NIGERIA


Final Report

Prepared for // UNICEF Nigeria, Govt, States and Donors

By // IOD PARC

Date// 27 January 2020

IOD PARC is the trading name of International Organization Development Ltd

Omega Court
362 Cemetery Road
Sheffield
S11 8FT
United Kingdom

Tel: +44 (0) 114 267 3620
www.iodparc.com
Preface

Nigeria is committed to achieve the global agenda of SDG6. I am pleased to express deep appreciation of the Government of Nigeria about the tremendous benefit to the most disadvantaged communities, children and women of the WASH program 2014-2017 jointly funded by the federal Government of Nigeria and States Government, European Union, UK Department for International Development and UNICEF.

This independent Evaluation Report has revealed the return of this large investment that has contributed to reduce the inequalities of access and use of improved water and sanitations services as part of the strategic objectives of the Government Nigeria Strategy (2016-2030 PEWASH and Roadmap for Eliminating Open Defecation toward the achievement of SDG6.

Government values those results achieved vis-à-vis huge expectations on the WASH Sector in Nigeria, like: 18,622 Water Points have been constructed or rehabilitated, 94,404 sanitations facilities have been built by communities and families resulting in additional 12 million people living in poorest rural areas who have access to improved water sources (over 100% of the initial targets) and 12 LGAs (12,687 Communities) have become Open Defecation Free. Many WASH Departments and Units have been created and empowered and Communities have been strengthened and are playing their adequate responsibility in driving and maintaining WASH Services within the WASHCOM with increasing leadership role of women.

I use this opportunity to commend UNICEF for their continuous value-added support for capacity development, developing innovative approaches and strategies for WASH Sector in Nigeria and demonstrating efficiency and effectiveness in support to Government efforts to achieve SDG6 in Nigeria and leave no one behind universal access to basic WASH Services in Nigeria. I highly testify gratitude of the Federal Government of Nigeria to the financial support of EU and DFID who have invested at least 188 million US Dollars within this 2014-2017 WASH Program.

I highly commend Governors of States and Leaders of LGAs who have demonstrated their great commitment for WASH Sector Policy by ensuring financial contribution of States and Communities to make possible those achievements.

I reiterate 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 big momentum that is driving a very large movement of public and private partnership to make Nigeria a country of safe wellbeing environment to people.

We appreciate the good example of culture of Learning and Accountability for results that UNICEF has demonstrated by completing this independent evaluation. I call all actors and development partners of WASH Sector, Academic Institutions and States to use findings from this evidence for strengthening programmatic strategies and approaches to respond to lessons learned and address recommendations of the evaluation.

Honourable Suleiman Adamu
Federal Minister of Water Resources
Federal Republic of Nigeria

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

The progress made by Nigeria to achieve 68% coverage in 2018 in access to basic drinking water services is commendable. However, the country is still behind the global transformative agenda of universal access to safe drinking water: 66 million of Nigerian 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 scaling up innovative investments and addressing social norms and behaviors issues that can accelerate progress toward SDG6.

UNICEF is very encouraged by the high-level political commitment of the President of Nigeria who has signed an Executive Order in 2019 to end Open Defecation by 2025, the leadership of the Federal Ministry of Water Resources, State Governors and State Ministries of Water Resources and also the engagement of private sector to support the required investment for WASH sector.

UNICEF is very grateful to the EU and DFID and the different targeted states for their important financial contribution (USD 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, 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 towards 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), who contributed to the evaluation 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 adequate quality assurance. Special thanks to Mr Zaid Jurji Chief of WASH, Dr. Robert Ndamobissi Evaluation Manager, Oumar Doumbouya, WASH Specialist, Michael Forson WASH Specialist, George Ugbonog WASH Specialist, Biye Ogunjobi WASH Specialist, Raphael Nwozor, WASH Specialist, Mrs Maingaina Moono Banda, WASH Research Specialist and all WASH Specialist 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), 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 of 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 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
Consultant Lead Principal
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<td>AfDB</td>
<td>African Development Bank</td>
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<tr>
<td>CATS</td>
<td>Community Approaches to Total Sanitation</td>
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<td>CBO</td>
<td>Community Based Organization</td>
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<td>CI</td>
<td>Confidence Interval</td>
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<td>CLTS</td>
<td>Community Led Total Sanitation</td>
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<td>CDP</td>
<td>Country Program Document</td>
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<td>Civil Society Organisation</td>
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<td>DFID</td>
<td>Department for International Development</td>
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<td>Demography and Health Information System</td>
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<td>DHS</td>
<td>Demographics and Health Survey</td>
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<td>EHC</td>
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<td>Food and Nutrition Technical Assistance III</td>
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<td>FCT</td>
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<td>Household</td>
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<td>Handpump Borehole</td>
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<td>IVRS</td>
<td>Information and Voice Record System</td>
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<td>Joint Monitoring Programme</td>
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<td>KAP</td>
<td>Knowledge, Attitudes and Practices</td>
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<td>KII</td>
<td>Key Informant Interview</td>
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<td>LAM</td>
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<td>Medium Term Sector Strategies</td>
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<td>Menstrual Hygiene Management</td>
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<td>Multiple Indicator Cluster Survey</td>
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<td>Malaria Indicator Survey</td>
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<td>Nigeria Demographic and Health Survey</td>
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<td>National Task Group on Sanitation</td>
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<td>National Water Resources Institute</td>
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<td>OD</td>
<td>Open Defecation</td>
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<td>ODA</td>
<td>Official Development Assistance</td>
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<td>ODF</td>
<td>Open defecation free</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<td>Organization for Economic Co-operation and Development Assistance Committee</td>
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<td>PEWASH</td>
<td>Partnership for Expanded Water Supply, Sanitation &amp; Hygiene</td>
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<td>PHC</td>
<td>Primary Health Care</td>
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<td>PMRT</td>
<td>Peace Monitoring and Response Teams</td>
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<td>PSP</td>
<td>Public Health and Social Protection</td>
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<td>PTA</td>
<td>Parent-Teacher Association</td>
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<td>QA</td>
<td>Quality Assurance</td>
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<td>RUWASSA</td>
<td>Rural Water and Sanitation Supply Agency</td>
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<td>RWSS</td>
<td>Rural Water Supply and Sanitation Program</td>
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<td>School Board Management Committee</td>
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<td>SDG</td>
<td>Sustainable Development Goals</td>
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<td>SGBV</td>
<td>Sexual and Gender Based Violence</td>
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<td>SHAWN</td>
<td>Sanitation, Hygiene and Water in Nigeria</td>
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<td>SMBH</td>
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<td>STGS</td>
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<td>UNICEF</td>
<td>United Nations International Children's Emergency Fund</td>
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<td>UN WATER</td>
<td>United Nations Water</td>
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<td>USD</td>
<td>United States Dollar</td>
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<td>VHP</td>
<td>Volunteer Hygiene Promoter</td>
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<td>VLOM</td>
<td>Village Level Operation and Maintenance</td>
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<td>WASH</td>
<td>Water, Sanitation and Hygiene</td>
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<td>WASHCOM</td>
<td>Water, Sanitation and Hygiene Committee</td>
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<td>WASHIMS</td>
<td>Water, Sanitation and Hygiene Information Monitoring System</td>
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<td>WASHNORM</td>
<td>Water, Sanitation and Hygiene National Outcome Routine Mapping</td>
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<td>WASHPMP</td>
<td>WASH Performance Management Plans</td>
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<td>WGP</td>
<td>Water Global Practice (World Bank)</td>
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<td>WSP</td>
<td>Water Safety Plans</td>
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<td>WSSSRP II</td>
<td>Water Supply Sanitation Sector Reform Program II</td>
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Executive Summary

Introduction
This is the final report of an evaluation of the Federal Government of Nigeria/UNICEF WASH Programme (2014-2017) funded by i) donors’ projects: DFID funded project (SHAWN II) and three EU funded projects (WSSSRP ii, WSSSRP iii and NDSP)1, ii) UNICEF regular resources, iii) Federal and States Government. This programme had combined donor’s contributions of USD 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 with the numbers of people living without access to safe water and sanitation2, and ranks second for the number of people practicing open defecation3. According to WASH NORM data from 2018, 68% 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% of the national population use safely managed sanitation services, 24% are still practicing open defecation (OD) in Nigeria and 30% 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 WASH MDG 2000-2015 and there is a high risk that Nigeria will not achieve the global agenda of the WASH SDG6 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 program promoted low cost, community based approaches such as Community Led Total Sanitation (CLTS) and Village Level Operation and Maintenance (VLOM) whilst 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 other, to increase access to and use of improved water sources, sanitation facilities and hygiene practices, particularly among vulnerable communities. UNICEF has thus been working with the Government of Nigeria 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 Program 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 the DFID SHAWN II was focused on behaviour change to drive sustainable sanitation. The NDSP also had a broader objective of conflict resolution, peacebuilding and social cohesion with a specific focus on the Delta region of the country.

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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 Program 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 Program 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). Niger Delta Support Program (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)


The beneficiaries of the WASH Program 2014-2017, as per the 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 programs as well as communities and households within project targeted Local Government Areas (LGAs).

**Evaluation Purpose and Scope**

The purpose of this evaluation is twofold, seeking to contribute to both learning and accountability. To address **accountability** the evaluation assessed the extent to which the program fulfilled its expected objectives as per project documentation developed and agreed 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 programme in 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 5, enrolment and attendance levels, sanitation and hygiene behavior among targeted populations. Behaviors which the program is expected to contribute to include the consistent use of improved sanitation facilities and hand-washing facilities.
- Analyze how the program strategies and supporting activities in combination contributed to the observed changes;
- Identify strengths and weaknesses in the program implementation, with a focus on the main programmatic strategies and partnerships used;
- Identify recommendations that will aid UNICEF to optimize future implementation and scaling up.

The sample cases for the evaluation were drawn from the four projects funded by DFID and the EU which formed part of UNICEF Nigeria's WASH Programme in the 2014-2017 Strategic period. The evaluation covers all the interventions conducted under this 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:

- DFID SHAWN II - Benue, Bauchi, Jigawa, Katsina, Kaduna and Zamfara;

**Evaluation Design and Methods**

A set of evaluation questions proposed by UNICEF Nigeria were addressed throughout the course of this evaluation based on the OECD DAC criteria of Relevance, Effectiveness, Efficiency, Impact and Sustainability in addition to the cross-cutting criteria ‘Gender and Equity’. A theory-based approach was utilized during this evaluation, based on the WASH Program’s Theory of Change, and a mixed methods approach was used, drawing 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 a household survey that included anthropometric measurements, Schools and Health Care Facility surveys and a survey of WASHCOMs. The surveys utilized a cross-sectional

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4 The intervention states of Kano and Yobe (SHAWN II) have been excluded. This is primarily because work has only recently started in 2018.
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 households/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, semi structured interviews and Focus Group Discussions were conducted with a range of stakeholders across four levels: national, state, LGA and community level.

Ethical approval was gained prior to the data collection and the Evaluation Team adhered to UNEG/UNICEF global standards for evaluation, giving specific attention to ensuring the collection of anthropometric data for assessing the Program’s contribution to reducing malnutrition was conducted in an ethical manner.

Limitations and challenges encountered throughout the evaluation included the absence of the baseline Household KAP Survey in 2014 on WASH outcomes and impact indicators that were felt to be necessary to meet the objective of the evaluation regarding solid measurement of the impact and attribution of changes; and constraints related to documentation and household survey sampling. The evaluation team mitigated these challenges through the use mixed methods and existing multiple sources of data that enabled the assessment of impact of WASH interventions on Health, Nutrition and Education per state.

**Findings and Conclusions**

The operating context for the FGN/UNICEF Nigeria WASH Program (2014 – 2017\(^5\)) included weak sector indicators; and the development of the 2016-2030 PEWASH Strategy and the National Roadmap for Eliminating Open Defecation.

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

- delivering and supporting safe access to WASH services;
- supporting community engagement in WASH for sustainability;
- developing strong and effective systems for delivering and supporting a WASH sector enabling environment; and
- developing appropriate evidence-based policy and programming, monitoring and evaluation & 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 were also introduced as part of the effort towards improving and sustaining sanitation access.; iii) Evidence Generation, Knowledge Management and iv) capacity development, etc.

Triggering through CLTS was found to have driven sanitation facilities construction and upgrading, enabling communities to begin ‘moving up the sanitation ladder’. Generally, movement has been gradual, and many households constructed traditional pit latrines after their triggering. In addition, sanitation marketing and financing have been key program 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 Program has made an important contribution to addressing the water and sanitation challenge in the

\(^5\) All of the projects had no cost extensions and revised end dates: WSSSRP II/III 2019; SHAWN II and NDSP 2020.
country, 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 Program is on track to achieve, and further build on, increases above several of its initial targets by the end of the individual programs 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 2019⁶). Overall outcomes indicators of use of improved drinking water sources and sanitation facilities have increased in those seven states; at national, level expected result of the country program 2014-2017 for WASH is almost achieved as revealed the findings from WASH NORM Household Survey 2018 (73.4% achieved against the initial nationwide target of 74% regarding the use of improved drinking water source by Nigerian’s population).

Whilst these achievements are encouraging it is important to assess them in the light of the continuing enormous challenges toward achieving the SDG6.

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

**Relevance**

In assessing *whether the intervention (WASH Program) 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 program 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 program 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 program were defined; though the complexity and interrelatedness of challenges, assumptions and processes within the program 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 local government areas where the program was operational.

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

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⁶ See table 6.3 page 46
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 a reduction in per capita cost ($33 for SHAWN II $47 for WSSSRP II and $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, establishment of WASHCOM) to facilitate community ownership and sustainable management of water supply facilities which jointly contributed to reducing the downtime of community water facilities.

Whilst 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, 94,404 sanitation facilities have been built by communities and families. The UNICEF Nigeria WASH Program 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 (WASH Program) is achieving its objectives, the evaluation team finds the WASH Program effective up to 2019; the programme surpassed (126% for water and 137% for sanitation) its targets as at September 2019 while in 2017, 96% of the targets of sanitation and 89% in water were achieved. WASH program succeeds in reaching 8.1 million people, in 2017, with access to an improved water source and 11.0 million people, in 2017, with access to sanitation (figures as of September 2019). In 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 was the practice of covering water storage vessels as indicated below.

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7 See table 6.3 page 46
Trend Analysis of secondary data from NDHS 2013 to NDHS 2018 and WASH Norm Survey 2018 revealed an overall increase of above 25% of access of population to improved drinking water source during the last 5 years in the 7 states which the evaluation covered of investment made by Government and Partners (DFID, EU and UNICEF) for WASH Programme. This improvement is comparably high in two states which the evaluation covered: Bauchi (49% of increase from 39.9 % in 2013 to 78.7% in 2018) and Benue (from 38.4% in 2013 to 60.4 % 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 NDHS 2013 figure with NDHS 2018 and WASH NORM survey 2018 figure for each of 7 states which the evaluation covered. Increases during the last five years are observed in Bauchi (from 18.3% in 2013 to 56.1% in 2018 like 67.4% of increase), Ekiti (63.2% of increase: from 18.4% in 2013 to 50% in 2018) and Benue (from 15.4% to 30.9% like 50.8% of increase). However, there is a decrease observable in Jigawa state (-177.2%) of the use of improved sanitation facilities from 2013 to 2018 according to NDHS findings.

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

A number of enabling (or undermining) factors and program implementation fidelity were identified. Enabling factors include 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, because of expectation of payment or the perception that local volunteers were paid, implementation fidelity was undermined.

Implementation strategies as described in routine program reports were consistent with program design. Furthermore, annual workplans at state level were used as a management tool to help ensure consistency with program 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 Program 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 activities to work towards the establishment of WASH departments and supporting 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 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 which can be examined without baseline data or extensive further research.

Qualitatively, respondents reported increasing awareness of handwashing and increased practice 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, resulting in the roll out of rural drinking water monitoring and surveillance activities amongst other achievements.

The evaluation found that the program strategy of developing Water Safety Plans has proved to be effective; providing a mechanism to build awareness of the importance of water quality.

The Program contributed to improved capacity at state and LGA levels for ODF verification, program 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 Program. Establishment of WASHCOMs and VLOM improved capacity at 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% of WASHCOMs were involved in non-WASH responsibilities. In DFID funded states this rose to 82%.

There was evidence that the Program 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% 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 sustenance 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. There remain diverse strategic challenges.

**Impact of WASH Programme**

Whilst the WASH program 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 program i.e. 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 Household Survey, the evaluation team applied mixed methods and use multiple data sources in order to try to find out 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 rate in those 7 states.

Looking across the program 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 household survey data, in the seven states which the evaluation covered, there is no significant evidence of systematic impact on diarrhea prevalence across the WASH programme (18.0% vs 19.5% in the intervention and non-intervention areas respectively). However, three states (Bauchi, Benue and Ekiti) have shown a net difference of less prevalence of diarrhea in LGAs exposed to WASH interventions in comparison to high prevalence of diarrhea among under-five children in LGAs not exposed to WASH interventions. Local multi sectoral contextual and behavior factors may explain those divergent difference of impact on health per 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; taking account of major Cholera outbreaks recorded for 2014 and 2018 (NCDC), which are anomalous years in the data set.

Secondary data from the NDHS household survey did not provide evidence of an impact on diarrhea disease in six of the seven states which the evaluation covered. Only Anambra state has recorded a 50% decrease of prevalence of diarrhea among under-five children during the last five years from 7.7% (NDHS 2013) to 3.1% (NDHS 2018). In general, in Nigeria, the prevalence of diarrhea has increased slowly from 10.2% in 2013 to 12.8% in 2018 according to Nigeria Demographic and Health Survey Reports.

Qualitatively, respondents to focus group discussions and Key Informant Interviews 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 evaluation HH survey, the evaluation team found positive effect in four 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. In addition, sample statistics revealed a small reduction in absenteeism (0.3 days) between LGAs exposed to WASH interventions compared to LGAs not exposed to WASH interventions. However, the pattern was not consistent across all states.

Trend analysis of Demographic and Health Survey data shows that three states Jigawa, Katsina and Anambra have registered increase of primary net attendance ratio during the last five years: from 43.2% (NDHS 2013) to 56.4 % (NDHS 2018) in Jigawa, from 43.5% to 68.3 % in Katsina and from 82 % in 2013 to 85.1% in 2018 in Anambra. In the other states, there has been a decrease or stagnation of primary school attendance.

Impact of WASH on Nutrition

In the 7 states which the evaluation 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, two states of Anambra and Benue present positive effect with the prevalence of stunting among under five children is higher in LGAs not exposed to WASH interventions in comparison to LGAs that benefited of WASH program respectively 16.7% vs 9.1% in Anambra and 39.1% vs 34.1 in Benue.

Trend Analysis of secondary data from NDHS 2013 to2018 has revealed around 4 points of decline in the prevalence of stunting of under-five children in two states of Anambra and Akwa Ibom during the last five years respectively from 18.4% (NDHS 2013) to 14% (NDHS 2018) and from 22.4% in 2013 to 19.6% in 2018. In the other five states, there is stagnation or increase of prevalence of stunting in similarity situation with the Nigeria’s average of stagnation of stunting at 36.8% in 2013 and 2018.
Impact on Behavior Changes related to Hygiene and social role
There was evidence of a positive increase in the seven states which the evaluation covered of 10% in rates of self-reported handwashing with soap and an increase of 5% in the perceived prevalence of handwashing with soap. There was some evidence of a small, positive change in proxy indicators (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 founds that less than 15% of household heads have reported issue related to bad quality (bad color, odor or unwanted taste) of drinking water used from boreholes. On average, there are few differences between LGAs exposed to WASH Interventions (14.7% of HH head have mentioned bad color of water) and LGAs not exposed to WASH interventions (16.8%). However, two states (Benue and Katsina) shown up an important impact of WASH program on safe quality of Water when comparing intervention areas (19.8% in Benue and 15.8% in Katsina) with non-intervention areas (41% in Benue and 23.6% in Katsina).

The Program’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 address the needs of women and girls. In addition, there were qualitative 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 supported the perception of women’s involvement in WASHCOMs. Respondents from WASHCOMS also reported that, through capacity building workshops run by the Program, communities had come to realize their right to WASH facilities. Since the inception of the Program, 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.

As lessons learned regarding the measurement of impact, the lack of statistically significant results in support of the program effect does not necessarily indicate a lack of impact on Health, Nutrition and Education due to the WASH program: 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 mean that there are considerable challenges involved in demonstrating a clear WASH interventions effect on other sectors, even if it exists, 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 1 or 2 years) after external technical and financial support has ended the evaluation found that, to date, implementation of the WASH Program has resulted in some positive changes at community level, and to some extent at 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; though 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 program.
Overall, water and sanitation facilities provided through the Program 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 program.

Quantitative evidence from the household 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 program (81.9%) and communities not exposed to WASH programme (81.6%). Notable difference is observed in Benue State where 54.4 % of households recognized the availability of improved drinking water during the dry season in LGAs exposed to WASH Programme, in comparison to 35% 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 program 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 Program 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 program 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 Program succeeding to build WASH community system and accountability that ensure real time maintenance of improved drinking water sources. 16.8% of Head of households 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, in comparison to only 1.2% of Head of households interviewed in communities in non-intervention areas. The WASH Program has helped empower WASHCOM for adequate community based institutional leadership role and ownership of water infrastructure in some states: Akwa Ibom (24.8%), Bauchi (20%), Ekiti (23.4%) and Jigawa (22%).

Quantitative evidence from the household survey revealed that on average the WASH Program has developed strong local capacity for the maintenance of improved drinking water source: 20.8 % of heads of households in communities exposed to WASH intervention recognized that the repair of broken water sources is performed by a Mechanic from the Water Committees in comparison to only 8.5% in communities in non-intervention areas, which depends 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% of heads of households in the communities exposed to WASH intervention are extremely satisfied in comparison to only 36% in non-invention areas. Beneficiary satisfaction vis-à-vis WASHCOM or WASH Unit is very high in the WASH interventions areas in comparison to non-interventions area in the following states: Akwa Ibom (23% vs 2.8%), Bauchi (46.7% vs 30.2%), Benue (28.8% vs 13.9%), Ekiti (65.2% vs 47.1%).

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

Households 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 provided solutions to remove the existing barriers and close such gaps, especially among the most vulnerable including adolescent girls and women, the evaluation found evidence that WASH Program 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 program sought to specifically target the most vulnerable which includes women and children.

The WASH program 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 program and 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 household Survey Data, the evaluation team assessed the merit of the WASH Program 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% vs 35.4 % of Women care giver of under-five children has confirmed that they participated to meeting on Community WASH facilities;
   b. The quantitative survey (see tables in 5.15) found women to constitute 38.4% of WASHCOM composition overall, including 35.4% of WASHCOM composition across the DFID states and 42.5% 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 over 50% of WASHCOM members overall in Anambra state are women, as described in section 5.15. Reporting for SHAWN II target areas indicates that 40% of all WASHCOM members are female and 83% have women in leadership positions;
   c. 52% vs 46.7% indicated that they speak out their opinion freely;
   d. 46.3 % vs 40% 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 source:** Although no difference was found overall between intervention (23.8%) and non-intervention areas (24.5%), 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 program (23.9% in intervention vs 35% in non-intervention for Bauchi and 14.2% vs 16.5% for Akwa Ibom).

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

The WASH Program implicitly integrates a human rights-based approach into its program 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 program 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 Program through focusing for example 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 in following program 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 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 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 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 local level), such as birth registration, helped to embed improvements and changes in WASH knowledge, attitudes and practices 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 Program’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 Local Area Mechanics. 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 program, with clear targeting of the poorest and most vulnerable. The WASH program used multiple methods to engage poor and disadvantaged groups. An important example of this was through using microcredit and savings schemes, for example, 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 of 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, the development of Water Safety Plans and Water Quality monitoring, the recruitment of Local Area Mechanics and the use of VLOM as a strategy. Since the inception of the Program, 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 ‘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 with 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 Program’s work to strengthen government systems, primarily at State level, has been the most challenging area to substantively implement. In this respect, the Logframe and outline Theory of Change were not detailed enough to provide a framework for Government, especially at State level to effectively engage in developing a 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 Program, specifically on 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; 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 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 program can help to sustain ODF status in communities. At 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, 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 diseases prevalence faster than WASH program being a stand-alone. Furthermore, sustainability has been improved through, for example, Adashe (rotatory funding by groups for latrine construction; loans system through Micro Finance Institutions – Bauchi/Jigawa); functional WASHCOM Federation has ensured optimal provision of WASH facilities and their functionality through powerful representation at higher level of governance; and WASHIMS as an M&E framework that engages communities and LGA’s – a powerful tool with significant potential to support communities and LGA’s to reflect on and improve practice.

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

**Recommendations**

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

**Recommendation 1: Develop an SDG 6-outcome aligned Theory of Change**

The Theory of Change developed for the WASH Program 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 Program 2014-2017 and the four focal projects of this evaluation were initiated prior to adoption of the SDGs. There is a clear need to develop a clearer and more detailed conceptual framework (Theory of Change) that aligns to the SDG
outcomes to support future programming, specifically geared towards access and use of safe and sustainable WASH for all.

The conceptual framework/Theory of Change should provide greater articulation of the complexity and interrelatedness of challenges, assumptions and processes to structure specific programming interventions with a clear focus on UNICEF’s contribution to the GoN PEWASH Strategic objective for ODF by 2025.

The challenge for UNICEF will be to move away from a focus on quantitative 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 whilst focusing on the concept of ‘safely managed’ and ‘equitable’ access.

Sanitation marketing, product development and finance are likely to be critical to sustaining sanitation achievements, though it should be noted that this is not necessarily compatible with prioritizing the poorest or most vulnerable.

Recommendation 2: Develop an improved policy influencing approach at State level
UNICEF should amplify its policy influence by further supporting a strong enabling environment at State Level, given its global comparative advantage of upstream influencing and convening. This will require working across multiple, targeted areas including funding, planning, staffing, 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 additional potential to support communities and LGA’s to reflect on and improve practice. UNICEF should support and further develop adequate framework for regular evaluative thinking for WASH Sector in strengthening real time monitoring system and ecosystem of evaluation to drive program effectiveness. This should include:

- Ensure the completion of Base Line Household Survey prior to the implementation of future large funded WASH Program that will secure rigorous end-line program impact evaluation;
- Undertake independent evaluation of SDG6 by 2025 to learn of progress achieved of Government commitment for ending ODF by 2025 and way forward SDG6;
- Further developing WASHIMS so that the data are timely in its collection, analyzed and shared widely to support use by all stakeholders (including communities)
- WASHIMS and the community reporting systems (SMS) should be enhanced and developed as conduits for two-way messaging providing essential messages on sustained hygiene behaviors and practices
- Investigation of the use of the community text messaging services as alerts to at-risk communities in the event of health emergencies (diarrhea/cholera outbreaks – further support to community awareness, action and building long term sustainability.

Recommendation 4: Support the accelerated use of microcredit and savings schemes
UNICEF should support and build awareness for increased access to savings structures such as Adashe and microfinancing schemes to complement demand creation for improved household 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. They should also be supported to conduct activities that contribute to UNICEF’s broader Child Survival and Development component; promoting uptake of services and behaviors change in other outcome areas in addition to WASH such as i) obtaining and disseminating information on immunization data, ii) identifying households where children aren’t immunized, 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 as well as 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 sectors 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 aligns the targeting and delivery of package of basic services of Water, Sanitation & Hygiene with RMNCH, Nutrition, Education, Social Protection and Social Mobilization for behaviour changes that could result to 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 inclusive of the needs of all vulnerable people, for example those with disabilities. These efforts might include more active partnerships with disabled people’s organisations as well as additional training and support for CLTS facilitator to help embed inclusion in CLTS practice.
Chapter 1: Introduction and Object of the Evaluation

This is the final report of an evaluation of the Nigeria’s Federal Government and UNICEF WASH Programme (2014-2017) which comprised a DFID funded project, three EU funded projects that had combined donor contributions of USD 188.3 million, Federal and States Government and UNICEF Financial Contributions. The evaluation Terms of Reference are attached as Annex A.

The evaluation report is structured as follows:

- **An Introduction** that sets the background and context for the evaluation, providing information about the four projects comprising this evaluation.
- **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.
- **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.
- **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.
- **Conclusions** focused on interpreting the findings and reflecting reasonable evaluation judgments based on the answers to the evaluation questions.
- **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 Program – Global Context

Issues around Water and Sanitation Hygiene (WASH) still pose a great challenge to many countries across the globe. The importance of WASH is reflected through SDG 6: “Ensure availability and sustainable management of water and sanitation for all”\(^8\). The first targets relating to goal 6 are by 2030 to ‘achieve universal and equitable access to safe and affordable drinking water for all’\(^8\). Worldwide, 29% of people do not use a safely managed drinking water source and 55% do not use a safely managed sanitation facility\(^9\); sanitation coverage is low in many countries and millions of people are still engaged in the practice of open defecation. 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 households, people with disabilities, and in particular women and girls, bear the brunt of inadequate WASH services\(^10\).

