What major factors aided the expected/unexpected, positive/negative nutrition impacts? What major factors aided the expected/unexpected, positive/negative WASH impacts?		
I8: To what extent has the programme addressed the specific needs and interests of women and girls in WASH, for instance in relation to (i) water collection and water management; and (ii) safe and dignified hygiene in communities, schools and health facilities?	To what extent has equity and gender been mainstreamed into the programme processes and results such as (1) safe water chain (2) safe and dignified hygiene in communities, schools and health facilities? Is there any evidence of change at State/LGA levels on emergency preparedness Are vulnerable groups/women and girls' needs recognised in emergency preparedness?	KII- National and state MDAs (Health, Education) RCA in selected communities Baseline and end of term survey results	. Analysis of programme plans and reports will be carried out
I9: To what extent has the WASH Programme influenced a change/increase in community voice and accountability? If a change took place to what extent did it address gender inequalities and help advance the voice of women on WASH-related issues within the community?	How were the elderly, females, adolescents, youth, differently abled,, disadvantaged/excluded group influenced for a change on societal development by the programme? To what extent are the changes in these groups giving them a voice in developments, including on WASH programme in the society? What are the improvements in the voice in community development issues since 2014 and beyond? Is there a continuity in community voice and accountability since the end of the programme?	Community level FGDs, KII with WASH Directors/coordinators RCA in selected in communities with three types of programme outcomes FGD with WASHCOMS and excluded groups Transect walks in the 18 selected communities for the study	
I10: To what extent have communities understood their rights to WASH services from authorities?	What are the societal rights at inception, at the end of the programme and now, to WASH services? To what extent have all members of the communities understood and aware about transformational change in their rights to WASH? How have communities been able to pursue/claim and develop realise the realisation of their rights to basic WASH services?	Community level FGDs, KII with WASH Directors/coordinators RCA in selected communities FGD's with WASHCOMS Observation and Transect Walks in communities	Including in emergencies

I11: To what extent has communities' capacity to engage with the state government increased as measured by their level of rights awareness or budget literacy for WASH?	How are community structures engaging government for increased WASH funding and budgetary releases? In what ways has (what evidence demonstrates how)the programme enhanced community capacity to demand their rights on budget participation and releases for basic WASH services? To what extent has the programme contributed to improved conflict management in communities	FGD – communities Influence and Engagement Tool (by World Vision) KII- WASH Directors/coordinators and state officials RCA in selected in communities with three types of programme outcomes Venn diagram with selected interest groups in communities and LGAs	Including awareness on emergencies
I12: To what extent has the change in community voice led to an increase in access to WASH services or resources or responsiveness from authorities?	To what extent has communities ensured their WASH needs are budgeted and financed to reality by government / service providers? To what extent has the change in community voice translated to increased access to WASH services?	FGD -Communities KII with WASH Directors/coordinators RCA in selected in communities with three types of programme outcomes	Need to try and find examples of where State has been influenced to change and understand contribution/input of community voice to this. Clear examples that demonstrate these will be documented in 'voices from the communities'
Effectiveness: Assess whether the intended results of the programme at outcome level have been achieved and why/why not			
Evaluation questions	Sub questions	Tools for data collection	Comments
E1: What are the factors that either enabled or undermined programme implementation fidelity?	What are the factors that enabled programme implementation? What are the factors that undermined programme implementation?	KII (State MDAs, private sector operators) FGD with WASHCOMS	How did the programme assumptions affected programme enabling and demotivating factors? Review programme documentation – specific attention to risks and assumptions Analyse why all programmes have had NCE's? Did previous programme have NCE's what happened
E2: To what extent were the implemented activities consistent with the programme design?	To what extent were the implemented activities appropriate with the programme design? Did the implemented activities appropriate to the programme beneficiaries? Did the interventions produce the intended outcomes as per design? Which strategies/ interventions worked well than others, and in what circumstance and for whom at population levels?	KII with Development partners KIIs with State MDAs/LGA/Community In-depth interview with SUBEB, Local Government Education Authority In-depth interview with SMOH, Local Government Health Depts.	To include work on WASH in Emergencies in North East and Shawn II States Note that each of the questions here need to have separate instruments for Schools and health centres Review programme plans, documents, reports and any related studies/papers

