ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) FOR THE REHABILITATION OF WORKSHOP, CLASSROOM, OFFICES IN 20 FEDERAL SCIENCE AND TECHNICAL COLLEGES (FSTCS) UNDER THE IDEAS PROJECT.

Federal Ministry of Education

Innovation Development and Effectiveness in the Acquisition of Skills (IDEAS) Project

IDEAS

Final Report

Environmental and Social Management Plan (ESMP) for the Rehabilitation of Workshop, Classroom and Offices in 20 Federal Science and Technical Colleges (FSTCs) Under the IDEAS Project.

November 2023

EXECUTIVE SUMMARY

ES 1: Background

The Government of Nigeria has secured USD200 Million from the World Bank for the Innovation Development and Effectiveness in the Acquisition of Skills (IDEAS) Project which aims to strengthen the country's Technical and Vocational Education and Training (TVET) system. The Project Development Objective (PDO) of IDEAS is to enhance the capacity of the Nigerian skills development system to produce relevant skills for the formal and informal sectors. The IDEAS project aims to improve skills acquisition in Nigeria using a comprehensive approach by addressing key aspects of the skills development delivery system. The project is structured into four components – i) Incentivizing Public-Private Partnerships (PPPs) for enhanced quality and labour-market orientation of skills development in public Technical Colleges (TCs); ii) Improving skills formation for the informal sector; iii) Increasing the availability of competent and motivated technical teachers and instructors in the Nigerian skills space; and iv) Strengthening the regulatory environment and public management capacities for market-oriented skills development.

The IDEAS project is being implemented by the Federal Ministry of Education (FME) through the Technology and Science Education Department (TSED), National Board of Technical Education (NBTE) as well as the state governments of the participating states. A total number of 38 TCs – twenty (20) Federal Science Technical Colleges (FSTCs) and eighteen (18) State Technical Colleges (STCs) have been identified for structural rehabilitation in twenty-two (22) states of the country, under the project. The project will provide grant funding for the rehabilitation and upgrade of these Technical Colleges (TCs) with the aim of transforming their operational models into PPPs, in which industry partners assume a prominent role in institutional governance, management, planning, training and service delivery. Consequently, there will be several civil works, involving construction, rehabilitation and expansion activities. These civil works raise environmental and social safeguards concerns and have triggered the World Bank's safeguard policy on Environmental Assessment (OP 4.01) and Involuntary Resettlement (OP 4.12). On this basis, the IDEAS National Project Coordinating Unit (NPCU) has set aside a portion of its allocated funds to procure consultancy services for the development of an Environmental and Social Management Plan (ESMP) for the rehabilitation of technical workshops, classrooms and offices in twenty (20) Federal Science and Technical Colleges (FSTCs).

ES 2: Rationale for the ESMP

The ESMP will be carried out to establish modalities of implementing the project in line with World Bank Safeguard Policies, while taking into consideration the environmental and social procedures of the Federal Government of Nigeria. The project has been identified as **Category B** according to the World Bank environmental assessment screening criteria, meaning that impacts will be site-specific and manageable (the activities will involve limited adverse social or environmental impacts that are few, generally site-specific, largely reversible, and readily addressed through mitigation measures). For site-specific projects such as this, the most suitable EA safeguard instrument is an ESMP. The proposed project comprises essentially, civil and electromechanical engineering works which will be carried out within the premises of the selected technical colleges. These works will inevitably result in some environmental and social impacts thus triggering the World Bank's Operational Policy on Environmental Assessment OP 4.01 ***(See Chapter 2 for more details).*** The ESMP will identify the environmental and social impacts of the proposed project and define the roles and responsibilities of all critical stakeholders throughout the project life cycle in order to ensure that mitigation measures including cost estimates are implemented and overall sustainability of the project is assured.

ES 3: Overview of Project Locations.

The proposed intervention works will be undertaken across twenty (20) FSTCs. Generally, the rehabilitation activities will be carried out in technical workshops, classrooms, and offices within the premises of the colleges. The table below provides a list of the total structures earmarked for structural rehabilitation and expansion at the FSTCs under the IDEAS project, including their locations.

