

**Occupational Health and Safety
Management Framework
OHSMF**



Nigeria Sustainable Urban and Rural Water
Supply, Sanitation and Hygiene Program
SURWASH

Federal Ministry of Water Resources (FMWR)

Occupational Health and Safety Management Framework OHSMF

FINAL REPORT

Consultancy Services for the Preparation of an Occupational Health and Safety Management Framework, Waste Management Framework and Capacity Building on Occupational Health & Safety (OHS) and Waste Management for the FPIU, SPIUs and Implementation Partners under the Nigeria Sustainable Urban and Rural Water Supply, Sanitation and Hygiene Program (NG -SURWASH)

APRIL 2023

SURWASH



EXECUTIVE SUMMARY

ES 1: Introduction - Project Background

The Government of Nigeria (GoN) has proposed the Nigeria Sustainable Urban and Rural Water Supply, Sanitation and Hygiene (NG - SURWASH) Program in the amount of 700 million USD (which has a 640 million USD Program-for-Results [PforR] Component, with a 60 million USD Investment Project Financing [IPF] Component), designed to support the implementation of the National Action Plan (NAP) for the Revitalization of Nigeria's Water Supply, Sanitation, and Hygiene (WASH) sub-sector. The Project Development Objective (PDO) is to increase access to water, sanitation, and hygiene services and to strengthen sector institutions in participating states of Nigeria. Currently, seven states are participating in this program, which include: Delta, Ekiti, Gombe, Imo, Kaduna, Katsina and Plateau States. This Program is designed to introduce an innovative approach to sector programming that leverages incentives to simultaneously deliver infrastructure that works, policies that govern, and institutions that sustain. NG - SURWASH implementation and institutional arrangements will follow existing structures as established in the National Water Supply and Sanitation Policy (2000) and later elaborated upon in the NAP (2018). For rural communities, the program will follow the Partnership for Expanded Water Supply, Sanitation and Hygiene (PEWASH) Program Strategy 2016-2030.

ES 2: Need for the Occupational Health and Safety Management framework (OHSMF) for NG - SURWASH Program

The World Bank through the Environmental and Social Systems Assessment (ESSA)) and Environmental and Social Commitment Plan (ESCP) prepared for NG - SURWASH has recommended that Program participating States should build and strengthen the capacity of technical staff, Implementing Agencies (IAs) and the SPIUs such that they are able to manage and monitor environmental and social assessments processes, environmental pollution, occupational and environmental hazards and other environmental and social issues in the state. The ESSA and ESCP further recommends that participating states, assure "Public and Workers' Safety": by protecting public and workers' safety against the potential risks associated with: (a) construction and/or operations of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and other dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards. Consequently, the NG - SURWASH program has committed part of its IPF proceeds, for the procurement of consultancy services for the preparation of an Occupational Health and Safety Management Framework (OHSMF) and Waste Management Framework (WMF) to guide the Program participating States in developing site-specific OHSP during project implementation. The framework will also enable the SPIUs, NG - SURWASH Implementing Agencies, other supporting ministries and Contractors comply with the provisions of Environmental and Social Standards (ESSs), ESSs 1, 2, 4, and 10 specifically; ESS 3, the World Bank Environment, Health and Safety Guidelines (EHSGs) and other Good International Industry Practices (GIIPs) - See Chapter 2. Of this Report.

ES 3: Objective of this OHSMF

The objective of the OHSMF is to equip the NG - SURWASH FPIU with the coordinative and technical capacity to provide oversight guidance in OHS management throughout the program implementation and simultaneously, enable SPIUs and IAs to prevent work-related injuries, incidents, accidents and ill-health to workers by ensuring Contractors and other implementing parties provide and maintain safe and healthy workplaces. This also extends to the health and safety of sanitation workers and project communities. Consequently, the framework will help to eliminate hazards and minimize OHS risks in WASH intervention works and services in participating states, by adopting effective proactive, preventive and protective measures proposed in this report. This will improve the overall OHS performance of the NG - SURWASH program, and ensure compliance to the PforR Core Principles, ESF, WB EHSGs and national OHS requirements.



ES 3: Project Description and Disbursement Linked Indicators

The PforR will support the implementation of a subset of actions set out in the NAP. The seven (7) participating states in the Program have been selected in a transparent process through the use of pre-determined criteria. The PforR has two Result Areas (RA) as follows: **RA 1** - Strengthened Sector Policies and Institutions for Improved Services; and **RA 2** - Improved Access to Water Supply, Sanitation and Hygiene Services. Seven (7) Disbursement-Linked Indicators (DLI) are associated with the RAs. These are below.

