TERMS OF REFERENCE

DESIGN AND SUPERVISION FOR THE CONSTRUCTION OF E-WASTE COLLECTION, DISMANTLING AND HOLDING CENTRES IN GHANA (GH-EHPMP-171040-CS-CQS)

1.0 BACKGROUND

The quantities of e-waste accumulating in sub-Saharan countries have been increasing exponentially in recent years. In Ghana, the amount of e-waste generated is estimated at 171,000 MT/year (2009), of which 90-95 percent gets processed. Estimates place the contribution of e-waste recycling and associated activities to the Ghanaian economy at US\$105-268 million, mostly undertaken by the informal sector (Prakash et al., 2010). The cost to Ghanaian society due to disease and lost IQ points in children was estimated at US\$440 million per year, equivalent to 0.75 percent of 2017 GDP. The improper recycling and disposal of heavy metals associated with the burning of e-waste is particularly acute in Africa where environmental monitoring and regulatory enforcement are relatively weak. The mismanagement of toxic releases from open-burning and other management sources along the e-waste value chain present serious threats to human and environmental health in Ghana.

The assignment is aligned with the EPA's 2018 National Integrated E-waste Management Scheme that seeks to promote the establishment of collection & dismantling and holding centres in major e-waste hotspots outside Accra (such as Kumasi, Koforidua, Ashaiman, Paga, Aflao, Sunyani, Techiman and Tamale, among others). This will serve as an immediate solution to reduce the major sources of uPOP pollution into the environment from the e-waste sector.

Ghana is one of five African countries participating in the GEF-funded Africa Environmental Health and Pollution Management Program, whose objective is to reduce environmental health risks from Persistent Organic Pollutants (POPs) releases in e-waste and mercury use in artisanal and small-scale gold mining in Ghana through strengthened institutional partnership and capacity building in pollution management.

The Project in Ghana has four (4) Components as follow:

Component 1: Institutional strengthening, capacity building and knowledge sharing

The component will strengthen the knowledge and capacity base of public institutions and private stakeholders to address environmental health risks associated with mercury use in ASGM sector and POPs/UPOPs releases from e-waste.

Component 2: Support policy dialogue and regulatory enhancements

The component seeks to address current policy challenges as well as to strengthen regulatory frameworks and facilitate their implementation, to better address environmental health risks associated with mercury use in ASGM sector and POPs/UPOPs releases from e-waste. It complements activities under component 3, focused on operational-level approaches to incentivize practices and technologies less harmful to human health and the environment.

Component 3: Demonstrating the application of technological tools and economic approaches.

The component will finance specific community-focused cleaner technology demonstration activities in contaminated areas, selected and designed based on environmental health risks and cost-effectiveness of interventions. The objective is to address technical and methodological challenges to the adoption and deployment of cleaner technologies and practices in complement to activities under component 2, which focuses on challenges and policy incentives to reduce environmental and health pressures.

Component 4: Project management

This component will cover the cost for project management, implementation and supervision of project activities, administration of procurement and financial management, monitoring and evaluation, and monitoring of safeguards compliance. The component will cover in particular the cost of the Project Implementation Units (PIU) within the Environmental Protection Agency (EPA).

This assignment is premised on the need to support the National Integrated E-Waste Management Scheme by the establishment of collection, dismantling and Holding Centre (HOC) in major e-waste hotspots in Ghana. The six (6) centres will serve as an immediate solution to reduce the major sources of uPOP pollution into the environment from the e-waste sector. The centres, when completed, will create a network of e-waste infrastructure across the country and also serve as centers of excellence for providing training and building the capacity of the e-waste value-chain actors in sound environmentally dismantling and recycling of e-waste. The consultant for this assignment will benefit from the output of the vision assignment that will elaborate on existing processes in similar or comparable facilities/centres in Ghana or elsewhere with components indicating their capacity and services to be provided, operating philosophy, facilities and resources such as reception/security area, truck waiting area, weighing bay, e-waste reception bays, offices, training rooms, storage areas for both hazardous and non-hazardous e-waste fractions, dismantling floors, cafeteria, washrooms, and laboratory. All this will be translated into into a full Architects Brief to aid in the design of the demonstration centre.