E3: To what extent did the programme key stakeholders have a clear understanding of their respective roles and responsibilities?	To what extent did the programme actors understand their roles?	KII UNICEF, FMWR, SMWR, LGAs FGD- communities	Including emergencies for North East Review of programme documents, plans and reports
E4: To what extent were the programme key activities managed as intended and to what extent did the available (support) systems work well?	To what extent were the programme key activities timely implemented? How effective and responsive are the available support systems?	KII with UNICEF, State MDAs and LGAs and Private operators FGD with communities	Including emergencies for North East Review of programme documents, plans and reports
E5: What were the specific barriers (if any) that hindered the successful implementation of the envisaged programme activities?	To what extent were some programmes activities hindered the programme results?	KII with State MDAs, LGAs FGD with communities RCA in communities	Including emergencies for North East Review of programme documents, plans and reports
E6: For each one of the identified barriers what are possible solutions to overcome them?	To what extent could you match barriers to programme solutions?	Programme documents KII-programme stakeholders FGD-Communities	
E7: To what extent have intended results at outcome level been achieved and why/why not?		Review programme plans against reports KII with key UNICEF programme staff KII with LGA key staff	
E8: What is the effect of the WASH Programme on improved hand washing in targeted communities?	To what extent has the WASH programme influenced hand-washing behaviour? How reliable is the change in handwashing behaviour in target communities?	RCA FGD KII's with UNICEF, MWR, RUWASSA and LGA WASH Depts.	Programme reports Studies, evaluations
E9: What is the effect of the WASH Programme regular use of clean latrines in target communities?	To what extent has the WASH programme affected the regular use of clean latrines in target communities?	KII-State/LGA RCA FGD	Secondary data (programme reports, reviews, studies, evaluations

E10: What is the effect of the programme on better hygiene knowledge and practices?	To what extent has the WASH programme improved hygiene knowledge and practices in target communities?	Observation, Transect walks in 18 communities RCA FGD in 18 communities KII's	Reports, secondary data
E11: What is the effect of the programme on safe handling of water from source to point of consumption?	To what extent has communities changed to safe water chain? In what ways has the programme helped to integrate safe water chain in the community?	Review of reports and secondary data Assessment of benefits – time saving Observation/Transect walks FGD KII's (focus on women, children, vulnerable and excluded groups) RCA	
E12: To what extent has the programme contributed to institutional reform/improvement at State/LGA levels?	To what extent has the programme contributed to institutional changes at state/LGA/community levels? What has changed in the delivery of WASH services by the actors in the states / LGAs? Which of the institutional reforms worked better than others and why?	Review programme documents/reports. Review evidence at State level – reform of policies/procedures/ budget allocation etc KIIs FGDs	Including emergencies for North East
E13: To what extent has the programme contributed to improved capacity at State/LGA and community levels?	To what extent has the programme aided capacity building outcomes for State, LGA and community stakeholders? In what ways has capacity been enhanced to programme for WASH and associated responsibilities? To what extent has the programme ensured that the capacity of partners was built to deliver on WASH and allied services?	Review State/LGA staffing capacity. Review State/LGA key documents. KII's at State and LGA level FGD RCA	Including emergencies for North East
E14: To what extent has the programme contributed to WASHCOMS assuming non-WASH responsibilities (birth registration, immunization)?	How broadly has the capacity of WASHCOMs been enhanced to perform non-WASH roles (birth registration, immunization)?	Key reports Studies? FGD with WASHCOMs KII with LGA WASH Departments	
E15: To what extent has the WASH Programme supported and influenced the participation of women in decision making?	To what extent were WASHCOMs encouraged to involve women in key positions? To what extent are women encouraged to participate in WASH service delivery groups at community level? To what extent has the WASH programme influenced women's participation in decision making?	Analysis of programme reports. WASHComs data KII's FGD RCA	Including emergencies for North East