Key Result Areas and Disbursement Linked Indicators (Source Project Appraisal Document)

Name		Amount IDA US\$ million
RA 1: Strengthened Sector Policies and Institutions for Improved Services		40.0
DLI 1	Design of National WASH Fund to enable its establishment.	5.0
DLI 2	Design, adoption and implementation of State PIR Plans and achievement of annual targets.	35.0
RA 2: Improved Access to Water Supply, Sanitation and Hygiene Services		600.0
DLI 3	People provided with basic drinking water service under the Program.	233.5
	Sub-DLI 3.1: Performance improvement of state water supply implementing agencies.	52.5
DLI 4	People with access to a sustainably functioning water service.	33.3
DLI 5	Households with improved sanitation facilities constructed or rehabilitated under the Program.	156.1
	Sub-DLI 5.1: Performance improvement of state sanitation implementing agencies.	52.5
DLI 6	Communities having achieved community-wide sanitation status (ODF+) or number of ODF+ communities having maintained their status.	16.6
DLI 7	Schools and healthcare facilities with functional, improved water supply, sanitation and handwashing facilities constructed or rehabilitated under the Program.	55.5

It is noteworthy to state that most potential Labour, Occupational Health and Safety (OHS) and Community Health and Safety (CHS) issues are envisaged to arise during the implementation of activities dependent on DLI 3,5 and 7

The IPF component supports TA activities within sector institutions at both the Federal and State level. 25 million USD will be implemented by the FMWR to support TA activities critical to Program activity at the Federal level, as well as those supporting assisted states in preparing for future investment. The additional 35 million USD will be on-lent to participating states to address identified institutional and capacity gaps.

ES 5: Summary of Planned Intervention Works

Result Area 2 (RA 2) - Improved Access to Water Supply, Sanitation and Hygiene Services will support an integrated package of investments to expand access to and increase the use of WASH services in urban and rural areas and small towns; protecting poor and vulnerable people and supporting livelihoods and job creation. Broadly, the activities/intervention works are mainly associated with DLIs 3,5 and 7 and summarized below.

A) Urban Water Supply.

- Expansion of access to improved water supply through installation of metered household connections, public standposts and water kiosks;
- Rehabilitation of water supply infrastructure to boost production, including the rehabilitation of production facilities and pump and treatment plant components replacement;
- Improvement of power supply to production facilities, prioritizing the use of renewable energies and improvements in energy efficiency;
- Rehabilitation of distribution networks, including leak detection and repairs;
- Installation of bulk, zonal, commercial, and domestic meters;



- Rehabilitation and furnishing of customer service centers, central stores, and electrical and mechanical workshops; Expansion of water quality testing capacity through the renovation and construction of laboratories;
- Development of water master plans;
- Development of feasibility studies for select urban centers; and
- Larger-scale works where required.

B) Rural and Small Towns Water Supply. The Program will support infrastructure development to increase sustainable access to improved water supply through the development of:

- New water points and schemes and rehabilitation of existing ones
- Support the continued functionality of supported water points and schemes by promoting effective infrastructure operations, management, and maintenance by service providers and ongoing technical and financial support by relevant sector institutions.

C) WASH in Institutions and Public Spaces. Finally, RA 2 (specifically, DLI 7) supports the construction and rehabilitation of Water Supply and Sanitation (WSS) facilities and handwashing stations in institutions (schools and HCFs) in accordance with relevant Federal Ministry of Education [FME] and Federal Ministry of Health [FMoH] guidelines) and public spaces (markets, motor parks) with a focus on child and women safety and comfort and adequate provisions for Menstrual Hygiene Management (MHM).

ES 6: OHS Baseline in Participating States

Generally, there is a poor institutional commitment to OHS in most of the seven participating states under the NG - SURWASH Program except for the Gombe State Water Corporation (GSWC), Imo State Water and Sewerage Corporation (ISWSC) and Kaduna State Water Corporation (KADSWAC) where there have been appreciable levels of top management commitment to OHS. The OHSMF or Occupational Health and Safety Management Systems (OHSMS) in the states is quite rudimentary or nearly non-existent. Remarkably, the State Ministries of Health (SMoH) implements various disease surveillance systems which enable them identify, keep records, and track the occurrence, incidence and prevalence of waterborne diseases especially those which have bio-statistically shown a “strength of association” with WASH services. A summary is provided below.