2.0 OBJECTIVES OF THE CONSULTANCY ASSIGNMENT

The main objectives of the Consultancy Services are to prepare detailed designs, cost estimates, specifications, and quantities for each facility, and provide construction supervision services of the E-waste collection, dismantling, and holding centers in collaboration with the PIU.

Specific Objectives include:

- a. To design, draft specifications, provide estimates and quantities for the construction of the centers.
- b. -To provide building/construction supervision services in accordance with the approved design, drawings, and specifications in conformity with the required standards.
- c. -To assist the PIU in developing bidding documents and the management of the contracts for construction of e-waste dismantling and collection centres in accordance with the requirements of the World Bank.
- d. To liaise with the PIU to ensure the realization of economy, value for money, efficiency, sustainability and effectiveness of all procurement and contract management processes in accordance with Bank requirements.

The completion of these centres will create a network of e-waste infrastructure across the country and an efficient material flow.

3.0 DESCRIPTION OF ASSIGNMENT

The TOR leaves ample room for the consultant's creativity and innovations in determining the most appropriate approach and methodology to be applied in achieving the above consultancy objectives. In so doing, the consultant is expected to work in close liaison with the representative of the Client (Project Coordinator) and relevant stakeholders including beneficiaries, as well as the various works contractors.

Particular attention and experience are to be placed on Climate-responsive, Energy efficient and Sustainable infrastructure designs, in line with the Sustainable Development Goals (SDGs, dubbed 'Transforming our World: the 2030 agenda for Development'), which are geared towards environmentally sustainable and socially inclusive World by 2030. The key elements from an infrastructure design perspective include: Participatory Design (i.e. best involvement of key stakeholders for good project ownership and acceptance), Energy Efficient Design (low overall and renewable energy utilization, vis-à-vis required functional performance, including solar energy and relevant rainwater harvesting), Construction Materials (technically appropriate), Costs/Benefits (optimum value-engineered balance between the initial and through- life costs to achieve overall affordability), Comfortable and Conducive Design (appropriate for healthy human habitation, including ventilation and lighting, as well as normal temperatures, humidity and acoustics) Environment and Ecosystem (for harmony with the broader environment/ecosystem of the World, including much-reduced carbon emissions into the atmosphere).

This assignment will benefit from site specific information on detailed design briefs and environmental and social management plan (ESMP) conditions from ongoing vision and ESMPs assignments in support of the establishment of clean mine demonstration centers. The outputs from these assignments are expected to be completed by October 2023. The assignment will cover the following mining sites as provided in the table below.

The scope of the assignment will cover the following six (6) e-waste sites as provided in the table below.

No.	Name of Site	District	Region
1.	Tema Metro Sites	Tamale	Northern
2.	Tamale Township	Tamale	Northern
3.	Sunyani (UENR)	Sunyani	Brong Ahafo
4.	Ada	Ada West – Sege	Greater Accra
5.	Apedwa	Suhum	Eastern
6.	GAEC	Ga East	Greater Accra

4.0 SCOPE OF SERVICES

The scope of consultancy services is to design and assist with the procurement process for works, and contract management and supervision of works. The consultant shall at all times, in consultation with the PIU, deliver the following tasks/services.

4.1 Task 1: Preliminary investigations and designs:

- a. Check and confirm the plot boundaries of the project sites.
- b. Carefully study the Client's (EPA) list of facilities, needs and budget.
- c. Conduct comprehensive site analyses, topographical surveys, geo-technical investigations and checks with local area development plans; *inter alia* indicating existing natural/man-made features, utility service lines/sources, main/access roads and planned future developments.
- d. Study and ensure full compliance with the public health, building, urban and environmental planning regulations, including all required approvals and permits.
- e. Prepare climate-responsive, energy-efficient and sustainable architectural & engineering designs/calculations/principles, construction methods & finishing schedules, ensuring optimal utilization of space, functional effectiveness & necessary variations suitable to the project sites.
- f. Ensure all designs are structurally, architecturally and engineering-wise compliant to all standards regime (eg. GSA, EPA, GIEng., GIS, etc.) and building codes of Ghana.
- g. Prepare preliminary furniture/equipment layout plans.
- h. Prepare preliminary interior and hard/soft landscape design concepts.
- i. Prepare draft technical specifications for civil works, furniture and equipment.
- j. Prepare detailed itemized quantities and preliminary cost estimates including advice on possible financial implications of different construction materials and methods for civil works, furniture and equipment.
- k. Prepare and submit stage reports as indicated under Section 6 of this TOR, for approval.