S/N	Geopolitical Zones	IDEAS Project Participating States	Name of Federal Science Technical Colleges (FSTCs)	GPS Coordinates		Total Priority Rehabilitation
				Latitude (N)	Longitude (E)	
1	North-Central	Benue	Federal Science Technical College, Otukpo	7.198360	8.139329	4 Structures
2		FCT	Federal Science Technical College, Orozo.	8.897916	7.569647	7 Structures
3		Nasarawa	Federal Science Technical College, Doma.	8.398860	8.328441	6 Structures
4		Niger	Federal Science Technical College, Kuta Shiroro.	9.856911	6.719373	6 Structures
5	North-East	Adamawa	Federal Science Technical College, Michika	10.597960	13.352250	14 Structures
6		Taraba	Federal Science Technical College, Jalingo	8.903368	11.356644	5 Structures
7	North-West	Kaduna	Federal Science Technical College, Kafanchan	9.599665	8.321549	6 Structures
8		Katsina	Federal Science Technical College, Dayi	11.963712	7.688179	3 Structures
9		Kebbi	Federal Science Technical College, Zuru	11.425906	5.243700	3 Structures
10	South-East	Abia	Federal Science Technical College, Ohanso	4.889429	7.357005	4 Structures
11		Anambra	Federal Science Technical College, Awka	6.199615	7.063851	5 Structures
12	South-South	Akwa Ibom	Federal Science Technical College, Uyo	5.023785	7.917174	8 Structures
13		Bayelsa	Federal Science Technical College, Tungbo	5.130305	6.172133	5 Structures
14		Edo	Federal Science Technical College, Uromi	6.732494	6.346107	4 Structures
15		Rivers	Federal Science Technical College, Ahoada	5.076349	6.649303	4 Structures
16	South-West	Ekiti	Federal Science Technical College, Usi-Ekiti	7.885698	5.172193	10 Structures
17		Lagos	Federal Science Technical College, Yaba	6.522242	3.378314	6 Structures
18		Ogun	Federal Science Technical College, Ijebu-Imusin	6.788621	4.010069	4 Structures
19		Ondo	Federal Science Technical College, Ikare Akoko	7.539231	5.721399	5 Structures
20		Osun	Federal Science Technical College, Ilesha	7.635958	4.754410	5 Structures

ES 4: Scope of Proposed Intervention Works

The IDEAS Project has selected twenty (20) FSTCs for structural rehabilitation, renovation and expansion. In order for the proposed civil works to commence, the College Implementation Unit (CIU) of each of the Technical colleges were mandated to prepare a College Improvement Plan (CIP) detailing the features to be renovated in order of priorities ***(See Chapter 3, Table 5 for the full list of TCs and their priority works)***. It is important to state that these CIPs are not like conventional feasibility study reports, where there are full descriptions and narratives of the proposed works to be carried out and their engineering contexts; rather they provide a listing of the items to be repaired or installed where necessary. Due to the number of TCs and equivalently the anticipated number of items and materials e.g. doors, ceiling boards, etc., this section only mentions the major aspects of civil works which generally cuts across all TCs and a brief on the nature of works to be carried out. The proposed rehabilitation, renovation and expansion of the TCs will generally include the following civil works:

Rehabilitation Works:

- **Roofing** – Removal of old and dilapidated roofing sheets and replacement with aluminium roofing.
- **Ceiling Finishes** – Removal of old, damaged, and dilapidated Polyvinyl Chlorides (PVCs), Asbestos ceilings and Board ceilings.
- **Floor Finishes** – Removal and rehabilitation of damaged floors along technical workshops, project offices, classrooms, etc.
- **Doors and Windows** – Replacement of doors and windows with steel types.
- **Wall Finishing** – Wall filling and smearing and finishing with cement.
- **Painting** – Wall screeding and painting.
- **Electrical Installations** – New electrical installations and connections; including re-conductoring of existing electrical connections and installation of energy-saving Light-Emitting Diode (LED) bulbs, switches, fans, etc.
- **External Works** – This will include cement, sand, gravel and water mixing. It will also include the transport of materials into the college premises for civil works.
- **Mechanical and Plumbing Works** – These will include several fittings and fixtures as well as the installation of WASH facilities such as:
    a. **Toilets** – Rehabilitation of dilapidated and/or abandoned toilets; including the installation of new ones. Toilet rehabilitation and renovation will also include water reticulation to ensure equitable water supply to toilets and sanitary infrastructure such as Wash Hand Basins (WHBs).
    b. **Boreholes** – Installation of boreholes, including solar powered boreholes and conversion of some existing boreholes to solar powered boreholes. Installation of overhead tanks and water reticulation to hostels, offices, workshops, etc. where use of water may be required.

c. **Septic Tanks** – Rehabilitation of collapsed or dilapidated septic tanks serving some of the technical workshops, offices and classrooms.