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<p>Ekiti State OHS and CHS Baseline Summary</p> <p>OHSMS RUWASSA – There is a procedure for compensating injured workers but not documented . Ekiti State Water Corporation (EKSWC) – The EKSWC has adopted the Code of Conduct and Site-Specific Environmental Health and Safety guidelines used by Contractors previously engaged under the concluded Third National Urban Water Sector Reform Program (NUWSRP-3) (World Bank funded) and EU supported WASH projects in Ekiti state.</p> <p>Capacity Building on OHS/CHS and Statutory SOPs, IEC Materials, Media Adverts which Address OHS in WASH OHS trainings has been conducted for EKSWC and they include; Identification of Hazards (2018) & ISO 45001:2018 (2019), Auditing 2019 (Follow-up step down training). There has been no statutory SOPs, IEC Materials and Media Adverts used to address OHS in WASH in Ekiti State.</p> <p>Accident investigation and Reporting, Compensation for Workplace Related Injuries and Deaths There is no specific procedure or protocol for accident investigation and analysis, hazard identification and control, or compensation for workplace related injuries and death in EKSWC and other IAs. There is no data available on WASH related OHS issues, incidents, accidents and deaths. RUWASSA – There is a procedure for compensating injured workers but there is no documentation.</p> <p>Emergency planning, Preparedness, and Response State Emergency Management Agency (SEMA) – In the case of an emergency, Ekiti SEMA conducts an assessment on the magnitude of the incidence. Afterwards, compensation in the form of relief materials is provided to the affected persons.</p>	<p>Kaduna State OHS and CHS Baseline Summary</p> <p>OHSMS Kaduna State Water Corporation (KADSWAC) – KADSWAC has an OHS unit which spearheads OHS compliance and reporting in the corporation such as;</p> <p>Capacity Building on OHS/CHS and Statutory SOPs, IEC Materials, Media Adverts which Addresses OHS in WASH There has been no OHS/CHS trainings conducted for KADSWAC and other IAs. There has been no statutory SOPs, IEC Materials and Media Adverts used to address OHS in WASH in Kaduna State.</p> <p>Accident investigation and Reporting, Compensation for Workplace Related Injuries and Deaths Kaduna State Ministry of Health – the MoH has a Unit called Environmental & Occupational Health & Safety Services. The department of Medical Services is responsible for all medical emergencies including road accident investigation, but for domestic and other related accidents, there is no protocol. Kaduna Environmental Protection Agency (KEPA) – There is a state insurance policy that covers all workers in the state. The office of the Head of Service has information on the level of coverage of the insurance policy for workers in Kaduna State.</p> <p>Emergency planning, Preparedness, and Response Kaduna State Emergency Management Agency (KADSEMA) – In the case of an emergency, SEMA liaises with National Emergency Management Agency (NEMA) to coordinate emergency response activities. Afterwards, compensation in the form of relief materials is provided to the affected persons. There is a contingency plan for the WASH sector in KADSEMA and it involves: Sectoral coordination meeting with WASH Stakeholders, quarterly review meeting, simulation exercises, community awareness creation and sensitization, and training of environmental/public health personnel on WASH related emergency situations,</p>
<p>Delta State OHS and CHS Baseline Summary</p> <p>OHSMS No OHSMS is being implemented in Delta State Water Corporation (DESWACO) and other IAs.</p> <p>Capacity Building on OHS/CHS and Statutory SOPs, IEC Materials, Media Adverts which Address OHS in WASH Delta State Water Regulatory Commission (DESWARC) – In 2019, USAID conducted capacity building to help strengthen the regulatory framework in creating policies and guidelines such as technical and financial guidelines applicable to the water sector in the state (there is no information of whether OHS was part of this). There has been no OHS/CHS capacity building conducted for DESWACO and other IAs (this is attributed to the fact that in Delta State, MDAs do not carry out capacity buildings on their own. Capacity Buildings are being organized and conducted by the Office of the Head of Service). Following the cholera outbreak in Delta state in 2021, the WHO supported the Delta State Government in sensitizing the community (Burutu LGA) on the cause of the disease, the preventive measures and the need for immediate reporting and treatment. There has been no statutory Standard Operating Procedures (SOPs), Information, Education and Communication (IEC) Materials and Media Adverts used to address OHS in WASH in Delta State.</p>	<p>Katsina State OHS and CHS Baseline Summary</p> <p>OHSMS There is no form of OHSMS being implemented across the Water supply and sanitation chain in Katsina State.</p> <p>Capacity Building on OHS/CHS and Statutory SOPs, IEC Materials, Media Adverts which Addresses OHS in WASH Katsina State Waterboard (KSWB) – OHS trainings has been conducted for Katsina State Waterboard and they include; Safety Planning for the organization of the Ajiwa Water Treatment Plant. SEMA – There has been trainings conducted for the emergency management committee in each LGA on emergency preparedness and management of disasters. Katsina State Ministry of Health – there have been several capacity buildings on health and safety during the outbreak of Covid-19. Katsina State Ministry of Health – During any waterborne disease outbreak, media adverts are being used for sensitization. Additionally, affected communities are being sensitized.</p> <p>Accident investigation and Reporting, Compensation for Workplace Related Injuries and Deaths Katsina State Ministry of Health – There is a focal person in each healthcare facility who gathers the data on all incidence using the District Health Information Management System (DHIS) and send to the focal person at the ward level. The focal person at the ward</p>