Task 2: Detailed designs and tender documentation:

- a. Undertake the designs in accordance with the Ghana Building Code/Standard (GS-1207-2018) or the British Standards (BS)
- b. Ensure E&S requirements specified in the site-specific ESMP are integrated into the design.
- c. Finalize the design process and assist with preparation of tender documents (including ensuring that E&S mitigation requirements are included in the tender documents).
- d. Obtain all relevant statutory permits/approvals.
- e. Submit schematic services layouts to the respective statutory authorities for noobjection (e.g. electricity, water, sewerage and communication as appropriate).
- f. Prepare detailed location, site and block plans/sections for the project sites, including all civil, building services and external works.
- g. Prepare detailed architectural and engineering drawings (including floor plans, sections, elevations, 3D drawings, working details and finishes/fittings schedules), as well as building interior and hard/soft landscaping designs, furniture/equipment positioning and accessories. The designs should provide universal access.
- h. Prepare detailed technical specifications, un-priced bills of quantities and detailed confidential cost estimates (priced bills of quantities) for the civil works, furniture and equipment.
- i. Assist the PIU in the preparation of Bidding documents and procurement evaluation reports.
- j. Prepare and submit the stage reports as indicated under section 6 of this TOR, for approval.

Task 3: Tender and contracting process assistance:

- a. Prepare applications and submit plans to the relevant local authorities for approvals under Building Regulations and Public Health Rules
- b. Prepare responses to tender queries, including necessary explanations.
- c. Prepare necessary addenda to tender documents.
- d. Provide technical inputs at the pre-tender site visits and meeting, tender opening session, tender evaluation process and necessary contract negotiations (as part of the Client's Tender Evaluation or Contract Negotiation Committees).
- e. Provide all the technical components of the contract documents.

Task 4: Management and Supervision of Works:

During the implementation and defects liability/warranty periods for works and installations, the consultant's services shall include, but not limited to the following:

- a. Provide **contract management services to the PIU, including** general liaison with the Client (EPA) and contractor(s) and attending all coordination meetings with the Client (EPA) as requested.
- b. Participate in **handing over of the site** to the works contractor.
- c. Carefully review and advise on the **contractors' detailed work plans and activity schedules**, in view of acceptable construction processes and the contract period.
- d. Ensure that the contractors' Environmental and Social Management Plans (ESMP) are in accordance with good international practices, responds to the site-specific ESMPs and delivers the contractors' Environmental and Social Health & Safety (ESHS) obligations. The Contractors' ESMP should include method statements, implementation plans, prevention strategies against Gender Based Violence (GBV) and Sex Exploitation and Abuse (SEA), adherence to World Bank's Environmental and Social Standard (ESS) 2: Labour and Working Conditions, prevention of child and forced labour, and national worker-related laws and local bye-laws. The Contractors' ESMPs should be submitted to the Client to obtain clearance from the World Bank. The plans should be monitored every week and reviewed every months.
- e. Organize and manage **monthly site meetings** to be attended by the client, representatives of the various stakeholders (*Consultant's key staff and Ministry representatives, Assembly, a member of the community, etc),* including formal invitations, chairing and preparation/issue of meeting minutes.
- f. Provide **full-time well-trained site supervisor for each site (Clerks of Works**; with fully functional office facilities for effective work including laptop, printer, camera, phone, etc), whose tasks during the site execution of the works contracts shall include:
 - Inspect site activities on a weekly basis and confirm specified design and quality of the works; prepare and issue necessary remedial site instructions.
 - Record on a daily basis the contractors' labour force, major equipment, materials on site and works activities performed and prepare weekly progress reports.
 - Closely monitor progress and timelines of planned construction/installation activities.
 - Participate in the provisional hand over inspections and preparation of snag lists.
 - Inspect and confirm the rectification of defects listed in the snag lists or identified during the Defects Liability Period (DLP).
 - Participate in the final inspections and hand over.
- g. Conduct **regular site inspection visits** by relevant key staff on the Consultant's team (i.e. technical and E&S monitoring in-between the monthly site meetings) and prepare related **back to office briefs** sharing promptly with the Project Coordinator (EPA). The briefs should cover key progress, any negative happenings and anticipated problems/delays on site vis-à-vis agreements at the previous monthly site meeting.
- h. Schedule monthly reporting meeting with the client (EPA) to discuss the progress of work, including actions that needs urgent attention.
- i. Issue **relevant written technical instructions** to the civil works, furniture and equipment contractors with due consultation with the Client (EPA).
- j. Carry out regular measurements required for checking contractors' valuations of works and preparing related payment certificates.
- k. Supervise the **delivery and relevant installation of supplies/equipment**, ensuring correct specifications and quantities.
- I. Conduct meaningful stakeholder consultation.
- m. Advise the Client (EPA) on measures being taken to avoid inherent delays.
- n. Prepare quarterly progress and financial reports.