Extension Works:

In certain FSTCs, expansion or extension of existing technical workshops, classroom blocks and offices will be required to increase capacity. These additions will involve similar civil works as the rehabilitation activities. However, some specific additional civil works to be undertaken are outlined below:

- **Site Clearing –** This will involve the removal of overgrown grasses, shrubs, etc. around some abandoned structures where the proposed extension is to be undertaken.
- **Digging of New Foundation and General Masonry –** To include raising of walls, finishes, flooring, etc.

ES 5: E&S Baseline Description of the Project Areas

The 20 Federal Science and Technical Colleges (FSTCs) are situated in 20 states across the six geopolitical zones of Nigeria: north-central, north-east, north-west, south-east, south-south, and south-west. The biophysical environment in FSTCs situated in the far south is characterized by a tropical rainforest climate, experiencing annual rainfall between 1,500 and 2,000mm. Conversely, colleges in the central and northern states exhibit a savannah climate with limited tree cover, where rainfall ranges from 500 to 1,500mm annually. Critical environmental and social baseline information of the project locations relevant to the project include:

- Some FSTCs are situated in urbanized and densely populated areas with well-maintained access roads, while others are in secluded rural settlements with roads that become impassable, especially during the rainy season due to multiple failed sections. Notably, Nyanya-Karshi Road (FSTC Orozo), Doma-Lafia highway (FSTC Doma), Yola-Maiduguri highway (FSTC Michika), Zik Avenue/Nkpor Junction (FSTC Awka), Morris Road/Military Road (FSTC Yaba), Minna-Kuta highway (FSTC Kuta Shiroro), and Ijeshi-Oke Meshi Road (FSTC Ilesha) face heavy traffic during peak morning and evening rush hours (between 7am-10am and 5pm-10pm).
- All FSTCs are securely fenced along their entire perimeters, separating them from surrounding communities. Notably, as observed during the field study, the ground surface within many colleges in the north-central and northern states consists of earth material, resulting in the generation of substantial fugitive dust as vehicles traverse the area.
- Identified water pond issues in FSTC Ilesha and FSTC Ikare Akoko due to inadequate rainwater drainage, leading to a proposed installation of drainage channels.
- Several buildings within the Federal Science and Technical Colleges (FSTCs) are in a state of disrepair and abandonment, particularly the technical workshops and offices slated for structural rehabilitation. In specific technical colleges like FSTC Doma, FSTC Usi Ekiti, FSTC Uyo, and FSTC Ilesha, roofs made of obsolete asbestos material are prevalent. In FSTC Doma and FSTC Jalingo, aluminum roofs have been blown off due to extreme weather conditions. Termite infestation is apparent in structures at FSTC Ohanso, and ceilings in most colleges are damaged and leaking. Furthermore, floors, doors, and windows are dilapidated, with some structures collapsing due to beam-column joint failure, posing significant health and safety risks to staff and students. Notably, WASH facilities, including boreholes, toilets, and wash hand basins in most FSTCs, are either dysfunctional or insufficient, creating challenges as regards access to water and leading to open defecation. Additionally, some abandoned buildings in some colleges have become shelters for poisonous reptiles and arachnids such as snakes, monitor lizards, and scorpions.
- Some colleges in the central and northern states, like FSTC Michika, FSTC Kuta Shiroro, FSTC Zuru, FSTC Dayi, and FSTC Kafanchan, face security challenges. Some of these colleges, due to their proximity to areas of security concern, have experienced significant security issues in the past, while others are situated in local government areas prone to banditry and kidnappings.

- The primary occupation in the project communities is agriculture, with locals cultivating staple food crops such as maize, cassava, yam, cocoyam, rice, sweet potato, pepper, groundnuts, and vegetables. Additionally, the communities are involved in various socioeconomic activities, including trading, petty trading, civil service, private sector engagement, lumbering, artisanal work, livestock grazing, sand mining, fishing, etc.

Refer to Chapter 4; Section 4.2; Table 12 for College Specific Details.

Environmental Baseline Studies

The summary of the results of soil and groundwater analysis as well as air and noise level measurements across the FSTCs is provided in the section below.