E16: To what extent did the WASH Programme address the specific capacity needs of female WASHCOM members to voice and address women's and girls' concerns? (Can this question a sub of QE15?)	To what extent were the capacity gaps in women addressed in WASHCOM's training? To what extent was the programme capacity enhanced to voice their opinion and address female specific concerns? How true were the voice and needs expressed during and after the programme support?	KII FGD RCA	The need to address societal bias against women actively involved in such activities Including emergencies for North East
Impact: Assesses the positive and negative, primary and secondary long-term effects produced by the intervention, whether directly or indirectly, intended or unintended.			
Evaluation questions	Sub questions	Tools for data collection	Comments
Ey1: To what extent were the WASH Programme financial resources, human resources and supplies adequate in terms of quality?	To what extent were the financial resources adequate to service planned investments? To what extent were the human resources adequate to ensure delivery of programme targets? To what extent were the programme supplies appropriate and of adequate quality? What strategies have been used to ensure the efficiency of the various resources deployed?	Programme documents, reports and studies KII FGDs	The variables required to calculate ICER, using Markov model, if possible.
Ey2: To what extent were the WASH Programme financial resources, human resources and supplies sufficient in terms of quantity?	To what extent were your identified needs backed with documented counterpart funding? What were the lag periods in programme implementation, from inception to its end? What were the reasons for these lag period of inactivity?	Programme documents, reports and studies KII IDI FGD	
Ey3: To what extent were the WASH Programme financial resources, human resources and supplies timely in deployment and delivery?		Programme documents, reports and studies KII donors KII in states, LGAs FGD in Communities	

Sustainability Assess the extent to which outputs, outcomes and impact have persisted or are likely to persist during a significant time period (more than 1 or 2 years) after external technical and financial support has ended.			
Evaluation questions	Sub questions	Tools for data collection	Comments
S1: To what extent have the programme service delivery models and the interventions continued to be looked after by communities with support from government/authorities/ implementing partners after the initial investment?	What is the likelihood of programme delivery models and interventions sustained (over long term)? To what extent were LGA/State supporting the sustainability of WASH infrastructures for corrective maintenance and rehabilitation over the long-term period? Is there any sustainability framework developed under the programme? If developed, to what extent has this been implemented and what are the key results?	Studies, secondary data, follow up reports Data on WASHcoms? Data on Waterpoints KII FGD RCA If sustainability framework is a requirement check to see if reporting on compliance Hydrological assessments carried out in each community and for each water point. Review presence and use of sustainability framework with sustainability evidence (matrix)	Water resources assessments should include assessment of land use and pollution sources in watersheds and recharge zones and make some attempt to assess likely future changes that may affect the water source or other water users. Wherever possible, projects should build in watershed management into their design to promote more effective management by communities, local government, and suppliers. Particular attention should be paid to vulnerable sources including those in semi-arid and arid areas. For projects proposing rainwater collection, projects must also demonstrate the use of a design that will not allow mosquito breeding, particularly in areas where dengue is endemic or close to areas where it is endemic.
S2: To what extent do men and women in the communities understand and implementtheir role to maintain WASH installations after they are provided?	To what extent do men understand their roles to maintain WASH installations? To what extent do females understand their roles to maintain WASH installations? To what extent do man and women improvise to ensure continued performance of their roles to maintain WASH installations?	KII with LAM and spare part vendors FGD with community (community as well as separate men and women) Also to draw out if maintenance includes vulnerable/ excluded groups	
S3: To what extent have the communities taken advantage of existing local area mechanics and spare part vendors to maintain water facilities?	To what extent were the existing LAMs and spare parts vendors sustained? What were the barriers against continued functionality of LAMs? To what extent were the barriers neutralised to promote sustained functionality of LAMs and spare parts vendors?	KII with LAM and spare part vendors FGD with community	

S4: To what extent do communities understand the referral process for village level operation and maintenance?	What factors will be involved in ensuring VLOM sustainability? To what extent were the relationship between the process of repairing and maintaining dysfunctional water sources functional in the community? To what extent were community VLOM and the LGA VLOM team cordially related, trusted and sustainable?	State & LGA KIIs Community level FGD	
S5: To what extent does the LGA VLOM unit respond to maintenance cases referred to it?	To what extent is the VLOM supply chain system operational in the LGA? To what extent are spare parts available at all times for VLOM at LGA level To what extent is the average repair turn-around reduced due to functional LGA VLOM system?	KII with LGA WASH VLOM representative KII with community LAM	
S6: To what extent have government partners reflected WASH services in budget allocations?	What is the likelihood of government partners reflecting WASH services in budget allocations? What is the likelihood that the non-government partners will continue to budget for WASH services?	KII – Private sector practitioners, supply chain vendors	
S7: To what extent have households in communities been able to replace and/or upgrade their sanitation facilities long after the triggering process and initial change behaviour?	To what extent have communities replaced documented progress on household sanitation uptake in the community? What is the likelihood that sanitation and hygiene facilities shall continue to be upgraded community level? What are the factors that sustained household sanitation improvements and why? To what extent has sanitation marketing services established and sustained in the community?	FGD in selected communities RCA in 3 model outcome communities	
Gender and Equity Assess the extent to which WASH interventions have not only identified disparities in access to and use of safe water but have actually provided solutions to remove the existing barriers and close such gaps, especially among the most vulnerable, including adolescent girls and women.			
Evaluation questions	Sub questions	Tools for data collection	Comments
G1: To what extent have the programme-incorporated considerations of gender equality and the empowerment of women	To what extent did the programme consider gender and equity in design, implementation and intervention monitoring strategy and approach? To what extent has the programme incorporated gender specific considerations specific to vulnerable populations?	Programme documents, reports and studies KII, FGD, RCA with programme actors and beneficiaries	Including emergencies for North East