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<p>Accident investigation and Reporting, Compensation for Workplace Related Injuries and Deaths There is no specific procedure or protocol for WASH related accident investigation and reporting in DESWACO and other IAs. However, DESWACO and other IAs leverage on the provisions specified in the Civil Service Regulation (Public Service Rules). There is no data available on WASH related OHS issues, incidents, accidents and deaths. There is no form of compensation for workplace related injuries. However, when a worker is injured, the hospital bills for treatment of the worker is catered for by the Agency.</p> <p>Emergency planning, Preparedness, and Response SEMA – In the case of an emergency, SEMA liaises with NEMA to coordinate emergency response activities. Afterwards, compensation in the form of relief materials is provided to the affected persons.</p>	<p>level collates and analyzes all data sent from all healthcare facilities within the ward before sending the data to the M&E Officer in each LGA and then to the State ministry. For KSWB and other IAs, there is no specific procedure for accident investigation and analysis, hazard identification and control, or compensation for workplace related injuries and deaths. However, the affected workers are taken to the hospital to receive proper medical attention and the hospital bills are footed by the domiciled Ministry/Agency.</p> <p>Emergency planning, Preparedness, and Response SEMA – At the LGA level, there is an emergency management committee in each LGA that is made up of the Chairman of the LGA, Secretary of the Local Government Council, one representative from the unit of Health, Works, Agriculture, Social welfare, National Police Force (NPF), Nigerian Security and Civil Defense Corps (NSCDC), Nigerian Red Cross Society, Boys Scout in the LGA, the most senior District Head in the LGA and three persons that are experienced in disaster trainings. In the case of an emergency, the emergency management committee of the LGA where the disaster occurred will respond to the disaster and seek for further assistance from SEMA for any natural or other disaster occurring in the LGA.</p>
<p>Gombe State OHS and CHS Baseline Summary</p> <p>OHSMS Gombe State Water Corporation (GSWC) – Has a more robust and defined OHSMS than other IAs in Gombe state and amongst the seven participating states. Several policies relating to OHS have been developed by the GSWC. There is Personal Protective Equipment (PPE) Procurement and other logistical arrangements at the grassroots level. Gombe State Environmental Protection Agency (GOSEPA) – There is a system in place for the regular provision of PPEs.</p> <p>Capacity Building on OHS/CHS and Statutory SOPs, IEC Materials, Media Adverts which Addresses OHS in WASH GSWC – OHS trainings have been conducted for GSWC and they include; Health and Safety Management (2018) & International Standard Organization (ISO) 45001:2018, OHSMS (2019). RUWASSA – A 2-day training has been conducted for RUWASSA on the Environmental and Social Standards (ESSs) (2022). There has been no statutory SOPs, IEC Materials and Media Adverts used to address OHS in WASH in Gombe State.</p> <p>Accident investigation and Reporting, Compensation for Workplace Related Injuries and Deaths GSWC – Has developed policies which includes amongst others; Gombe State Water Corporation Health and Safety Policy (2020), Emergency Preparedness Policy (2020). The procedure for accident investigation and analysis, hazard identification and control are incorporated in these policies. NEMA – There are standard procedures for accidents and emergency management but nothing specific to the WASH subsector. There is no data available on WASH related OHS issues, incidents, accidents and deaths. There is no compensation for workplace injuries.</p> <p>Emergency planning, Preparedness, and Response NEMA – In the case of an emergency, the first step will be to identify the relevant agency or department that is most related and experienced to manage the emergency. The next step is to invite other stakeholders and ministries whose expertise or assistance may also be needed. For example, the Ministry of Health will be sort for the treatment of injured persons. Afterwards, the NEMA/SEMA will prepare and intervene, by providing supplies and assistance in the form of relief materials. Furthermore, the NEMA/SEMA will conduct an assessment to understand the root cause of the issue. An assessment will also be conducted to estimate the number of injured persons and deaths (if any).</p>	<p>Plateau State OHS and CHS Baseline Summary</p> <p>OHSMS Jos Water Corporation (JSWC) – There is a health and safety manager who spearheads OHS compliance and reporting.</p> <p>Capacity Building on OHS/CHS and Statutory SOPs, IEC Materials, Media Adverts which Address OHS in WASH JSWC – There has been health and safety management training conducted for JSWC and they include; Health and Safety Management Training (2018), Advanced HSE Training (2019), Managing Preventive Health Care in Nigeria (Lagos Institute of Occupational Safety and Health (IOSH), 2020). There has been no OHS/CHS capacity building conducted for other IAs. Plateau State Environmental Protection and Sanitation Agency (PEPSA) – Media sensitization is conducted by PEPSA monthly during sanitation exercises.</p> <p>Accident investigation and Reporting, Compensation for Workplace Related Injuries and Deaths JSWC - There is a system put in place for reporting accidents and incidences. Additionally, there is a health and safety manager who is responsible for reporting any accident or incidence. JSWC -There is available data on WASH related OHS issues, incidents and accidents. There is no form of compensation for workplace related injuries. However, when a worker is injured, the hospital bills for treatment of the worker is catered for by the Ministry/Agency.</p> <p>Emergency planning, Preparedness, and Response SEMA – There are Social Welfare Desk Officers in each LGA who work closely with the Local Emergency Management Committee (available in 3 LGAs only). The Local Emergency Management Committee relies on the Emergency Preparedness and Response (EPR) Network for reporting and prompt response. Emergency Management Procedure: Whenever there is an emergency, this is communicated on time to the partners on ground e.g., Red Cross and NEMA. A quick assessment is carried out on the current situation. SEMA intervenes to assist the survivors and gives feedback to the government prior to further assessments. This assessment is carried out to determine extent of damage caused i.e., the total number of affected people, households and properties, etc. SEMA is a coordinating agency.</p>