Groundwater Analysis (Physiochemical and Heavy Metals)

The physiochemical analysis of groundwater samples showed that all analyzed samples were mostly within the FMEnv permissible limits, except for FSTC Michika. The values for Turbidity (465mg/l), Total Dissolved Solids (831mg/l), Total Suspended Solids (934), Nitrates (160mg/l), and Phosphate (36mg/l) in samples obtained from FSTC Michika exceeded the FMEnv limits of 100mg/l, 500mg/l, 500mg/l, 50mg/l, and 5mg/l respectively. The samples from FSTC Michika were taken from an abandoned well in the college, which may account for the high Turbidity, TDS, and TSS levels observed. Elevated Nitrate and Phosphate values may have been as a result of potential leaching of NPK fertilizers used for soil amendment in nearby school farmlands. The well has dried up and is no longer in use; it has been converted into a dumpsite according to the project manager's update. The heavy metal properties of the groundwater samples from all the FSTCs were within the FMEnv limits ***(See Chapter 4 for more details).***

Soil Analysis (Physiochemical and Heavy Metals)

Physiochemical and heavy metal samples were placed in coded plastic bags. Soil samples obtained from all the FSTCs revealed pH values that are within the FMEnv permissible limits.

Air Quality Measurements

Air quality measurements was carried out using a Testo 350 XL device at technical workshops, classrooms, and offices in technical colleges. On average, the measurements yielded results within permissible limits, except for Total Suspended Particulate Matter (SPM) at FSTC Michika, which recorded 305µg/m³, slightly surpassing the FMEnv limit of 250µg/m³. This elevated SPM level could be attributed to the ongoing road construction from the college's main entrance to its interior.

Noise Level

Noise Levels (NL) were measured using a Testo 815 Noise meter with the corresponding coordinates as those for air measurements. The average noise levels in FSTC Jalingo, FSTC Otukpo, FSTC Uromi and FSTC Usi-Ekiti as measured during the field assessment were above the National Environment (Noise Standard and Control) permissible limit of 45dB (day). This may be attributed to some ongoing rehabilitation activities at the colleges. However, at the other FSTCs, the average noise levels were within the National Environment (Noise Standard and Control) permissible limit

Socioeconomic Studies

Primary Data: A random survey was carried out across all schools under study using the SurveyCTO application. Semi-structured questionnaires were administered to at least 600 respondents (mostly constituting Staff, Students, Youth Corp Members, etc.) within the project corridors. Twenty (20) technical colleges were surveyed. The planned sample population was 40 respondents for each technical college; however, the actual number varied based on staff and student availability during the field visit (i.e. December 2022). Notwithstanding these constraints, on average, a total of 30 respondents were surveyed at each of the FSTCs whose responses were retrieved and analysed. The survey was designed to understand the socioeconomic conditions within and around the FSTCs and project communities. The summary of some socioeconomic conditions across the twenty (20) FSTCs is provided below.

Size of the Technical Colleges: Based on the student population at the colleges, the schools were categorized into Large Sized (>1500 students), Medium-Sized (500-1500 Students) and Small-Sized (<500 Students). Based on the results of the socioeconomic survey at the colleges, 30% (6) of the technical colleges were large sized while 70% (14) were medium sized. None of the technical colleges was classified as small.

Percentage of Technical Colleges with Bad Toilet Facility: According to the survey questionnaire and CIPs assessment 95% (19) of the FSTCs will require toilet rehabilitation/renovation at the workshops, classrooms and offices earmarked for structural rehabilitation. Only 5% (1) of the technical colleges will not require toilet rehabilitation.

Water Supply Infrastructure: Similarly, only 60% (12) of technical colleges will require the rehabilitation or installation of water supply infrastructures (including solar boreholes, overhead tanks and water reticulation works). Based on stakeholder engagements, these colleges constantly face water challenges due to shallow wells, no or insufficient boreholes, inadequate power source (hence their need for solar boreholes), etc.

Locations Prone to Insecurity: According to stakeholder engagements, about 25% (5) of the technical colleges (FSTC Michika, FSTC Kuta Shiroro, FSTC Zuru, FSTC Dayi and FSTC Kafanchan) are located in bandit occupied territories or their LGAs have experienced significant insecurities, while 75% (15) are not located in bandit occupied territories.