- o. Participate in the **provisional handover**, including issuing of snag list(s) and Provisional Acceptance Certificate(s) for works, in close liaison with the Client (EPA). Also secure the required **Occupation Permit**.
- p. Develop a 5-year civil works and equipment operation & maintenance plan/manual, in a participatory manner including the end-users and other stakeholders.
- q. Prepare/compile and provide to the Client (EPA) "As Built" drawings/specifications, installation schedules and Operation & maintenance manuals for the civil works.
- r. Supervise the **Defects Liability Period (DLP) for civil works and warranty periods for furniture and equipment**. In so doing, carry out periodic inspections during the DLP and notify the Client (EPA) and Contractor of any emergent defects and supervise their timely repair.
- s. Perform the **final handing-over at the end of the DLP** in close liaison with the Client (EPA)/users, and issue the **Final Acceptance Certificate**.
- t. Prepare the Final Payment Certificate & Final Accounts.
- u. Undertake inventory of household and property and establish criteria for prompt and adequate payment of compensation and resettlement assistance, if applicable, and supervise implementation of all Contractor Environmental and Social Management Plan (C-ESMP).

5.0 TEAM COMPOSITION & QUALIFICATION OF KEY EXPERTS

5.1 Team Composition

The nature of the assignment requires the consultant to assemble a well-qualified and experienced team of experts, of sufficient size and capacity, covering all the professional disciplines required for successful preparation of infrastructure designs and supervising their apposite execution on site.

5.2 Staffing Requirements

The consultant's team shall include, but not be limited to the following key professionals and experts, segregated for part 1 and part 2 of the assignment. Each key expert shall have a minimum of a University Degree related to the assignment, registrations with respective to professional bodies, practicing certificates, professional indemnity insurance and excellent track records on the implementation of projects of similar nature. Each Clerk of Works shall however have a minimum of a Higher National Diploma in Building and Civil Engineering.

Required Expert	Core role	Minimum Overall Experience (Years)	Minimum Related Experience (Years)	Core Specific Discipline (Minimum)
PART 1: DESIGN AI	ND TENDER DOC	JMENTATION	I	
Leader/Architect	Project management & team coordination	10	8	- Msc. Architecture or Civil Engineering - Must be a member in good standing of a relevant professional body in Ghana - Must have experience in designing and supervision assignments - Must possess essential relevant qualities and experience for working with multistakeholder groups Must have been a team leader in executing similar assignments - Must have adequate