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<p>An Incident Commander (which will most likely come from the Lead Agency) and an On-Scene Commander will be fully responsible for real-time information gathering, communication and reporting of current status of an emergency or accident to the Emergency Operation Center and the Media.</p> <p>In the event of a WASH related emergency or any other incident/accident at the local level, the Local Emergency Management Committee (LEMC) takes immediate charge. Where the situation cannot be managed at the local level, the SEMA is contacted.</p>	
<p>Imo State OHS and CHS Baseline Summary</p> <p>OHSMS ISWSC – The health and safety of workers are always maintained by providing safety gadgets/guidelines during maintenance operations. Additionally, the Head of Department of the maintenance unit monitors to ensure that the workers adhere to the provided guidelines and the use of PPEs however, there is no documentation to ascertain the accuracy.</p> <p>Capacity Building on OHS/CHS and Statutory SOPs, IEC Materials, Media Adverts which Addresses OHS in WASH Imo State Water and Sewerage Corporation (ISWSC) – OHS trainings has been conducted for ISWSC and they include; Hazard Identification, Chemical Handling, Fire Awareness and First Aid. Imo State Small Town Water Agency (ISSTOWA) – There has been an on-site training on health and safety conducted by Chevron. Also, some staff have attended a Health, Safety and Environment (HSE) program organized by UNICEF. RUWASSA – There has been health and safety trainings conducted by United Nations Children Education Fund (UNICEF). There has been no statutory SOPs, IEC Materials and Media Adverts used to address OHS in WASH in Imo State.</p> <p>Accident investigation and Reporting, Compensation for Workplace Related Injuries and Deaths ISWSC – There is a specific procedure for accident investigation and analysis which is incorporated in the OHS Policy document for ISWSC. However, there is no procedure for hazard identification and control. ISWSC – There are records on accidents/incidents. However, there has been no accidents/incidents over the last 5 years. ISSTOWA – There are records on accidents/incidents. However, these are being documented in the personal files of the affected workers and not in a general file. There is no compensation for workplace injuries. However, the affected workers are taken to the hospital to receive proper medical attention and the hospital bills are footed by the Agency.</p> <p>Emergency planning, Preparedness, and Response SEMA – In the case of an emergency, Imo SEMA conducts an assessment on the magnitude of the incidence. Afterwards, compensation in the form of relief materials is provided to the affected persons. Additionally, NEMA oversees the activities of the Imo State SEMA.</p>	



ES 7: Hazard Identification, Risk Assessment and Control

The OHSMF identifies the generic OHS and CHS hazards and risks associated with the implementation of the PforR Component with emphasis on activities associated with DLIs 3,5 and 7 of the NG - SURWASH Program, and proffers control measures in line with the Hierarchy of Controls provided in the ESF and the EHSGs. The goal is to provide the FPIU, SPIUs and IAs with guidance in carrying out their own Hazard identification, risk assessment and control programs. Some of the identified hazards according to the proposed intervention works are summarized subsequently.

Rehabilitation of water supply infrastructure to boost production, including the rehabilitation of production facilities and pump and treatment plant components replacement - Rehabilitation of Water Treatment Plants, Booster Stations

- Risk of falls due to working with a defective ladder and/or falls from heights while climbing and staying on an elevated installation
- Risk of injuries caused by capture of work-clothes and/or various parts of the body, in/between moving/ rotating unprotected parts of machinery
- Risk of electric shock caused by contact with "live" wires or defective electrical installations (the danger is especially high when work is done in a wet and humid environment)
- Risk of exposure to high noise levels, from electro-mechanical equipment
- Risk of fire hazards due to contact with very strong oxidizers (disinfectants etc) with flammable substances, as a result of improper storage of chemicals, human error, etc.
- Risk of exposure to UV radiation during water disinfection may be damaging for eyes and skin
- Risk of exposure to toxic disinfectants e.g., Chlorine gas (can cause irritation of the eyes and the respiratory tract even at low concentrations), Sodium hypochlorite (can cause burns and irritation to eyes and skin), Calcium hypochlorite (this may cause chemical pneumonia and lung oedema), Ozone (when inhaled, it may cause breathing difficulties, headaches, fatigue, eye irritation, tears and conjunctivitis) etc.
- Risk of Musculoskeletal Disorders (MSDs) caused by awkward working postures during the inspection/rehabilitation of the pipe system and/or installation
- Risk of Spillage of chemicals and top soil contamination (changes in soil physicochemical and microbial baseline condition)