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 Sustainable Development Goals (SDGs). The 2016-2030 strategy follows the 2006-2015 strategy which offered 3 distinct packages of support for WASH: basic, comprehensive and emergency, and was based on a balanced WASH program

\(^{8}\) [https://sustainabledevelopment.un.org/sdg6](https://sustainabledevelopment.un.org/sdg6)

\(^{9}\) [UN WATER, https://www.sdg6data.org/](https://www.sdg6data.org/)

having three interdependent pillars of interventions to increase safe water and sanitation coverage, the promotion of behavioral change and support to 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 which is reflected in a series of seven stated ‘programming principles’ and six programming approaches. Inherent to 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 and sanitation and ‘safely managed services’ in line with SDG 6.

Figure 1: 2016-2030 WASH strategic framework

1.1.2 WASH Program – National Context
With a population of 19211 million, Nigeria is the most populous country in sub-Saharan Africa. It also ranks as one of the top three countries in the world with the numbers of people living without access to safe water and sanitation12, and ranks second, after India, for the number of people practicing open defecation. 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.
defecation\textsuperscript{13}. While 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\textsuperscript{14}.

The SDGs set a high bar of “safely managed” water and sanitation services and yet for many the right to even a basic level of access remains unmet.

From the Executive Summary of UNICEF’s 2016-2030 Global Strategy for WASH

According to WASH NORM data from 2018, 68% 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\% of the national population use safely managed sanitation services and 30\% are still practicing open defecation (OD) in rural areas, compared to 11\% in urban areas\textsuperscript{15}. 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 5 as it increases their vulnerability to waterborne diseases; 45,000 deaths amongst children under 5 occur every year due to poor WASH habits\textsuperscript{16}. When drinking water is contaminated, consumption can cause a variety of waterborne diseases such as dysentery, diarrhoea 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 JMP report indicates the average rural health care facility had only one toilet for patients and these are not always clean\textsuperscript{17}.

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\textsuperscript{18}. 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\textsuperscript{19}. WASH NORM data from 2019 shows that only 16\% of schools have basic water and sanitation facilities and when basic hygiene is taken into account this decreases to just 7\%. Only 11\% have separate facilities for girls with provisions for MHM. 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\textsuperscript{20}. 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 \textsuperscript{21}. Generally, for the Nigerian WASH context though, it is noted

\textsuperscript{13} The Premium Times; 25\textsuperscript{th} June 2019. https://allafrica.com/stories/201906260010.html
\textsuperscript{14} National Outcome Routine Mapping of Water, Sanitation and Hygiene Service Levels Nigeria: Summary of Survey Findings 2018.
\textsuperscript{15} WASHNORM
\textsuperscript{16} Terms of Reference of Final WASH Programme Evaluation
\textsuperscript{17} JMP WASH in Health Care Facilities 2019
\textsuperscript{19} Olukanni, D. 2013. Assessment of WASH Program In Public Secondary Schools In South-Western Nigeria
wide disparities persist across zones and within states, especially those living in the lowest quintiles, which aggravate the situation and leaving more children and women vulnerable to sickness and poverty. The problem of low coverage is coupled with weak sustainability, mainly resulting from weak human resource capacity and low sector budgetary allocations for investments and operational costs. Disparities 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 Program (RWSS) which ended in 2015 showed that whilst there had been an increase in access to water from 25% in 1990 to 57% that there had been a decrease in access to improved sanitation, down from 38% in 1990 to 25% 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) Program Strategy that would bring all organizations working in WASH together to work towards achieving the SDG 6 targets by 2030.

The PEWASH Program Strategy has six major actions that are critical to addressing the challenges:

- Rollout of the National program on Partnership for Expanded Water Supply, Sanitation and Hygiene (PEWASH) aimed at achieving the SDGs on universal access to water, sanitation and hygiene in rural areas.
- Implementation of the National Open Defecation Free (ODF) Roadmap to eliminate open defecation in Nigeria with emphasis on scaling up strategies for behavior change communication, quality assurance, sanitation marketing and financing for poor households.
- Support the implementation of Sub-national (State) ODF Roadmaps.
- Prioritize rehabilitation of existing water and sanitation facilities with focus on empowering communities and strengthening supply chains.
- Scale up WASH Information Management System (WASHIMS) across the country (the initial target is to reach 30% 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 Program

WASH is a subcomponent of ‘Child Survival’ as per UNICEF Nigeria’s 2014-2017 Country Program, which aims to increase access to and use of water sources, sanitation facilities and hygiene practices, particularly among vulnerable communities. The program promoted low cost, community based approaches such as Community Led Total Sanitation (CLTS) and Village Level Operation and Maintenance (VLOM) whilst also emphasizing the importance of child and gender friendly WASH institutions in schools and health care facilities. The purpose of the 2014-2017 WASH program was to:

- Increase the percentage of people with access to improved sanitation from 31% (baseline) to 74% (target) by 2017
- Increase the percentage of households with access to improved water supply from 58% (baseline) to 90% (target) by 2017

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22 MICS 2017.
24 Note that the PEWASH Strategy mentions ‘five major actions’ but details six.
The UNICEF Nigeria 2014-2017 Country Program was followed by the 2018-2022 one. The purpose of the UNICEF Nigeria WASH Program 2018 – 2022 was to support the government in implementing the PEWASH, as described in Section 1.1, to ultimately end open defecation 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. Whilst outside the temporal scope of the evaluation, the 2018-2022 program specifies four priority areas of (i) Sector-wide scaling up of data management and evidence generation; (ii) Sustainability of WASH systems; (iii) Ending Open Defecation and increasing improved sanitation access; (iv) Water safety planning. It intends to:

- Decrease the proportion of the population practicing open defecation from 25% (baseline) to 12% (target) by 2022
- Increase the proportion of people using basic drinking water from 69% (baseline) to 76% (target) by 2022
- Increase the number of schools and health care facilities with functional gender sensitive WASH facilities from 28% (baseline) to 35% (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

A simplified Theory of Change for the UNICEF WASH 2014-2017, Figure 2, constructed for this evaluation was provided in the ToR which explains how activities are understood to produce a series of results that contribute to achieving the intended or observed impacts. This Theory of Change was used to guide the ‘theory based’ evaluation approach; more information can be found in section 3.1 related to Evaluation Design.
Figure 2: Simplified Theory of Change
1.4 Components
Four components of the 2014-2017 WASH program, around which is this evaluation is focused are as follows:

- Sanitation, Hygiene and Water in Nigeria Project II (SHAWN II)
- Water Supply Sanitation Sector Reform Program II (WSSSRP II)
- Water Supply Sanitation Sector Reform Program III (WSSSRP III)
- Niger Delta Support Program (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 programs 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. Besides, the NDSP also had a broader objective of conflict resolution, peacebuilding and social cohesion. The NDSP also had a specific focus on the Delta region of the country.

SHAWN II is the successor for SHAWN I, a DFID funded program that is being delivered by UNICEF between 2014-2018 and has been extended to 2020. It focuses on a Community Led Total Sanitation (CLTS) approach to encourage rural communities to end open-defecation and adopt hygienic practices, alongside rehabilitating existing water points or construct new ones (where necessary)\(^25\). 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)\(^26\). These eight states comprise 104 LGAs and program activities are being implemented in all of them, mainly through RUWASSA and LGA staff\(^27\). The program intends to reach 9.5 million people with safe and reliable water supply and improved sanitation by the extension deadline of March 2020. The program has six targets around sanitation, hygiene, water, governance, social entrepreneurs, sector coordination and emergencies. A seventh target focusing WASH in emergencies/conflict affected areas was added part way through the program. The challenge of this program is to deliver WASH benefits in a complex federal government 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.

The Water Supply and Sanitation Sector Reform Project Phase II (WSSSRP II) was delivered between 2012-2018 and extended to 2019. It was designed to follow on from the previous WSSSRP working in six focal states: Anambra, Cross River, Jigawa, Kano, Osun and Yobe. UNICEF have implemented the rural component of this in communities and schools spanning 39 LGAs across the states. Activities focus on capacity development and building of 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 at least between 1.5 and 3 million people with access to safe water supply and basic sanitation and hygiene respectively\(^28\). It has been granted a one year no cost extension taking it to May 2019\(^29\). Phase II is implementing activities such as upgrading of WASH Units to WASH

\(^{25}\) SHAWN II Business Case
\(^{26}\) SHAWN II 2018 Annual Report
\(^{27}\) SHAWN II Intro and progress 2018 Powerpoint
\(^{28}\) Rural Component of the Water Supply and Sanitation Sector Reform Project Phase ii – revised logical framework
\(^{29}\) Narrative and financial progress report.
Departments in LGAs, providing capacity building to rural water and sanitation institutions in the State and local government area, and developing the capacity of 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% of the project targets in terms of water supply and 109% for sanitation.\(^{30}\)

The **Rural Water Supply and Sanitation Project under the Water Supply and Sanitation Sector Reform Program (WSSSRP) Phase III** began in 2013 and aimed to improve rural water and sanitation sector governance in three Project States (Adamawa, Ekiti and Plateau) through the provision of technical assistance and capacity development to sector institutions and agencies responsible for rural water and sanitation service delivery\(^ {31}\). The project also aimed to contribute to increased access to safe water, and improved sanitation and hygiene practices in rural communities and supports the development and strengthening of monitoring and evaluation systems. UNICEF have 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 initiative, capacity building (including for CLTS) and helped develop Water Safety Plans\(^ {32}\).

Both the WSSSRP II and WSSSRP III build on the earlier WSSSRP I. Their aim has been to consolidate achievements from the WSSSRP I through provision of technical assistance and capacity building to ministries and agencies responsible for water resources and water and sanitation services delivery. The challenge for this program has been weak institutional arrangements, absence of a regulatory framework, inconsistency in the implementation of policies, inadequate data, and funding (with funding not used effectively) as well as inadequate maintenance and sustainability plans.

The **Niger Delta Support Program (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, mainly: bad governance, youth unemployment and poor delivery of basic services\(^ {33}\). It is funded by the EU and implemented in five states: Akwa Ibom, Bayelsa, Delta, Edo, and Rivers. It covers 17 LGAs\(^ {34}\) 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 rural water supply and sanitation agencies (RUWASSAs) in the five States and provide support to WASH sector institutions to enable them to fulfil their mandates\(^ {35}\). 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 amongst communities through improved knowledge management and learning alliances during WASH Clinics\(^ {36}\).

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

\(^{31}\) WSSSRP III 5th year narrative and financial progress report. 7 May 2018
\(^{32}\) WSSSRP III Progress report. May 2017
\(^{33}\) NDSP Indicative Log frame Final Nov 2012.
\(^{34}\) NDSP. 7th year work plan (Nov 2018 – Oct 2019)
1.5 Program Beneficiaries
The beneficiaries of the WASH Program 2014-2017, as per the Country Program Document 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 programs as well as communities and households within LGAs.

1.6 Stakeholders
The main stakeholders involved in the UNICEF 2014-2017 WASH program 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 Table 5 ‘Stakeholder and evaluation use’ in section 2.6.
<table>
<thead>
<tr>
<th>Project Objectives</th>
<th>DFID</th>
<th>WSSSRP II</th>
<th>WSSSRP III</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geographical coverage</strong></td>
<td>104 LGAs in 8 states (Bauchi, Benue, Jigawa, Kaduna, Katsina, Zamfara, Kano and Yobe)</td>
<td>20 LGAs, 6 states Yobe Anambra, Cross River, Kano, Jigawa, Osun</td>
<td>8 LGAs in 3 states (Adamawa, Ekiti, Plateau)</td>
<td>17 LGAs in 5 states (Akwa Ibom, Bayelsa, Delta, Edo and Rivers)</td>
</tr>
<tr>
<td><strong>History</strong></td>
<td>Preceded by SHAWN I: 2010-2013, in 20 LGAs in 4 states</td>
<td>Preceded by WSSSRP I same LGAs</td>
<td>Preceded by WSSSRP II</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Financing</strong></td>
<td>Total DFID contribution of £89.77m (US$ 117.47m)</td>
<td>Total EU contribution of €30m (US$ 33.07m)</td>
<td>Total EU contribution of €14.25m (US$ 15.7m)</td>
<td>Total EU contribution of €20m (US$ 22.05m)</td>
</tr>
<tr>
<td><strong>Output 1</strong></td>
<td>9.5 million men, women &amp; children have access to appropriate &amp; safe sanitation</td>
<td>Output 1: At least 1.5 million additional people in the rural communities of six EU focal States have access to safe water supply,</td>
<td>Output1: 0.5 million people with access to safe water supply - 1 million people with access to basic sanitation and proper hygiene</td>
<td>Output 1: 0.6 million people with access to safe water supply</td>
</tr>
<tr>
<td></td>
<td>Output 2: 9.5 million men, women &amp; children participated in hygiene promotion, reducing exposure to public health risks</td>
<td>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</td>
<td>Output 2: 1.4 million people with access to basic sanitation and proper hygiene</td>
<td>Output 2: 1.4 million people with access to basic sanitation and proper hygiene</td>
</tr>
<tr>
<td></td>
<td>Output 3: 9.5 million men, women &amp; children have access to safe, reliable water supply</td>
<td>Output 3: RUWASSA, LGA Water Depts participated in training &amp; provided support to men, women and children on WASH</td>
<td>Output3: All LGA WASH Units upgraded to WASH Departments</td>
<td>Output 3: 200 schools with safe water facilities, toilets, and practicing handwashing</td>
</tr>
<tr>
<td></td>
<td>Output 4: RUWASSA, LGA Water Depts participated in training &amp; provided support to men, women and children on WASH</td>
<td>Output 5: Social Enterprise Development: Increased market activity by non-state actors in at least two States.</td>
<td>Output4: All LGA WASH Departments upgraded to WASH Departments</td>
<td>Output 4: All LGA WASH Departments upgraded to WASH Departments</td>
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<td>Output 5: To establish a State level monitoring and</td>
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</table>

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37 (Exchange rates as of January 2020: 1 GBP = 1.309 USD; 1 EUR = 1.102 USD)

38 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.
**Table 1: Overview of projects**

<table>
<thead>
<tr>
<th></th>
<th>DFID</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SHAWN II</strong></td>
<td><strong>Output 6</strong>: Strengthened capacity, coordination, funding at all government levels.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Output 7</strong>: Strengthened govt capacity for Emergency Preparedness &amp; Response to 1 million affected people in SHAWN States &amp; North East.</td>
<td></td>
</tr>
<tr>
<td><strong>WSSSRP II</strong></td>
<td>and sanitation in rural communities</td>
<td></td>
</tr>
<tr>
<td><strong>WSSSRP III</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NDSP</strong></td>
<td></td>
<td>evaluation (M&amp;E) system which is integrated with the national M&amp;E system.</td>
</tr>
</tbody>
</table>
1.7 Geographical Coverage

UNICEF’s WASH Program for 2014 – 2017 covered 18 of Nigeria’s 36 States and the Federal Capital Territory (FCT)\(^{39}\). Figure 3 shows the coverage and extent of UNICEF WASH Programming across Nigeria.

\(^{39}\) 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, seeking to contribute to both learning and accountability. To address accountability the evaluation assessed the extent to which the program fulfilled its expected objectives as per project documentation developed and agreed with donors. The evaluation findings will also be used (through the dissemination of the findings and conclusions) to provide accountability downwards to the communities who were expected to benefit from the program. 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:

- To determine the intended and unanticipated impacts of key WASH interventions on the incidence of diarrheal diseases, nutritional status among children under 5, enrolment and attendance levels, sanitation and hygiene behavior among targeted populations. Behaviors which the program is expected to contribute to, include the consistent use of improved sanitation facilities and hand-washing facilities.
- Analyze how the program strategies and supporting activities in combination contributed to the observed changes;
- Identify strengths and weaknesses in the program implementation, with a focus on the main programmatic strategies and partnerships used;
- Identify recommendations that will aid UNICEF to optimize future implementation and scaling up.

2.3 Significance of the Evaluation

This evaluation is happening at a critical time in progressing towards the 2030 Sustainable Development Goals (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 open defecation by 2025 and achieve 100% access to rural water supply and improved sanitation by 2030, substantial progress is needed at both upstream and downstream levels.

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 Program in the 2014-2017 Strategic period. The evaluation covers all the activities conducted under these programs 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:

- DFID SHAWN II – Benue, Bauchi, Jigawa, Katsina, Kaduna, Zamfara and Kano;

The following activities and strategies are included within the programs, 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)
- Water Safety Plans (WSP)
- Sanitation Marketing (SanMark)

Schools
- Water point rehabilitation/construction
- Construction of ventilated Improved Pit latrines (VIPs)
- Training of pupils on group handwashing
- Training of teacher, parent-teacher association (PTA) and School Board Management Committee (SBMC) on establishment and operations of Environmental Health Clubs

Health facilities
- Water point rehabilitation/construction
- Construction of VIPs

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40 The intervention States of Yobe (SHAWN II) has been excluded. This is primarily because work has only recently started and security concerns.
2.5 Evaluation Criteria and Questions

The Terms of Reference (ToR) outlined the OECD DAC criteria – relevance, impact, effectiveness, efficiency, and sustainability – which this evaluation used and 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 4.

Table 2: Evaluation criteria and questions

<table>
<thead>
<tr>
<th>Evaluation criteria</th>
<th>Evaluation questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relevance</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Assess implementation fidelity and design relevance. The extent to which the program is suited to the priorities and policies of the (target) population. | R1: To what extent were the program 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 program valid?  
R3: To what extent were activities and outputs of the program consistent with expected results?  
R4: To what extent were the expected results of the program clearly defined?  
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? |
| **Impact**          |                      |
| Assesses the positive and negative, primary and secondary long-term effects produced by the intervention, whether directly or indirectly, intended or unintended. | I1: 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?  
I2: To what extent has the program contributed to reduction in the incidence of diarrheal diseases among boys and girls under the age of 5?  
I3: To what extent has the program contributed to a change in the school enrolment and attendance rate among boys and girls?  
I4: To what extent has the program contributed to a change in malnutrition among children under the age of 5? (Can’t this question be subset of question I1?)  
I5: To what extent has the program contributed to a change in hand-washing practices?  
I6: To what extent has the program 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 program 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 Program 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? |

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41 See table in Section 6 Evaluation Criteria of the Terms of Reference (page 8).
<table>
<thead>
<tr>
<th>Evaluation criteria</th>
<th>Evaluation questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Evaluation criteria</strong></td>
<td><strong>Evaluation questions</strong></td>
</tr>
<tr>
<td>I10: To what extent have communities understood their rights to WASH services from authorities?</td>
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<tr>
<td>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?</td>
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<tr>
<td>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?</td>
<td></td>
</tr>
<tr>
<td><strong>Effectiveness</strong></td>
<td>Assess whether the intended results of the program at outcome level have been achieved and why/why not</td>
</tr>
<tr>
<td>E1: What are the factors that either enabled or undermined program implementation fidelity?</td>
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<tr>
<td>E2: To what extent were the implemented activities consistent with the program design?</td>
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</tr>
<tr>
<td>E3: To what extent did the program key stakeholders have a clear understanding of their respective roles and responsibilities?</td>
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</tr>
<tr>
<td>E4: To what extent were the program key activities managed as intended and to what extent did the available (support) systems work well?</td>
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</tr>
<tr>
<td>E5: What were the specific barriers (if any) that hindered the successful implementation of the envisaged program activities?</td>
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<tr>
<td>E6: For each one of the identified barriers what are possible solutions to overcome them?</td>
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</tr>
<tr>
<td>E7: To what extent have intended results at outcome level been achieved and why/why not?</td>
<td></td>
</tr>
<tr>
<td>E8: What is the effect of the WASH Program on improved hand washing in targeted communities?</td>
<td></td>
</tr>
<tr>
<td>E9: What is the effect of the WASH Program regular use of clean latrines in target communities?</td>
<td></td>
</tr>
<tr>
<td>E10: What is the effect of the program on better hygiene knowledge and practices?</td>
<td></td>
</tr>
<tr>
<td>E11: What is the effect of the program on safe handling of water-source to point of consumption?</td>
<td></td>
</tr>
<tr>
<td>E12: To what extent has the program contributed to institutional reform/improvement at State/LGA levels?</td>
<td></td>
</tr>
<tr>
<td>E13: To what extent has the program contributed to improved capacity at State/LGA and community levels?</td>
<td></td>
</tr>
<tr>
<td>E14: To what extent has the program contributed to WASHCOMS assuming non-WASH responsibilities (birth registration, immunization)?</td>
<td></td>
</tr>
<tr>
<td>E15: To what extent has the WASH Program supported and influenced the participation of women in decision making?</td>
<td></td>
</tr>
<tr>
<td>E16: To what extent did the WASH Program address the specific capacity needs of female WASHCOM members to voice and address women<code> s and girls</code> concerns? (Can this question a sub of QE15?)</td>
<td></td>
</tr>
<tr>
<td><strong>Sustainability</strong></td>
<td></td>
</tr>
<tr>
<td>S1: To what extent have the program service delivery models and the interventions continued to be looked after by communities with support from government/authorities/implementing partners after the initial investment?</td>
<td></td>
</tr>
</tbody>
</table>
### Evaluation criteria

<table>
<thead>
<tr>
<th>Evaluation criteria</th>
<th>Evaluation questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>S2: To what extent do men and women in the communities understand and implement their role to maintain WASH installations after they are provided? &lt;br&gt; S3: To what extent have the communities taken advantage of existing local area mechanics and spare part vendors to maintain water facilities? &lt;br&gt; S4: To what extent do communities understand the referral process for village level operation and maintenance? &lt;br&gt; S5: To what extent does the LGA VLOM unit respond to maintenance cases referred to it? &lt;br&gt; S6: To what extent have government partners reflected WASH services in budget allocations? &lt;br&gt; 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 behavior?</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Ey1: To what extent were the WASH Program financial resources, human resources and supplies adequate in terms of quality? &lt;br&gt; Ey2: To what extent were the WASH Program financial resources, human resources and supplies sufficient in terms of quantity? &lt;br&gt; Ey3: To what extent were the WASH Program financial resources, human resources and supplies timely in deployment and delivery?</td>
</tr>
<tr>
<td>Gender and Equity</td>
<td>G1: To what extent have the program-incorporated considerations of gender equality and the empowerment of women and girls into the extent, design, implementation and monitoring of interventions? &lt;br&gt; G2: To what extent was a Human Rights Based approach integrated into the program design and implementation? &lt;br&gt; G3: To what extent did the program target the poorest and help reduce inequalities between the wealthier and poorer groups? &lt;br&gt; 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 program strategy priorities?</td>
</tr>
</tbody>
</table>

### 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 5 specifies how the evaluation will be of use to each identified stakeholder as per the Terms of Reference.
Table 3: Stakeholders and evaluation use

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

2.7 Changes to the Terms of Reference

A specific challenge for this evaluation has been how to assess the programs contributions to reducing malnutrition (unanticipated Impact question\(^{42}\)). 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 Terms of Reference: “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\(^{43}\). 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.

On agreement with UNICEF, the two reality check studies planned to provide additional qualitative evidence were removed from the qualitative field work. Removing these activities was necessary given

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\(^{42}\) Terms of Reference; Section 6: Evaluation Criteria table on OECD DAC Criteria. page 8

\(^{43}\) Inception Report March 14\(^{th}\) 2019: Section 1.1, page 6-7 provides a detailed overview.
the additional household surveys that had to be conducted as discussed in 3.6. It was envisaged that removing the reality check studies would impact least on the work plan and would not significantly impact on the achievement of the objectives and deliverables of the evaluation.
Chapter 3: Evaluation Design and Methods

3.1 Evaluation Design
The evaluation comprised three main phases: inception; data collection; and reporting and communication of results as per figure 4.

In order to adequately address the research questions presented in table 4, 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 household survey that included anthropometric measurements. This was proceeded 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 Theory of Change presented in Figure 2 of Section 1.3 to help understand what elements of the Program worked by assessing the changes brought about by the different interventions of the Program and exploring why and how these worked in addition to any wider contributions to the effectiveness and success of the WASH Program.

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 B. 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 Country Program Documents and annual reports, program documentation and reports from the four EU and DFID focal projects, and various manuals and protocols developed as part of the program. 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 2016-2017 were also reviewed, in addition to baseline surveys when they existed. A full list of documents reviewed are presented in Annex C.

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

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44 Baseline data sets were available regarding water supply health facilities and educational facilities was available for the EU projects only.
an intervention and comparison (control) arm. Survey tools included a household survey, schools survey, WASHCOMs survey and health facility survey, presented in Annex D.

The selection of states to visit was purposive, based on the criteria of active participation in the WASH Program 2014–2017 and receiving the intervention for a minimum of 3 years. The objective was to select states where program involvement had been longest, including states involved in DFID-funded SHAWN I (subject to the 1st criteria).

In each selected state, intervention and control LGAs were selected randomly. In the DFID-funded states, four intervention and one nonintervention LGA were selected per state and in the EU-funded states, two intervention LGAs and one nonintervention LGA was selected. The EU intervention covered fewer LGAs, hence the selection of fewer LGAs in these states. Nonintervention states were selected from a list of all those which had received no known WASH intervention for a minimum of 5 years from UNICEF, JICA, WaterAid or World Vision. Selected states and LGAs are shown in Table 6.

13 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 households were selected randomly from a comprehensive household 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 household survey, the respondents were male head of household and female primary caregiver. In each selected household, anthropometric data were collected from all children under the age of 5 years. For the school survey, respondents were the head teacher and two students (one male, one female) selected randomly. For the WASHCOM survey, respondents were the head of the WASHCOM and the deputy, and for primary health centers 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. In total 1,000 HH sample has been calculated for each state reaching in total 7,000 HH planned sample for HH survey in 7 states. In each State an equal number of 500 HH sampled has been attributed to Control Group and Treatment Group.

The sample was designed to enable testing between intervention and control groups at the appropriate level for the survey/ population under consideration (state, DFID/EU intervention or overall population). We used the TANGO guidance (Magnani 1999 ‘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% confidence level and 80% power.

The sample was calculated using standard formulae and because we are mostly interested in results at state level (rather than at an aggregated 7-state level) to inform our purposive design, we have equal samples in each state to give significance at state level.

Figure 5: Standard formulae calculation using D, a design effect of 1.5
\[ n = \frac{D \cdot (Z_{1-a} + Z_{1-b})^2 \cdot [p_1 (1 - p_1) + p_2 (1 - p_2)]}{(p_2 - p_1)^2} \]
Table 4: Survey coverage by State and LGA

<table>
<thead>
<tr>
<th>Donor</th>
<th>Zone</th>
<th>Selected State</th>
<th>Total LGAs</th>
<th>Selected LGA Number</th>
<th>Total LGAs</th>
<th>Selected LGA</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFID</td>
<td>North Central</td>
<td>Benue</td>
<td>8</td>
<td>Oju 125</td>
<td>14</td>
<td>Kwande</td>
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<td>Tarka 125</td>
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<td></td>
<td>Katsina-Ala 125</td>
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<td></td>
<td>Buruku 125</td>
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<tr>
<td></td>
<td>North West</td>
<td>Jigawa</td>
<td>18</td>
<td>Kiyarwa 125</td>
<td>8</td>
<td>Kazaure</td>
<td>500</td>
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<td>Birnin Kudu 125</td>
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<tr>
<td></td>
<td>North West</td>
<td>Katsina</td>
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<td>Bakori 125</td>
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<td>Batagarawa 125</td>
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<td></td>
<td>North East</td>
<td>Bauchi</td>
<td>10</td>
<td>Warji 125</td>
<td>9</td>
<td>Alkaleri</td>
<td>500</td>
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<td>Dass 125</td>
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<td></td>
<td>Toro 125</td>
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</tbody>
</table>

45 This LGA had to be excluded and was replaced.
<table>
<thead>
<tr>
<th>Donor</th>
<th>Zone</th>
<th>Selected State</th>
<th>Intervention</th>
<th>Non-Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>South South</td>
<td>Akwa Ibom</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EU</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>South East</td>
<td>Anambra</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>South West</td>
<td>Ekiti</td>
<td>2</td>
<td></td>
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<td></td>
<td>South West</td>
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<td>South South</td>
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<td>Selected State</td>
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<td></td>
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<td>Total LGAs</td>
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<td>Number</td>
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<td>26</td>
<td>Abak 500</td>
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<td>Obot Akara</td>
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<td></td>
<td>Aguata</td>
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<td>16</td>
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<td></td>
<td></td>
<td>Anambra East</td>
<td>250</td>
<td>Njikoka 500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gbonyin</td>
<td>250</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ekiti West</td>
<td>250</td>
<td>Ikere 500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Overall total</td>
<td>7,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.2.4 Qualitative data collection: Interviews and Focus Group Discussions

Qualitative data collection was conducted in September 2019 in Abuja and 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 program 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 elements of learning for future programming.