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				experience in executing 2 similar assignments funded by the World Bank in the past 10 years - Must be conversant with the World Bank Procurement Regulation
2.				
				- Min. BSc. Electrical Engineering
3. Electrical Engineer	Sustainable Electrical design & details	7	5	- Must possess experience in completing assignments if similar nature in the last 7 years - Must have completed 2 assignments of similar nature funded by the World Bank - Must have experience in supervising construction works of similar nature Must be conversant with the Electrical and Electronics standards of ISO and the Ghana Building Code - Must have experience in working with multiple stakeholders locally from local and multinational organizations
4. Quantity Surveyor	Cost estimates & detailed Bills of Quantities	7	5	- BSc. Quantity Surveying - Must be a member in Good standing of a relevant Professional body in Ghana - Must be 7 years' experience in working on World Bank funded Projects - Must be able to provide accurate and appropriate estimation and assessment of works infrastructure - Must have a track record of timely and accurate delivery on all works done in the last 5 years - Must possess a good understanding of the Ghana Building Code and all relevant laws and regulations on building infrastructural development in Ghana
5. Environmental Expert	Environmental assessments	7	5	MSc. Environmental StudiesMust be conversant with

		Т	
			the World Bank
			Environmental and Social
			Framework and all the
			instruments under the
			Framework.
			- Must have practical
			knowledge on the
			application of the relevant
			instruments when ever
			required
			- Must have 5 Years'
			Proven experience of
			Working on World Bank
			funded assignments.
			- Must be able to very
			conversant with the local
			cultural standards and
			requirements in local rural
			Ghanaian setting
			- MSc. Social
			sciences/Sociology/Antro
			pology/Social Work
			pology/coolal Work
			- Must be conversant with
			the World Bank
			Environmental and Social
			Framework and all the
			instruments under the
			Framework.
			- Must have practical
			knowledge on the
6. Social Expert	Social	7	application of the relevant
o. Goolal Export	assessments	,	instruments when ever
			required
			- Must have 5 Years'
			Proven experience of
			Working on World Bank
			funded assignments.
			- Must be able to very
			conversant with the local
			cultural standards and
			requirements in local rural
			Ghanaian setting

Required Expert	Core role	Minimum Overall Experience (Years)	Minimum Related Experience (Years)	Core Specific Discipline
PART 2: SUPERVISION C	F WORKS CONTRAC	стѕ		
Team Leader/Architect	Project management & team coordination	7	5	Architecture or Civil Engineering
2.				
3. Electrical Engineer	Electrical site supervision	7	5	Electrical Engineering
Quantity Surveyor	Verifications, Certifications & Cost appraisals	7	5	Quantity Surveying
5. Environmental Expert	Environmental assessments	7	5	Environmental Studies

6.	Social Expert	Social assessments	7	5	Social sciences
7.		Full time representative on site	7	5	Building & Civil Engineering

6.0 REPORTING REQUIREMENTS AND TIME SCHEDULE FOR DELIVERABLES

6.1 Reporting Requirements

The Consultant will prepare and submit stage reports to the satisfaction of the Client (EPA). The content and presentation of reports will be guided by the detailed scope outlined in sub-section 3. The metric system and the British standard codes shall apply and the consultant shall retain sole responsibility for analyses and credibility of all information gathered and conclusions made thereof. The consultant will take into account all comments of the Client on each report submission and accordingly make modifications. Below is more specific guidance on the required reports. The consultant shall report to the Project Coordinator. The summary reporting schedule is provided below.

Summary Reporting Requirement

Description	Timeline (Weeks)	Payment Schedule
Part 1: Design and Tender	7.0	
Documentation		
Submission of Inception Report	2.0 after Contract	10% of Design Fee
	Sign	concluded during
		contract negotiation
Stage 1: Preliminary investigations and	3.0 after	40% of Design Fee
designs	acceptance of	concluded during
	inception report	Contract Negotiation
Stage 2: Detailed designs and tender	2.0 after	50% of Design Fees
documentation	Acceptance of	Concluded during
	Preliminary	Contract Negotiation
	designs	
Stage 3: Tender and contracting process	0.0	
assistance		

Description	Timeline (Months)	Payment Schedule
Part 2: Supervision of Works Contracts	6.0	
Stage 1: Overall contract period for works	6.0	Payment shall be made based on the Negotiated Per Centage Rate on Total Value of the Works Contract. Consultant shall receive such per centage as agreed on the value of each certificate raised in favour of a contracted Contractor

6.2 **Detail Services, Timelines and Payment Schedule for Deliverables**

The consulting services described in this TOR will be undertaken over a period of 8.0 months. The table below shows the indicative breakdown of the consultancy period in relation to the completion of each stage, as well as the related percentage of the contract price payable. The consultant is expected to follow this schedule closely in executing the assignment. The services for both phases 1 & 2 are elaborated below and Annex 1 respectively.