and girls into the extent, design, implementation and monitoring of interventions?	What has changed since the inception of the programme on gender equity in WASH programme delivery?		
G2: To what extent was a Human Rights Based approach integrated into the programme design and implementation?	To what extent did the programme consider a human rights-based approach in its strategy and approach? To what extent was the programme designed to incorporate various segments of the society in design and implementation?	Programme documents, reports and studies KII, FGD, RCA	Including emergencies for North East
G3: To what extent did the programme target the poorest and help reduce inequalities between the wealthier and poorer groups?	How well did the programme target and benefit the most deprived and vulnerable?	Programme documents, reports and studies KII FGD with defined poorest and underserved in selected communities RCA	Including emergencies for North East
G4: To what extent were the barriers (and their causes) to access basic services in the WASH areas in the targeted LGA's identified and addressed as part of the overall programme strategy priorities?		Programme documents, reports and studies KII with state/LGA WASH staff FGD with vulnerable and female groups RCA	Including emergencies for North East

Annex B: List of Documents Reviewed

Type of document	Title of document
Country Programme documents	UNICEF Nigeria Country Programme Document 2014-2017
	UNICEF Nigeria Country Programme 2014-2017 Summary Results matrix
	UNICEF Nigeria Country Programme Document 2018-2021
	Nigeria United Nations Sustainable Development Partnership Framework (UNSDPF) 2018-2022
	Federal Ministry of Health National Strategic Health Development Plan II (2017-2021)
	USAID Water and Development Country Plan for Nigeria (2017)
SHAWN II	DFID Business Case for SHAWN II
	Project Document: SHAWN Phase II. March 2014.
	DFID WSP List of SHAWN I & II States and LGA's
	SHAWN II LGA selection Criteria
	DFID A Rapid Assessment of SHAWN Programme Impact in 3 States (ppt)
	DFID WASH KAP Household Survey (SHAWN). 2015.
	Final SHAWN II annual review debrief presentation August 2017
	DFID SHAWN Introduction and Progress (Powerpoint) October 2018
	DFID Copy of Approved SHAWN Logframe Jan 2019
	SHAWN II Annual Review – Summary Sheet. August 2016.
	SHAWN II Extension Proposal. November 2019
	SHAWN II Financial View Budget Monitoring at 2 August 2019
	DFID Approved SHAWN 2018 Annual Review Report
	SHAWN II Annual Report. May 2018.
	SHAWN II Annual Review Draft. August 2018
	SHAWN II Annual Report. May 2019
	SHAWN II Annual Review Report. August 2019.
WSSSRP II	WSSSRP II Summary of Baseline Survey Findings. 2013
	WSSSRP II Description of the Action. December 2016.
	WSSSRP II Revised Indicative Logframe. 2016.
	WSSSRP II Second Year Narrative and Financial Progress Report July 2014.