Expansion of access to improved water supply through installation of metered household connections, public standposts and water kiosk (Construction/ Rehabilitation of Boreholes and Handpumps)

Public standposts and water kiosk (Construction/ Rehabilitation of Boreholes and Handpumps)

- Risk of being hit on the head by falling materials
- Risk of increased dust generation during excavation/drilling which could cause irritation of the eyes
- Risks of possible contamination of groundwater if borehole is constructed in proximity to septic tanks increasing CHS risks.
- Risks of falls around improperly covered excavated/drilled sites
- Risks of increased noise generation during the excavation/drilling process
- Risk of increased dust generation during excavation/drilling which could cause irritation of the eyes
- Risks of Collapse, accident and death during rehabilitation

Improving Power Supply to Production Facilities - Improvement of power supply to production facilities, prioritizing the use of renewable energies and improvements in energy efficiency

- Risk of exposure to ergonomic hazards e.g., poor working postures, forceful motion, etc. from the use of heavy equipment and cranes which could cause Musculoskeletal Disorders (MSDs).
- Risk of exposure to electrocution from direct contact with live power lines during upgrade due to no use of PPEs.
- Risk of electric shock especially from exposed electrical parts (open power distribution units, detached insulation parts on electrical cords etc.) and areas of power lines (live parts) that are wet or damp due to non-installation of Ground Fault Circuit Interrupters (GFCIs) which could cause other types of injuries or possible deaths e.g., a fall from ladders or scaffolds etc.
- Risk of exposure to falls from heights and being hit from items dropped at height due to lack of use of PPEs during the construction, maintenance and operation of power lines.
- Risk of explosion caused by unsuitable electrical apparatus or static electricity igniting flammable vapours or dusts, e.g., in a spray paint booth which could result to death.
- Risks of cuts from damaged electrical tools and equipment to be used for construction of power lines.
- Possible exposure to Polychlorinated Biphenyls (PCBs) in transformers and other electrical components which could cause skin conditions such as rashes, and possible liver damage.
- Increase in noise generation during movement of construction equipment creating disturbance for the host communities.

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- Increase in dust generation during movement of equipment to site and construction phase creating disturbance for the host communities.
- Risk of falls of electric lines to the ground as a result of storms or strong winds which could cause shocks or possible deaths during the upgrade of power lines.

Rehabilitation and furnishing of customer service centers, central stores, and electrical and mechanical workshops; Expansion of water quality testing capacity through the renovation and construction of laboratories - Rehabilitation of Buildings

- Possible exposure of workers, and staff to fugitive dust, cement/POP dusts, etc. during construction/rehabilitation
- Possible exposure of workers and staff to explosions, cuts, injuries, and hazardous chemicals due to improperly labelled and stored construction and demolition materials.
- Risks of exposure to electrical fires and electrical shocks during electrical installations
- Possible exposure to welding fumes during mechanical works (welding of doors/windows)
- Risk of falls, injuries and possible deaths from works at height (e.g., during installation of roofs, ceilings, etc.)
- Risks of accidents to operators and stray persons may also occur due to uncovered excavated sites.
- Risks of collapse, injuries, Musculoskeletal Disorders, and possible deaths during conveying and lifting of heavy equipment
- Risks of poisonous bites from snakes and scorpion stings from abandoned structures during the rehabilitation process
- Risk of increased noise generation during demolition and rehabilitation of buildings

Construction of toilets in schools

- Excessive noise, creating disruption for staff and pupils, especially during lessons or at exam times
- Increase in cement dust generation which when inhaled, could possibly cause lung function impairment
- increased danger of slips and trips from uneven areas of flooring.
- increased risks of cuts/injuries from broken tiles during tiling of the floor
- Risk of falls and being hit from items dropped at height.
- Risk of falls, and deaths during construction of septic tanks (if not properly covered)
- Risk of electrocution during electrical installations
- Risk of Musculoskeletal injuries caused by awkward working postures during construction

Construction of toilets in HCFs

- Risks of exposure to bacterial infection and other viral agents
- Increase in noise generation, creating disturbance for patients and health care workers
- Increased dust generation from cement mixing which could expose construction workers to lung function impairment
- Increased danger of slips and trips from uneven areas of flooring.
- Risk of falls and being hit from items dropped at height.
- Risk of electrocution during electrical installations
- Risk of falls during construction of septic tanks (if not properly covered)
- Risk of Musculoskeletal injuries caused by awkward working postures during construction

ES 9: Occupational Health and Safety Control Measures (OHSMP)

OHS and CHS Control Measures are described in Chapter 9 of this OHSMF report through a generic OHSMP. The control measures are SMART-simple, measurable, achievable and can be accomplished in a timely manner. They are designed based on the Hierarchy of Controls described in the World Bank Environmental and Social Framework (ESF) and this OHSMF assigned responsibilities for mitigation implementation and monitoring.