Part 1: Design and Tender Process

Activity	Description	Duration (Weeks)	Payment Schedule
Stage 1	Preliminary investigations and designs Inception report: Overview of mobilization, approach for the designs, programme of works in a form of a Gant chart indicating major milestones, checklist, etc for the assignment. Draft Preliminary design report: A report submission for each site including: Narrative explanatory report, covering works Location plan (scale 1:2500); Site plan (scale 1:500; 1:1000) Architectural floor plans, sections and elevations (scale 1:100) Furniture/equipment layout plans (scale 1:100) Cost estimates (based on costs per unit area for comparable projects) Final Preliminary design report: A report submission for each institution including: Narrative explanatory report, covering works Location plan (scale 1:2500); Site plan (scale 1:500; 1:1000) Facility block plans (scale 1:200) Architectural floor plans, sections and elevations (scale 1:100) Architectural floor plans, sections and elevations (scale 1:100) S-dimensional drawings, including interior design concepts (perspectives) Structural design principles (scale 1:20) Furniture/equipment layout plans (scale 1:100) Furniture/equipment details (scale 1:20/50) Cost estimates (based on elemental costs for	2 weeks after signing of the contract 2 weeks after submission of inception report 1 week after submission of the draft preliminary design report	10%
Stage 2	Detailed designs and tender documentation Final design and tender documents: A report submission for each site including: Narrative explanatory report, covering works Environmental Impact Assessment approvals No objections of the relevant authorities for services	2 weeks after approval of preliminary designs	30%

 Architectural floor plans, sections and elevations (scale 1:100) 3-dimensional drawings, including interior designs (perspectives) Architectural, interior design, landscaping & external works details (scale 1:10; 1:20; 1:50) Door, window and finishes schedules (scale: 1:20) Structural drawings/bending schedules (scale 1:10; 1:20; 1:50) Services drawings - electrical/mechanical/communication (scale: 1:100) Furniture/equipment layout plans (scale 1:100) Furniture/equipment details (scale 1:20/50) Technical Specifications and Bills of Quantities (BOQ) for works Confidential cost estimates for works (based on priced BOQ) Technical Specifications for furniture/equipment Confidential cost estimates for furniture/equipment (based on final list of quantities) 		
 Submission and receipt of local authority approvals Relevant tender responses, addenda, and meeting minutes Final technical components for the works contracts 	appointed	20%
Total Part 1	7.0	100%

Part 2: Contract Supervision Phase

Payment shall be based on a Percentage Rate of the Total Cost of each Works Contract as may be agreed upon after the Negotiation.

7.0 CLIENT'S INPUTS AND COUNTERPART PERSONNEL

7.1 Performance Assessment

The Client shall provide the necessary stage approvals or for all activities in the performance of the assignment.

7.2 Assistance with Information, Approvals and Permits

The Client shall assist with the required contacts and access to relevant information essential to the proper implementation of the consultancy. Where necessary and possible, the Client will provide or assist the Consultant to obtain relevant documentation that is required to carry out the duties expeditiously. In case of foreign consultants requiring work permits, the Client will assist by introducing such

consultants to the relevant Government authorities and other stakeholders, as may be necessary.

7.3 Facilities to Be Provided by Client

The Client will provide the following facilities to the Consultant:

- a) Letter(s) introducing the Consultant wherever required in the performance of the assignment.
- b) Vision Report and Design Brief for E-Waste CC-DC-HOC
- c) Site-specific Environmental and Social Management Plans
- d) Any other relevant information required by the consultant that is readily available to the client and within the scope of the assignment.