	WSSSRP III. Third Year Narrative and Financial Progress Report. July 2015
	WSSSRP III. Fourth Year Narrative and Financial Progress Report. July 2016.
	WSSSRP II Fifth Yeah Narrative and Financial Progress Report. July 2017
	WSSSRP II Sixth Yeah Narrative and Financial Progress Report. July 2018
	WSSSRP II Dashboard
WSSSRP III	Summary of Baseline Assessment for 6 Project LGAs under FGN/EU/UNICEF WSSSRP III
	WSSSRP III. First Year Narrative and Financial Progress Report. April 2014.
	WSSSRP III. Second Year Narrative and Financial Progress Report. May 2015.
	WSSSRP III. Third Year Narrative and Financial Progress Report. May 2016.
	WSSSRP III. Fourth Year Narrative and Financial Progress Report. May 2017.
	WSSSRP III. Fifth Year Narrative and Financial Progress Report. May 2018.
	WSSSRP III Dashboard
NDSP	NDSP Indicative Logframe. 2012
	NDSP Summary of Baseline Survey findings (no date 2013?)
	NDSP Second Year Report. November 2014.
	NDSP Third Year Report. November 2015.
	NDSP Fourth Year Report. November 2016.
	NDSP Fifth Year Report. November 2017.
	NDSP Sixth Year Report. November 2018
	NDSP Sixth Year Communications, Visibility Report. 2018
	NDSP Seventh year Work Plan.
	NDSP dashboard (Status at 30 April 2019)
	WASH Impact Evaluation - NDSP Information (Bayelesa, Delta, Akwa-Ibom & Rivers State)
WASH Programme documents	Update on EU funded WASH Projects (NDSP, WSSSRP II & WSSSRP III). July 2019
	Summaries of the EU Supported Projects (Updated @ May 2019)
	UNICEF Nigeria WASH Landscape - graphic (.png file)
UNICEF Annual Reports	Annual Report 2014 Nigeria
	Annual Report 2015 Nigeria

	Annual Report 2016 Nigeria
Manuals and Protocols	Guidelines for Hygiene Promotion in Community and Rural Markets in Nigeria
	Expanded Guidelines for WASHCOM Formation and Training on Community WASH Management Processes in Nigeria
	National Open Defecation Free (ODF) Certification Protocol (2017)
	Guidelines for school Environmental Health Clubs (EHCs) in Nigeria (2015)
	National Hygiene Promotion Strategy Nigeria
	UNICEF Nigeria Sanitation Marketing Brief Nov.2017
	UNICEF Operations and Maintenance manual developed for mechanized rural water supply schemes in Nigeria (2016)
Evaluations	UNICEF Nigeria WASH Impact Evaluation Evaluability Assessment (2017) by Hydroconseil and Aquaya
	Impact Evaluation of WASH within the UNICEF Country Programme of Cooperation, Government of Nigeria and UNICEF 2009-2013 (2014) by Royal Tropical Institute
	Annexes: Impact Evaluation of WASH within the UNICEF Country Programme of Cooperation, Government of Nigeria and UNICEF 2009-2013 (2014) by RTI
	OPM; 2015. VFM Analysis for WASH in Nigeria (SHAWN) Report and Key findings.
Other relevant documents	Abramovsky. L, Augsberg. B, Oteiza. F; 2018. Sustainable Total Sanitation in Nigeria. Final Research Report
	Annual SMART Nutrition Survey 2018-2014
	DAC Evaluation Criteria Workshop Summary. 2018.
	Data from the International Benchmarking Network for Water and Sanitation Utilities
	Demographic Household Survey (DHS 2018),
	Humphrey et al (2019) *Lancet Global Health* Independent and combined effects of improved water, sanitation, and hygiene, and improved complementary feeding, on child stunting and anaemia in rural Zimbabwe: a cluster-randomised trial. Volume 7, Issue 31, January 2019, Pages e132-e147).
	Living Standards Measurement Study (LSMS),
	Luby et al 2018), Effects of water quality, sanitation, handwashing, and nutritional interventions on diarrhoea and child growth in rural Bangladesh. *Lancet Global Health* Volume 6, Issue 3, March 2018, Pages e302-e315,
	National Water Supply and Sanitation Survey (NWSS),
	Nigeria PEWASH Strategy document. 2016.
	McNamara. C; 2006. Field Guide to Consulting and Organizational Development: A Collaborative and Systems Approach to Performance, Change and Learning
	Miles M, Huberman M, Saldana J (2014) Qualitative Data Analysis: A methods Sourcebook. Edition 3 Sage Publications.