A variety of stakeholders were engaged in each site for key informant interviews or focus group discussions as appropriate. Stakeholders can be categorized into four different domains:

- National level (Federal Ministry of Water Resources, multilateral and bilateral agencies, including the European Union, DFID, UNICEF Nigeria, WaterAid, World Bank)
- State-level (WASH program 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 Department, WASHCOM Federation and LAM);
- Community-level (WASHCOM, Healthcare Facility)

Table 5 shows that 73 individual interviews and 50 focus group discussions were conducted in total across all the sites, and Table 6 that 552 people were spoken to 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 pre-prepared 'qualitative tool manual', attached in Annex E, with interview questions tailored to the different stakeholder groups and a template/ check list for observation exercises and transect walks. Notes were taken and written up following interviews.

*Table 5: Number of individual interviews and focus group discussions conducted at each site*

<table>
<thead>
<tr>
<th></th>
<th>Akwa Ibom</th>
<th>Jigawa</th>
<th>Bauchi</th>
<th>Abuja</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual interviews</td>
<td>19</td>
<td>14</td>
<td>26</td>
<td>14</td>
<td>73</td>
</tr>
<tr>
<td>Focus Group Discussions</td>
<td>12</td>
<td>17</td>
<td>20</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
<td><strong>31</strong></td>
<td><strong>46</strong></td>
<td><strong>15</strong></td>
<td><strong>123</strong></td>
</tr>
</tbody>
</table>
Table 6: Distribution of all respondents by state and gender

<table>
<thead>
<tr>
<th></th>
<th>Akwa Ibom</th>
<th>Jigawa</th>
<th>Bauchi</th>
<th>Abuja</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Male</td>
<td>142</td>
<td>51</td>
<td>137</td>
<td>16</td>
<td>141</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>193</td>
<td>68</td>
<td>153</td>
<td>32</td>
<td>184</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Akwa Ibom</th>
<th>Jigawa</th>
<th>Bauchi</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Role</strong></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>LGA Chairperson/Heads of LGA admin</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>WASH Program Coordinating Ministry</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>RUWASA</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>WASH MDA</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>CSO</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Private Sector</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Inception meeting (at RUWASA)</td>
<td>9</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>UNICEF staff</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
<td>1</td>
<td>16</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Akwa Ibom</th>
<th>Jigawa</th>
<th>Bauchi</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Role</strong></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>LGA Chairperson/Heads of LGA admin</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>WASH Departments/Units</td>
<td>17</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Local Government Education Authorities</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

46 e.g. Ministry of Econ Planning, SUBEB, PHDA etc
### Table 9: Distribution of respondents at the community level by state and gender

<table>
<thead>
<tr>
<th></th>
<th>Akwa Ibom</th>
<th></th>
<th>Jigawa</th>
<th></th>
<th>Bauchi</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Primary Health Care Department</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGA WASHCOM Federation</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAM</td>
<td>5</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VLOM</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inception meeting (at LGA Secretariat)</td>
<td>43</td>
<td>20</td>
<td>10</td>
<td>1</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>UNICEF staff</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Traditional ruler</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>34</td>
<td>41</td>
<td>30</td>
<td>44</td>
<td>10</td>
</tr>
</tbody>
</table>

### 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 endline survey meant that for some of the variables within the survey (specific anthropometric measurements) our judgement is that assuming 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. The KAP survey cannot offer this information as it does not use a ‘control-intervention’ model for sampling and does not cover the LGAs that were selected for the evaluation endline HH survey.

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 but simplified by drawing on the ‘equal baseline’ assumption.

The assumption of parallel trend, that is required for this type of analyses, 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 (household, 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 WASHNORMS. 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 program.

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. The analyses are outlined and results presented in section 5.7 below. 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.
Data Management and Quality Assurance 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 quality assurance 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 brought alongside the other parts of the analysis that necessary caveats and any assumptions underpinning the applicability and generalizability of the analysis are clear.

3.4 Quality Assurance and Evaluation Management

Quality assurance processes were built into the evaluation from 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 can easily be overlooked or
excluded. For the quantitative survey, enumerators were fully briefed and trained prior to deployment to 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 quality assurance process with a specific named staff member with significant expertise in WASH and understanding of the Nigerian context to provide feedback and advice throughout.

### 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 program’s contribution to reducing malnutrition (unanticipated Impact question\(^47\)). IOD PARC originally recommended that collecting anthropometric data would not be useful due to:

- A lack of baseline data. Possible comparative data sources only had information at State level;
- The low likelihood of being able to identify statistically an evidence-based impact channel from WASH to nutritional status;
- 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 5 year old 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 (Ethics) and Norm 8 (Human Rights) 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 (Utility) and Norm 4 (Professionalism). IOD PARC ensured that UNICEF and the Steering Committee obtained ethical clearance at national level for conducting anthropometric data collection.

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\(^{47}\) Terms of Reference; 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 program in 2014. A Baseline KAP Survey was done in 2015 in only 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 Program 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:** Project reporting was also somewhat inconsistent across the four projects in terms of reporting periods and ways of reporting which made extraction and comparison of key results and figures by years difficult.

**Quantitative study:** Around 900 households 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 has 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 FCO advice.

3.7 Evaluation Management

A mixed-level, gender-balanced team, meeting the criteria of the ToR, conducted this evaluation. Figure 5 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.
UNICEF Nigeria's Evaluation Manager provided timely technical guidance, support and liaison to the team throughout all steps of the evaluation and ensured adequate quality assurance. An evaluation Steering Committee co-chaired by UNICEF and the Federal Ministry of Water Resources was also involved throughout. This Steering Committee was composed of representatives from DFID, EU and UNICEF at national and regional levels.
Chapter 4: Evaluation Findings and Analysis

4.1. Relevance of WASH Program

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

In assessing whether the intervention (WASH Program) 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 Program Plan and associated WASH program overall goals.

There were mixed results on the validity of the program results. There were various levels of progress and sustenance of ODF in many communities, and a few LGAs across the program assisted states. Good examples of sustainable project achievements are notable; and efforts are in progress to help the achievement of LGA wide ODF. There were 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 program 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 are for the most part the control of UNICEF.

UNICEF have sought to apply 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 program were defined; though the complexity and interrelatedness of challenges, assumptions and processes within the program design and ToC 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 local government areas where the program was operational.

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

4.1.1 To what extent were program 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 Program Plan and associated WASH program overall goals.

Aligned with National priorities and MDGs/SDGs

The 2014-2017 Gvt-UNICEF Nigeria WASH Program is firmly aligned with Nigeria Vision 20: 2020, the Government of Nigeria’s statement of national development priorities, specifically 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 programs 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, programs and concrete results, and will benefit the intended groups’.

The Govt-UNICEF WASH program is likewise aligned with the national WASH strategy; including the national revitalization of the WASH sector strategy, as well as national programs including PEWASH 2016-2035 and the Roadmap for Eliminating Open Defecation. As such, the UNICEF WASH Program aligns with national needs to bridge gaps in coverage, access, staff capacity and LGA prioritization of WASH and contributed towards achieving ODF Nigeria by 2025.

Consistent with 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’ 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 bought this learning and has been able to inform and influence the Nigerian Government’s 2016-2030 “Partnership for Expanded WASH strategy” and the “National Roadmap for eliminating open defecation in Nigeria”.

Consistent with UN and UNICEF priorities

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

At national level, the program was designed to contribute to the achievement of outcomes in the UNICEF Country Program Plan, captured in the Summary Results Matrix, specifically 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.”

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50 UNICEF CPD 2014 – 2017. Annex A Summary Results Matrix
Consistent with State and LGA priorities

The Govt-UNICEF WASH program objectives were considered appropriate and relevant by 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 open defecation in focal LGAs.

The Govt-UNICEF WASH program approach included a mixture of upstream and downstream strategies. The program 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 plank 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.

The program 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 program: 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 household sanitation including toilets and quick repair of water facilities; to changing attitudes to household sanitation and hygiene practices, and improving WASH behavior, knowledge and practices.

4.1.2 To what extent were the results of the program (2014-2017) valid?
There were mixed results on the validity of the program past results. There were various levels of progress and sustenance of ODF in many communities, and a few LGAs across the program assisted states. Good examples of sustainable project achievements are notable; and efforts are in progress to help the achievement of LGA wide ODF. There were evidence of hygiene behavior transformation and compliance among community beneficiaries. There remain diverse strategic challenges.

Qualitative opinion of respondents:

“...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 program 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 Local Government Area

There were various levels of progress and sustenance of ODF in many communities, and a few LGAs across the program assisted states. While some LGAs, such as Dass (Bauchi state) and Roni (Jigawa state) had achieved sustaining ODF statuses, others such as Toro (Bauchi state) and Nsit Atai (Akwa Ibom state) are striving to mentor their communities to ODF. The evaluation notes that in all communities assessed, most of the household sanitation facilities were unimproved and required upgrading to make them smart sanitation hardware. Good examples of system support mechanisms
were shown in Jigawa and Bauchi states to support the upgrading of existing household latrine and service the hygiene needs of users. However, efforts are also in progress to help the achievement of LGA wide ODF in other program assisted LGAs, such as Garmawa (Bauchi state) and Obot Akara (Akwa Ibom State), though encumbered with diverse strategic challenges, including selected communities, within the same LGA for water supply intervention (Akwa Ibom state), to phased CLTS triggering, which do not allow all the communities to move and compete at the same time (Toro LGA) where an LGA-wide approach was adopted by the SHAWN program.

There were mixed results on the validity of the program past results. There are state-level WASH institutions (RUWASSAs), in the intervention states; and WASH Departments already established and funded by government through budgetary appropriations in Jigawa. This is in contrast to the presence of WASH Units in all 20 LGAs in Bauchi state, and in only the four assisted LGAs in Akwa Ibom State, respectively. Dass (Bauchi state) and Roni (Jigawa state) LGAs were good examples of sustainable project achievements, with institutional systems to support the continuous upgrading of household toilets with sanitation pool funds (Bauchi state) and ‘Adashe’ concept institutionalized to support one another to upgrade latrine (Northern Nigeria assisted states), for the constructed sanitation hardware. WASHCOMs also actively promote hygiene at all times in their communities.

There were evidence of hygiene behavior transformation and compliance among community beneficiaries, with tippy-tap handwashing facility common close to toilet facilities. Furthermore, positive change was observed among healthcare facilities where WASH facilities have been provided.

- All communities are at various levels of ODF attainment. Some have been validated by NTGS, while others are certified by STGS and are awaiting validation process.
- Community members of the various communities visited can differentiate the water facilities provided by different organizations.
- 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 to ensure the sustainability of the WASH program in their communities.

The results of the program were reviewed at community level by the Water, Sanitation and Hygiene Committee (WASHCOM) according to existing protocol for certification and verification of ODF and total sanitation. 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 has been sustained by communities for at least 6 months.

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51 Government of Nigeria and UNICEF 2012 protocol for certification and verification of open defecation free and total sanitation 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% 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 8 for data from the WASH Information Management System (WASHIMS).

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

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

The evaluation showed that the activities and outputs of the UNICEF WASH program 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 are for the most part the control of UNICEF.

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

Counterpart funding

Securing counterpart funding was a critical part of the program, on which other program areas depended for timeliness and adequacy. A key challenge for the program 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 most significantly the provision of timely and adequate funding. The SHAWN 2019 Annual Review notes that:
“The major challenges to the program, as for previous review periods, is the slow rate of expenditure under the project, especially in newer target States (such as Yobe), and low level of release of counterpart funding.”

The lead time for Counterpart funding to take off was long. Whilst 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 over, as well as 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.

Training

As noted from the qualitative field assessment, the training of State and LGA staff was considered critical to ensure effective triggering and support to communities, in recognition of the role of good quality training in enabling CLTS programming to go to scale52.

At 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 program for sanitation and hygiene, 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 point to the contribution of training to improving ODF sustainability in communities, although it is important to note that the program supported a number of activities to support ODF sustainability beyond the triggering processes, including engaging WASHCOMs and Volunteer Hygiene Promoters. The SHAWN II ratings found 15,170 communities certified ODF (hosting over 12 million people), of which 3,972 communities certified ODF during the review period. 80% of assessed communities maintained ODF certified status; and 69.12% of triggered communities were then ODF certified (SHAWN II 2019 Report).

Developing a system for maintenance of water supplies

The local government water supply unit/department is responsible for establishing a Village Level Operation and Maintenance (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 response to repair dysfunctional water supply facilities. The IVRS alerts the nearest Local Area Mechanic (LAM), whose capacity has been built and supplied toolkits to aid their repair services. As an illustrative example: The Jigawa 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 spares parts sales at reduced costs. The same State Government provided solar-powered motorized boreholes to 250 communities without resources for maintenance. Notwithstanding, the lines of roles and responsibilities were adequately demarcated and known to stakeholders in other states and observed to ensure the smooth running of the program.

Developing community financing

Under the program, financial self-help systems were introduced to support the promotion of latrine uptake. These included the use of ‘Adashe’ saving schemes to increase the number of household 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 household toilet, prioritizing the most vulnerable such as widows and elderly, until the last contributor has received. The second form sees the community WASHCOM giving loans to households to repay with interest within six months, increasing WASHCOM finances and facilitating toilet ownership by households 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 program). 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 program, key institutions have been developed at community level enabling communities to achieve and sustain ODF. This includes the formation of WASHCOM, the evolution of natural leaders and the assignment of Voluntary Hygiene Promoters. WASHCOMs are accepted by the communities as the focal point for WASH support to their communities. 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 program clearly defined?

UNICEF have sought to apply 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 program were defined; though the complexity and interrelatedness of challenges, assumptions and processes within the program design and ToC are not fully considered or articulated and thus lack precision.

The evaluation noted some challenges with aspects of the program design and ToC, for example 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 program – most notably the funding of water points – are dependent on effective counterpart funding through coming from the states.

Analysis of the ToC shows a strong element of log frame thinking in its construction with a logical progression from inputs – outputs – outcomes and impact. Taking this approach is not the same as developing a Theory of Change 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 which provide WASH funding, specifically to contribute towards the funding of water points, is in effect an outcome in the ToC which then provides higher value inputs. The WSSSRP II Logframe provides a refined articulation of the process steps, though still has the achievement of this objective early in the program:
Nonetheless, UNICEF actively considered these during annual work plan meetings and routine monitoring visits to the states and local government areas where the program 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 program sets out levels of accountability for itself and partners clearly.

The program's logical frameworks provided a line of accountability and results, from delivery frameworks which dovetailed 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, and 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 implementation of program activities promptly, and UNICEF 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

4.2A. Accountability vis-à-vis expected Outputs

4.2.1: What is the level of achievement of expected Outputs of the programme

This section provides an assessment of whether the intended results of the program at Output and Outcome levels have been achieved, and why.

With respect to the Theory of Change and Evaluation Questions, the independent evaluation has made an assessment of results achieved vis-à-vis expected Outputs and Outcomes agreed within the Results Framework (Logframe) of the Program. Effectiveness of the WASH Program varied across outputs and across projects. Effectiveness was highest for access to an improved water source (>100% of target) and lowest for establishment of WASH departments (60% of target).

In the absence of a specific question in the ToR dedicated to the assessment of Outputs, the evaluation team has introduced a new subsidiary question, E1A, as below:

**Evaluation Question E1A: To what extent has the WASH Program been effective in achieving expected Outputs and reaching targeted beneficiaries?**

Effectiveness of the WASH Program varied across outputs and across projects. Effectiveness was highest for access to an improved water source (>100% of target) and lowest for establishment of WASH departments (60% of target).

The WASH Program has achieved; >100% of target in terms of the number of beneficiaries gaining access to an improved water source, 85% of the target in the number of people accessing improved sanitation, 79% of the target for schools having improved sanitation, 70% of the target for access to an improved water source in schools and 60% 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 was highest in the NDSP and WSSSRP 2 projects.

**Assessment of Expected Beneficiaries for access to improved Water Sources**

The WASH Program is a combination of projects including four funded in partnerships by EU, DFID, UNICEF and the Government of Nigeria, comprising different logframes with many Outputs and targets.

According to data from program management and monitoring, WASH program has successfully achieved high performance of 126 % of the target of 12.1 million of beneficiaries gaining access to an improved water source. In total 13.0 million people have benefited from access to a new or rehabilitated water point during the 2014-2019 period in 7 states according to data from WASHIMIS. High performance has been achieved within the projects of WSSSRP 2 (150% of target) and WSSSRP 3 (102 % of target), while SHAWN II achieved a satisfactory performance, reaching 88% of the target. Regarding water in schools, against the initial target of 4,178 schools, the WASH program ensured access to an improved drinking water source for 2,930 schools, which represents 70.1 % of the target.
### 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

<table>
<thead>
<tr>
<th></th>
<th>SHAWN II</th>
<th>WSSSRP 2</th>
<th>WSSSRP 3</th>
<th>NDSP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>End-date</strong></td>
<td>March 2020</td>
<td>2019</td>
<td>2019</td>
<td>2020</td>
</tr>
<tr>
<td><strong>Data Source</strong></td>
<td>August 2019</td>
<td>Mar/Apr 2019</td>
<td>31 March 2019</td>
<td>30 April 2019</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Achieved (%)</td>
<td>Target</td>
<td>Achieved (%)</td>
<td>Target</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td>9.5m</td>
<td>9.3 m (98)</td>
<td>1.5m</td>
<td>2.2m (150)</td>
</tr>
<tr>
<td><strong>Sanitation</strong></td>
<td>9.5m</td>
<td>12.0 m (126)</td>
<td>2.7m</td>
<td>2.1m (80)</td>
</tr>
<tr>
<td><strong>School Sanitation</strong></td>
<td>3500</td>
<td>2,789 (79.6)</td>
<td>510</td>
<td>413 (81)</td>
</tr>
<tr>
<td><strong>School Water</strong></td>
<td>350</td>
<td>347 (99)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WASH Departments</strong></td>
<td>104</td>
<td>71%</td>
<td>20</td>
<td>13%</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th></th>
<th>SHAWN II</th>
<th>WSSSRP 2</th>
<th>WSSSRP 3</th>
<th>NDSP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Previous End-date</strong></td>
<td>31 December 2017</td>
<td>31 December 2017</td>
<td>1 May 2017</td>
<td>November 2017</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Achieved (%)</td>
<td>Target</td>
<td>Achieved (%)</td>
<td>Target</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td>7,000,000</td>
<td>6,770,000 (96.71)</td>
<td>1,000,000</td>
<td>944,537 (94.45)</td>
</tr>
<tr>
<td><strong>Sanitation</strong></td>
<td>7,000,000</td>
<td>8,000,000 (114.29)</td>
<td>2,000,000</td>
<td>2,463,000 (123.15)</td>
</tr>
<tr>
<td><strong>School Sanitation</strong></td>
<td>3,500 schools</td>
<td>1,152 (32.91)</td>
<td>-</td>
<td>234 schools</td>
</tr>
<tr>
<td><strong>School Water</strong></td>
<td>200 (2013 target)</td>
<td>600 (2019 target) schools</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Blanks cells, where not otherwise explained, indicate either that data was neither applicable nor available in the reviewed reports.
Assessment of Expected Beneficiaries for access to improved Sanitation Facilities

Performance of the program with respect to sanitation was satisfactory. In total 15,600,000 people benefited from access to improved sanitations facilities against an expected target of 11,400,000 (137%) as per Table 13. Regarding **Open Defecation** the achievement percentage achievement of number of communities declared ODF varied across the projects, ranging between 23% and 105% as of 2017, shown in Table 12.

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

<table>
<thead>
<tr>
<th>State</th>
<th>Target of Communities to be ODF by 2017</th>
<th>Achieved Number of Communities ODF as of 2017</th>
<th>% Achievement</th>
<th>Target of Population to be ODF by 2017</th>
<th>Achieved Number of Population ODF as of 2017</th>
<th>% Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHAWN II</td>
<td>9,000</td>
<td>9482</td>
<td>105.36%</td>
<td>7,000,000</td>
<td>7,910,000</td>
<td>113.00%</td>
</tr>
<tr>
<td>WSSSRP II</td>
<td>2,786</td>
<td>2,312</td>
<td>82.99%</td>
<td>3,000,000</td>
<td>3,260,254 (to July 2018)</td>
<td>108.67%</td>
</tr>
<tr>
<td>WSSSRP III</td>
<td>50% of communities certified ODF</td>
<td>514</td>
<td>23% of communities certified ODF</td>
<td>1,000,000</td>
<td>244,169</td>
<td>24.42%</td>
</tr>
<tr>
<td>NDSP</td>
<td>640</td>
<td>379</td>
<td>59.22%</td>
<td>ODF not extrapolated to population level in reporting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>(targets not comparable)</td>
<td>12,687</td>
<td>n/a</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

Based on periodic progress reports delivered to donors, the Program has achieved mixed results in system strengthening and capacity development for WASH Sector at State, LGA and community levels.

Against a target of 147 WASH departments to be established, only 88 (59.9%) have been established.

In total 23,865 WASHCOMs have been established and are functional as shown in Table 13.
### Table 13: WASHCOMs formed 2014-2019 (unless otherwise indicated) by state

<table>
<thead>
<tr>
<th></th>
<th>SHAWN II</th>
<th>WSSSRP II</th>
<th>WSSSRP III</th>
<th>NDSP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Target</td>
<td>Achieved</td>
<td>Target</td>
<td>Achieved</td>
</tr>
<tr>
<td>Akwa Ibom</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Anambra</td>
<td>WASHCOM creation not disaggregated by state under annual reporting.</td>
<td>Not reported</td>
<td>530</td>
<td>-</td>
</tr>
<tr>
<td>Bauchi</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Benue</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ekiti</td>
<td>-</td>
<td>-</td>
<td>536</td>
<td>149</td>
</tr>
<tr>
<td>Jigawa</td>
<td>WASHCOM creation not reported</td>
<td>918</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Katsina</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>1624</td>
<td>1400</td>
<td>1049</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>19000</td>
<td>2449</td>
<td>3072</td>
<td>1936</td>
</tr>
</tbody>
</table>

### 4.2.2: Why-How: What factors enabled or undermined program implementation fidelity?

Timely release of counterpart funds, improved planning and monitoring, building of political will and collaboration with the Education and Health sectors enabled implementation fidelity. 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.

Funds were used well and the Program approach was cost effective. The timely release of counterpart funds supported implementation in some states while delays with these funds impeded implementation in others. Planning and coordination of activities at state and LGA levels by UNICEF enabled fidelity and in combination with improved routine monitoring ensured activities were kept on track. Building political will at local levels and provision of support to local implementation through regular monitoring and mentoring visits from LGAs helped ensure fidelity. Collaboration with state level education boards and Primary Healthcare Development Agencies helped ensure fidelity of program implementation in relation to provision of institutional water and sanitation.

Competing demands on the time of staff seconded to WASH units impeded implementation, as did unrealistic or unmet needs at community level. The perception that WASHCOM volunteers were paid

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

55 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”.

56 WASHCOMs formed under SHAWN Phase 1 included under this figure.
to promote particular behaviors and the expectation of payment on by WASHCOM members impeded implementation in some communities.

Several factors enabled fidelity to the program design in implementation. Overall, the evaluation found that available funds were utilized judiciously, coupled with a cost-effective approach.

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. However, in Bauchi state, the funds were inadequate to procure water supply services at once in all assisted communities in the selected LGAs and made government to 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, with fear of raised expectations being their major concern, as voiced by Toro LGA WASH coordinator.

The provision of funds needed for the RUWASSA activities especially in Bauchi and Jigawa states has been relatively adequate, for example, the budgetary provision in Bauchi, was about 7 billion Naira, over the years under evaluation. However, the same cannot be said of Akwa Ibom RUWASSA that did not receive any capital support from the State Government in the last four years of the program. The state depended on the funding by the EU and UNICEF.

State program counterpart funding and local government operational funds contributions were available in a timely manner as exemplified in in Bauchi and Jigawa states. In addition, Bauchi and Jigawa states’ government supported the sanitation uptake through the promotion of sanitation upgrading support structures, such as sanitation pool funds in Bauchi state, and Adashe thrift system in both Bauchi and Jigawa states. However, the state counterpart contributions in Akwa Ibom state were held up, and the first payment was not made until 2016, delaying hardware provision in beneficiary communities.

At State government and LGA level, their cooperation in the payment of counterpart and operational funds contributions respectively to support the construction of water facilities in communities and of WASH facilities in public institutions and spaces. However, counterpart payments were delayed in Akwa Ibom State from 2014 until the payment of the first tranche in 2016 which paved the way for the procurement of works. This had implications on morale and created feelings of apathy within communities. In addition, the Akwa Ibom State government provided all the funding which may have had implications on ownership. Furthermore, structured reforms of State and LGA institutions to support WASH program implementation included the establishment, and annual budget appropriation of RUWASSA at State level and local-level WASH Units and Departments. However, where local government WASH Units (rather than departments) were established, such as in Akwa Ibom and Bauchi states, staff deployed to support program implementation exhibited divided loyalty to WASH and the programs of their parent departments.

Development of annual work plans, and their implementation by State RUWASSAs and LGAs WASH Departments/units have ensured the monitoring of program activities, towards the achievement of outcomes/objectives. Local government annual plans are harmonized with state annual plans to ensure the program is kept ‘on track’. UNICEF looks at achievements against log-frames and identifies areas for future focus.
Routine monitoring by the LGA WASH Department/Units, and by the VHPs, has been one of the strategies that enabled program fidelity, evinced from FGDs with WASHCOMs in Akwa Ibom, Bauchi and Jigawa states. In Jigawa state, interest is regular to the WASH Departments, while in Bauchi state, RUWASA disburses N100,000 every month to Coordinators of SHAWN assisted LGAs. However in Akwa-Ibom, for at LGA level for routine monitoring is irregular, and at the discretion of the LGA chairperson.

Qualitative opinion of respondents:
- ‘we have not received any money from the LGA administration for four months and have been monitoring the program 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 program level activities, including monitoring to sustain ODF achieved in the LGA’ WASH Coordinator, Dass LGA.

Community acceptance and support for the program, cohesion and sense of ownership alongside the involvement of traditional rulers in the states, and strong political will for cooperation and convergence among WASH MDAs at state and local government levels.

Frequent but systematic LGA WASH Department/Unit staff and WASHCOM Federation monitoring visits to communities facilitated sanitation uptake and improved hygiene behavior. The collaboration of LGA WASH Department/Unit with partners from the health, education sectors, the private sector and civil society at the LGA level.

The recruitment and training of artisans as Local Area Mechanics have worked well as communities do not have to travel outside the LGA to access the services of technicians to repair dysfunctional water supply facilities.

The effectiveness of the VLOM strategy allowing people to access mechanics for repairs and maintenance, resulting in more effective and sustainable program implementation. This was aided by the community Information Voice Recording alert system, which ensured reduction in time taken to repair dysfunctional water supply facilities.

Through collaboration with the States’ Universal Education Boards and Primary Healthcare Development Agencies health workers and teachers have been enrolled to promote hygiene in health facilities and schools. However, schools run by religious institutions are not targeted through the program, which may undermine the effort to achieve full ODF in targeted LGAs.

At the local level, participating communities accepted the WASH program strategies and supported the achievement of its targeted results, and the involvement of community leaders (District Heads) contributed to achieving key results. Overall, the Program benefited from community cohesion, participation and sense of ownership. For example, in Dass LGA the Emir gave total support to the ODF status achieved by the LGA, ensuring that community structures supported its maintenance. The evaluation also found that the VLOM strategy worked well, providing people access to mechanics for repairs and maintenance and increasing the effectiveness and sustainability of program implementation. In particular, the program strategy to recruit and train artisans as Local Area Mechanics (LAMs) worked well, as communities do not have to travel outside the LGA to access the services of technicians to repair dysfunctional water supply facilities.
Partnership and collaboration contributed to the achievement of program results. Strategic collaboration with other partners in the WASH sector in participating areas, including health and education departments and the private sector, increased synergy in the delivery of the WASH program. The Medium-Term Sector Strategies (MTSS) coordinates the medium-term planning and reporting of all sectors, bringing together actors who work together to present a common strategy, such as WASH, education and health. This was underpinned by awareness raising at community level on the links between WASH, health and poverty reduction. Accountability was enhanced by the clear documentation of roles and the responsibilities of each partner.