Percentage of Schools with Asbestos Ceiling to be Removed: According to the field assessments, only about 20% (4) of the technical colleges (FSTC Ilesha, FSTC Usi-Ekiti, FSTC Uyo and FSTC Doma) require removal of asbestos ceiling, while 80% (16) of the schools does not require removal of asbestos ceiling.

Access to Healthcare Facilities: Respondents rated access to public healthcare facilities as "Very Good[1]" in 40% of the FSTCs. Notably, colleges like FSTC Yaba, FSTC Uyo, FSTC Awka, FSTC Jalingo, and FSTC Otukpo, located in communities with access to secondary healthcare facilities, fall within this category. On the other hand, approximately 45% of respondents across the colleges considered access to public healthcare facilities as "Good," while the remaining 15% perceived it as "Fair." These areas have operational primary healthcare facilities readily available to address the health requirements of both staff and students.

Access Roads leading to the Colleges: Access roads to the colleges were adjudged “Very Good” by 60% of the respondents since most of the colleges are situated along major roads and highways which are tarred and accessible. Only 15% of the respondents rated the road conditions to their colleges as “Poor”.

Livelihoods in the Project Communities: According to the socioeconomic survey results, Farming (35%), Petty Trading (20%), Animal Husbandry (15%) and Artisanship (15%) emerged as the leading engagements by the locals of the communities bordering the TCs. Other livelihood activities include Fishing, Lumbering and Civil Service.

ES 6: Identification and Assessment of Potential E&S Impacts

The project impacts are highlighted in Chapter 5 of this document. Nonetheless, a summary of some identified positive and adverse environmental and social impacts of the intervention works at the TCs is provided below.

POSITIVE IMPACTS

The following are the positive impacts of the rehabilitation, renovation and expansion activities at the colleges.

- Increased enrolment of secondary students at the FSTCs, subsequently boosting revenue generation at the TCs.
- Rehabilitated structures (workshops, classrooms, etc.) will provide more conducive learning environment.

[1] **Excellent-** Resource is available in its best form, within the community and sufficiently available to locals.
Very Good - Resource is available in its best form but insufficient for local users/community.
Good- Resource is available although not in its most preferred form.
Fair – Resource is unavailable within the immediate community (<2-5km radius;) but may be sought within the LGA or the nearest community.
Poor - Resource is unavailable within and outside the community.

- Construction of toilets and WASH facilities will promote hygiene and sanitation at the technical colleges resulting in improved health.
- The rehabilitation phase of the intervention works may likely create short-term employment opportunities for unskilled workers most of whom are based within proximal communities at the FSTCs. This will foster improved community perception and stakeholder satisfaction of the IDEAS project.
- Considering that the technical workshops do not only serve as a practical space for the students, the proposed rehabilitation and expansion of the facilities will increase technical and vocational service delivery to the project communities thereby increasing the Internally Generated Revenue (IGR) of the technical colleges.
- The proposed rehabilitation at the FSTCs will improve job satisfaction for the teaching staff as well as the technical workshop instructors as a result of the provision of and access to better work facilities. Furthermore, staff productivity and quality of service delivery will be enhanced.
- The general health and safety of the Staff, Students, Youth Corp members and other personnel within the colleges will be improved as a result of the rehabilitations.
- The project will create an avenue for continuity or future investment including Public Private Partnerships (PPPs).

Summary of Adverse Environmental and Social Impacts:
PRE-REHABILITATION PHASE:
Environmental Risks

- Carbon emissions from construction materials transport, leading to localized air pollution.
- Increased fugitive dust generation along unpaved tracks. Localized air pollution from cement dust during offloading.
- Site-specific noise level increase.

Social Risks

- Short-term traffic congestion along busy roads leading to colleges may result in travel delays.
- Potential dissatisfaction among teachers and students due to venue changes or rescheduled class periods.
- Risk of labour influx
- Risk of road accidents during material transport on poor roads.
- Livestock roadkill incidents in areas with open grazing.

REHABILITATION PHASE:
Environmental Risks

- Installation of boreholes near septic tanks may contaminate groundwater.
- Short-term soil contamination from spills or improper management of construction waste.
- Drainage installations may result in flooding due to improper backfilling.
- Generation of various waste types, including construction, electrical, plumbing, and food waste.
- Potential exposure to asbestos dust at certain colleges.
- Open defecation by Contractor workers.
- Occupational health and safety risks.