	Null et al (2018) Effects of water quality, sanitation, handwashing and nutritional interventions on diarrhoea and child growth in rural Kenya. *Lancet Global Health* Volume 6, Issue 3, March 2018, Pp e316-e329,
	OECD Glossary of Statistical Terms (2006).
	Sempere, Kas, 'Counting Seeds for Change', South Africa Reflect Network. 2009, p. 101
	UNICEF ChildInfo.org
	UNICEF Multiple Indicator Cluster Survey 2016 – 2017. JMP for WASH. Estimates on WASH Services in Schools in Nigeria. Updated August 2018.
	UNICEF Multiple Indicator Cluster Survey (MICS 4) 2011
	Washington Group on Disability Methodology and Question sets. http://www.washingtongroup-disability.com/
	White. H, Agarwal. S; 2014. Quasi Experimental Design Methods. Methodological Briefs; Evaluation 8. UNICEF Office of Research, Florence.
	World Bank; 2017. A Wake-Up Call; Nigeria WASH Poverty Diagnostic.
	WHO; 2001? Putting women first: Ethical and safety recommendations for research on domestic violence against women.
	Nigeria Multiple Indciator Cluster Survey 2016-17. Survey Finding Report. August 2017.
	NORM Dashboard Parameters
	Trends 2011-2018 WASH Outcome indicators & impact on Health-Nutrition-Educ per State_Nigeria

Annex C: (i) Multivariate Analysis Tables

Dia in lst 2 weeks		QSDM4	WASH Policy	RUWATTSA by law	LGA WASH structure	QM23
DFID	Akwa	53.6	0	1	0	-2.45 (12.74)
	Bauchi	45.19	1	1	0	-11.64 (33.57)
	Benue	42.67	1	1	0	-15.74 (29.65)
Both	Katsina	26.42	0	1	1	2.03 (5.01)
EU	Jigawa	35.72	1	1	1	7.47 (15.19)
	Anambra	28.3	1	1	0	0.00 (0.00)
	Ekiti	40.45	0	1	1	-4.92 (9.23)

down

Toilet access: open defecation		QSDM4	WASH Policy	RUWATTSA by law	LGA WASH structure	QS1
DFID	Akwa	53.6	0	1	0	-5.14 (15.74)
	Bauchi	45.19	1	1	0	20.79 (2.20)
	Benue	42.67	1	1	0	-24.36 (64.55)
Both	Katsina	26.42	0	1	1	2.31 (15.40)
EU	Jigawa	35.72	1	1	1	-42.48 (86.87)
	Anambra	28.3	1	1	0	8.39 (18.65)
	Ekiti	40.45	0	1	1	-29.06 (68.46)

down

Handwashing facility: nothing		QSDM4	WASH Policy	RUWATTSA by law	LGA WASH structure	QOB2a
DFID	Akwa	53.6	0	1	0	1.67 (18.73)
	Bauchi	45.19	1	1	0	-2.84 (100.00)
	Benue	42.67	1	1	0	-6.20 (34.85)
Both	Katsina	26.42	0	1	1	-3.96 (99.20)
EU	Jigawa	35.72	1	1	1	8.02 (35.76)
	Anambra	28.3	1	1	0	2.19 (3.97)
	Ekiti	40.45	0	1	1	-9.40 (97.80)

down

main source of drinking water for members of your household? - % unimproved		QSDM4	WASH Policy	RUWATTSA by law	LGA WASH structure	S20
DFID	Akwa	53.6	0	1	0	-1.71 (8.00)
	Bauchi	45.19	1	1	0	0.20 (0.00)
	Benue	42.67	1	1	0	-46.80 (75.60)
Both	Katsina	26.42	0	1	1	0.18 (10.30)
EU	Jigawa	35.72	1	1	1	-0.99 (2.99)
	Anambra	28.3	1	1	0	0.60 (0.00)
	Ekiti	40.45	0	1	1	-2.57 (9.11)

Annex D: (ii) Multivariate Analysis Tables

Dia in lst 2 weeks		QSDM4	WASH Policy	RUWATTSA by law	LGA WASH structure	Water law	Investment plan	Implementing CLTS	M&E	VLOM	Donor funded	QM23
DFID	Akwa	53.6	0	1	0	0	0	1	1	1	1	-2.45 (12.74)
	Bauchi	45.19	1	1	0	0	0	1	0	1	1	-11.64 (33.57)
	Benue	42.67	1	1	0	0	0	1	0	1	1	-15.74 (29.65)
Both	Katsina	26.42	0	1	1	0	0	1	0	1	1	2.03 (5.01)
EU	Jigawa	35.72	1	1	1	0	0	1	0	1	1	7.47 (15.19)
	Anambra	28.3	1	1	0	1	0	1	1	1	1	0.00 (0.00)
	Ekiti	40.45	0	1	1	1	0	1	0	1	1	-4.92 (9.23)