It should be noted that the Consultant shall be responsible for providing all administrative, technical, professional and support staff needed to carry out their services efficiently. The Consultant shall also be responsible for providing all necessary facilities and logistical support for their staff or team(s) engaged, including accommodation, vehicles/transportation, utilities, office supplies and other miscellaneous requirements wherever applicable to render their services effectively.

8.0 ENVIRONMENTAL AND SOCIAL POLICY & CODE OF CONDUCT

8.1 Environmental and Social Policy

This policy shall integrate environmental protection, occupational and community health and safety, gender, equality, child protection, vulnerable people (including those with disabilities), sexual harassment, gender-based violence (GBV), sexual exploitation and abuse (SEA), HIV/AIDS awareness and prevention and wide stakeholder engagement in the planning processes, programs, and activities of the parties involved in the execution of the Works. The policy will include a frame for monitoring, continuously improving processes and activities and reporting on compliance. The policy shall include a statement that, for the purpose of the policy and/or code of conduct, the term "child" / "children" means any person(s) under the age of 18 years. The policy shall be brief, but specific, explicit and measurable, to enable reporting of compliance with the policy and reporting requirement. As a minimum, the policy shall commit to:

- a. Apply good international industry practice to environmental conservation and protection.
- b. Provide and maintain a healthy and safe work environment and safe systems of work.
- c. Protect the health and safety of local communities and users, with particular concern for those who are disabled, women, elderly, or otherwise vulnerable.
- d. Ensure that terms of employment and working conditions of all workers engaged in the Works meet the requirements of the national labour Act and the ILO labour conventions to which the host country is a signatory.
- e. Be intolerant of, and enforce disciplinary measures for illegal activities, including GBV, inhumane treatment, sexual activity with children, and sexual harassment.
- f. Incorporate a gender perspective enabling both women and men to have equal opportunity to participate in, and benefit from the planning and development of the Works.
- g. Work co-operatively, including with end users, authorities, contractors and local communities.
- h. Engage with and listen to affected persons and organizations and be responsive to their concerns, with special regard for vulnerable, disabled, and elderly people.
- i. Provide an environment that fosters the exchange of information, views, and ideas that is free of any fear of retaliation and protects whistleblowers.
- Minimize the risk of HIV transmission and mitigate related effects in executing the Works.
- k. Ensure inclusion, public disclosure, and information dissemination
- I. Provide mechanisms for resolving grievances
- m. The policy shall be signed by the Client to signal the requirement for it to be applied rigorously.

8.2 Environmental and Social Code of Conduct (ESCC)

The consultant's ESCC is to contain obligations on all their experts that are suitable for addressing the following issues and prohibiting them, as a minimum. Additional issues may be added to respond to particular concerns of the region, location, sector or specific project requirements.

- a. Compliance with applicable environmental laws, rules, regulations and reports, e.g. ESIA/ESMP.
- b. Compliance with applicable health and safety requirements to protect the local community (including vulnerable and disadvantaged groups), the Consultant's experts, the Client's personnel, and the Contractor's personnel, including subcontractors and day workers, including wearing prescribed personal protective equipment (PPE), preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment.
- c. Use of illegal substances (drugs, chemicals, etc) are prohibited.
- d. Non-Discrimination in dealing with the local community (including vulnerable and disadvantaged groups), the Consultant's Experts, the Client's personnel, and the

Contractor's personnel, including sub-contractors and day workers, for example, on the basis of family status, ethnicity, race, gender, religion, language, marital status, age, disability (physical and mental), sexual orientation, gender identity, political conviction or social, civic, or health status.