ES 10: OHSMF Implementation Arrangements

For successful and coordinated implementation of the provisions in this OHSMF, specially with regards to OHS and CHS aspects of the proposed activities associated with DLIs 3, 5 and 7 the implementation arrangement is presented below.

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Institutional/Implementation Arrangement for the OHSMF

S/N	Institution	OHSMF Roles and Responsibilities
1.	FMLE	At a national level, the FMLE will assist the NG - SURWASH program in complying to the Revised National Policy on Occupational Safety and Health (2020) and National Guidelines for the implementation of the Revised National Policy on Occupational Safety and Health (2021). Sub-nationally, FMLE through its desk offices in the participating states will provide policy guidance and advisory in subject areas such as accident investigation, analysis and reporting, workers' compensation, hazard identification and risk assessment and in onsite workplace inspections. In the event of incidents or accidents of "high" or "catastrophic" severity/consequence, the FMLE will provide advisory and guidance to the States in collaboration with the States' Bureau of Labour and Productivity, SEMA or NEMA, qualified and certified OHS practitioners, organizations or institutions. The FMLE will also be part of the Safety Committee at the states' levels and aid/ participate in monitoring OHSMP performance for intervention works/sub-projects (where applicable).
2.	FMWR	The FMWR will indirectly play an oversight and supervisory role as the apex ministry by overseeing the FPIU's roles and responsibilities under NG - SURWASH, particularly in implementing the OHSMF and in reviewing the FPIU's reports on the performance of OHS, CHS and OHSMPs in the states.
3.	FPIU	The NG - SURWASH FPIU is an established Unit, experienced in the implementation of Bank supported projects and programs in the Water sector and precisely the WASH sub-sector. The FPIU consists of Project Engineers, Procurement Specialists, Safeguards Unit, Monitoring and Evaluation Specialists etc. who will provide expert technical guidance on the matters concerning the IPF component and its TA related activities. Specifically, the FPIU's Safeguards Specialists and Safeguards Officers will provide Technical Assistance on the aspect of implementing the provisions of this OHSMF at the level of the FPIU and the SPIUs/States; mainly in the preparation of OHSMPs for proposed sub-projects and in the selection of appropriate OHS/CHS instruments. It will collaborate with State Bureaus of Labour and Productivity and the FMLE accordingly, and liaise directly with the Bank on issues concerning ESF compliance and relevant ESSs applicability to NG - SURWASH. Importantly, the Safeguards Unit will be directly responsible for disclosure of all OHS and CHS instruments prepared in fulfilment of IPF requirements if such is required.
4.	SPIUs	The SPIUs will perform similar functions as the FPIU in assuring OHSMF implementation; but at a state-level by establishing their respective OHSMPs (which is a simple step-down of the OHSMF). Importantly, the SPIU Safeguards Units shall assist in the Hazard Identification, Risk Assessment and Control Process, and develop or guide the development of OHSMPs, HRAs/OHSRAs, ERPs, WSRAs etc for proposed intervention works/sub-projects. The SPIUs as a member of the Safety Committees in the respective states will enforce the compliance to OHS and CHS provisions in this OHSMF and in the respective OHSMPs.
5.	Implementing Agencies - E&S Safeguards Officers in the IAs	On the basis of this OHSMF, the IAs through their Safeguards Officers shall directly supervise all of their Contractors procured to implement proposed intervention works/sub-projects, and ensure compliance enforcement to the respective OHSMPs that will be prepared for each sub-project. Additionally, the Safeguard Officers shall report to the SPIU Safeguards Unit on all OHS related issues, and maintain a cordial relationship with beneficiaries and communities where proposed intervention works will be carried out.
6.	Safety Committees	The Safety Committee shall comprise of the i) Safeguards Unit of the SPIU, ii) Safeguards Officers in each IA, iii) FMLE or Bureau of Labour and Productivity (as applicable), iv) State MoH, v) SEMA vii) Health Safety and Environment (HSE) Officer of the Contractor and viii) LGA Liaison Officer. The State Project Coordinator and Environmental Officer shall serve as the Chairman and Secretary of the Committee respectively. While these individual offices/institutions will carry out their required day-to-day responsibilities; as a committee, the Safety Committee in each state will serve as the major inter-institutional platform responsible for advisory, supervision, inspection, enforcement, corrective actions, monitoring, data collection, data aggregation, and reporting of all OHS and CHS matters concerned with proposed intervention works/sub-projects undertaken in their respective states. The Safeguards Units of the respective SPIUs shall keep the FPIU abreast with activities and reports of the Safety Committees.
7.	FMLE Desk Offices at the State; State Bureaus of Labour and Productivity/ Employment	These will establish the responsibilities of the FMLE in the respective States, and shall enforce the national policies, regulations, laws and guidelines on labour, employment and OHS as applicable. Additionally, where civil service labour rules apply in the states, the Bureaus will provide direction and advisory.
8.	Independent Verification Agent (IVA)	The IVA will undertake verification of the achievement of DLIs across the RAs in all participating states. The results of the annual verification exercise as submitted by the IVA and validated by the FMWR will serve as a basis of annual disbursement after the World Bank task team has provided necessary concurrence. In addition, the IVA will provide a quarterly report on the progress of E&S risk management