down

Toilet access: open defecation		QSDM4	WASH Policy	RUWATTSA by law	LGA WASH structure	Water law	Investment plan	Implementing CLTS	M&E	VLOM	Donor funded	QS1
DFID	Akwa	53.6	0	1	0	0	0	1	1	1	1	-5.14 (15.74)
	Bauchi	45.19	1	1	0	0	0	1	0	1	1	20.79 (2.20)
	Benue	42.67	1	1	0	0	0	1	0	1	1	-24.36 (64.55)
Both	Katsina	26.42	0	1	1	0	0	1	0	1	1	2.31 (15.40)
EU	Jigawa	35.72	1	1	1	0	0	1	0	1	1	-42.48 (86.87)
	Anambra	28.3	1	1	0	1	0	1	1	1	1	8.39 (18.65)
	Ekiti	40.45	0	1	1	1	0	1	0	1	1	-29.06 (68.46)

down

Handwashing facility: nothing		QSDM4	WASH Policy	RUWATTSA by law	LGA WASH structure	Water law	Investment plan	Implementing CLTS	M&E	VLOM	Donor funded	QOB2a
DFID	Akwa	53.6	0	1	0	0	0	1	1	1	1	1.67 (18.73)
	Bauchi	45.19	1	1	0	0	0	1	0	1	1	-2.84 (100.00)
	Benue	42.67	1	1	0	0	0	1	0	1	1	-6.20 (34.85)
Both	Katsina	26.42	0	1	1	0	0	1	0	1	1	-3.96 (99.20)
EU	Jigawa	35.72	1	1	1	0	0	1	0	1	1	8.02 (35.76)
	Anambra	28.3	1	1	0	1	0	1	1	1	1	2.19 (3.97)
	Ekiti	40.45	0	1	1	1	0	1	0	1	1	-9.40 (97.80)

down

Annex E: (iii) Multivariate Analysis Tables

Dia in lst 2 weeks		QSDM4	WASH Policy	LGA WASH structure	Water law	M&E	QM23
DFID	Akwa	53.6	0	0	0	1	-2.45 (12.74)
	Bauchi	45.19	1	0	0	0	-11.64 (33.57)
	Benue	42.67	1	0	0	0	-15.74 (29.65)
Both	Katsina	26.42	0	1	0	0	2.03 (5.01)
EU	Jigawa	35.72	1	1	0	0	7.47 (15.19)
	Anambra	28.3	1	0	1	1	0.00 (0.00)
	Ekiti	40.45	0	1	1	0	-4.92 (9.23)

down

Toilet access: open defecation		QSDM4	WASH Policy	LGA WASH structure	Water law	M&E	QS1
DFID	Akwa	53.6	0	0	0	1	-5.14 (15.74)
	Bauchi	45.19	1	0	0	0	20.79 (2.20)
	Benue	42.67	1	0	0	0	-24.36 (64.55)
Both	Katsina	26.42	0	1	0	0	2.31 (15.40)
EU	Jigawa	35.72	1	1	0	0	-42.48 (86.87)
	Anambra	28.3	1	0	1	1	8.39 (18.65)
	Ekiti	40.45	0	1	1	0	-29.06 (68.46)

down

Handwashing facility: nothing		QSDM4	WASH Policy	LGA WASH structure	Water law	M&E	QOB2a
DFID	Akwa	53.6	0	0	0	1	1.67 (18.73)
	Bauchi	45.19	1	0	0	0	-2.84 (100.00)
	Benue	42.67	1	0	0	0	-6.20 (34.85)
Both	Katsina	26.42	0	1	0	0	-3.96 (99.20)
EU	Jigawa	35.72	1	1	0	0	8.02 (35.76)
	Anambra	28.3	1	0	1	1	2.19 (3.97)
	Ekiti	40.45	0	1	1	0	-9.40 (97.80)

main source of drinking water for members of your household? - % unimproved		QSDM4	WASH Policy	LGA WASH structure	Water law	M&E	S20
DFID	Akwa	53.6	0	0	0	1	-1.71 (8.00)
	Bauchi	45.19	1	0	0	0	0.20 (0.00)
	Benue	42.67	1	0	0	0	-46.80 (75.60)
Both	Katsina	26.42	0	1	0	0	0.18 (10.30)
EU	Jigawa	35.72	1	1	0	0	-0.99 (2.99)
	Anambra	28.3	1	0	1	1	0.60 (0.00)
	Ekiti	40.45	0	1	1	0	-2.57 (9.11)