Social Risks

- Interruption of electricity-dependent activities.
- Water reticulation may lead to short-term interruption of water supply and temporary closure of sanitation facilities.
- Possibility of social vices and illicit behaviour due to labor influx.
- Disruption of classroom, laboratory, and workshop activities may lead to grievances from staff and students.

- Risk of labour influx
- Risks of Gender Based Violence (GBV).
- Security risks.
- Social conflicts between school staff and Contractor workers.
- Possible engagement in sexual activities and community health and safety concerns.

OPERATION PHASE:

Environmental Risks

- In some locations, structures may be vulnerable to wind and extreme weather conditions
- Potential termite infestation and destruction of newly rehabilitated wooden roofing materials.
- Generation and improper disposal of solid waste.
- Excessive energy consumption.

ES 7: ESMP Mitigation & Monitoring Plan and Capacity Building

A matrix table format is used to describe the Environmental and Social Management Plan (ESMP) for the mitigation and monitoring of adverse environmental, social, and occupational health and safety risks and impacts associated with the proposed rehabilitation works for the FSTCs. The table has been designed to incorporate corresponding mitigation measures for all associated impacts of the proposed civil works as well as other ancillary activities under the subproject. Monitoring indicators and frequencies during the pre-rehabilitation, rehabilitation and operation phases of the project were also captured in the ESMP table (See Chapter 6). Some mitigation measures for the identified E&S impacts are provided in the table below.

Environmental Impacts Mitigation Measures	Social Impacts Mitigation Measures
Carbon Emissions: Use well-maintained vehicles, equipment < 5 years old. Regular servicing of vehicles. **Localized Air Pollution (Cement Dust):** Offload cement in less populated areas. Distribute nose masks to offloading personnel. Schedule cement supply during weekends. Cover trucks with tarpaulin during transport. **Noise Increase:** Use vehicles < 5 years old. Retrofit vehicle exhausts with sound control. Plan noisy activities outside school hours. **Loss of Beneficial Flora:** Limit land clearing to specific zones. **Borehole Proximity to Septic Tanks:** Maintain minimum distance (18m). Retrofit boreholes with RO filters. **Soil Contamination (Slurry):** Collect slurry into designated containers. Proper labelling and disposal. **Improper Backfilling (Drainages):** Supervised installation of drainages.	**Traffic Build-ups:** Schedule off-peak procurement. Liaise with traffic management. Use alternative routes. **Dissatisfaction & Class Changes:** Early notification and sensitization. Reschedule major works for non-school hours. **Road Transport Risks:** Secure equipment during transit. Schedule procurement during off-peak hours. Provide training for drivers. **Livestock Roadkill:** Enforce speed limits. Schedule haulage during off-peak times. **Electricity Interruption:** Early notification to students and teachers. Work during non-operational hours. **Water Supply Disruption:** Early notification and phased works. Provide alternative water sources. **Social Vices, Labour influx & Illicit Behaviour:** Enforce acceptable behaviours.

Environmental Impacts Mitigation Measures	Social Impacts Mitigation Measures
Use suitable backfill materials. Ensure compaction to eliminate voids. Post-installation monitoring. **Waste Generation:** Proper sorting, storage, and disposal. Implement waste management plan. Provide waste bins. Compost organic waste for garden use. **Asbestos Dust:** Implement Asbestos Management Plan. Caution in removal and transportation. **Occupational Health & Safety Risks:** Conduct safety training. Job Hazard Analysis. Use PPEs. Fall protection equipment. First Aid kits and training. **Extreme Weather Conditions:** Design buildings to withstand conditions. Install lightning protection systems. **Termite Infestation:** Recurrent fumigation of structures.	Fair wages and local labor sourcing. Continuous training and sensitization. Collaboration with law enforcement. **Gender-Based Violence:** Enforce the Code of Conduct. Organize GBV and SEA/SH workshops. Sensitize students and staff. **Security Risks:** Conduct Security Risk Assessment and put mitigation measures in place for identifies risks. Security training for personnel. Collaboration with local security. **Community Health & Safety:** Proper labelling and storage. Danger signs and cordoning. Safe disposal of hazardous materials. Safety measures to prevent falls.