FINAL REPORT

Occupational Health and Safety Management Framework
OHSMF

SURWASH

Nigeria Sustainable Urban and Rural Water Supply,
Sanitation and Hygiene Program
FMWR



S/N	Institution	OHSMF Roles and Responsibilities
		activities to assess compliance with relevant policies and requirements, including implementation of the OHSMF/OHSMPs and CESMPs to be prepared by the contractors.
9.	Contractors	Contractors shall keep to all OHS and CHS requirements established in the bidding documents and contract agreements. They shall keep to the Code of Conduct, comply to the provisions in the OHSMPs and their respective CESMPs. Additionally, Contractors shall comply to the LMP provisions and be represented in the Safety Committee.
10.	Independent Consultants	Independent Consultant(s) will be procured by the FPIU and SPIUs to undertake the preparation of required OHS and CHS instruments; and other requisite reports (if needed). They will liaise with the Safeguards Specialists and Officers at the FPIU and SPIUs respectively.
11.	CSOs, NGOs	CSOs and NGOs will assist the FPIU and SPIUs in strategizing and developing practicable and sustainable community driven approaches for assuring the sustainability of sub-projects after their completion. At national level and sub-national levels, CSOs and NGOs assisted through the FPIUs and SPIUs could drive sensitization and awareness programs on OHS and CHS, for more and sector-specific legal and regulatory frame work addressing OHS in WASH.
12.	Other Interested Parties (SEMA, NEMA, SMoH) etc	Those identified such as SEMA, NEMA and the SMoH shall assist the program in a) emergency planning, prevention and response, and b) community health matters related to WASH services under NG - SURWASH respectively. The SMoHs operate an integrated disease surveillance and reporting system, respectively where they conduct surveillance for waterborne diseases. Under NG - SURWASH this shall be mainstreamed such that the SPIUs will coordinate the geo-referencing of intervention works and share locations with the SMoHs, which will channel surveillance efforts to these sub-projects to gather public health data on disease occurrence, prevalence and incidence associate with NG - SURWASH sub-projects or interventions. Depending on how implementation progresses; other interested parties may be identified, and may be essential in the provision of guidance, technical, regulatory or implementation support associated with this OHSMF and other levels of OHS management and monitoring.
13.	The World Bank	The World Bank has overall responsibility to ensure that its ESF and ESSs are complied with. In addition, the Bank will be responsible for the final review and clearance of OHS and CHS instruments; as well as the giving of a "no objection" to the Terms of Reference for instruments (OHSMPs, HRAs, ERPs etc.).

ES 11: OHSMF Technical Assistance (TA) and Capacity Building Estimates

The total Technical Assistance (TA) and capacity building estimate to support implementation of the OHSMF over the six year NG - SURWASH program implementation is estimated at One Million, One Hundred and Eighty – Seven Thousand, and Thirty Five Dollars Only (**USD 1,187,035**). This is equivalent to Five Hundred and Forty Six Million Naira Only (**546,000,000.00 NGN**). See below.

OHSMF Overall Estimate

S/N	Item	Responsibility	Estimated Cost (NGN)	Estimated Cost (US\$)
1.	Control Measures	Contractors and other parties involved in implementing controls	TBD	TBD
2.	Monitoring	Safety Committees, IVA, IAs' Engineers,	TBD	TBD
Sub-total			Nil	Nil
3.	Capacity Building	FPIU, SPIUs, IAs	546,000,000	1,187,035
4.	Preparation of requisite OHS instruments	FPIU, SPIUs	TBD	TBD
TOTAL			546,000,000	1,187,035

Note: USD to Naira exchange rates as at April, 2023 (1 USD = 459.97Naira) was applied and figures rounded up