Factors that undermined program implementation included some unrealistic or unmet expectations at the community level. Many community members presumed that WASHCOM members were paid by the program to support the elimination of open defecation, and some of the members themselves expected incentives, especially given that another program paid its volunteers. Delays in obtaining ODF certification in Akwa Ibom also dampened spirits and caused communities to lose interest in the notion of being ODF. Other factors, and responses to them, are expanded in section 5.5 below.

4.2.3 To what extent were implemented activities consistent with program design?

Implementation strategies as described in routine program reports were consistent with program design.

Annual workplans at state level were used as a management tool to help ensure consistency with program design. These were supported with tailored capacity building activities at all levels.

The program was designed to provide safe water, basic sanitation and hygiene facilities in communities, including public schools and public healthcare facilities. While the provision of WASH in public places, such as markets and motor parks, was in collaboration with private sectors, also WASH emergency response was facilitated to all types of users with attention to gender, equity and inclusiveness.

The evaluation found that implementation strategies were consistent with the program design and that annual workplans at state level were used to ensure implementation was consistent with program design. All implemented activities came from these workplans. There was evidence that community-level WASH activities were facilitated by the local government as a result of the program support at the state and LGA levels. There were capacity building activities at various levels provided by the WASH facilitators, which strengthened the performance of duty bearers at all levels. There was also evidence of continuous supervision, monitoring and mentoring by relevant state and local government institutions to ensure the delivery of sustainable results at the community level, though this aspect faced several challenges.

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

Qualitative opinion of respondents: ‘inclusiveness is mainstreamed in the design of new latrine constructions in schools and public places, while those rehabilitated do not include ramp and rail for easy use by challenged citizens’ WASH Coordinator, Toro LGA.
4.2.4 To what extent did key program stakeholders have a clear understanding of their respective roles and responsibilities?

Respondents at all levels were able to clearly articulate the aims of the program 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 programs and review meetings. At LGA level roles and responsibilities were understood but funds were not always provided consistent with these. At community level the roles and responsibilities of WASHCOMs 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 program, in ways consistent with the program design.

At State level, WASH facilitators were expected to assist the State to plan and implement the program, while the State RUWASSA agency would facilitate the annual work plan based on inputs from LGA WASH units or departments, 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’s Departments and Agencies (MDAs) to ensure convergence. Key Informant interviews in Akwa Ibom verified that the RUWASSA staff felt that their roles and responsibilities are clear and they have a good understanding of what they should do on the program, on the condition where funds do not constitute an impediment; besides, WASH roles and responsibilities are clearly stated in policies, project implementation documents and emphasized during training programs and review meetings.

State governments in Jigawa and Bauchi states provided counterpart funding as per their approved annual budgets. Human capacity to implement the program has been built in several thematic areas, though staff in the Bauchi RUWASSA reduced from over 200 in 2009 to 95 in 2019. The General Manager explained: “… there is a shortage in the number of staff … those in the Agency, at the LGAs WASH units and community level, are adequately trained, but they are not adequate.”

At local government level, the WASH Coordinator was expected to harness human resources to support the WASH program and collaborate with the LGA WASH facilitators and state RUWASSAs to coordinate water supply, maintenance, sanitation and hygiene sub-programs to ensure synergy and results. The LGA WASH Department or Unit facilitates community-level implementation of WASH activities, with support from the WASH facilitators and RUWASSA, with periodic coordination clinics to review progress and set achievement milestones.

LGAs understood, but shirked at, their role in providing funds for logistics to sustain WASH Departments and Units. Evidence showed that LGA counterpart operational funds for WASH for LGAs under the SHAWN II project are 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 access technical support where needed, early identification of issues and provision of timely support to resolve them, and monitoring of the various program activities including budget, construction and CLTS processes and procurement.

At the community level, the WASHCOM links the WASH Unit to the community. Whilst 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 and aligned with the program over several workshops and meetings and documented in WASHCOM minutes. The overall picture was that WASHCOM officers, other WASHCOM members, and volunteer hygiene promoters, understood their roles and responsibilities as individuals and collectively.

For example, the Maiso WASHCOM Chairman, from Birniwa LGA in Jigawa State commented that:

“… 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.”

By contributing N50/month/HH for O&M of water facilities. In Bauchi state, the voice of the WASHCOM Chairman revealed:

“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”

Communities are solely responsible for providing household latrines, for 100% of costs and their upgrading up the sanitation ladder. Community members, through WASHCOM are responsible for the costs of operation and maintenance of community water facilities. Community contributions were defined in different ways. Some communities agreed with their WASHCOM for households to contribute a fixed regular amount to support water related O&M services in their communities (such as in Ikot Imo community in Akwa Ibom state), while others implemented a pro-poor strategy where poorer households and widows only pay what they could afford. Other communities agreed that households would only contribute when water supply facilities breakdown or on emergencies with their community water facilities. In some other instances, wealth and elected office holders were contacted to help with financing repairs, if the costs were beyond the immediate capacity of WASHCOM, or/and the community concerned.

There were a number of challenges and disagreements regarding the management of community contributions. For example, in Ibiakpan Nsit community (Akwa Ibom State) members disagreed on the management of the WASH program in their community, even in the presence of the evaluation team members.

4.2.5 To what extent were key program 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 program’s principal activities were managed effectively in the states, local governments and community-levels by the various management structures, including RUWASSA, WASH Department/Unit, WASHCOM, VLOM and LAM respectively. Activities and support mechanisms were functional as intended by the program. This is evident in the results and achievements, some of which were observed during site visits.
a) Institutional strengthening and capacity building

Capacity building was documented as a cardinal activity, at state, local government and community levels. The program designed need-based trainings to build the capacity of WASH officers at all levels to deliver service at the lower level for sustainable service delivery. The capacity building activities span national, state, local government and community level trainings, which incorporated post training milestones to put into practice the learnings, and report on achievements in review meetings. This also made key program stakeholders confident in implementation after having a clear understanding of their roles and responsibilities. The qualitative evaluators observed this in the responses arising from questions asked program stakeholders at all levels of the evaluation. For instance, WASHCOM understood their roles and responsibilities not only as executive members but at the management level to ensure the sustainability of WASH facilities in their communities.

There was also a good knowledge of the program strategies and expected output and outcomes. This included identifying and training of WASHCOMs and females as VHPs. The community is aware of program expectations in terms of the community reaching ODF status and diligently pursued. Also, the primary healthcare patients and school WASH facility users in all the communities visited. This was assisted immensely by the activities of Voluntary Hygiene Promoters (VHPs) and WASHCOM Federations, who pay routine visits respectively to allocated households for monitoring and mentoring, and to all communities.

b) Payment of Government program counterpart funds

The state governments in Bauchi and Jigawa states paid the program counterpart contributions promptly, mainstreamed in the RUWASSA budgets. There was timely release of budgeted funds for program implementation but not in Akwa Ibom state where funds were released in 2016, well after the program commenced in 2013. The Government, through RUWASSA also provided the required technical and logistic support through prequalification of PSP service providers, to preparation of bidding documents, tenders, tenders evaluation, award of contracts and monitoring the quality of service delivery. The LGAs WASH Department, and units facilitate and monitors implementation in the communities.

State governments provided technical support and logistics, and counterpart funding, through the appropriate ministry, department, or agency. In Jigawa State, the Ministry of Local Government released running funds to the WASH Department. In Bauchi, the state RUWASSA released funds to WASH units in SHAWN II assisted LGAs on a monthly basis, while there was no routine financial support for LGA WASH Units in Akwa Ibom State.

LGAs, through their WASH departments or units, facilitated and monitored implementation in the communities. Community WASHCOMs were involved in implementation creating greater ownership and sustainability. The program provided water facilities and sanitation in health centers, schools and public places through contracts.

c) Procurement of safe water supply facilities

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 has 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. The support systems have continuously been sustained and working because the plans were followed judiciously. This is evident in the results and achievements, some which were observed during transect. All the communities intervened or have one form of functional safe water source or the other. The community WASHCOMs were involved during implementation leading to ownership and sustainability. The Private Sector provided the water facilities and public latrines through contract.
d) Sanitation facilities

All HHs, PHC facilities and Schools in the evaluation communities in Birniwa and Gamawa LGAs in Jigawa state and those in Dass LGA in Bauchi state had functional and hygienic latrines with handwashing facilities. There was no OD seen anywhere in the area. We were also informed that several households had benefitted from the sanitation pool fund loans, and Adashe support system to upgrade initial sanitation facilities in their households.

Key activities have been moderately managed in the communities as planned and this was evident in the program results and achievements in the area of water, sanitation and hygiene services coupled with capacity building, healthier living and poverty reduction.

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

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 were several specific barriers that hindered successful implementation of envisaged activities. These included; failure of states to implement WASH policy to establish WASH departments in place of WASH units, lack of finance provided to the WASH units by the LGAs, lack of staff within state-level RUWASSAs to provide adequate support to LGAs and slow release of counterpart funding. There were also more localized problems which included; 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 household level were also identified as challenges.

Section 5.1 mentions several factors that enabled program implementation and sanitation results, including timely state funding and community acceptance and support. Qualitative findings also pointed to several factors which hindered program implementation. These are outlined below.

a) Inadequate enabling environment and appropriate WASH Institutions at LGA level

The partial implementation of the 2011 National WASH policy, domesticated by Bauchi state government in 2011 led to the establishment of WASH unit, rather than WASH departments in 20 LGAs in Bauchi state (pronounced by the state government, but implemented by LGA administrations in Bauchi state). The partial implementation, which may have arisen because of the absence of a regulatory instrument and political will in the state hierarchy of authority. Staff were deployed from other departments and performs required duties. The number of staff members in WASH units in SHAWN assisted LGAs ranging from 37 in DASS LGA to 40 in Toro LGA when compared to WASH units of other LGAs lacking support from the SHAWN program in Bauchi state.

In Bauchi state, the WASH Policy was reviewed in 2019, with implementation guidelines, though awaiting executive approval to come into force. The Bauchi state ministry of justice is currently processing the WASH sector law for legislative approval. However, Akwa Ibom State has no enabling WASH policy, implementation guidelines or Water Law. UNICEF has contributed in varying degrees across the target states to draft WASH regulatory instruments but has not been able to get State executives to approve WASH policy or get the draft WASH law processed through the State house of assembly.
b) Constitution of WASH Units in Project LGAs in Akwa Ibom state

The WASH Units were established, under the Department of Works in the LGA in project recipient LGAs of Nsit Atai and Obot Akara in 2017 in Akwa Ibom state with no statutory budgetary allocation, but at the mercy of the LGA administrations. The interaction with stakeholders at the state RUWASSA, Obot Akara and Nsit Atai WASH LGAs revealed that the WASH Unit was an ad-hoc arrangement to satisfy donor requirement and draws staff from all departments in each of the NDSP LGAs in the state. The team have their primary responsibility in their parent department and are borrowed periodically to service their primary functions. This arrangement is not sustainable and may dissolve with the program when UNICEF WASH support to Akwa-Ibom state government ends.

c) Financing WASH in LGA institutions

In Bauchi state, the WASH Units in SHAWN LGAs receives N100,000 every month to service their operational activities from the State RUWASSA, while routine support from the LGA administration was occasional and poor. In the spirit of decentralisation of WASH responsibilities. It is an anomaly that the state will be funding program at LGA directly through RUWASSA, and not through routine disbursement through the local government service commission. It is not good, but is a temporary solution to solve the routine monitoring of WASH assisted program finance when the LGAs were non-responsive and non-committal to their responsibility to the program.

In addition, the WASH units in Akwa Ibom state do not receive any allocation from any quarters, except project funds directed to implement target WASH activities. The evaluation also concluded that the logistic support expected from the LGA was irregular and depended on the discretion of the LGA administration. The WASH Coordinator at Obot Akara in Akwa Ibom said, they have not received any form of logistic support from the LGA for the previous four months before the evaluation and have been monitoring CLTS in triggered communities with money from their monthly salaries. WASH Units function with program 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.

One of the main challenges for WASH Units is that they have no programmatic/budgeted funding support. This is a key indication of poor political support for the program by the local governments. The lack of planned support also extended to the provision of staff for WASH Units. As an example of this in 2017, in Akwa Ibom state, WASH Units were only established in LGAs participating in the program (Nsit Atai and Obot Akara). This was an ad-hoc arrangement that drew staff from all departments in the LGA, an arrangement which is not sustainable and may dissolve when UNICEF WASH support to Akwa Ibom State Government ends.

Slow release of counterpart funding was also raised as a hindrance to implementation.
d) Inadequate capacity by RUWASSA to support program 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 program was being implemented in 12 LGAs, and RUWASSA has 95 staff members, a reduction from about 200 at inception. Therefore, providing the necessary support to these LGAs has become more challenging vis-à-vis other responsibilities to LGAs not participating in SHAWN. In Akwa Ibom state, RUWASSA lacked financial ability due to non-release of appropriated budgetary provisions, and therefore could not adequately support WASH program in the state. In Bauchi state, the 95 staff members support 20 LGAs, not just 12 SHAWN assisted LGAs. The GM-Bauchi RUWASSA said:

‘…the staff at the agency is dropping from over 200 to 95 currently…’

The GM, Bauchi state RUWASSA cited the case of many staff retiring, some dead without replacement, as the reasons and therefore, many of their activities suffer but being helped with trained staff members at LGA WASH Unit level.

The late payment of state and local government counterpart contributions in Akwa Ibom state.

The state counterpart contribution was not paid at inception, and the first payment was made by the state government, for the state and local government contributions in 2016; which delayed the provision of water supply in communities and institutions; and sanitation in institutions and markets in beneficiary communities.

e) Lack of repair tools for additionally trained LAMs in Bauchi state

Another factor was the lack of repair tools for additionally trained LAMs in Bauchi state and effective system for ensuring commensurate compensation for LAMs based on service provided. All the program provided water supply facilities in Akwa Ibom were motorized while 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/stockiest of genuine spare parts were only supplied seed spare parts for handpump boreholes after their training, by the donor, and had to source spare parts from the state RUWASSA and the private sector with difficulty and variances in costs for motorized boreholes. 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 manners 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 program.

f) Wrong perception by community segments of incentives from government by WASHCOM members

There were issues in some communities around what community members expected with regard to incentives from the program. In some communities visited it was reported that households 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 programs provided payment for similar efforts. This made WASHCOM members less motivated to perform their duties on a purely voluntary basis.
g) Agitation by youths for financial compensation by contractors during construction of WASH facilities

In some communities in Akwa Ibom state, the local youth population pressured, sometimes with threat of violence, for the payment of access fees before contractors could provide water and sanitation facilities.

h) 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 that time.

i) WASH practices are challenging to change particularly in combination with poverty

Though not an implementation issue, it was also noted that long-held beliefs and practices relating to hygiene and sanitation can prove difficult to change in the short-term and that poverty slows the uptake of improved sanitation by households.

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

There may be a case for review and strategic decisions to be taken regarding future activities to work towards the establishment of WASH departments and supporting 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.

There may be a case for review and strategic decisions to be taken regarding future activities to work towards the establishment of WASH departments and support for the continued existence and development of a permanent, WASHCOM federal structure. If deemed critical, advocacy for WASH departments may need to be intensified while WASHCOMs may need increased levels of support and greater efforts to ensure transparency at local level. Implementation activities might be withheld until counterpart funds are committed to ensure timely payment. Behaviour change communication materials relating to hygiene promotion might be revised and strengthened and the combination of more affordable sanitation products with increased availability of financing might speed uptake of improved sanitation.

In this section we outline some possible routes to addressing specific barriers identified. 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 sustainability of the program 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.

- Require commitment and establishment of WASH departments prior to the onset of implementation support in each state.
- Increase the intensity and effectiveness of advocacy and capacity building activities to build the necessary political commitment for establishment of WASH departments. Explore the possibility of using state or national level mass media as a tool for building political will.
- Explore ways to ensure adequate budget and staffing for WASH without the necessity of establishing WASH departments, perhaps by requiring the commitment of agreed levels of staffing from other departments and including this provision in annual reviews of department performance.
- Explore ways to reduce the responsibilities of WASH units (and the resources required of these units), for example by giving statutory responsibility for WASH facilities in schools and health centers to the education and health sectors.

Slow release of counterpart funding was in some cases compensated for by the use of other funding from within the program 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 and 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 WAHSCOMs are paid agencies both threaten the sustainability of the WASHCOM structure. This structure has been a central part of the program, 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 upgrading of household 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 program. 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 to some extent 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 household-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 program’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 raining season steps were taken to adjust the timing of activities, and to introduce appropriate latrine options for collapsing soils.

4.2B. Accountability vis-à-vis expected Outcomes

4.2.8 To what extent have intended results at the outcome level been achieved and why?

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% 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. Household 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 Program. Secondary data sources also provided some evidence of an increase in access to improved sanitation though this was not consistent across all 7 states. The household survey data collected for the current evaluation showed a mixed picture, with an increase in household sanitation in 4 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 centres, Akwa Imon, 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.
4.2.9. Assessment of WASH Program expected Outcomes using Secondary Data from Household Survey (NDHS)

Evaluation Question E7: To what extent have intended results at outcome level been achieved and why/why not?

a) Effectiveness of WASH Program for Access to improved drinking water sources

Secondary data from the NDHS and WASH Norm surveys revealed a mean overall increase of 25% with respect to access to an improved drinking water source during period 2013-2018 in the 7 states of the Program but with notable differences between states and a range from 11% to 49%. The increase would be consistent with an effect of the Program, though a causal link is not demonstrated by the data and, in view of the similar trend seen in data for Nigeria nationally, a secular trend cannot be ruled out. The improvement was very high in two states, Bauchi (49% of increase from 39.9% in 2013 to 78.7% in 2018) and Benue (from 38.4% in 2013 to 60.4% in 2018).

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

<table>
<thead>
<tr>
<th>State</th>
<th>NDHS 2008</th>
<th>NDHS 2013</th>
<th>NDHS 2018</th>
<th>WASH NORM Survey 2018</th>
<th>% increase 2013-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>64.8</td>
<td>70.1</td>
<td>77.3</td>
<td>78.7</td>
<td>10.9</td>
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<td>Anambra</td>
<td>66.7</td>
<td>74.7</td>
<td>78.5</td>
<td>95</td>
<td>21.4</td>
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<td>Bauchi</td>
<td>35.8</td>
<td>39.9</td>
<td>62.5</td>
<td>78.7</td>
<td>49.3</td>
</tr>
<tr>
<td>Benue</td>
<td>47.0</td>
<td>38.4</td>
<td>73.1</td>
<td>60.4</td>
<td>36.4</td>
</tr>
<tr>
<td>Ekiti</td>
<td>62.9</td>
<td>77.8</td>
<td>80.2</td>
<td>88.5</td>
<td>12.1</td>
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<td>Jigawa</td>
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<td>74.4</td>
<td>83.2</td>
<td>89.9</td>
<td>17.2</td>
</tr>
<tr>
<td>Katsina</td>
<td>38.0</td>
<td>49.3</td>
<td>63.6</td>
<td>66.9</td>
<td>26.3</td>
</tr>
<tr>
<td>Nigeria</td>
<td>55.9</td>
<td>59.6</td>
<td>66</td>
<td>73.4</td>
<td>18.8</td>
</tr>
</tbody>
</table>

b) Effectiveness of WASH Program with respect to Access to Improved Sanitation

Question E9: What is the effect of the WASH Program on access to improved sanitation in target communities?

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 households having access to improved sanitation in the period 2013 – 2018, with little change evident in the 5 years prior to the Program (2008-2013). These results are consistent with a positive effect of the Program. Bauchi state again showed the greatest increase (67.4%), with Ekiti state second (63.2%) and Benue third (50.8%). Jigawa however, showed no change during the period 2013-2018 and a slight (3.4%) decline overall from 2008. Katsina also showed a decrease 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.
Table 15: Percentage (%) of households having access to Improved Sanitation per State of the Program from 2008 to 2018

Figure 11: Percentage of HH population members who have access to Improved Sanitation Facilities from 2008 to 2018 per State of WASH Program

<table>
<thead>
<tr>
<th>State</th>
<th>NDH S 2008</th>
<th>NDH S 2013</th>
<th>NDH S 2018</th>
<th>WASH NORM Survey 2018</th>
<th>% increase 2013-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>39.0</td>
<td>40.7</td>
<td>88.3</td>
<td>62.1</td>
<td>34.5</td>
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<td>Bauchi</td>
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<td>Benue</td>
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<td>30.9</td>
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<tr>
<td>Ekiti</td>
<td>16.7</td>
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<td>49.7</td>
<td>50</td>
<td>63.2</td>
</tr>
<tr>
<td>Jigawa</td>
<td>21.8</td>
<td>51.0</td>
<td>17.9</td>
<td>18.4</td>
<td>-3.4</td>
</tr>
<tr>
<td>Katsina</td>
<td>47.0</td>
<td>45.8</td>
<td>39.3</td>
<td>85.4</td>
<td>46.4</td>
</tr>
<tr>
<td>Nigeria</td>
<td>27.0</td>
<td>34.0</td>
<td>53.4</td>
<td>57.4</td>
<td>40.8</td>
</tr>
</tbody>
</table>

4.2.10. Assessment of WASH Program Expected Outcomes using Evaluation Primary HH Survey Data by LGAs

a) Comparison of access to improved drinking water sources between treatment group and control group LGAs\(^57\)

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

<table>
<thead>
<tr>
<th>State</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>75.3</td>
<td>85.8</td>
</tr>
<tr>
<td>Anambra</td>
<td>95.1</td>
<td>90.6</td>
</tr>
<tr>
<td>Bauchi</td>
<td>87.7</td>
<td>96.7</td>
</tr>
<tr>
<td>Benue</td>
<td>80.2</td>
<td>80.6</td>
</tr>
<tr>
<td>Ekiti</td>
<td>94.5</td>
<td>98.6</td>
</tr>
<tr>
<td>Jigawa</td>
<td>97.3</td>
<td>97.3</td>
</tr>
<tr>
<td>Katsina</td>
<td>97.3</td>
<td>93.4</td>
</tr>
</tbody>
</table>

\(^{57}\) Table populated with data from survey data based on ‘QM6. Are you usually able to get water from this source whenever you need it?’
b) Comparison of access to improved sanitation facility between treatment group and control group LGAs

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

<table>
<thead>
<tr>
<th>State</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>54.6</td>
<td>53.3</td>
</tr>
<tr>
<td>Anambra</td>
<td>59.8</td>
<td>71.7</td>
</tr>
<tr>
<td>Bauchi</td>
<td>33.1</td>
<td>35.8</td>
</tr>
<tr>
<td>Benue</td>
<td>35.2</td>
<td>18.4</td>
</tr>
<tr>
<td>Ekiti</td>
<td>46.8</td>
<td>27.1</td>
</tr>
<tr>
<td>Jigawa</td>
<td>22.4</td>
<td>8.9</td>
</tr>
<tr>
<td>Katsina</td>
<td>27.4</td>
<td>32</td>
</tr>
</tbody>
</table>

4.2.11. Assessment of WASH Program Expected Outcomes in School & Health Facilities using Quantitative Data from Evaluation School Survey and Health Facilities Survey

a) Comparison of Students Access to improved drinking water sources between treatment group and control group LGAs

Table 18: Comparison of Students access to improved drinking water sources between treatment group and control group LGAs

<table>
<thead>
<tr>
<th>State</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>88.8</td>
<td>83.6</td>
</tr>
<tr>
<td>Anambra</td>
<td>97.2</td>
<td>93.8</td>
</tr>
<tr>
<td>Bauchi</td>
<td>83.2</td>
<td>94.0</td>
</tr>
<tr>
<td>Benue</td>
<td>84.9</td>
<td>80.0</td>
</tr>
<tr>
<td>Ekiti</td>
<td>100.0</td>
<td>85.7</td>
</tr>
<tr>
<td>Jigawa</td>
<td>95.9</td>
<td>85.4</td>
</tr>
<tr>
<td>Katsina</td>
<td>100</td>
<td>95.9</td>
</tr>
</tbody>
</table>

58 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

59 Table populated using survey data. "Improved drinking water sources" has been aggregated from all responses to QW1 ("what is the school’s main water source?") excluding unprotected well, unprotected spring and surface water
b) Comparison of Students access to improved sanitation facility between treatment group and control group LGAs

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

<table>
<thead>
<tr>
<th>State</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>84.4</td>
<td>68.2</td>
</tr>
<tr>
<td>Anambra</td>
<td>90.0</td>
<td>86.0</td>
</tr>
<tr>
<td>Bauchi</td>
<td>66.3</td>
<td>72.0</td>
</tr>
<tr>
<td>Benue</td>
<td>88.5</td>
<td>50.0</td>
</tr>
<tr>
<td>Ekiti</td>
<td>69.4</td>
<td>56.8</td>
</tr>
<tr>
<td>Jigawa</td>
<td>25.0</td>
<td>53.1</td>
</tr>
<tr>
<td>Katsina</td>
<td>77.6</td>
<td>48.0</td>
</tr>
</tbody>
</table>

c) Comparison of Health Workers/Patients Access to improved drinking water sources between treatment group and control group LGAs

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

<table>
<thead>
<tr>
<th>State</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>90.5</td>
<td>82.0</td>
</tr>
<tr>
<td>Anambra</td>
<td>93.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Bauchi</td>
<td>91.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Benue</td>
<td>100.0</td>
<td>86.0</td>
</tr>
<tr>
<td>Ekiti</td>
<td>83.8</td>
<td>87.9</td>
</tr>
<tr>
<td>Jigawa</td>
<td>100.0</td>
<td>94.0</td>
</tr>
<tr>
<td>Katsina</td>
<td>88.4</td>
<td>12.5</td>
</tr>
</tbody>
</table>

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60 Table populated using survey data. ‘Improved sanitation facility’ includes all responses, excluding pit latrine without slab, hanging toilet, dig and bury, and no facility.  
61 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.
d) Comparison of Health Workers/Patients access to improved sanitation facility between treatment group and control group LGAs

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

<table>
<thead>
<tr>
<th>State</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>97.6</td>
<td>98.0</td>
</tr>
<tr>
<td>Anambra</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Bauchi</td>
<td>100.0</td>
<td>98.1</td>
</tr>
<tr>
<td>Benue</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Ekiti</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Jigawa</td>
<td>70.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Katsina</td>
<td>79.1</td>
<td>89.6</td>
</tr>
</tbody>
</table>

4.2.12. Assessment of WASH Program Expected Outcomes using Qualitative Information

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 Borehole (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 of 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 odor. Focus groups in all the communities (with WASHCOMs, VLOMs, community development organizations and community health center managers) asserted that WASH-related diseases had reduced.

TBOs in most communities reported being gainfully employed as a result of the intervention and LAMs earned income 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 do not have to travel far to fetch water for household 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 program”

---

62 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
GM, RUWASSA Bauchi state

“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.”

The Chief of Bagas, Dass LGA, Bauchi state

4.2.13 Causal Analysis – Explanations (WHY) of Expected Outcomes Achievement in 2014-2019

a) WHY WASH Outcomes have increased significantly in Some States

- Acceptance of the WASH support program by SHAWN II, as helping to advance the achievement of government responsibility to her citizens in Bauchi and Jigawa state, leading to budgeting and prompt payment of counterpart contributions for procurement and rehabilitation of works, establishment of LGA WASH Department (Jigawa state), WASH Unit (Bauchi state), with direct funding and allocation of monthly financial support to WASH units in program LGAs, respectively.
- The support of the Emir of Dass in Dass LGA, to the extent of the threat to remove community leader whose community regressed from ODF, to OD.
- The introduction of the sanitation pool funds (Bauchi state) and Adashe thrift, supported provision, uptake and upgrade of sanitation facilities in Bauchi and Jigawa states
- Increase in the number of staff deployed to assisted LGAs in Bauchi state, in contrast to non-assisted LGAs

b) WHY WASH Outcomes stagnation or decrease in Some States

- Non-payment of counterpart contributions in Akwa Ibom state
- Delay in the provision of water supply facilities in some communities in Bauchi state
- Delay in the training of WASHCOM, for as long as for 2 years prior to training and triggering through CLTS for open defecation free drive (Toro LGA in Bauchi state)
- Construction of latrines in difficult and hard to reach (Riverine, swampy, rocky terrains) communities in Akwa Ibom, Bauchi and Jigawa state

Multivariate analysis at state level of WASHIMS and household survey data

We have examined WASHIMS state level indicators for the enabling environment, as well as a proxy variable from our household survey (aggregated to state level) of “Main caregiver attendance at meetings” to offer a state-level measure of propensity for community engagement.