Capacity Building and Training

Capacity building measures will be required to ensure that institutions involved in implementing the various ESMP components have the necessary knowledge and skills to fulfil their roles. The IDEAS SPIUs, CIUs at the respective FSTCs, Contractor, and other relevant MDAs are among the groups that will be trained. The ESMP training will include modules such as Occupational Health and Safety Management, Onsite Waste Management, SH/SEA and VAC Awareness and Application to the rehabilitation works – orientation on acceptable behaviours for construction personnel on/off-site, Introduction to Environmental and Social Framework (ESF), Operational Policies (OP) triggered for the IDEAS project, while the training for the monitoring component of the ESMP will include Monitoring and Evaluation Basics – Establishing Monitoring Indicators and Evaluating Performance, Communication Management, GRM Implementation and Monitoring, etc.

Implementation Schedule

The activities related to environmental management and monitoring will be integrated in the overall rehabilitation schedule. The project will be implemented over the course of Six (6) months.

ES 8: ESMP Cost Estimates

To effectively implement the mitigation and monitoring measures recommended in this ESMP, necessary provision will have to be made. The cost of these measures has been estimated and included in the ESMP and presented in the table below. The cost of mitigation by the Contractor will be included in the contract as part of the implementation cost by the Contractor. The overall total estimated cost for the ESMP implementation, monitoring and capacity building across the twenty (20) FSTCs is estimated at **Four Hundred Thousand and Thirty-Nine US Dollars Only (USD 400,039).** This is equivalent to **Three Hundred and Nine Million, Forty-Six Thousand, One Hundred and Thirty-Four Naira Only (N309,046,134).**

***Note:** The breakdown of the individual ESMP mitigation and monitoring cost including the capacity building plan is provided in details in Chapter 6 of this document.*

S/N	Item	Responsibility	Estimated Cost (USD)	Estimated Cost (NGN)
1	**ESMP Mitigation**	Contractors, SPIU, Communications Officer, CIU ESSG Officer, SEPAs/SWMAs, GBV Consultant, Independent NGOs/CBOs, College Principal/School Mgt.	213,103	164,630,593
2	**Monitoring Cost**	SPIU; Safeguards Unit; SMEnv; SEPAs/SWMAs; FRSC, NGOs, NPF, etc.	97,957	75,675,701
3	**Capacity Building**	NPCU, SPIU; Safeguards Unit; Contractors and Other relevant MDAs	54,180	41,856,220
		Sub-total Cost	**365,240**	**282,162,514**
4	**Contingency**	5% of Sub-total Cost	18,262	14,108,126
5	**Grievance Redress Mechanism**	SPIUs, GRC, NPCU, etc. ***(@ USD665 per TC for 20 FSTCs/States).***	13,300	10,274,782
6	**ESMP Disclosure**	SPIUs (Lump Sum)	3,237	2,500,712
		Total	**400,039**	**309,046,134**

Note: USD to Naira exchange rates as at October, 2023 (1 USD = 772.54 Naira) was applied and figures rounded up.

The ESMP mitigation costs to which the contractor is responsible will be included in the biding documents for Contractors, to enable them, implement intervention works in a manner consistent with environmental and social requirements of this ESMP document.

ESMP Disclosure

After the ESMP review and clearance by the World Bank; the ESMP will be registered with the FMEnv for approval to be granted for its disclosure in-country. The table below describes the process of disclosure.

S/N	Action	Remarks
1.	**Registration of ESMP with FMEnv**	Following clearance of the ESMP by the Bank, the SPIU shall proceed with the registration of the ESMP at the FMEnv through its website. A payment of N50,000 will be made via remita per project site–**Twenty (20) technical colleges (N1,000,000)**. Afterwards, two (2) hard copies and one (1) soft copy of the report will be sent together with the receipt of payment and a letter of **"Request for Disclosure"** addressed to the Minister or Permanent Secretary of the FMEnv as the case may be.
2.	**Letter of Approval by the FMEnv**	After all necessary inputs have been incorporated the SPIU will receive an acknowledgement by the FMEnv in form of a letter approving the disclosure of the ESMP.
3.	**Disclosure of the Cleared ESMP in Two (2) National Dailies or as directed by the FMEnv**	The SPIU will then proceed to disclose the ESMP in two (2) national dailies as required by the Nigeria EIA public notice and review procedures. The purpose will be to inform stakeholders about the project activities; environmental and social risks and impacts anticipated as well as the proposed mitigation measures for identified impacts.
4.	**Disclosure at the World Bank External Website**	The ESMP will be disclosed on the Bank's External Website upon evidence of in-country disclosure by the Project and according to the World Bank Disclosure Policy (OP 17.5).

ES 9: Stakeholder Engagement

The consultation process was conducted between December 2022 and February 2023. In the consultation, special care was taken to ensure the appropriate participation of female teachers, corps members and students within the project areas and to understand and appreciate their views. Critical stakeholders identified and consulted included: i) IDEAS SPIUs ii) CIU Team at the Respective FSTCs iii) School Management (Principal, Staff, Students and Youth Corp Members) (iv) State Environmental Protection Agencies (SEPAs)/State Waste Management Agencies (SWMAs) iv) Federal Road Safety Corps (FRSC) and other stakeholders within the boundaries of the project

locations including women groups (locations for stakeholder engagement were at the sites, and offices of the respective agencies). Vulnerable Groups were identified at the level of consultations**.** The criteria utilized were based on establishing members of the project area of influence likely to be at the most risk of the adverse impacts of the proposed intervention works. This is with regards to: (*i) easy predisposition to SH and SEA, contracting STIs and STDs or unwanted pregnancies (social vulnerability); (ii) individuals likely to suffer temporary effects of renovation of classrooms, workshops, toilets, laboratories and on-site infrastructure and may face psychosocial impacts (physical and social vulnerability); (iii) staff and visitors with physical disabilities; and (iv) elderly persons (social and probably, economic vulnerability)*. In line with the criteria above, these include:

- **Female Students/Corpers/Staff within the FSTCs:** These stand the risk of suffering SH, SEA, contracting STIs, STDs or unwanted and/or early pregnancies caused by migrant workers, especially at the pre-rehabilitation and rehabilitation phases.
- **Persons with Disabilities:** Negative risks & impacts may be associated to restriction of movement and access to work areas/classrooms during the rehabilitation phase especially for teachers, students, corps members with disabilities. Barricaded or waste stacked routes or work areas may restrict and impede movement of staff living with disabilities to their office blocks.
- **Elderly Persons:** Considering that most schools have administrative personnel and security personal who are above 55years, it is imperative to put them into cognisance, as they might easily be susceptible to adverse environmental and social risks & impacts associated with the intervention works.

A summary of the key discussions, concerns and responses from the consultation at the FSTCs is provided below.

Participants: ESMP Consultant, SPIUs, CIU Team, School Management (Principal/Vice Principal, Staff, Students, NYSC Corps Members) at the FSTCs in all states

The ESMP Consultants requested the CIPs and feasibility studies for the proposed rehabilitation at the colleges. He also explained the purpose of the ESMP and highlighted potential E&S risks and impacts at the colleges, along with suggested mitigation measures to be included in the ESMP report. Discussions were similar in most locations, with a few peculiarities as highlighted below:

i. Stakeholders (particularly Principals) enquired to better understand the rationale behind the ESMP study to be undertaken at the colleges and why it was necessary prior to the rehabilitation activities. The ESMP Consultants explained the purpose and rationale for the ESMP and highlighted potential E&S risks and impacts at the colleges, along with suggested mitigation measures to be included in the ESMP report. The opinion of the stakeholders was sought as regards identified E&S risks peculiar to some of the college so as to come up with realistic mitigations which would offset or reduce the impacts as low as reasonably possible. Enquiries was also made about their cultural and socioeconomic activities and they were urged to express their views as regards the project.
ii. They appreciated the idea of the proposed rehabilitation and its numerous benefits for their colleges and expressed their optimism on its potential to stir up an improvement in the TVET subsector.
iii. They assured the team of their full assistance and cooperation. Also, they enquired on the scheduled period when the funds earmarked for the rehabilitation activities will be disbursed to them to enable them commence with implementation. The Consultant further informed that the scheduled period for the commencement of the rehabilitation cannot be ascertained in the meantime; however, the activity will most likely kick start after the current assessment is completed.
iv. The CIU at technical colleges, including FSTC Orozo, FSTC Doma, FSTC Michika, FSTC Awka, FSTC Yaba, FSTC Kuta Shiroro, and FSTC Ilesha, provided the consultant with information about traffic assessment. They informed the consultant that considering that these colleges are located along busy roads and highways, they experience significant traffic build ups, particularly during peak hours. Since

there is no alternate route, they helped define off-peak hours that the Contractors could utilize for material procurement and supply/haulage during the proposed rehabilitation at the colleges.