We have set these alongside, respectively, 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 a priori hypothesis that the enabling environment of ‘WASH policy’, ‘RUWATTSA by law’ and ‘LGA WASH’ structure combined with the household survey ‘engagement [QSDM4]’ could explain differences in the intervention effect at state-level.
The tables [see Annex F] 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 invariant 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 law, Investment plan, Implementing CLTS, M&E, VLOM, Donor funded) with the household survey ‘engagement [QSDM4]’. [ See Annex G] Five of these variables were invariant across states (indicating they have no explanatory power for our question), so we reduced the analysis to cover only the household survey ‘engagement [QSDM4]’ and the four WASHIMS variables that varied by state. [Annex H] We then analyzed these but saw the same indications as for our original hypothesis. 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 household survey, it is not possible to separate such effects from any effects that arise from the analytical assumption of the household 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 difference-in-difference analysis of the household data could not be carried out.

4.2.14 What is the effect of the WASH Program on improved handwashing in targeted communities?

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

Through workshops and campaigns, people are now more conscious of washing their hands with water and soap at critical times, such as before eating, after defecation or handling feces, before preparing food and before breastfeeding a baby. This includes several workshops conducted by UNICEF and other institutions, an annual handwashing campaign in Jigawa state to reinforce behavioral change on personal hygiene alongside an annual celebration of global handwashing day. In schools, good personal hygiene including handwashing has been reinforced with particular reference to handwashing with soap/ash under running water and the construction of ‘Tippy Taps’ in schools, health centers and households.

Several evaluation respondents noted the results and impacts of improved handwashing awareness and behaviors. The manager of Dass health centre noted that handwashing was compulsory for every patient, who were also made to understand the reason for washing hands at all times with soap and water. According to residents in all the communities visited for the evaluation, it has become common knowledge and practice to wash their hands at critical times, listed by both male and female focus group members without difficulty.

According to the UNICEF WASH facilitator at Birniwa LGA “The introduction of handwashing using tippy taps has not only helped in saving lives but also increased the consciousness in school and communities at large.” Equally, the Manager of the Dolenkwana health center and the Director of the Dass health center explained there were reduced incidences of diarrhea due to a synergy of WASH interventions and improved handwashing practices.
4.2.15 What is the effect of the WASH program on regular use of clean latrines in target communities?

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

We assessed the effect of the Program on regular use of clean latrines through two indicators, prevalence of open defecation and prevalence of clean latrines. The Program was associated with a 9% reduction in open defecation overall, but the pattern was not consistent across states. There was an apparent reduction in 4 states and an increase in 2 states. This pattern was similar when considering only school aged or only pre-school children. The majority of latrine floors were free from visible feces or urine and the evaluation found no difference between intervention and non-intervention areas in the respect. The qualitative evaluation saw examples of good and poorer quality latrines and heard reports from respondents of environmental improvements resulting from less open defecation.

We addressed this question by looking at the following two indicators; OD rates, as an indication of regular latrine use and absence of visible feces or urine on latrine floors as an indication of latrine cleanliness.

The evaluation used a number of questionnaire items to assess household latrine use, including self-report of usual place of defecation for household members, pre-school and school-aged children. Latrine type and cleanliness (if present) were assessed through spot-check observations.

Overall the program was associated with a 9% reduction in reported open defecation in intervention LGAs compared with non-intervention, but there were variations between sites and states. OD was lower in intervention LGAs compared with non-intervention LGAs in four states (Akwa Ibon, Benue, Jigawa and Ekiti), while in two states (Bauchi and Anambra) OD was higher in intervention LGAs and in one, Katsina, no difference was observed. This pattern was similar when considering only school age or only pre-school children (therefore these data are not shown). In intervention LGAs in Benue, Jigawa and Ekiti caregivers were more likely to report disposal of young children’s feces in a latrine, though in Bauchi this was less likely. The rates of OD reported for non-intervention LGAs in Bauchi state were considerably lower than other LGAs in the study and it may be that the poor results in Bauchi reflect differences at baseline rather than programmatic failure.

The evaluation found no overall effect of the program on the prevalence of clean latrine floors, although there were differences between states. The majority of latrine floors were clean, with the exception of the non-intervention LGAs in Bauchi and Katsina where the prevalence of a clean floor was slightly below 50%. In these two states, intervention LGAs showed a greater prevalence of clean latrine floors, although not as high as the prevalence in other states, even outside of the program.

Transect walks and assessment of toilets in a sample of households during visits to communities found latrines to be present and in use. Many of the latrines inspected (about 90%) were clean and attractive to use, while others were not safe to use at the time of inspection. Most inspected latrines had drophole covers and some had tippy-tap handwashing facilities. Latrine upgrading was reported in several communities, as a means of moving up the sanitation ladder, through evaluation interactions with WASHCOMs and LGA WASH Coordinators in Jigawa and Bauchi states, and with TBOs and the NGO managing sanitation pool funds (Rahama) in Bauchi state.

Some of these respondents described the impact of these changes on their communities. One TBO from Dolenkwana, Jigawa state explained that

“All the households in the city have toilets which have resulted in the elimination of open defecation and fly nuisance. Before now, every nook and cranny of the community was used for OD, and one could hardly walk without looking sideways to avoid stepping on shit”. The officer in charge of the health center in Nanumawa, in Roni LGA
“Before no one can sit under that tree there because of smell from the feces around, but now see as people have spread their mats and are now relaxing and enjoying the fresh breeze”

*Figure 12: Prevalence of open defecation*

**Interpreting the Charts**

These charts show a state-by-state comparing intervention and control areas for population estimates of relevant variables. The dots show the estimate and the bars show the upper and lower 95% confidence interval for the estimate.

These charts allow a ‘by eye’ comparison not only of the difference between the intervention and control areas for each state, but also a comparison of the differing levels of the variable between states and an appreciation of the level of precision with which the survey can estimate the level of the given variable (by the distance between the upper and lower 95% confidence bars). In general, where estimates fall within another estimate’s confidence interval and/or their confidence intervals overlap, this is a likely sign that there is no significant statistical difference between those estimates.

Figure 12 above shows the percentage of households going for open defecation in intervention LGAs and control LGAs in each of the 7 states. Intervention LGAs are labelled ‘T’ (for treatment group) and control LGAs ‘C’.

Data were self-reported in response to the questionnaire survey questions ‘*Where do members of this household usually go for defecation?*’. Where the % going for open defecation is higher in the non-intervention LGAs than the intervention LGAs this is consistent with a positive effect of the intervention. In Benue, Ekiti and Jigawa a positive effect is evident. In Bauchi there is a negative effect (i.e. more open defecation occurs in the intervention LGAs). In Akwa Ibon, Abambra and Katsina there is no difference between intervention and control LGAs.
Figure 13 above shows the percentage of households in which feces or urine were visible on the latrine floor, in intervention LGAs and control LGAs in each of the 7 states. Intervention LGAs are labelled 'T' (for treatment group) and control LGAs 'C'. Data were collected through spot-check observation by enumerators. Where the % with a clean floor is higher in the intervention LGAs than the control LGAs this is consistent with a positive effect of the intervention. We can see that in 4 states (Akwa Ibon, Anambra, Benue and Ekiti) there were very high rates of clean latrines and no difference between intervention and control LGAs. In Bauchi, Jigawa and Katsina rates of clean latrines were lower. In Bauchi and Katsina latrines in intervention LGAs were somewhat more likely to be visibly clean than those in control LGAs. In Jigawa the opposite was the case (i.e. latrines in control LGAs were somewhat more likely to be visibly clean).

4.2.16 What is the effect of the program on better hygiene knowledge and practices?

This is discussed in section 4.2.14 above.

4.2.17 What is the effect of the program on the safe handling of water from source to the point of consumption?

*Use of an improved water source was common across intervention and non-intervention areas as was the practice of covering water storage vessels. Household water treatment was universally rare.*

Use of an unimproved water source was rare with the exception of Benue state where the Program was associated with a 47% increase in the use of an improved water source. Very few households reported treating water at home but the majority of household water storage vessels were covered. There was no difference between intervention and non-intervention areas with respect to these variables. Respondents in the qualitative study reported increased awareness of safe water handling practices through experience with water safety plans.
The evaluation team used questionnaire items (i.e. questionnaire questions) and spot-check observation to assess the proportion of households obtaining drinking water from an improved source, treating water at home and storing water in covered containers.

Use of an unimproved water source for drinking water was rare (10% or lower for both intervention and non-intervention) with the exception of Benue state where 76% of respondents in non-intervention LGAs reported using an unimproved source. In Benue, the program was associated with a 47% reduction in the reported use of an unimproved source of drinking water.

The great majority of households did not report treating drinking water at home prior to consumption and there was no difference in reported practice associated with exposure to the program. The majority of household water storage vessels observed were covered in households both in program and non-program LGAs and there was no difference in prevalence of this practice associated with the program.

Qualitative findings in intervention LGAs included increased knowledge on reducing water pollution and contamination by community members.

Regarding the Water Safety Plan, the evaluation noted that people now know how to keep their water sources safe from contamination by securing and maintaining clean drains; using clean and covered containers to collect and store water, transporting water safely, and not using multiple drinking cups to collect water for drinking. Schools in intervention communities have safe water management plans implemented by their VHPs or Environmental Health Clubs (EHC’s). Pupils became conscious of maintaining safe water chain both at school and in the community.

Some community-level respondents in Akwa Ibom, Bauchi and Jigawa states reported that they had learnt better ways of handling their water through talks and workshops on the safe water chain. For example, one female WASHCOM member at Tudu Babba community, Birnin Kudu LGA, Jigawa state stated that “We now know how to keep our water safe by washing and covering the collection container, by using two cups at the point of use.” They also demonstrated how they protect their water sources showing the evaluation team the fencing round the Handpumps in the community to protect the source from animals.
Figure 15 above shows the percentage of households reporting use of an unimproved drinking water source in intervention LGAs and control LGAs in each of the 7 states. Intervention LGAs are labelled 'T' (for treatment group) and control LGAs 'C'. Data were self-reported in response to the questionnaire survey question 'What is the main source of drinking water for members of your household?'. Where the percentage using an improved source is higher in the intervention LGAs than the control LGAs this is consistent with a positive effect of the intervention. We can see that use of an unimproved source of drinking water is uncommon in all states except Benue. Furthermore, only Benue shows a difference between intervention and control LGAs, with use of an unimproved source for drinking water being considerably more likely for household in control LGAs.
4.2.18 To what extent has the program contributed to institutional reform/improvement at State and LGA levels?

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.

Jigawa saw all LGAs create WASH departments with budgetary provision as the result of legislation. In Bauchi a WASH policy was legislated for and WASH units created in all LGAs, but these lacked budgetary provision. By contrast, in Akwa Ibom, WASH units were only created in the 4 LGAs covered by the Program.

The program has contributed to institutional reforms and improvements in various ways including deployment and capacity building of staff, creation of WASH departments and units and budget lines, and integration of WASH activities into the health and education sectors for effective service delivery and nutrition improvement.

At the state level, UNICEF supported states with funding from DFID and EU to establish RUWASSAs, enabling them to provide technical assistance to LGA WASH Units/Departments. In Jigawa, Bauchi and Akwa Ibom states, urban, small-town and rural water schemes were implemented. Previously, water had been provided at all levels through the state water board in Jiwaga, and by the State Ministry for Rural Development in Akwa Ibom. In addition, the evaluation noted the adoption of WASH processes by State Universal Basic Education Boards and State Primary Healthcare Agencies in Bauchi and Jigawa States.

LGAs established WASH policies, units and departments to differing extents, with the responsibility of providing water and sanitation services to all communities under their jurisdiction. In Jigawa State, all LGAs have WASH Departments, achieved through legislative process and with annual fiscal requirements. In Akwa Ibom state, only the four assisted LGAs established a WASH unit, to service donor requirements, and a WASH policy was developed but not approved through executive order. In Bauchi state, the WASH policy was passed in 2011, and WASH Units were established in all LGAs, but under the Department of Primary Health Care without any budgetary provision.

WASHCOMs were established as a management structure to oversee WASH activities in communities. WASHCOM Federations were established to assist LGAs in Akwa Ibom, Bauchi and Jigawa states to coordinate the activities of community WASHCOMs and to engage with Government on service delivery.

4.2.19 To what extent has the program contributed to improved capacity at State, LGA and community levels?

WASHIMS maintenance and expansion and the associated training of LGA staff has been one of the most significant achievements of the Program. The Program contributed to improved capacity at state and LGA levels for ODF verification, program management, procurement and M&E. Establishment of WASHCOMs and VLOM improved capacity at community level.

WASHIMS maintenance and expansion has been effective. LGA staff have been trained on using it and data are uploaded and updated. The capacity of state and national task groups was built for ODF verification and certification. The capacity of RUWASSAs was built with respect to program management and provision of support to LGAs. At state and LGA levels capacity was built for
procurement and M&E. At community level capacity for improving and maintaining WASH infrastructure was built through the establishment and support to WASHCOMs and VLOM.

Capacity building for the delivery of WASH services was one of the strategies of program support. Capacities were built at all levels:

- At national and state levels, the capacity of the State and National Task Groups on Sanitation were sufficiently built to respectively verify and certify ODF-claiming communities and LGAs in Nigeria.
- At state level, the capacity of staff of RUWASSAs were sufficiently built on program management, proposal development, and the request and retirement of funds through the UNICEF HACT system. State officers were trained to provide technical support to LGA WASH Departments and partners.
- At state and local government levels, capacity was built of all six functional program departments (water supply and maintenance, sanitation, hygiene, governance, monitoring and evaluation and procurement of works and services).
- At community level of WASHCOMs, LAMs and VLOM teams. LGA WASH officers trained and supported community artisans to implement activities at the community level. LAMs and VLOM were trained to maintain water facilities in communities and were supported with tools to enable them to maintain broken-down water points promptly.

Monitoring officers gathered relevant data from communities for effective monitoring and evaluation of the entire process. Progress and limitations were determined by the evaluation process which aids in realigning implementation at all levels. WASHIMS maintenance and expansion has been effective with the results that the LGA staff are trained on using it and data are uploaded and updated.

4.2.20 To what extent has the program contributed to WASHCOMs assuming non-WASH responsibilities (birth registration, immunization)?

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% of WASHCOMs were involved in non-WASH responsibilities. In DFID funded states this rose to 82%.

WASHCOM involvement in non-WASH responsibilities was more common in the SHAWN II states and exceeded 80% of WASHCOMs in Bauchi, Benue and Jigawa. These non-WASH activities included birth monitoring and registration and assisting with immunization programs. Qualitative data included reports of WASHCOM involvement in local construction projects of importance to communities and of individual WASHCOM members becoming involved in local conflict resolution.

The program has contributed to WASHCOMs assuming non-WASH responsibilities in SHAWN II states (though not in Akwa Ibom state), including monitoring and registering new births in the communities and reporting them to the primary health centers, and facilitating the process of obtaining birth certificates for children delivered at home.
Table 22: Does the WASHCOM get involved in influencing the community in any other area?

<table>
<thead>
<tr>
<th>State</th>
<th>Treatment Group</th>
<th>Standard error</th>
<th>Lower CI</th>
<th>Upper CI</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>44.7</td>
<td>6.1</td>
<td>33.2</td>
<td>56.8</td>
<td>-</td>
</tr>
<tr>
<td>Anambra</td>
<td>46.0</td>
<td>7.0</td>
<td>32.9</td>
<td>59.6</td>
<td>-</td>
</tr>
<tr>
<td>Bauchi</td>
<td>86.3</td>
<td>4.1</td>
<td>76</td>
<td>92.6</td>
<td>-</td>
</tr>
<tr>
<td>Benue</td>
<td>82.0</td>
<td>4.9</td>
<td>70.4</td>
<td>89.7</td>
<td>-</td>
</tr>
<tr>
<td>Ekiti</td>
<td>67</td>
<td>6.6</td>
<td>53</td>
<td>78.6</td>
<td>-</td>
</tr>
<tr>
<td>Jigawa</td>
<td>86.1</td>
<td>4.4</td>
<td>75</td>
<td>92.7</td>
<td>-</td>
</tr>
<tr>
<td>Katsina</td>
<td>74.7</td>
<td>4.8</td>
<td>64.3</td>
<td>83</td>
<td>-</td>
</tr>
<tr>
<td>EU</td>
<td>52.1</td>
<td>3.8</td>
<td>44.6</td>
<td>59.6</td>
<td>-</td>
</tr>
<tr>
<td>DFID</td>
<td>82.3</td>
<td>2.3</td>
<td>77.2</td>
<td>86.3</td>
<td>-</td>
</tr>
</tbody>
</table>

WASHCOMs also help with the immunization of children in their communities, supporting health personnel to ensure that children in their communities have received the right immunizations at the appropriate time. In other cases, female WASHCOM members in some communities aided conflict resolution among couples and to aid community development, using knowledge and training acquired through the WASH program.

In some communities, WASHCOMs supported community development, for example the renovation and rehabilitation of community mosques and burial grounds in many communities through support in cash and kind. In one community, Zumbul community in Dass LGA, Bauchi state, the proceeds from sales of water in the WASH program were used to build a small school. The community have since approached the LGA local education authority to take over the school so that it can expand and post more teachers.

4.2.21 To what extent has the WASH program supported and influenced the participation of women in decision making?

There was evidence that the Program 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% of WASHCOM membership. In all states with the exception of Katsina, the majority of WASHCOM treasurers were women. A very small minority of WASHCOMs in all states had a female chair with the exception of Benue where there was no woman in this position. Qualitatively, women were reported to be more involved in community decision making, particularly in the Northern states, as a result of the Program activities.

Before the inception of the SHAWN II program, women did not assume decision making roles in their communities, could not sit with men and were absent in discussions on development works in communities, especially in Northern Nigeria (Bauchi and Jigawa states) due to the religious practice of women in purdah. Since the WASH program was implemented, women now sit in the same meeting,
contribute to development-related discussions and influence decisions. In some communities, women now participate in critical decision making by voicing their needs and demands to improve WASH services.

At community level, 30-55% of members of WASHCOMs, and almost half of VHPs, are women. In Maiso community WASHCOM, 6 out of 15 members were women, while in Magama community in Toro LGA, 6 out of 11 WASHCOM members were women. This observed development of involving women in WASHCOM is essential because as issues relating to water and sanitation affect the women most especially the women in purdah. This is an example of change in perception of females as weak, to a level where more responsible positions in these two exemplary communities.

Table 23: Percentage of WASHCOM that is a woman

<table>
<thead>
<tr>
<th>Intervention only</th>
<th>Percentage of women</th>
<th>Std. error</th>
<th>Lower 95% CI</th>
<th>Upper 95% CI</th>
<th>Unweighted base</th>
</tr>
</thead>
<tbody>
<tr>
<td>AKWA IBOM</td>
<td>36.3</td>
<td>1.9</td>
<td>32.6</td>
<td>40.0</td>
<td>94</td>
</tr>
<tr>
<td>ANAMBRA</td>
<td>51.5</td>
<td>1.7</td>
<td>48.1</td>
<td>54.9</td>
<td>100</td>
</tr>
<tr>
<td>BAUCHI</td>
<td>36.0</td>
<td>1.4</td>
<td>33.2</td>
<td>38.7</td>
<td>102</td>
</tr>
<tr>
<td>BENUE</td>
<td>40.3</td>
<td>1.8</td>
<td>36.8</td>
<td>43.9</td>
<td>100</td>
</tr>
<tr>
<td>EKITI</td>
<td>38.9</td>
<td>2.1</td>
<td>34.8</td>
<td>43.0</td>
<td>88</td>
</tr>
<tr>
<td>JIGAWA</td>
<td>26.2</td>
<td>1.8</td>
<td>22.6</td>
<td>29.9</td>
<td>79</td>
</tr>
<tr>
<td>KATSINA</td>
<td>37.1</td>
<td>1.4</td>
<td>34.2</td>
<td>39.9</td>
<td>95</td>
</tr>
<tr>
<td>EU</td>
<td>42.5</td>
<td>1.1</td>
<td>40.4</td>
<td>44.7</td>
<td>282</td>
</tr>
<tr>
<td>DFID</td>
<td>35.4</td>
<td>0.8</td>
<td>33.8</td>
<td>37.0</td>
<td>376</td>
</tr>
<tr>
<td>TOTAL</td>
<td>38.4</td>
<td>0.7</td>
<td>37.1</td>
<td>39.7</td>
<td>658</td>
</tr>
</tbody>
</table>

In WASHCOMs, over 50% of the time women are treasurers as shown in the table, while in some communities, WASHCOMs have female chairpersons, among other positions.

Table 24: Is the head of the committee a woman?

<table>
<thead>
<tr>
<th>State</th>
<th>Treatment Group</th>
<th>Standard error</th>
<th>Lower CI</th>
<th>Upper CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>3.2</td>
<td>2.4</td>
<td>0.7</td>
<td>13.1</td>
</tr>
<tr>
<td>Anambra</td>
<td>8.0</td>
<td>3.5</td>
<td>3.3</td>
<td>18.3</td>
</tr>
<tr>
<td>Bauchi</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Benue</td>
<td>7.0</td>
<td>3.3</td>
<td>2.7</td>
<td>16.8</td>
</tr>
<tr>
<td>Ekiti</td>
<td>5.7</td>
<td>2.9</td>
<td>2.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Jigawa</td>
<td>5.5</td>
<td>2.6</td>
<td>2.1</td>
<td>13.4</td>
</tr>
<tr>
<td>Katsina</td>
<td>1.1</td>
<td>1.1</td>
<td>0.1</td>
<td>7.2</td>
</tr>
</tbody>
</table>
Women are increasingly involved in WASH program delivery at LGA and state-levels. One female WASHCOM member in Dansauri community said: "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."

Besides, the most prominent LAM in Toro LGA was a woman, while one of the LAMs in Dass LGA was also a woman. These have made the repair of dysfunctional water facilities repair attractive to communities due to the patience and sustainable repair of those repaired by them.

4.2.22 To what extent did the WASH program address the specific capacity needs of female WASHCOM members to voice and address women’s and girls’ concerns?

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 was evidence that women attended and spoke at community meetings relating to WASH. The extent to which this can be considered a valid indication of specific capacity needs having been addressed is not known. In both DFID funded and EU funded states, active participation of women was higher in intervention areas than non-intervention areas. In DFID-funded states, attendance was higher in intervention areas than in non-intervention areas. Differences between intervention and non-intervention areas might point to differences in capacity but might also reflect differences in the content and/or conduct of meetings associated with the Program and those occurring outside of the Program.
Women were recognized to be a critical and integral component of WASHCOMs, playing active roles. One respondent from the Akwa Ibom RUWASSA claimed that “the opinions of women are equally respected and considered in WASHCOM meetings.”

In several communities in Bauchi State women are highly involved in WASHCOMS, including three communities in Dass LGA with a female WASHCOM chairperson, and one in Toro LGA with women outnumbering male members in the WASHCOMs of all 20 settlement units.

This has resulted in a stronger voice for women, as one UNICEF informant commented that “women are becoming more vocal. The champions of OD are women!” and one LGA WASH Coordinator from Jigawa State commented that “there is observed reduction in domestic violence against women due to women’s representation in WASHCOMs and at other levels of WASH program implementation like hygiene promotion and encouragement of households to own and use latrines and handwashing facilities.”

Table 26: Have you attended any of these meetings?

<table>
<thead>
<tr>
<th>State</th>
<th>Treatment Group</th>
<th>Standard error</th>
<th>Lower CI</th>
<th>Upper CI</th>
<th>Control group</th>
<th>Standard error</th>
<th>Lower CI</th>
<th>Upper CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>61.4</td>
<td>3.55</td>
<td>54.3</td>
<td>68.1</td>
<td>71.6</td>
<td>4.21</td>
<td>62.6</td>
<td>79.1</td>
</tr>
<tr>
<td>Anambra</td>
<td>42.3</td>
<td>2.96</td>
<td>36.6</td>
<td>48.2</td>
<td>40.7</td>
<td>4.49</td>
<td>32.2</td>
<td>49.7</td>
</tr>
<tr>
<td>Bauchi</td>
<td>69.3</td>
<td>2.68</td>
<td>63.8</td>
<td>74.3</td>
<td>44.0</td>
<td>6.61</td>
<td>31.7</td>
<td>57.1</td>
</tr>
<tr>
<td>Benue</td>
<td>58.6</td>
<td>4.53</td>
<td>49.6</td>
<td>67.2</td>
<td>42.9</td>
<td>5.15</td>
<td>33.2</td>
<td>53.1</td>
</tr>
<tr>
<td>Ekiti</td>
<td>49.0</td>
<td>5.04</td>
<td>39.3</td>
<td>58.8</td>
<td>32.7</td>
<td>7.55</td>
<td>19.9</td>
<td>48.8</td>
</tr>
<tr>
<td>Jigawa</td>
<td>58.8</td>
<td>2.82</td>
<td>53.2</td>
<td>64.2</td>
<td>57.8</td>
<td>5.97</td>
<td>45.9</td>
<td>68.9</td>
</tr>
<tr>
<td>Katsina</td>
<td>49.1</td>
<td>4.95</td>
<td>39.5</td>
<td>58.7</td>
<td>39.3</td>
<td>9.7</td>
<td>22.5</td>
<td>59.0</td>
</tr>
<tr>
<td>EU</td>
<td>51.6</td>
<td>2.37</td>
<td>46.9</td>
<td>56.2</td>
<td>50.4</td>
<td>3.17</td>
<td>44.2</td>
<td>56.5</td>
</tr>
<tr>
<td>DFID</td>
<td>60.8</td>
<td>1.73</td>
<td>57.4</td>
<td>64.1</td>
<td>49.5</td>
<td>3.64</td>
<td>42.4</td>
<td>56.6</td>
</tr>
<tr>
<td>Total</td>
<td>57.7</td>
<td>1.40</td>
<td>55.0</td>
<td>60.5</td>
<td>49.9</td>
<td>2.42</td>
<td>45.2</td>
<td>54.6</td>
</tr>
</tbody>
</table>
Table 27: Did you speak at any of these meetings (%)?

<table>
<thead>
<tr>
<th>State</th>
<th>Treatment Group</th>
<th>Standard error</th>
<th>Lower CI</th>
<th>Upper CI</th>
<th>Control group</th>
<th>Standard error</th>
<th>Lower CI</th>
<th>Upper CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>66.2</td>
<td>4.70</td>
<td>56.5</td>
<td>74.7</td>
<td>68.5</td>
<td>7.09</td>
<td>53.3</td>
<td>80.6</td>
</tr>
<tr>
<td>Anambra</td>
<td>64.6</td>
<td>6.01</td>
<td>52.1</td>
<td>75.4</td>
<td>38.0</td>
<td>7.81</td>
<td>24.2</td>
<td>54.0</td>
</tr>
<tr>
<td>Bauchi</td>
<td>69.2</td>
<td>3.60</td>
<td>61.7</td>
<td>75.8</td>
<td>81.1</td>
<td>6.61</td>
<td>64.8</td>
<td>90.9</td>
</tr>
<tr>
<td>Benue</td>
<td>76.7</td>
<td>3.82</td>
<td>68.4</td>
<td>83.4</td>
<td>71.4</td>
<td>9.34</td>
<td>50.4</td>
<td>86.0</td>
</tr>
<tr>
<td>Ekiti</td>
<td>73.5</td>
<td>5.10</td>
<td>62.4</td>
<td>82.2</td>
<td>44.4</td>
<td>12.30</td>
<td>23.1</td>
<td>68.0</td>
</tr>
<tr>
<td>Jigawa</td>
<td>55.7</td>
<td>4.03</td>
<td>47.7</td>
<td>63.4</td>
<td>32.4</td>
<td>5.23</td>
<td>23.1</td>
<td>43.4</td>
</tr>
<tr>
<td>Katsina</td>
<td>64.4</td>
<td>5.30</td>
<td>53.5</td>
<td>74.0</td>
<td>54.5</td>
<td>15.56</td>
<td>25.9</td>
<td>80.5</td>
</tr>
<tr>
<td>EU</td>
<td>68.0</td>
<td>3.08</td>
<td>61.7</td>
<td>73.7</td>
<td>54.6</td>
<td>4.73</td>
<td>45.3</td>
<td>63.6</td>
</tr>
<tr>
<td>DFID</td>
<td>65.8</td>
<td>2.09</td>
<td>61.5</td>
<td>69.7</td>
<td>53.5</td>
<td>3.28</td>
<td>47.0</td>
<td>59.9</td>
</tr>
<tr>
<td>Total</td>
<td>66.4</td>
<td>1.73</td>
<td>62.9</td>
<td>69.9</td>
<td>53.5</td>
<td>3.28</td>
<td>47.0</td>
<td>59.9</td>
</tr>
</tbody>
</table>

The evaluation established evidence that women were serving as LAMs in several LGAs in Bauchi and Jigawa states. This has changed the view of women as local entrepreneurs and is leading to economic empowerment of women. Furthermore, the program strategy of holding awareness raising, mobilization and sensitization programs at weddings and naming ceremonies where women tend to gather enabled many women to learn about good hygiene practices and behavior. The program also built the capacity of women to be bold and engage in discussions with their husbands and fathers to provide safe latrines and effective handwashing facilities in their households.

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

Regarding efficiency, the evaluation team finds UNICEF 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 supply, resulting from an increase in beneficiaries accessing water and a reduction in costs.

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 roll out of rural drinking water monitoring and surveillance activities.
amongst other achievements. The evaluation found that the program strategy of developing Water Safety Plans has proved to be effective, providing a mechanism to build awareness of the importance of water quality.

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

Whilst 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 Program 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.

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

The evaluation explored whether the program inputs were bought at the appropriate quality and at the right price. The UNICEF WASH program 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 also notes a reduction in total cost per person of using improved water supply, resulting from an increase in beneficiaries accessing water and a reduction in costs.
- 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 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; resulted in the roll out of rural drinking water monitoring and surveillance activities amongst other achievements. The evaluation found that the program strategy of developing Water Safety Plans has proved to be effective, providing a mechanism to build awareness of the importance of water quality.
- UNICEF supported a number of related initiatives to facilitate community ownership and sustainable management of water supply facilities, 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 include: The Harmonized Procurement Guidelines; Contract Management Guidelines; and Third-Party Supervision Guidelines. These guidelines were first introduced in 2014 and underwent a number of

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63 UNICEF Procurement Guidelines were developed in 2014. These have been regularly reviewed and updated. Most recently in March 2018, in collaboration with FMOWR.
reviews in partnership with the Federal Ministry of Water Resources (FMoWR), 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\textsuperscript{64}. At the output stage quality is further supported through embedding routine monitoring and surveillance of water quality (every six months) through the Rural Drinking Water Quality Monitoring and Surveillance System. Data from this routine monitoring showed that the highest level of contamination of water is at the storage stage and least at the water source\textsuperscript{65}.

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 in the household.

The program also developed a strategy to address the challenge and impact of breakdowns in water pumps using Village Level Operation and Maintenance (VLOM)\textsuperscript{66}. 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)\textsuperscript{67} that has reduced the downtime of water pumps to an average of three days.”

Whilst significant progress has been made, this is still a challenging area. According to the WSSSRPII Logframe, the project expected 70% functionality with 80% of communities having improved and functional water supply facilities. However, at the time of this evaluation functionality was at 64%\textsuperscript{68}. Tables 22 and 23 below show the progress by state and project regarding number of water points and sanitation facilities constructed where data has been available from project reports.

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\textsuperscript{64} 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.

\textsuperscript{65} NDSP 6th Year Report


\textsuperscript{67} The Tulsa Chanrai Foundation

\textsuperscript{68} WSSSRP III Report
Table 28: Total Number of Services of Water Points constructed by WASH Program in 2014-2019 (new and rehabilitated water points)

<table>
<thead>
<tr>
<th>State</th>
<th>SHAWN II</th>
<th>WSSSRP 2</th>
<th>WSSSRP 3</th>
<th>NDSP</th>
<th>Total achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Target</td>
<td>Achieved</td>
<td>Target</td>
<td>Achieved</td>
<td>Target</td>
</tr>
<tr>
<td>Akwa Ibom</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>95</td>
</tr>
<tr>
<td>Anambra</td>
<td>n/a⁴</td>
<td>72</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bauchi</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Benue</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ekiti</td>
<td>-</td>
<td>-</td>
<td>536</td>
<td>149 (27.80%)</td>
<td>-</td>
</tr>
<tr>
<td>Jigawa</td>
<td>n/a⁴</td>
<td>952</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Katsina</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>n/a⁴</td>
<td>2019</td>
<td>1400</td>
<td>1049 (74.93%)</td>
<td>268</td>
</tr>
<tr>
<td>TOTAL</td>
<td>7¹</td>
<td>14,032</td>
<td>n/a²</td>
<td>3043</td>
<td>1936</td>
</tr>
</tbody>
</table>

⁶⁹ Blank cells, where not otherwise explained, indicate either that data was neither applicable nor available in the reviewed reports.

⁷⁰ Number of water source projects completed to specification.

⁷¹ Aug 2019 target = 85% of households 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.

⁷² Target = 2200 communities, schools, and health facilities to be covered by new/rehabilitated by mid-2018.
Table 29: Total Number of Services of Sanitation Facilities built by WASH Program in 2014-2019

<table>
<thead>
<tr>
<th>State</th>
<th>SHAWN II</th>
<th>WSSSRP 2</th>
<th>WSSSRP 3</th>
<th>NDSP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Target</td>
<td>Achieved</td>
<td>Target</td>
<td>Achieved</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Akwa Ibom</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Anambra</td>
<td>0</td>
<td>3542</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bauchi</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Benue</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ekiti</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Jigawa</td>
<td>63,357</td>
<td>48,351 (76.32%)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Katsina</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>110,042</td>
</tr>
<tr>
<td>Other</td>
<td>51,615</td>
<td>174,934 (338.29%)</td>
<td>-</td>
<td>110,042</td>
</tr>
<tr>
<td>TOTAL</td>
<td>-</td>
<td>183,225</td>
<td>114,972</td>
<td>226,827 (197.29%)</td>
</tr>
</tbody>
</table>

Coupled with increased efforts to address quality, the WASH program managed to keep costs to within or below budgeted levels. Data from the SHAWN Program 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 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 USD 1,680.34, lower than the USD 2,179 required in July 2015 and the SHAWN I benchmark amount of USD 3,565. Furthermore, the total cost per person accessing sanitation in ODF-certified communities was USD 9.59 in July 2018, compared to USD 13.07 in July 2015. The general reduction in unit cost is due to more efficient conversion processes. 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 program’s additional focus in the areas of sanitation marketing^76^, specifically following up on the declaration of ODF by communities with efforts to move up the sanitation ladder for example transitioning from OD and no facilities to basic, or from basic to improved facilities. The 2014 evaluation of the UNICEF CATS program 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

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^73^ Blanks cells, where not otherwise explained, indicate either that data was neither applicable nor available in the reviewed reports.

^74^ Monitored on a per-community, rather than per-facility basis with a target of 80% coverage.

^75^ School sanitation facilities (182) plus household latrines (94,222) constructed.

sustainability to take care of itself. This learning was clearly taken on board in the development of the Nigeria WASH Program. 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 USD 28.71, a 32% decrease compared to July 2015 (USD 42.58). Various factors contributed to this decrease: i) an increase in beneficiaries accessing water; ii) a reduction in costs due to the rehabilitation of 30% of the water facilities in 2017.

## Financial Analysis

Table 30: Analysis of Budget Utilization of WASH Program in 2014-2019

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

<table>
<thead>
<tr>
<th>Program Year</th>
<th>SHAWN II 79</th>
<th>WSSSRP 2</th>
<th>WSSSRP 3</th>
<th>NDSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Released (sum of tranches disbursed) 80</td>
<td>Used (cumulative)</td>
<td>Allocated (sum of pre-financing)</td>
<td>Used (cumulative)</td>
<td>Allocated (sum of pre-financing)</td>
</tr>
<tr>
<td>2014 (€ = US $1.28)</td>
<td>10,913,000</td>
<td>9,993,698 (91.58%)</td>
<td>14,370,502</td>
<td>8,246,098 (57.38%)</td>
</tr>
<tr>
<td>2015 (€ = US $1.27)</td>
<td>23,149,040</td>
<td>22,244,498 (96.09%)</td>
<td>21,522,546</td>
<td>14,595,287 (67.81%)</td>
</tr>
<tr>
<td>2016 (€ = US $1.20)</td>
<td>42,877,040</td>
<td>41,972,498 (97.89%)</td>
<td>21,522,546</td>
<td>19,500,025 (90.60%)</td>
</tr>
<tr>
<td>2017 (€ = US $1.217)</td>
<td>64,585,040</td>
<td>63,412,498 (98.18%)</td>
<td>27,650,053</td>
<td>26,318,911 (95.19%)</td>
</tr>
<tr>
<td>2018 (€ = US $1.272)</td>
<td>82,193,533</td>
<td>81,014,999 (98.57%)</td>
<td>36,253,425</td>
<td>33,544,256 (92.53%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>88,762,286 (to Apr 2019)</td>
<td>94,155,320 (to Aug 2019)</td>
<td>36,253,425 (to June 2018)</td>
<td>33,544,256 (92.53% to June 2018)</td>
</tr>
</tbody>
</table>

78 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.
80 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.
81 2019 Annual Report not provided.
Table 31: Analysis of Government Financial Contribution to WASH Program in 2014-2019

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

<table>
<thead>
<tr>
<th>State</th>
<th>SHAWN II</th>
<th>WSSSRP 2</th>
<th>WSSSRP 3</th>
<th>NDSP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Planned</td>
<td>Disbursed (cumulative)</td>
<td>Planned</td>
<td>Disbursed (cumulative)</td>
</tr>
<tr>
<td>2014</td>
<td>Not reported.</td>
<td>316,941 (approx.)</td>
<td>Not reported.</td>
<td>0</td>
</tr>
<tr>
<td>(1 Naira = US $0.00546451)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>Not reported.</td>
<td>3,622,660</td>
<td>Not reported.</td>
<td>3,793,493</td>
</tr>
<tr>
<td>(1 Naira = US $0.005024494)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>11,775,147</td>
<td>7,366,863</td>
<td>2,292,247</td>
<td>1,750,924 (73.38%)</td>
</tr>
<tr>
<td>(1 Naira = US $0.0032873108)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>10,408,962</td>
<td>6,877,650</td>
<td>2,071,320</td>
<td>Not reported.</td>
</tr>
<tr>
<td>(1 Naira = US $0.0028026287)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>12,521,198</td>
<td>7,519,852</td>
<td>Not reported.</td>
<td>Not reported.</td>
</tr>
<tr>
<td>(1 Naira = US $0.0027434703)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>Not reported.</td>
<td>8,827,228</td>
<td>Not reported.</td>
<td>Not reported.</td>
</tr>
<tr>
<td>(1 Naira = US $0.002758509)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

82 Missing % indicate that the planning period and reporting period were different and therefore not directly comparable.
83 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.
84 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.
85 Workplan activities for 2013-2014 were dedicated to supporting fundraising of counterpart funds, rather than disbursement/use.
86 “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.”
87 2019 Annual Report not provided.
### Table 32: Cost Benefit Analysis of Access to Improved Water Sources

(contemporaneous exchange rates used where not provided)

<table>
<thead>
<tr>
<th>Program year</th>
<th>SHAWN II</th>
<th>WSSSRP II</th>
<th>WSSSRP III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of beneficiaries</td>
<td>Total expenditure</td>
<td>Unit cost in USD</td>
</tr>
<tr>
<td>2014 (1 EUR = $ 1.2848 US)</td>
<td>486,000</td>
<td>Per-workstream financing not available.</td>
<td>Not reported</td>
</tr>
<tr>
<td>2015</td>
<td>1,903,502</td>
<td></td>
<td>42.58</td>
</tr>
<tr>
<td>2016</td>
<td>1,600,308</td>
<td></td>
<td>31.07</td>
</tr>
<tr>
<td>2017</td>
<td>990,000</td>
<td></td>
<td>24.29</td>
</tr>
<tr>
<td>2018</td>
<td>433,200</td>
<td></td>
<td>28.71</td>
</tr>
<tr>
<td>2019</td>
<td>1,230,000</td>
<td>WSSSRP II 2019 Report not provided.</td>
<td>38.10</td>
</tr>
</tbody>
</table>

---

88 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.

89 Logframe ACT. # 19: “Support to procurement of contracts (rehabilitation/new water points) and supervision in communities using the harmonized procurement guidelines.”

90 N.B. Expenditure used: overall expenditure on “Sanitation (CLTS Approach) and Hygiene Promotion”. Footnotes indicate deviations in the calculation method for given cells.

91 Not reported in 2015, calculated from annual achievement in subsequent years until, and cumulative project achievement in, 2018.

92 Outlier unit costs may be explained by reporting overlap introducing misalignment between reporting and funding periods.

93 Figure is for Adamawa and Ekiti states, no other states data recorded.

94 Mean across available years.

95 Mean across available years.
Table 33: Cost Benefit Analysis of Access to improved sanitation facilities (contemporaneous exchange rates used where not provided)

<table>
<thead>
<tr>
<th>Program year</th>
<th>SHAWN II</th>
<th>WSSSRP II</th>
<th>WSSSRP III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of communities certified ODF</td>
<td>Total expenditure</td>
<td>Unit Cost in USD (per certified community)</td>
</tr>
<tr>
<td>2014 (1 EUR = $1.2848 US)</td>
<td>1,204</td>
<td>Not reported</td>
<td>258</td>
</tr>
<tr>
<td>2015</td>
<td>1,622</td>
<td>2,179</td>
<td>110</td>
</tr>
<tr>
<td>2016</td>
<td>1,719</td>
<td>1,813</td>
<td>547</td>
</tr>
<tr>
<td>2017</td>
<td>2935</td>
<td>1,594</td>
<td>710</td>
</tr>
<tr>
<td>2018 (148,843(^{98}) beneficiaries)</td>
<td>2,588</td>
<td>1,680</td>
<td>526</td>
</tr>
<tr>
<td>2019</td>
<td>3,072</td>
<td>1,814(^{100})</td>
<td>WSSSRP II 2019 Report not provided.</td>
</tr>
<tr>
<td>TOTAL</td>
<td>15,170</td>
<td>-</td>
<td>1,816(^{101})</td>
</tr>
</tbody>
</table>

\(^{96}\) N.B. Expenditure used: overall expenditure on “Sanitation (CLTS Approach) and Hygiene Promotion”. Footnotes indicate deviations in the calculation method for given cells.  
\(^{97}\) N.B. Expenditure used: overall expenditure on “Sanitation (CLTS Approach) and Hygiene Promotion”. Footnotes indicate deviations in the calculation method for given cells.  
\(^{98}\) SHAWN 2018 Annual Review Report, p18  
\(^{99}\) 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.  
\(^{100}\) SHAWN II Extension Proposal, 2019.  
\(^{101}\) Mean of available years.  
\(^{102}\) Mean across available years.
Table 34: Cost Benefit Analysis of Access to improved Water source in School (& Healthcare Facilities, contemporaneous exchange rates used where not provided)

<table>
<thead>
<tr>
<th>Program year</th>
<th>Number of schools (+ health centres)</th>
<th>Total expenditure</th>
<th>Unit cost-USD</th>
<th>Number of beneficiaries</th>
<th>Total expenditure 103</th>
<th>Unit cost-USD</th>
<th>Number of beneficiaries</th>
<th>Total expenditure 104</th>
<th>Unit cost-USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 (1 EUR = $1.2848 US)</td>
<td>Not reported</td>
<td>Per-workstream financing not provided.</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>2015</td>
<td>160 (80)</td>
<td>2,388</td>
<td>744,166</td>
<td>33.24</td>
<td>0</td>
<td>21,338</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>220 (109)</td>
<td>54,612</td>
<td>1,192,833</td>
<td>21.84</td>
<td>13,418</td>
<td>185,969</td>
<td>13.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>756 (337)</td>
<td>39,925</td>
<td>1,861,987</td>
<td>46.63</td>
<td>41,855</td>
<td>520,137</td>
<td>12.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>1,297 (374)</td>
<td>1,936,927</td>
<td>-</td>
<td>-</td>
<td>33,518</td>
<td>185,969</td>
<td>16.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>546 (525)</td>
<td>WSSSRP II 2019 Report not provided.</td>
<td>73,691 (March 2019)</td>
<td>2019 Financial reporting not provided.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Determinants Analysis of Efficiency

The main factors for the noted improvements in efficiency include:

1. the engagement of local resource persons with appropriate capacities (known as barefoot consultants), including essential leadership skills in the CLTS process;

2. the negotiated payment of a daily subsistence allowance to State and LGA partners;

3. the competitive procurement process allowing bidders to bring down the cost of hand pumps, boreholes and latrines;

4. the involvement of LGA consultants and third-party entities in monitoring construction works has been key to ensuring the quality of outputs, as well as the delivery time.

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103 Logframe ACT. # 20: “Procurement for construction of school water and sanitation, and hand washing facilities in selected schools”

104 N.B. Expenditure used: overall expenditure on “Sanitation (CLTS Approach) and Hygiene Promotion”. Footnotes indicate deviations in the calculation method for given cells.

105 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.

106 WSSSRP II Project Dashboard, 2019.

107 Mean across available years.

108 Mean across available years.
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 Community Led Total Sanitation (CLTS), with sanitation financing and marketing. The 2018 SHAWN II report noted that 70% 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, passing 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 included training in WASHIMS, WASH Performance Management Plans (WASHPMP), the local Investment Plan and community management processes; and Community Based Monitoring and Reporting and Real Time Facility Functionality Tracking. During the period under review, 38 government 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 roll out of rural drinking water monitoring and surveillance activities in the three focal LGAs in Osun state. Additionally, members of the State Task Group on Sanitation (STGS) across the states received training to ensure proper adherence to the certification protocol for ODF claiming communities.

The evaluation found that the program strategy of developing Water Safety Plans has proved to be effective, providing a mechanism to build awareness of the importance of water quality.

Capacity building

The program has supported a suite of capacity building activities for State, local government and community personnel; though a number of challenges were faced due to the adequacy of staffing. These include: i) staff turnover and ii) a lack of permanent staff where LGAs have established WASH units. This has led to gaps in skills and availability and has a material effect on fully establishing and staffing WASH departments. In relation to capacity building efforts in LGAs, 50% of recipients of training in Akwa Ibom were women whilst in Jigawa and Bauchi states there was a greater weighting towards men.

Findings from the qualitative fieldwork noted that respondents reported that the quality of human and material resources for the implementation of projects and activities was adequate; evidence further notes 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;
- VLOM units were established in LGAs;
- Training of Local Area Mechanics (LAMs) was initiated;
- Water facility caretakers were mobilized and trained 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 issued expanded guidelines for the collection of user charges for maintenance of water facilities and are assisting communities through supportive monitoring.
4.3.2 To what extent were the WASH program financial resources, human resources and supplies sufficient in terms of quantity?

Whilst programmatic financial resources appear sufficient, challenges in counterpart funding have been encountered. Whilst funding increased significantly there is not yet clear evidence of the presence of well-structured and supported WASH Departments across all intervention States.

From a human resource perspective, the overall thrust of the UNICEF WASH program was to build and sustain change through good quality training and the development of a strong ‘multi-layered’ enabling environment at LGA levels. The 2018 and 2019 SHAWNII reports demonstrate strong progress in numbers of volunteer hygiene promoters, Local Area Mechanics, toilet business owners and WASHCOMs, the latter with a focus on women members. Furthermore, the development of Water Safety Plans, Water Quality Monitoring and improvements in the maintenance and repair of water sources underpin and give added meaning to these reported quantitative increases.

In contrast to progress at LGA level, the development of strong and effective counterpart funding has been a far slower and more challenging journey. Counterpart funding was slow for a substantial part of the program life and though initial very low and varied commitments picked up in a number of areas, progress is not uniform.

However, the issue of ensuring that counterpart funding is allocated and then disbursed in a timely manner remain an issue. In 2018, SHAWN II reported an increase in counterpart funding to above the milestone for the first time, but the 2019 SHAWN Report noted that a major challenge to the program was “the slow rate of expenditure under the project, especially in newer target States (such as Yobe), and low level of release of counterpart funding.” Furthermore, whilst funding increased significantly there is not yet clear evidence of the presence of well-structured and supported WASH Departments across all intervention States.

An additional challenge for the WASH Program has been the delay in upgrading WASH Units to WASH Departments. This has been particularly challenging in the Niger Delta Support Program where only two of the project states have RUWASSAs established by law. There are a number of reasons for this ranging from lack of skills and prioritization of WASH to the need for more evidence-based planning to support more appropriate and effective budget allocation and use. This has understandably impacted LGAs and communities, as one WASH Co-Ordinator in Bauchi State explained, “there are many communities that are to be served in the LGA due to scarcity of government counterpart contributions and need to be procured in phases.”

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

The UNICEF Nigeria WASH Program shows evidence of timely deployment and delivery on key objectives. One example of this is the establishment of WASH departments across project states as summarized in Table 35 below. 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 35: State of establishment of WASH departments across project states

<table>
<thead>
<tr>
<th>Project State</th>
<th>Establishment of WASH Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anambra</td>
<td>Established but not yet fully functional</td>
</tr>
<tr>
<td>Cross River</td>
<td>Established</td>
</tr>
<tr>
<td>Jigawa</td>
<td>Established</td>
</tr>
<tr>
<td>Kano</td>
<td>Established in the 44 LGAs</td>
</tr>
<tr>
<td>Osun</td>
<td>Established</td>
</tr>
<tr>
<td>Yobe</td>
<td>Not yet Established</td>
</tr>
</tbody>
</table>
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 have declared themselves as ODF. Figure 16 illustrates the progress of EU supported projects. This was addressed through the use of the third-party consultants to provide the necessary capacity to back stop project implementation and monitoring.

**Figure 16: Progress of EU supported projects**

The issue of delayed counterpart funding impacted the program, 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 commencement of a sound procurement process that saw the completion and payment of the contract for 103 solar powered motorized boreholes.

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 as effectively denying people access and leaving them at risk of attendant water-related diseases.

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109 Update on EU funded WASH Projects (NDSP, WSSSRP II & WSSSRP III). July 2019. PowerPoint presentation
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 the largest investment made for WASH Program (188 million USD) on child health, nutrition and education. The main purpose of measuring multi sector impact of WASH interventions on child survival and development, women and communities, is LEARNING for better WASH Sector Policy and Strategies. What works, what didn’t work, why, what could be done differently?

Health, Nutrition and education are downstream impacts that are potentially influenced by numerous factors lying beyond the scope of the program. 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 program performance. In the case study of Nigeria’s impact evaluation, there is the additional complication of a lack of baseline Household Survey.

In the absence of base line HH survey at the beginning of the WASH program, mixed method of data analysis has been performed by the Evaluation Team to try to show up some probable evidence of possible effect (Yes or NO and Why) of WASH interventions on improving children’s healthy life (reduction of diarrhoea), nutritional status (reduction of stunting) and learning (increase of primary school attendance ratio) as requested by the evaluation’s Commissioners. Quantitative information was used from Secondary Data of Nationwide House Survey completed from 2008 to 2018 in Nigeria (NDHS and WASH Norm Survey), Statistical Routine of the Ministry of Health regarding diseases (cases of diarrhea and cholera) and primary data collected during the evaluation within HH survey undertaken in 7 states (sample of 7,000 households) in applying the Quasi Experiment Design in comparing impact indicators of LGAs exposed to WASH Program with LGAs not exposed to WASH Program. In addition, qualitative information generated from Focus Group Discussions and Key Informant Interviews are 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. These data allow us to look for patterns consistent with an effect of the program, though they do not provide strong evidence of programmatic impact.

**Evaluation Question I1:** 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?

### 4.4.1. Impact Assessment using Secondary Data from Nationwide Household Survey (NDHS)

#### a) Impact of WASH Program on diarrhea among U5 children?

Secondary data from the NDHS household survey did not provide evidence of an impact on diarrhea disease in six of the seven states which the evaluation covered. Only Anambra state has recorded a 50% decrease of prevalence of diarrhea among under-five children during the last five years from 7.7% (NDHS 2013) to 3.1% (NDHS 2018). In general, in Nigeria, the prevalence of diarrhea has increased slowly from 10.2% in 2013 to 12.8% in 2018 according to Nigeria Demographic and Health Survey Reports.

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See table in Section 6 Evaluation Criteria of the Terms of Reference (page 8).
Evaluation Question I2: To what extent has the program contributed to reduction in the incidence of diarrheal diseases among boys and girls under the age of 5?

Figure 17: Evolution of Prevalence (%) of Diarrhea among U5 Children from 2008 to 2018 in 7 States of WASH Program using secondary data of NDHS

<table>
<thead>
<tr>
<th>State</th>
<th>NDHS 2008</th>
<th>NDHS 2013</th>
<th>NDHS 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>4.1</td>
<td>5.5</td>
<td>8.1</td>
</tr>
<tr>
<td>Anambra</td>
<td>3.1</td>
<td>5.7</td>
<td>3.1</td>
</tr>
<tr>
<td>Bauchi</td>
<td>32</td>
<td>25.7</td>
<td>34.1</td>
</tr>
<tr>
<td>Benue</td>
<td>7.3</td>
<td>9.5</td>
<td>11.2</td>
</tr>
<tr>
<td>Ekiti</td>
<td>9.1</td>
<td>6.6</td>
<td>9.3</td>
</tr>
<tr>
<td>Jigawa</td>
<td>8.2</td>
<td>14.8</td>
<td>19.1</td>
</tr>
<tr>
<td>Katsina</td>
<td>17.8</td>
<td>7.7</td>
<td>13.7</td>
</tr>
<tr>
<td>Nigeria</td>
<td>10.1</td>
<td>10.2</td>
<td>12.8</td>
</tr>
</tbody>
</table>

b) Impact of WASH Program on the reduction of stunting among U5 children

Evaluation Question I4: To what extent has the program contributed to a change in malnutrition among children under the age of 5?

Trend Analysis of secondary data from NDHS 2013 to 2018 has revealed around 4 points of decline in the prevalence of stunting of under-five children in two states of Anambra and Akwa Ibom during the last five years respectively from 18.4% (NDHS 2013) to 14% (NDHS 2018) and from 22.4% in 2013 to 19.6% in 2018. In the other five states, there is stagnation or increase of prevalence of stunting in similarity situation with the Nigeria’s average of stagnation of stunting at 36.8% in 2013 and 2018.
There is no strong evidence of a decrease in chronic malnutrition, as indicated by stunting rates over the time of the Program in any of the 7 states or nationally. There is however evidence of a secular trend in that stunting has decreased across all 7 states and nationally since 2008.

c) Impact of WASH Program on the increase of Primary School Attendance Rate?

According to evidence from the evaluation HH survey, the evaluation team found positive effect in four 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. In addition, sample statistics revealed a small reduction in absenteeism (0.3 days) between LGAs exposed to WASH interventions compared to LGAs not exposed to WASH interventions. However, the pattern was not consistent across all states.

Trend analysis of Demographic and Health Survey data shows that three states Jigawa, Katsina and Anambra have registered increase of primary net attendance ratio during the last five years: from 43.2% (NDHS 2013) to 56.4 % (NDHS 2018) in Jigawa, from 43.5% to 68.3 % in Katsina and from 82 % in 2013 to 85.1% in 2018 in Anambra. In the other states, there has been a decrease or stagnation of primary school attendance.

Evaluation Question I3: To what extent has the program contributed to a change in the school enrolment and attendance rate among boys and girls?

Figure 18: Evolution of Prevalence of Stunting (%) among U5 children from 2008 to 2018 in 7 States of WASH Program using secondary data of NDHS

Figure 19: Evolution of Net Attendance Ratio (%) in Primary School from 2008 to 2018 in 7 States of WASH Program using secondary data of NDHS
4.4.2 Impact Assessment of WASH Program using Routine Administrative Data from Ministry of Health (Cases of Cholera)

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.

b) Table 36: Trend of Number of Cholera Cases at Health Facilities

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Anambra</td>
<td>43</td>
<td>291</td>
<td>169</td>
<td>112</td>
<td>0</td>
<td>23</td>
<td>0</td>
</tr>
<tr>
<td>Bauchi</td>
<td>73</td>
<td>148</td>
<td>131</td>
<td>97</td>
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<td>9405</td>
<td>5</td>
</tr>
<tr>
<td>Benue</td>
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<td>0</td>
<td>0</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Ekiti</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Jigawa</td>
<td>106</td>
<td>121</td>
<td>197</td>
<td>66</td>
<td>17</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Katsina</td>
<td>523</td>
<td>53</td>
<td>53</td>
<td>14</td>
<td>0</td>
<td>7400</td>
<td>1</td>
</tr>
<tr>
<td>Nigeria</td>
<td>6600</td>
<td>35996</td>
<td>5298</td>
<td>768</td>
<td>5268</td>
<td>43996</td>
<td>15837.13</td>
</tr>
</tbody>
</table>

4.4.3 Impact Assessment of WASH Program on Reduction of Stunting using Evaluation HH Survey Data – Difference between Treatment Group and Control Group

In the 7 states which the evaluation 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, two states of Anambra and Benue present positive effect with the prevalence of stunting among under five children is higher in LGAs not exposed to WASH interventions in comparison to LGAs that benefited of WASH program respectively 16.7% vs 9.1% in Anambra and 39.1% vs 34.1 in Benue.

Figure 20: WASH impact on Nutrition: Prevalence (%) of Stunting among U5 children in LGAs exposed to WASH Program in comparison to LGAs not exposed to WASH program 2014-2019

<table>
<thead>
<tr>
<th>State</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akwa Ibom</td>
<td>29.7</td>
<td>30.9</td>
</tr>
<tr>
<td>Anambra</td>
<td>9.1</td>
<td>16.7</td>
</tr>
<tr>
<td>Bauchi</td>
<td>39.9</td>
<td>42.2</td>
</tr>
<tr>
<td>Benue</td>
<td>34.1</td>
<td>39.1</td>
</tr>
<tr>
<td>Ekiti</td>
<td>36.7</td>
<td>34.4</td>
</tr>
<tr>
<td>Jigawa</td>
<td>53.5</td>
<td>50.8</td>
</tr>
<tr>
<td>Katsina</td>
<td>47.1</td>
<td>52.9</td>
</tr>
</tbody>
</table>
4.4.4 Impact Assessment of WASH Program on Quality of drinking water and Beneficiary Satisfaction using Evaluation HH Survey Data – Difference between Treatment Group and Control Group

Regarding the Quality of drinking water, the evaluation team founds that less than 15% of household heads have reported issue related to bad quality (bad color, odor or unwanted taste) of drinking water used from boreholes. On average, there are few differences between LGAs exposed to WASH Interventions (14.7% of HH head have mentioned bad color of water) and LGAs not exposed to WASH interventions (16.8%). However, two states (Benue and Katsina) shown up an important impact of WASH program on safe quality of Water when comparing intervention areas (19.8% in Benue and 15.8% in Katsina) with non-intervention areas (41% in Benue and 23.6% in Katsina).

4.4.5 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 target areas?

There was little evidence of systematic integration of WASH into other sector interventions.
Looking across the program 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.

Looking across the program 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. However, collaboration with the education and health systems was necessary to facilitate provision of institutional facilities (schools and health centres) and implementation of hygiene promotion in schools and this was achieved in many LGAs. The evaluation observed awareness of safe sanitation and hygiene practices in schools and health centers, and the achievement of ODF status by several communities also required local collaboration between sectors to achieve the necessary institutional WASH facilities.

Perceptions from key informant interviews 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 program, 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 explained “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 program. They suggested that, ideally, convergence would come about through geographical overlap, the use of shared delivery platforms and targeting of the same beneficiary households. 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.
4.4.6 To what extent has the program contributed to reduction in the incidence of diarrheal diseases among boys and girls under the age of 5?

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

The evaluation found no evidence of systematic impact on diarrhea prevalence across the overall program (18.0% vs 19.5% in the intervention and non-intervention areas respectively). When looking at the pattern across individual states the results were mixed. In Benue, rates were 19% lower in the intervention group (13.9% in intervention LGAs vs 29.6% in non-intervention LGAs), while in Jigawa they were higher (22.7% in intervention vs 15.2% in non-intervention LGAs). Similarly in Katsina somewhat higher rates were seen in the intervention group (7% in intervention vs 5% in non-intervention LGAs). 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 diarrhea disease.

The evaluation assessed the prevalence of diarrheal disease in children aged 5 years and under through a questionnaire survey item asking the heads of households of these children whether the under-5 child had experienced diarrhea in the two weeks prior to the survey.

a) Evidence of impact of WASH Program on Diarrhea among Children under 5 years – Difference between Treatment Group and Control Group

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

111 Based on the survey data ‘WASH Ng_Tables’ and question to Head of Household ‘Has [child] had diarrhoea in the last 2 weeks?’ on ‘ChildDiarrhM’ tab
### Table 38: Percentage of School Pupils who have experienced Diarrhea during the last 2 weeks\(^{112}\)

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

There was a perceived reduction of diarrhea disease reported in several communities and LGAs. In focus group discussions with WASHCOMs, several members testified to a reduction in diarrheal disease in their communities. Primary health care facilities visited at Dolenkwana in Birmiwa and Dansauri in Roni LGAs also reported a perceived reduction in the number of children under the age of 5 suffering from diarrheal disease. This 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, Birmiwa 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 household 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 household 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 diarrhoea prevalence\(^{113}\). 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 program is being implemented (Warji), and relative stability in the

\(^{112}\) Based on the survey data ‘WASH_Ng_students’ and question ‘Did you have diarrhoea in the last 7 days?’ on ‘DidDiarrhea’ tab

other (Dass), aside from a rise in 2017. There was an increase in diarrhea prevalence in the control LGA of Itas/Gadu. In Benue, both the control (Ushong) and two treatment LGAs (Buruku and Tarka) recorded higher cases of diarrhoea among under 5s between 2013-2017 but no deaths due to diarrhoea were recorded. In Katsina, two treatment LGAs (Kaita and Mai’Adua) recorded higher cases of diarrhea among U5 children throughout the study period and reported higher figures than the control LGA (Mashi), though the control LGA also experienced an increase between 2013-2017.

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 diarrheal disease in children under 5. 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 possibility that intervention areas had higher baseline rates than controls and that, in the absence of true baseline data, this masks any reduction. However, it is also possible that the multiple transmission routes for diarrheal infections rendered the program 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 21: Children with diarrhea in last two weeks**

![QM23. Has your child had diarrhea in the last two weeks?](image)

**4.4.7 To what extent has the program 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 program.

The evaluation found no significative difference between intervention and non-intervention areas in enrolment rates for boys or girls. Absence rates were low across the program, but lower in the intervention areas (mean of 0.3 days in the past week) compared with non-intervention areas (mean 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 program.
The evaluation household survey asked, for each school-aged child identified by the head of household, 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 positive effect in four 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. In addition, sample statistics revealed a small reduction in absenteeism (0.3 days) between LGAs exposed to WASH interventions compared to LGAs not exposed to WASH interventions. However, the pattern was not consistent across all states.

a) Evidence of impact of WASH Program on increase in preschool/nursery enrolment ratio – Difference between Treatment Group and Control Group

Table 39: Evidence of impact of WASH Program on increase in preschool/nursery enrolment ratio – Difference between Treatment Group and Control Group

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

Qualitatively, there was a reported increase in school enrolment and retention attributed to a more conducive learning environment engendered by the WASH in School program. 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.”

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\[114\] Based on the survey data ‘WASH_Ng_tables’ and question ‘Is [child] enrolled in school?’ on ‘School’ tab
In summary, absence rates were not high\textsuperscript{115}. There was evidence of a slight reduction in absence associated with the program but this was not consistent across all states. The reason for the difference between program and non-program LGAs is not known, however, in view of the lack of impact of the program on diarrheal disease a reduction in these infections was probably not the cause.

4.4.8 To what extent has program contributed to a change in malnutrition among children under the age of 5?

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

The evaluation assessed height and length for all children aged 5 years and under. Rates of stunting were above the national average of 32%, possibly reflecting relative deprivation in the areas of focus for the program. In average, the evaluation found no evidence of any difference between intervention and non-intervention LGAs (42.7% and 44% respectively) and this pattern was consistent across all states. However, two states of Anambra and Benue present positive effect with the prevalence of stunting among under five children is higher in LGAs not exposed to WASH interventions in comparison to LGAs that benefited of WASH program respectively 16.7% vs 9.1% in Anambra and 39.1% vs 34.1 in Benue

\textbf{Figure 22: Rates of stunting}

\textsuperscript{115} This data was still being analyzed at the time of draft submission and will be included in the report finalisation
4.4.9 To what extent has the program contributed to a change in handwashing practices?

There was evidence of an increase in the region of 10% in rates of self-reported handwashing with soap and an increase of 5% in the prevalence of handwashing with soap as normative. There was some evidence of a small, positive change in proxy indicators (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 observation to look for the presence of a handwashing facility (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.

Indicators of handwashing:

Self-reported data show a reasonably consistent pattern of a modest increase (in the region of 10%) in regular handwashing with soap at critical times. The evaluation asked community members to self-report on how commonly 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 program, 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% in intervention LGAs vs 26.9% in non-intervention LGAs, a difference of 11%. Similarly, for washing hands with soap after defecation the rates across the program as a whole were 49.5% vs 39% 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 feces showed differences of 9% (27.5% vs 18.1%) and 10% (35.4% vs 25.4%) between intervention and non-intervention LGAs respectively. The self-reported use of soap or a soap substitute on the last occasion of handwashing also increased by 13% in this group (55.1% vs 42.2% for intervention and non-intervention LGAs respectively).

The evaluation asked for perceptions of behavioral norms, asking how common people thought it was for other people in the community to wash hands with soap before eating and after defecation. Across the program there was a 5% increase in the perception of handwashing with soap before eating as normative (15% Vs 10.4%). A similar change was seen in handwashing with soap after defecation (15.6% Vs 10.9%).

Proxy indicators of handwashing hardware

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 utensils for handwashing, or are able to find necessary utensils at the point of need) or, that the increase in self-report point to increased awareness of good practice rather than actual behavior change.

During transect walks in the communities visited for the qualitative study, handwashing facilities were observed inside and beside latrines including tippy-taps in some households, schools, offices and primary health facilities. At market places visited, water and soap were provided for latrine users. Staff at two health centers, 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 program but were slightly more common in intervention LGAs (2.4%) than non-intervention (0.8%). There was no difference in the prevalence of a cup and basin across the program (30.8% vs 32.2% 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% and 9.4% in intervention LGAs in Ekiti and Bauchi vs 0% in non-intervention LGAs). Furthermore, the apparent complete absence 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 of water close to latrines in intervention LGAs but the numbers were again very low and the differences small (9% vs 6% for water and 6.4% vs 3.9% for soap). When looking at the pattern for individual states, only Bauchi showed a difference in presence of water (5.3% vs 2.6%) 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 practice and perceptions of norms suggest that the program 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, thought the availability of convenient soap and water to facilitate and encourage regular practice was not evident.

Figure 23: Prevalence of hand washing with soap after defecation
4.4.10 To what extent has program contributed to unexpected positive impacts in any of the four identified areas (health, education, nutrition and WASH)?
This question was amalgamated with 4.4.11

4.4.11 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?
Impact on Behavior Changes related to Hygiene and social role

There was evidence of a positive increase in the seven states which the evaluation covered of 10% in rates of self-reported handwashing with soap and an increase of 5% in the perceived prevalence of handwashing with soap. There was some evidence of a small, positive change in proxy indicators (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 founds that less than 15% of household heads have reported issue related to bad quality (bad color, odor or unwanted taste) of drinking water used from boreholes. On average, there are few differences between LGAs exposed to WASH Interventions (14.7% of HH head have mentioned bad color of water) and LGAs not exposed to WASH interventions (16.8%). However, two states (Benue and Katsina) shown up an important impact of WASH program on safe quality of Water when comparing intervention areas (19.8% in Benue and 15.8% in Katsina) with non-intervention areas (41% in Benue and 23.6% in Katsina).

Overall summary explanation factors of WASH Impact.

There is a combination of factors which creates an enabling environment for observable impact:

- Political will and active participation from state to local level
- Effective collaboration with and use of private sector
- Establishment of and effective support for local structures (WASHCOMs and VLOM capacity).

<table>
<thead>
<tr>
<th>Impact</th>
<th>Factors Affecting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment of RUWASSA in the states of intervention.</td>
<td>Systems development by UNICEF</td>
</tr>
<tr>
<td></td>
<td>Multi stakeholder participation (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)</td>
</tr>
<tr>
<td>Improved planning and expansion of access to water supply, sanitation and hygiene.</td>
<td>Development and use of WASHIMS.</td>
</tr>
<tr>
<td>Improved provision of services</td>
<td>Implementation of robust procurement procedures through the harmonized guidelines</td>
</tr>
<tr>
<td></td>
<td>Use of CSOs and the private sector in the procurement of works and services</td>
</tr>
</tbody>
</table>
4.4.12 To what extent has the program 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 Program’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 also requires adequate WASH provision. Therefore, the achievement of program outputs in increasing coverage of safe and convenient water and sanitation supplies in themselves help to reduce gender-based inequalities and address the needs of women and girls.

The evaluation found that the UNICEF WASH program has enabled women to take on more prominent community roles, most notably in the northern states. The program 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, in Dolenkwana half of WASHCOM Executive Committee members were women and in Maiso, 6 out of 15 were women. 50% of volunteer hygiene promoters in Jigawa state were women.

The evaluation team gained feedback from several girls and women on the program 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 close of school. Women and girls interviewed at the health center in Dolenkwana expressed appreciation of the gender segregated latrines and menstrual hygiene management facilities provided by the program 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 program 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 program 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.

4.4.13 To what extent has the WASH Program 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 program, 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 WASHCOM membership 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”
4.4.14 To what extent have communities understood their rights to WASH services from authorities?

Respondents from WASHCOMS reported that, through capacity building workshops run by the program, communities have come to realize their right to WASH facilities.

WASHCOM members interviewed for this evaluation recognized that, since the inception of WASH program, which included a series of workshops, communities have come to realize their right to healthy living through the provision of WASH facilities.

4.4.15 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?

Since the inception of the program, the level of awareness of WASHCOMs with regards to their rights to benefit from WASH have increased. WASHCOM Executive Committees have made verbal and written requests to LGA WASH Departments and the WASHCOM Federation to get these facilities in their communities or to repair any broken-down facilities that are beyond their financial and technical capacities.

The WASHCOM Federation coordinates and oversees the activities of WASHCOMs, representing WASHCOMs at LGA, State and Federal government levels to ensure that their needs are met. According to one LGA WASH Coordinator, the Executive Committee of the WASHCOM Federation is made up of people of high caliber that can access anybody in government, irrespective of ranking.

4.4.16 To what extent has the change in community voice led to an increase in access to WASH services or resources or responsiveness from authorities?

Overall, the evaluation found some qualitative evidence that communities are aware of their rights and WASHCOMs are increasingly able to engage with local government systems to help ensure sustained access to water. For example, WASHCOM members attested to the fact that they had adequate water points to serve their communities, due to a system to ensure community action to prevent insufficient provision. Community respondents reported that they were aware of the numbers of people who could be served by a specific waterpoint and contributed to baseline assessments of the adequacy of any proposed waterpoint. Where they believed it would be underserved, the WASHCOM would send a verbal or written request to the LGA WASH Department for additional provision. Equally, in the event of any water facility breaking down, the LGA WASH Department would be informed on time for the repair.

4.4.17 Beneficiary satisfaction using evaluation quantitative HH Survey

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% of heads of households in the communities exposed to WASH intervention are extremely satisfied in comparison to only 36% in non-invention areas. Beneficiary satisfaction vis-à-vis WASHCOM or WASH Unit is very high in the WASH interventions areas in comparison to non-interventions area in the following states: Akwa Ibom (23% vs 2.8%), Bauchi (46.7% vs 30.2%), Benue (28.8% vs 13.9%), Ekiti (65.2% vs 47.1%).

4.5. Sustainability of WASH Programme

This section provides an assessment of 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.

The evaluation found that, to date, implementation of the WASH Program has resulted in some positive change at community level, and to some extent at LGA and State level. This suggests there is a good likelihood that project outputs, outcomes will persist a year or more after support to beneficiaries ends; it is too early to actually evaluate sustainability at this stage. It should be evaluated at an agreed point following completion of the program.
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 the institutional strengthening and capacity building elements of the program. 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 program 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 program 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 program 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 are also noted. Households 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 2: Sustainability in the context of UNICEF and the Government of Nigeria

The UNICEF Nigeria Country Program 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.” UNICEF Nigeria engage in both service delivery and upstream advocacy work, with the intention “to empower government to create/strengthen necessary systems, structures and processes required for provision of sustainable WASH services.”

The Government of Nigeria aims to eliminate open defecation 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. As such, the achievement and sustainability of the results of the UNICEF WASH program are crucial, underpinning wider national goals.

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

The evaluation found that, overall, program service delivery models and interventions deployed as part of the program have so far been looked after by communities, with support from various stakeholders. A key element of the program has been institutional strengthening through capacity building and reform which has enabled stakeholders within government and otherwise to provide the necessary support at the community level for looking after interventions. Several service delivery models and interventions at 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.

116 WASH Impact Evaluation Evaluability Assessment
117 WSSSRP II: 6th Narrative and financial progress report
118 UNICEF Nigeria Country Program Document 2018-21
Institutional Strengthening and Interventions

The four projects (SHAWN II, WSSSRP II, WSSSRP III and NDSP) comprising the WASH program 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 program emphasizes: “tackling the risk of relapse and sustainability”, and the WSSSRP II project documents state that “UNICEF will endeavor to ensure the overall ownership and sustainability of projects.”

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 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 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.”

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 community level. Fieldwork verified that there have been several training programs targeting LGA staff and CSOs to build their capacity for conducting triggering and monitoring, 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.” The trainings were considered successful; one WASH Coordinator from Toro LGA reflected: “..after triggering, we continue to monitor the communities… until the results are achieved” and the uptake of VHPs to conduct routine monitoring house to house has been widespread. 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 Water Safety Plans (WSPs) and Water Quality Testing (WQTs) was conducted under WSSSRP II, and expected to be used to train WASHCOMs to better carry out routine monthly water quality testing for monitoring quality of water 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 on 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 households. Respondents in visited communities 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

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119 SHAWN II Business Case
120 WSSSRP II: Description of the Action
121 WSSSRP II: Description of the Action
122 WSSSRP III: 5th year narrative and financial
123 Guidelines for Hygiene Promotion
124 WSSSRP II: 6th Narrative and financial progress report
defecation through awareness raising and affordable sanitation options”. The 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’, it was important for UNICEF to ensure ongoing support to communities throughout the duration, and beyond the program 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 program 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 open defecation 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 supporting communities in looking after service delivery models by 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”

WASHCOMs

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 Federation of WASHCOMs were yet to be established, activities of WASHCOMs were reduced to 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 this can affect community ownership and willingness to engage and cooperate with the WASHCOM. More about WASHCOMs can be found in Box 3.

4.5.2 To what extent do men and women in the communities understand and implement their role 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 program that community ownership of WASH installations was key to long term sustainability and 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 low and uncoordinated. Community-based monitoring systems and hygiene promotion also provide opportunities for men and women to participate in maintaining WASH facilities, for example through implementing Water Safety Plans (WSPs) and engagement of Volunteer Hygiene Promoters (VHPs).

The understanding of both men and women in target communities regarding their role to maintain WASH installations was found to vary. As discussed in 8.1, there was recognition across the program that community ownership of WASH

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WSSSRP II: 6th Narrative and financial progress report


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installations was key to long term sustainability, for example a key informant from RUWASSA in Bauchi stated 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 to implement their respective roles for 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 programs”\(^\text{127}\). They are also expected to open and maintain a bank account for lodging all WASH funds. Program documentation for WSSSRP II suggests that communities are expected to raise 5% of the cash required upfront for operation and maintenance and deposit it in their bank accounts before construction of a facility commences\(^\text{128}\). 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 on financial management systems, how to create a financial management plan. They are also trained on how to identify the needs and potential modes for water user fees, and how to mobilize community resources to start a WASH project, including 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. Whilst some community members claimed they were contributing to user fees, WASHCOM records showed that contributions were low and uncoordinated, where 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. Fieldwork 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.

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 Water Safety Plans (WSPs) under WSSSRP II to protect their water sources and realize the aims of Community Action Plans\(^\text{129}\). The NDSP project has trained communities to use simple water quality monitoring techniques such as H2S vials\(^\text{130}\). Project reporting emphasizes how the implementation of the community VHP approach under the National Hygiene Promotion Strategy\(^\text{131}\) 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”. \(^\text{132}\)

\(^\text{127}\) Expanded Guidelines for WASHCOMS
\(^\text{128}\) WSSSRPP II: Description of the Action
\(^\text{129}\) WSSSRP II: 6th Narrative and financial progress report
\(^\text{130}\) NDSP: Narrative and financial 6th year progress report
\(^\text{131}\) WSSSRP II: 6th Narrative and financial progress report
\(^\text{132}\) WSSSRP III: 5th year narrative and financial
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 LGA level helps to ensure sustainability of water facilities and is a positive result of the program to date. LAMs trained as part of the program 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 handpump boreholes. The evaluation notes there have been challenges with regards community’s payment 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 Program succeeding to build WASH community system and accountability that ensure real time maintenance of improved drinking water sources. 16.8% of Head of households 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, in comparison to only 1.2% of Head of households interviewed in communities in non-intervention areas. The WASH Program has helped empower WASHCOM for adequate community based institutional leadership role and ownership of water infrastructure in some states: Akwa Ibom (24.8%), Bauchi (20%), Ekiti (23.4%) and Jigawa (22%).

Quantitative evidence from the household survey revealed that on average the WASH Program has developed strong local capacity for the maintenance of improved drinking water source: 20.8 % of heads of households in communities exposed to WASH intervention recognized that the repair of broken water sources is performed by a Mechanic from the Water Committees in comparison to only 8.5% in communities in non-intervention areas, which depends 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 programs. 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”.

This is a good indicator of sustainability and has helped streamline the cost of repairs and reduce facility down time. Key Informant Interviews suggested that the main sustainability indicator is the functionality of facilities, closely linked 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 programs 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 handpump boreholes. 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 cash and some LAMs have experienced challenges with regards to payment for their services: 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”.

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133 NDSP Narrative and financial 6th year progress report
Based on evidence from Evaluation HH survey, participation of households in the maintenance and management of improved drinking water sources through the payment mechanism required to Household/community users, is not a common practice in either non-intervention communities (17.7%) or intervention communities (17.4%). Practice was higher in some states, and more so in non-intervention areas than intervention such as Akwa Ibom (56.2% vs 41% for non-intervention vs intervention) and Anambra (42.5% vs 36%).

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 3: WASHCOMs

The evaluation found the establishment of WASHCOMs to be a key output of the WASH Program 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 collaboration between stakeholders at various levels involved in WASH service delivery.

WASHCOMs have been formed across the program sites at the community level where there has been a UNICEF WASH intervention, and intend to promote and support the uptake of services in communities. They are particularly important in O&M and performance monitoring functionality of water facilities. UNICEF’s document on an ‘expanded role of WASHCOMS’ articulates the standard approach for setting up the 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, criteria which were generally well observed during the field visit.

WASHCOMs are considered a key structure for linking the community to government officials, empowering and sensitising people to realise 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 households where children aren’t immunized, birth registration and elevating these 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 supplemented with various manuals and protocols. VLOM units have been established at LGA level across the program which consist of both RUWASSA and LGA staff responsible for post-construction monitoring using a facility tracking system. Program 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 Federal Ministry of Water Resources with support from UNICEF Nigeria, 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% 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.

134 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\textsuperscript{135} and a recently published academic paper.\textsuperscript{136}

WSSSRP II project documentation states that community-based management underpins the achievement of project goals, and recognizes ‘Village Level Operation and Maintenance 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”\textsuperscript{37}. VLOM starts with the involvement of communities in making informed choice of the nature, type and location of facilities they require and involves the establishment of structures and mechanisms for management of interventions, developing human capacity to manage the facilities, and overall creation of an enabling environment for community-based management. VLOM units sign agreements with local mechanics and traders to conduct repair work\textsuperscript{138}.

UNICEF has engaged with local partners such as the Tulsi Chanrai Foundation (TCF) to institutionalize VLOM of water facilities by supporting the development of VLOM units at LGA level, as part of both the DFID and EU funded projects\textsuperscript{139}. 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\textsuperscript{140} so that LAMs can attend to it.

Key Informant interviews verified that communities understand the process of referral for VLOM through explanation of what is done and who is involved. Program 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”\textsuperscript{141}

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

The evaluation found that LGA VLOM units are operating successfully, responding to cases alerted to it through a dedicated facility monitoring and tracking system, the ‘Interactive Voice Response System’ (IVRS). Maintenance cases are being addressed and generally facility down time has been reduced and improved; there persists a target for responding to cases within 48 hours from referral. The evaluation found there to be scope for improvement though, as downtime targets were not consistently reported as being met across the program targeted LGAs, and program beneficiaries reported downtime lengths as varying from one day to one week.

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 alerted to it; the functionality of water facilities are monitored. A platform known as the ‘Interactive Voice Response System’ (IVRS), is used to log any issues as soon as they are apparent and this contributes to real time response of the VLOM unit and LAMs, and consequently a reduction in breakdown time\textsuperscript{142}. There is a target for responding to cases within 48 hours\textsuperscript{143} to prevent long downtimes of facilities that could hinder

\textsuperscript{135} WSSSRP II: 6th Narrative and financial progress report
\textsuperscript{137} WSSSRP II: Description of the Action
\textsuperscript{138} NDSP Narrative and financial 6th year progress report
\textsuperscript{139} WSSSRP II: 6th Narrative and financial progress report; WSSSRP III: 5th year narrative and financial
\textsuperscript{140} WSSSRP II: 6th Narrative and financial progress report
\textsuperscript{141} Frademol data
\textsuperscript{142} KII
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 household survey revealed that on average the WASH Program has developed strong local capacity for the maintenance of improved drinking water source: 20.8% of heads of households in communities exposed to WASH intervention recognized that the repair of broken water sources is performed by a Mechanic from the Water Committees in comparison to only 8.5% in communities in non-intervention areas, which depends mostly on government intervention or charitable rescue from other communities.

Interviewees from qualitative assessment suggested that faults do not usually cause downtimes of more than a day, but this can be 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 3 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 3 to 7 days, it will be fixed unlike before.”

This represents a considerable improvement to past downtime lengths, which some key informant interviews reported had been of up to four months for a borehole to be repaired, if at all. Data collected by the field team shows that “The program has been able to evolve a system for timely repairs of non-functional safe water sources in the program beneficiary communities that reduced breakdown time.”

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.

Budget allocations for WASH services were found to vary by state, but overall inadequate to ensure long term sustainability of financial resourcing at this level. The SHAWN II project notes in its Business Case the need to consider how financial support from the Government of Nigeria can be secured and maintained to ensure sustainability. There exists 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.

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.145

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 required146. Likewise, WSSSRP III reporting stated that none of its target LGAs had a defined budget for WASH funded directly to them.147

144 Frademol data
145 NDSP Narrative and financial 6th year progress report
146 WSSSRP II: 6th Narrative and financial progress report
147 WSSSRP III: 5th year narrative and financial
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 resource 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 Education Board (SUBEB) now has a budget line for WASH which is good evidence of sustainability and means that WASH in Schools work 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 3 years before hardware construction began due to non-release of government counterpart contributions. When counterpart funds were received, they ended up covering 100% 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”\(^{148}\). 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.\(^{149}\)

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

The evaluation found that households 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 programs which has created demand for improved facilities. This has been bolstered through Sanitation Marketing and the prominence of Toilet Business Owners (TBOs) promoting both affordable and appropriate technological solutions that facilitate movement ‘up the sanitation ladder’. Whilst this looks promising, the evaluation notes that changes observed are within the time scope of the respective programs, 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.

Households in target communities have been upgrading or replacing their sanitation facilities following initial triggering processes and behavior change campaigns of the WASH programs. Triggering through CLTS was a key strategy for program 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 households. This will be the key approach in sanitation promotion under this project while more efforts will be put on getting households and communities to move up the sanitation ladder in the medium and long term”\(^{150}\).

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 households having constructed traditional pit latrines after their triggering. SHAWN project reporting indicates that households built or upgraded 183,255 sanitation facilities, over half of which were ‘improved’ under the SHAWN program in the 2019 reporting period.

Sanitation Marketing has been another important program intervention, especially under the SHAWN project, to facilitate the replacement or upgrading of household 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 Brinin 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”. Similarly, a key

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148 SHAWN II 2019 Annual review draft
149 SHAWN II 2019 Annual report.
150 WSSSRP II: Description of the Action
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 Toilet Business Owners (TBOs) are well positioned in communities to assist individual households in latrine construction and maintenance of both appropriate and affordable options. UNICEF have helped establish links between TBOs and households 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 households.”

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 household level.

In 2016, the SHAWN program introduced Sanitation Financing to complement the Sanitation Marketing approach, predominantly through microfinancing loans and the Adashe Scheme which have helped households 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 provided solutions to remove the existing barriers and close such gaps, especially among the most vulnerable, including adolescent girls and women.

The evaluation found the WASH Program 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 program specifically targeted the most vulnerable which includes women and children.

The WASH program 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 program and 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.

The WASH Program implicitly integrates a human rights-based approach into its program 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 is explicitly considered in program 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 Program through focusing for example on provision of financing, appropriate solutions and increasing knowledge and education.

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151 SHAWN II 2019 Annual report.
Box 4: Gender and Equity in the context of UNICEF and the Government of Nigeria

UNICEF Nigeria’s Country Program 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 Program’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”.

UNICEF Nigeria’s subsequent Country Program Document 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’.

The UNICEF WASH program 2014-2017 placed strong emphasis on identifying and addressing disparities in access to safe water and sanitation facilities across its target intervention areas. The program targeted those with the greatest need for water and sanitation according to project documentation, who have normally been the poorest people, women and children. All projects within the program made explicit efforts to address gender and equity, although WSSSRP III to a lesser extent.

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

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 program. Gender equality and the empowerment of women were explicitly considered at program design stage which is reflected in the individual project’s charters and reporting as well as UNICEF Nigeria’s Country Program 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 program 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 for example 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 program. 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 open defecation and ensure the safety and dignity of girls and women by involving them in design choices for facilities” and provide gender sensitive facilities in schools and health centers. Various manuals and protocols for use in WASH programs, developed collaboratively by UNICEF Nigeria, with the Government of Nigeria, DFID and the EU, demonstrate how gender equality and empowerment of women have been considered in program 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, one of which is Menstrual Hygiene Management 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:

152 UNICEF Nigeria Country Program Document 2014-17
153 UNICEF Nigeria Country Program Document 2018-21
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% women. Either the Chair or Vicechair 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 program designs. The Business Case for SHAWN II recognizes “that the impacts of poor WASH falls disproportionately on women and girls as the primary water fetchers and carers for sick children and family members”, and notes four key economically quantifiable benefits of WASH interventions on women and girls: Time savings as they spend less time 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 Cost savings on procuring water from a lower cost source. WSSSRP II also recognizes the importance of gender equality and empowerment of women in its program 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”.

The quantitative household survey showed that in both Intervention and non-Intervention states, the burden for fetching water for cooking and drinking from the predominant water source fell to women and young females (47.7% for Intervention and 46% for non-intervention). When children are considered in addition to women and young females the figures were 65.3% for Intervention and 62.8% 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 (e.g. 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 programs 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 program.
3. Identifying and implementing context specific, demand based economic activities by user groups to enhance usefulness and vibrancy of WASHCOM and respond to local opportunities
4. Working with Imam’s and mosque/church committees to develop male-to-male activities aimed at reducing ODF, 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”.

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 over 50% of WASHCOM members overall in Anambra state are women, as described in section 5.15. Reporting for SHAWN II target areas indicates that 40% of all WASHCOM members are female and 83% have women in leadership positions.

The quantitative survey (see tables in 5.15) found women to constitute 38.4% of WASHCOM composition overall, including 35.4% of WASHCOM composition across the DFID states and 42.5% across the EU, though it is noted that only a sample of the targeted states was surveyed though for this evaluation.

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154 SHAWN II Business Case
155 WSSSRP II: Description of the Action
156 SHAWN II 2019 Annual report.
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”\(^\text{157}\).

“The program has brought women out”. 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”; One STGS member from Akwa Ibom State.

The quantitative HH survey showed that women predominantly occupy the treasurer position in WASHCOMs (53.8% for DFID and 82.6% for EU). Sometime the head of the WASHCOM was also reported as a women (5.7% in EU states and 3.2% in DFID states on average) indicating good progress towards the project aims of at least 40% 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 claimed that: “50% 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% of schools in intervention areas had gender segregated facilities\(^\text{158}\). 60.3% of girl’s toilet facilities were lockable from the inside in intervention areas compared to 48.8% in non-intervention and 23.3% contained anal cleansing materials compared to 15.9% in non-intervention.

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

The WASH Program implicitly integrates a human rights-based approach into its program design and implementation, given the overarching thematic and organizational strategies to which it is aligned such as UNICEF Nigeria’s 2014-2017 Country Program document UNICEF’s global WASH Strategy and which focus on realizing children’s rights to survival and development through improved WASH. The United Nations considers access to domestic water supply as a human right and the WASH Program has focused on the most vulnerable areas where access was lacking.

UNICEF’s global WASH Strategy 2006-2015\(^\text{159}\) was live at the time of development of the UNICEF Nigeria 2014-2017 Country Program and the SHAWN, WSSSRP and NDSP programs. 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 intent to adopt a rights-based approach in its programming.

The Rural Water Supply and Sanitation Project of the NDSP is in line with the primary objective of EU development policy, to eradicate poverty in the context of sustainable development. Human rights and good governance are recognized as critically important objectives in this context, with program documentation stating “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”.

\(^{157}\) SHAWN Annual report 2019  
\(^{158}\) compared to 75.4% in non-intervention (this is not statistically significant).  
\(^{159}\) UNICEF’s global WASH Strategy 2006-2015
4.6.3 To what extent did the program target the poorest and help reduce inequalities between wealthier and poorer groups?

The WASH program 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, who are often the poorest. Issues around equality and equity are explicitly considered in program design. This was ensured through site selection of the respective projects, based on levels of need, inequality, poverty and focusing 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 WASH program generally targeted the most vulnerable or those with the greatest need for WASH interventions in its design and implementation. 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”\(^\text{160}\). Whilst 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 “Country program 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.”\(^\text{161}\)

SHAWN II explicitly refers to ‘vulnerable people’ in its project outcome and the EU projects specifically consider equality and equity in program designs. The NDSP states an aim “to address inequities in the provision of sustainable water supply, sanitation and hygiene services in rural communities”\(^\text{162}\) 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”\(^\text{163}\).

Equity through site selection

At program design stage, the initial selection of LGAs considered the needs of the communities and targeted the poorest with 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 program targets rural areas. So, it is actually a program for the poor” For SHAWN II, the criteria for selection of the target states were based on levels of need and inequality.\(^\text{164}\) SHAWN II project documentation explained a ranking and selection process that categorized LGAs into ‘Progressive’, ‘Medium-served’ and ‘Underserved’.\(^\text{165}\)

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 program target areas and beneficiaries:\(^\text{166}\)

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 on need (but the whole LGA targeted).

\(^{\text{160}}\) UNICEF Nigeria Country Program Document 2014-17
\(^{\text{161}}\) Country Office Annual Report 2016 for : Nigeria
\(^{\text{162}}\) WSSSRP III: 5th year narrative and financial
\(^{\text{163}}\) WSSSRP II: Description of the Action
\(^{\text{164}}\) SHAWN II Business Case
\(^{\text{165}}\) SHAWN II LGA Selection criteria
\(^{\text{166}}\) WASH Impact Evaluation Evaluability Assessment
Other projects 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”\(^\text{167}\). 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”\(^\text{168}\).

The NDSP operated in the Niger Delta Region where around 70% 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”\(^\text{169}\). However, some interviewees noted that in Akwa Ibom only three LGAs participated in the process for selection of the two most vulnerable states. 17 LGAs in Akwa Ibom did not participate as “doubts of how real the program would be created apathy”. Therefore, it is possible that, in this state, the most vulnerable LGAs may not have been targeted for intervention due to non-engagement with the self-selection process, despite “demonstrable advocacy and awareness”.

Program strategies for equity

During fieldwork, the ‘Adashe Scheme’ was highlighted as a strategy to target the less privileged and poorest and increasing the number of poorer households with sanitation facilities. The savings and loan or rotating loan scheme, described in section 4 above, prioritizes the most vulnerable and needy, for example widows and elderly, by ensuring they are the first beneficiaries served through this rotational scheme. Fieldwork showed that in Bauchi state, this scheme helped Dass and Warji LGAs to move closer to ODF certification.

\(^{167}\) WSSSRP II: Description of the Action

\(^{168}\) WSSSRP II: Description of the Action

\(^{169}\) NDSP Narrative and financial 6th year progress report
Another financing mechanism used to support those who cannot afford latrine construction was micro-finance in Bauchi state through the ‘Rahama Women Development Program’, an NGO which providing sanitation loans to poor households at reduced interest rates (around 9%). Rahama assesses the ability of a household to pay back the loan and offers loans between N35,000 - N50 000, payable within seven months. They are currently experiencing a 99% repayment rate, working with TBOs to build latrines for their beneficiaries. The evaluation found that 533 households are currently receiving credit, and 300 previous beneficiaries. Female headed Households 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 also given of youths providing construction support to widows in Mbat Esigon and Ikot Imo as part of a drive to ODF certification and to reduce inequalities. 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 have toilets constructed for them free of charge in their domains”.

Researchers conducting field interviews summarized the sentiment they encountered: “The UNICEF WASH program 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 use of special designs appropriate for them which include ramps, handrails and ropes at institutional settings such as schools, health centers, markets and motor parks. However, project reporting suggests that this has not been sufficient, and recently SHAWN II reported the intention to further strengthen its focus on increasing access to WASH services for people with disabilities, as operational research focusing on disability found only 6.94% of latrines to be ‘disability-friendly’, although it is unclear what definition of ‘disability’ is used.

4.6.4 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 program strategy priorities?

Whilst the 2014-2017 Country Program 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 Program. Finance due to poverty was addressed through 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, location and finance was addressed through ‘Sanitation Marketing’ and training of TBOs who can offer suitable solutions. Limited knowledge on 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 for 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 41. The 2018-2022 CPD identifies some barriers including: Low coverage of services, predominantly in rural areas; Limited institutional and human resource capacity, particularly at state and LGA level; and Conflict, especially in North Eastern Nigeria which has destroyed 75% 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.

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170 SHAWN II 2019 Annual report
171 SHAWN II 2019 Annual review draft
172 SHAWN II 2019 Annual report
Fieldwork for this evaluation showed that finance was a major barrier to accessing WASH, and the WASH program placed emphasis on promoting low-cost community-based approaches including CLTS and VLOM as a solution. Measures were taken to enable households to cover the upfront costs of building latrines and water facilities, such as the Adashe scheme and microfinance loans, as discussed in 9.3. Key Informant interviews 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 households”.

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 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 4 trained masons (552 masons in total). A key informant in Bauchi RUWASSA exclaimed:

“We are one of the states to first implement the sanitation marketing initiatives. 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”.

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 on the importance of good hygiene and proper use of WASH facilities. Households 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. Program 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 on challenges faced and way forward”.
<table>
<thead>
<tr>
<th>Barriers to accessing WASH</th>
<th>Causes</th>
<th>Solution/How addressed</th>
</tr>
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</table>
| Household Socio-Economic Status | • Low household incomes/poverty  
• Significant household 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.  
• promote 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 role in these  
• 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 UNICEF Nigeria WASH Program (2014 – 2017\textsuperscript{173}) included high levels of open defecation; 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 program with the Government of Nigeria (WSSSRPII, WSSSRPIII, SHAWN II and NDSP) focused on:

- delivering safe access to WASH;
- supporting community engagement in WASH;
- developing strong and effective systems for delivering and supporting an effective and healthy WASH environment; and
- developing appropriate monitoring and learning frameworks.

Key parallel strategies to deliver these objectives included; CLTS, construction of institutional WASH facilities and the rehabilitation and construction of boreholes in conjunction with significant activities focused on institutional strengthening at all levels. Sanitation marketing and financing were also introduced as part of the effort towards sustaining and improving sanitation access post-CLTS. WASHIMS and associated training has also been a key strategy deployed by UNICEF.

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 households constructed traditional pit latrines after their triggering. In addition, sanitation marketing has been a key program intervention with early sign of development, facilitating the replacement or upgrading of household’s sanitation facilities and building on demand generated under CLTS and behavior change campaigns to facilitate ‘moving up the sanitation ladder’. Overall, based on the sample cases for the evaluation drawn from the four projects, the Nigeria WASH Program 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 in 2017, with access to sanitation.

The Program is on track to achieve, and further build on, increases above several of its initial targets by the end of the individual programs 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\textsuperscript{174}).

Overall outcomes indicators of use of improved drinking water sources and sanitation facilities have increased in those seven states; at national, level expected result of the country program 2014-2017 for WASH is almost achieved as revealed the findings from WASH NORM Household Survey 2018 (73.4% achieved against the initial nationwide target of 74% regarding the use of improved drinking water source by Nigerian’s population).

Whilst these achievements are encouraging it is important to assess them in the light of the continuing enormous challenges toward achieving the SDG6.

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

Relevance

In assessing whether the intervention (WASH Program) 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 program takes into account inequalities by focusing on the most vulnerable and poorest population in rural areas.

\textsuperscript{173} All of the projects had no cost extensions and revised end dates: WSSSRP II/III 2019; SHAWN II and NDSP 2020.

\textsuperscript{174} See table 6.3 page 46
The evaluation showed that the interventions and outputs of the WASH program 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 program were defined; though the complexity and interrelatedness of challenges, assumptions and processes within the program 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 local government areas where the program was operational.

The program 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 per capita cost ($33 for SHAWN II $47 for WSSSRP II and $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, establishment of WASHCOM) to facilitate community ownership and sustainable management of water supply facilities which jointly contributed to reducing the downtime of community water facilities.

Whilst 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, 94,404 sanitation facilities have been built by communities and families. The UNICEF Nigeria WASH Program 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 (WASH Program) is achieving its objectives, the evaluation team finds the WASH Program effective up to 2019; the program surpassed (126% for water and 137% for sanitation) its targets as at September 2019 while in 2017, 96% of the targets of sanitation and 89% in water were achieved. WASH program succeeds in reaching 8.1 million people, in 2017, with access to an improved water source and 11.0 million people, in 2017, with access to sanitation (figures as of September 2019\textsuperscript{175}). In 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 was the practice of covering water storage vessels as indicated below.

Trend Analysis of secondary data from NDHS 2013 to NDHS 2018 and WASH Norm Survey 2018 revealed an overall increase of above 25% of access of population to improved drinking water source during the last 5 years in the 7 states which the evaluation covered of investment made by Government and Partners (DFID, EU and UNICEF) for WASH Program. This improvement is comparably high in two states which the evaluation covered: Bauchi (49% of increase from 39.9 % in 2013 to 78.7% in 2018) and Benue (from 38.4% in 2013 to 60.4 % 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 NDHS 2013 figure with NDHS 2018 and WASH NORM survey 2018 figure for each of 7 states which the evaluation covered. Increases during the last five years are observed in Bauchi (from 18.3% in 2013 to 56.1% in 2018 like 67.4% of increase), Ekiti (63.2% of increase: from 18.4% in 2013 to 50% in 2018) and Benue (from 15.4% to 30.9% like 50.8% of increase). However, there is a decrease observable in Jigawa state (-177.2%) of the use of improved sanitation facilities from 2013 to 2018 according to NDHS findings.

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

A number of enabling (or undermining) factors and program implementation fidelity were identified. Enabling factors include 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, because of expectation of payment or the perception that local volunteers were paid, implementation fidelity was undermined.

Implementation strategies as described in routine program reports were consistent with program design. Furthermore, annual workplans at state level were used as a management tool to help ensure consistency with program 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 Program 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 activities to work towards the establishment of WASH departments and supporting 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

\textsuperscript{175} See table 6.3 page 46
indicators of 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 which can be examined without baseline data or extensive further research.

Qualitatively, respondents reported increasing awareness of handwashing and increased practice 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, resulting in the roll out of rural drinking water monitoring and surveillance activities amongst other achievements.

The evaluation found that the program strategy of developing Water Safety Plans has proved to be effective; providing a mechanism to build awareness of the importance of water quality.

The Program contributed to improved capacity at state and LGA levels for ODF verification, program 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 Program. Establishment of WASHCOMs and VLOM improved capacity at 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% of WASHCOMs were involved in non-WASH responsibilities. In DFID funded states this rose to 82%.

There was evidence that the Program 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% 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 program results. There were various levels of progress and sustenance of ODF in many communities, and a few LGAs across the program 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. There remain diverse strategic challenges.

**Impact of WASH Programme**

Whilst the WASH program 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 program i.e. 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 Household Survey, the evaluation team applied mixed methods and use multiple data sources in order to try to find out 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 rate in those 7 states.

Looking across the program 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 household survey data, in the seven states which the evaluation covered, there is no significant evidence of systematic impact on diarrhea prevalence across the WASH programme (18.0% vs 19.5% in the intervention and non-intervention areas respectively. However, three states (Bauchi, Benue and Ekiti) have shown a net difference of less prevalence of diarrhea in LGAs exposed to WASH interventions in comparison to high prevalence of diarrhea among under-five children in LGAs not exposed to WASH interventions. Local multi sectoral contextual and behavior factors may explain those divergent difference of impact on health per 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; taking account of major Cholera outbreaks recorded for 2014 and 2018 (NCDC), which are anomalous years in the data set.

Secondary data from the NDHS household survey did not provide evidence of an impact on diarrhea disease in six of the seven states which the evaluation covered. Only Anambra state has recorded a 50% decrease of prevalence of diarrhea among under-five children during the last five years from 7.7% (NDHS 2013) to 3.1% (NDHS 2018). In general, in Nigeria, the prevalence of diarrhea has increased slowly from 10.2% in 2013 to 12.8% in 2018 according to Nigeria Demographic and Health Survey Reports.

Qualitatively, respondents to focus group discussions and Key Informant Interviews 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 evaluation HH survey, the evaluation team found positive effect in four 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. In addition, sample statistics revealed a small reduction in absenteeism (0.3 days) between LGAs exposed to WASH interventions compared to LGAs not exposed to WASH interventions. However, the pattern was not consistent across all states.

Trend analysis of Demographic and Health Survey data shows that three states Jigawa, Katsina and Anambra have registered increase of primary net attendance ratio during the last five years: from 43.2% (NDHS 2013) to 56.4 % (NDHS 2018) in Jigawa, from 43.5% to 68.3 % in Katsina and from 82 % in 2013 to 85.1% in 2018 in Anambra. In the other states, there has been decrease or stagnation of primary school attendance.

Impact of WASH on Nutrition

In the 7 states which the evaluation 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, two states of Anambra and Benue present positive effect with the prevalence of stunting among under five children is higher in LGAs not exposed to WASH interventions in comparison to LGAs that benefited of WASH program respectively 16.7% vs 9.1% in Anambra and 39.1% vs 34.1 in Benue.

Trend Analysis of secondary data of NDHS 2013 and 2018 has revealed around 4 points of decline in the prevalence of stunting of under-five children in two states of Anambra and Akwa Ibom during the last five years respectively from 18.4% (NDHS 2013) to 14% (NDHS 2018) and from 22.4% in 2013 to 19.6% in 2018. In other five states, there is stagnation or increase of prevalence of stunting in similarity situation with the Nigeria’s average of stagnation of stunting at 36.8% in 2013 and 2018.

Impact on Behavior Changes related to Hygiene and social role

There was evidence of a positive increase in the seven states which the evaluation covered of 10% in rates of self-reported handwashing with soap and an increase of 5% in the perceived prevalence of handwashing with soap. There was some evidence of a small, positive change in proxy indicators (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 founds that less than 15% of household heads have reported issue related to bad quality (bad color, odor or unwanted taste) of drinking water used from boreholes. On average, there are few differences between LGAs exposed to WASH Interventions (14.7% of HH head have mentioned bad color of water) and LGAs not exposed to WASH interventions (16.8%). However, two states (Benue and Katsina) shown up an important impact of WASH program on safe quality of Water when comparing intervention areas (19.8% in Benue and 15.8% in Katsina) with non-intervention areas (41% in Benue and 23.6% in Katsina).

The Program’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 address the needs of women and girls. In addition, there were qualitative 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 supported the perception of women’s involvement in WASHCOMs. Respondents from WASHCOMS also reported that, through capacity building workshops run by the Program, communities had come to realize their right to WASH facilities. Since the inception of the Program, 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.

As lessons learned regarding the measurement of impact, the lack of statistically significant results in support of the program effect does not necessarily indicate a lack of impact on Health, Nutrition and Education due to the WASH program: 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 mean that there are considerable challenges involved in demonstrating a clear WASH interventions effect on other sectors, even if it exists, 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 1 or 2 years) after external technical and financial support has ended the evaluation found that, to date, implementation of the WASH Program has resulted in some positive changes at community level, and to some extent at 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; though 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 program.

Overall, water and sanitation facilities provided through the Program 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 program.

Quantitative evidence from the household 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 program (81.9%) and communities not exposed to WASH program (81.6%). Notable difference is observed in Benue State where 54.4 % of households recognized the availability of improved drinking water during the dry season in LGAs exposed to WASH Program, in comparison to 35% 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 program 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 Program 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 program 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 Program succeeding to build WASH community system and accountability that ensure real time maintenance of improved drinking water sources. 16.8% of Head of households 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, in comparison to only 1.2% of Head of households interviewed in communities in non-intervention areas. The WASH Program has helped empower WASHCOM for adequate community based institutional leadership role and ownership of water infrastructure in some states: Akwa Ibom (24.8%), Bauchi (20%), Ekiti (23.4%) and Jigawa (22%).

Quantitative evidence from the household survey revealed that on average the WASH Program has developed strong local capacity for the maintenance of improved drinking water source: 20.8 % of heads of households in communities exposed to WASH intervention recognized that the repair of broken water sources is performed by a Mechanic from the Water Committees in comparison to only 8.5% in communities in non-intervention areas, which depends 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% of heads of households in the communities exposed to WASH intervention are extremely satisfied in comparison to only 36% in non-invention areas. Beneficiary satisfaction vis-à-vis WASHCOM or WASH Unit is very high in the WASH interventions areas in comparison to non-interventions area in the following states: Akwa Ibom (23% vs 2.8%), Bauchi (46.7% vs 30.2%), Benue (28.8% vs 13.9%), Ekiti (65.2% vs 47.1%).

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

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 noted.

Households 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 provided solutions to remove the existing barriers and close such gaps, especially among the most vulnerable including adolescent girls and women, the evaluation found evidence that WASH Program 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 program sought to specifically target the most vulnerable which includes women and children.

The WASH program 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 program and 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 household Survey Data, the evaluation team assessed the merit of the WASH Program 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% vs 35.4 % of Women care giver of under-five children has confirmed that they participated to meeting on Community WASH facilities;
   b. The quantitative survey (see tables in 5.15) found women to constitute 38.4% of WASHCOM composition overall, including 35.4% of WASHCOM composition across the DFID states and 42.5% across the EU, though it is noted that only a sample of the targeted states was surveyed though 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 over 50% of WASHCOM members overall in Anambra state are women, as described in section 5.15. Reporting for SHAWN II target areas indicates that 40% of all WASHCOM members are female and 83% have women in leadership positions;
   c. 52% vs 46.7% indicated that they speak out their opinion freely;
   d. 46.3 % vs 40% 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 source**: Although no difference was found overall between intervention (23.8%) and non-intervention areas (24.5%), 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 program (23.9% in intervention vs 35% in non-intervention for Bauchi and14.2% vs 16.5% for Akwa Ibom).

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

The WASH Program implicitly integrates a human rights-based approach into its program 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 program 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 Program through focusing for example 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 in following program 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 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 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 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 local level), such as birth registration, helped to embed improvements and changes in WASH knowledge, attitudes and practices 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 program’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 Local Area Mechanics. 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 program, with clear targeting of the poorest and most vulnerable. The WASH program 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 of 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, the development of Water Safety Plans and Water Quality monitoring, the recruitment of Local Area Mechanics and the use of VLOM as a strategy. Since the inception of the program, 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 ‘work in progress’. Addressing O&M expenditure is a long term challenge. Contributions towards operations and maintenance by communities are often minimal, which adds a challenge to maintaining and replacing facilities with higher costs. However, improvements to the timeliness of repairs and consequent reduction in downtime from breakdowns may form part of a positive feedback look which supports access to improved WASH as an expectation.

The Program’s work to strengthen government systems, primarily at State level, has been the most challenging area to substantively implement. In this respect, the Logframe and outline Theory of Change were not detailed enough to provide a framework for Government, especially at State level to effectively engage in developing a 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 Program, specifically on 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; 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 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 program can help to sustain ODF status in communities. At 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, 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 diseases prevalence faster than WASH program being a stand-alone. Furthermore, sustainability has been improved through, for example, Adashe (rotatory funding by groups for latrine construction; Loans system through Micro Finance Institutions – Bauchi/Jigawa); functional WASHCOM Federation has ensured optimal provision of WASH facilities and their functionality through powerful representation at higher level of governance; and WASHIMS as an M&E framework that engages communities and LGA’s – a powerful tool with significant potential to support communities and LGA’s to reflect on and improve practice.

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

- The uptake of sanitation marketing and sanitation financing, including for example the establishment of sanitation pool funds
- Use of community funds (contributions) to maintain broken-down handpumps Boreholes in the communities.
- Timely response by the LAMs/VLOMs to effect repairs in the communities.
- Availability of local and genuine spare parts dealers in the LGAs
- Use of Adashe to provide improved toilets facility needs of members in rotational manners
- User fee by some WASHCOMs for revenue generation for O&M of water facilities
- Use of TBOs/SanMark approach to upgrade and construct new latrines
- Inclusion of 30 – 40% women into WASHCOM executive
Chapter 6: Recommendations

Informed by the analysis, assessment and findings set out in this report, the evaluation makes the following six recommendations.

[NB. These are intended as draft recommendations for discussion with UNICEF colleagues working on continued implementation of the WASH Program to allow reality testing, ensure relevance and to develop some operational ownership. This process is essential for the evaluation to support learning. Following this discussion, the recommendations can then be refined as needed.]

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

Recommendation 1: Develop an SDG 6-outcome aligned Theory of Change

The Theory of Change developed for the WASH Program 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 Program 2014-2017 and the four focal projects of this evaluation were initiated prior to adoption of the SDGs. There is a clear need to develop a clearer and more detailed conceptual framework (Theory of Change) that aligns to the SDG outcomes to support future programming, specifically geared towards access and use of safe and sustainable WASH for all.

The conceptual framework/Theory of Change should provide greater articulation of the complexity and interrelatedness of challenges, assumptions and processes to structure specific programming interventions with a clear focus on UNICEF’s contribution to the GoN PEWASH Strategic objective for ODF by 2025.

The challenge for UNICEF will be to move away from a focus on quantitative 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 whilst focusing on the concept of ‘safely managed’ and ‘equitable’ access.

Sanitation marketing, product development and finance are likely to be critical to sustaining sanitation achievements, though it should be noted that this is not necessarily compatible with prioritizing the poorest or most vulnerable.

Recommendation 2: Develop an improved policy influencing approach at State level

UNICEF should amplify its policy influence by further supporting a strong enabling environment at State Level, given its global comparative advantage of upstream influencing and convening. This will require working across multiple, targeted areas including funding, planning, staffing, 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 additional potential to support communities and LGA’s to reflect on and improve practice. UNICEF should support and further develop adequate framework for regular evaluative thinking for WASH Sector in strengthening real time monitoring system and ecosystem of evaluation to drive program effectiveness. This should include:

- Ensure the completion of Base Line Household Survey prior to the implementation of future large funded WASH Program that will secure rigorous end-line program impact evaluation;
- Undertake independent evaluation of SDG6 by 2025 to learn of progress achieved of Government commitment for ending ODF by 2025 and way forward SDG6;
- Further developing WASHIMS so that the data are timely in its collection, analyzed and shared widely to support use by all stakeholders (including communities)
- WASHIMS and the community reporting systems (SMS) should be enhanced and developed as conduits for two-way messaging providing essential messages on sustained hygiene behaviors and practices.
Investigation of the use of the community text messaging services as alerts to at-risk communities in the event of health emergencies (diarrhea/cholera outbreaks – further support to community awareness, action and building long term sustainability.

Recommendation 4: Support the accelerated use of microcredit and savings schemes
UNICEF should support and build awareness for increased access to savings structures such as Adashe and microfinancing schemes to complement demand creation for improved household 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. They should also be supported to conduct activities that contribute to UNICEF’s broader Child Survival and Development component; promoting uptake of services and behaviors change in other outcome areas in addition to WASH such as i) obtaining and disseminating information on immunization data, ii) identifying households where children aren’t immunized, 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 as well as 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 sectors 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 aligns the targeting and delivery of package of basic services of Water, Sanitation & Hygiene with RMNCH, Nutrition, Education, Social Protection and Social Mobilization for behaviour changes that could result to 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 inclusive of the needs of all vulnerable people, for example those with disabilities. These efforts might include more active partnerships with disabled people’s organisations as well as additional training and support for CLTS facilitator to help embed inclusion in CLTS practice.