- e. Interactions with the local community, members of the local community and any affected person(s), for example to convey an attitude of respect, including to their culture and traditions.
- f. Sexual harassment, e.g. to prohibit use of language or behavior towards women and/or children, that is harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
- g. Violence, including sexual and/or gender-based violence, for example acts that inflict physical, mental or sexual harm or suffering, threats of such acts, coercion, and deprivation of liberty.
- h. Exploitation including sexual exploitation and abuse, for example the prohibition of the exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliating, degrading behavior, exploitative behavior or abuse of power.
- i. Child protection, including prohibitions towards them against sexual activity or abuse, hazardous labour, forced labour, unacceptable behavior, limiting interactions, and ensuring their safety in project areas.
- j. Sanitation and accommodation requirements, for example, to ensure workers use specified sanitary facilities provided by their employer and not open areas and live in decent housing.
- k. Avoidance of conflicts of interest, ensuring that benefits, contracts, employment, or any preferential treatment, are not given to anyone with whom there is a financial, family, or personal connection.
- I. Respecting reasonable work instructions, including on environmental and social norms
- m. Protection and proper use of property, for example, to prohibit theft, carelessness or waste.
- n. Duty to report violations of the Code to the Client or relevant authorities.
- o. Non-retaliation against personnel who report violations of the Code, if made in good faith.
- p. Promote gender equality and empowerment of women.
- q. Ensure speedy and non-violent resolution of grievances through the establishment of functional grievance redress system.

The code shall be written in plain language and signed by each expert to indicate that they have: (1) received a copy of it; (2) had it explained to them; (3) acknowledged that adherence to it is a condition of employment; and (4) understood that violations of it can result in serious consequences, including dismissal or referral to legal authorities. Two copies of the code shall be displayed in the Site Engineer's office, one in English and the other in an appropriate language.

Annex 1: Part 2: Supervision of Works Contracts

Meeting minutes, mid-month site inspection briefs and contract management reports:

- Minutes of all technical meetings held at the site, including technical handover, monthly site meetings, technical commissioning, etc (circulated to all key participants).
- Briefs on the mid-month inspection visits per site
- Monthly contract management reports.

Tender and contracting process:

- Relevant tender responses, addenda and meeting minutes
- Final technical components for the supply contracts

Quarterly Progress and Financial Reports for works (as appropriate):

A narrative explanatory report submission covering:

- Brief overview of project site (Executive Summary).
- Detailed report on project site (with specific details in annexes), covering:
- Progress in relation to the contractor's work plans, including issued instructions.
- Financial appraisal including payments summary, variation costs, contract cost status, etc.
- Any contractual and technical problems with proposed solutions (inc. enduser issues). o Meeting minutes and progress photographs for the quarter.
- Progress in relation to Contractor's ESMPs

Quarterly progress reports must be submitted within 14 days of the end of the reporting quarter. Each late submission will attract a penalty of 5% of the corresponding fees.

Practical (Provisional) Completion Reports for works:

A narrative explanatory report submission for each institution covering works:

- All elements noted in the above reporting category.
- Agreed snag lists of outstanding/defective works to be completed/rectified during the DLP.
- Copies of site handover certificates signed by the contractor, consultant and Employer-user.
- Reports on required user trainings for the works, furniture and equipment.
- Copies of Provisional Acceptance Certificates.
- Progress with obtaining occupation permits.

Practical (Provisional) Completion Reports for works:

A narrative explanatory report submission for each institution covering works:

- All elements noted in the above reporting category.
- Agreed snag lists of outstanding/defective works to be completed/rectified during the DLP.
- Copies of site handover certificates signed by the contractor, consultant and Employer-user.
- Reports on required user training for the works, furniture and equipment.
- Copies of Provisional Acceptance Certificates.
- Progress with obtaining occupation permits.

Mid-DLP Reports for works:

A narrative explanatory report submission for each institution covering works:

- Progress with rectification of listed/emergent snags.
- Updated reports on required user trainings for the works, furniture and equipment.
- Copies of occupation permits.
- Draft operation and maintenance manuals.

Final Completion Reports for works:

A narrative explanatory report submission for each institution covering:

- Project and consultancy background
- Degree of fulfillment of the consultancy TOR
- Financial report including payments, variation costs, contract cost status, final accounts, etc.
- Report on rectification of listed/emergent snags.
- Copies of Final Acceptance Certificates.
- Final operation and maintenance manuals, plus as-built/installed drawings.

Report Copies:

Hard submissions: One (1) original and four (4) copies; all copies to be of the same quality as the original i.e. colour, visibility, page arrangement/orientation, etc).

Digital submissions: One (1) hard drive.

Formats: Unless not possible or requested otherwise, drawings and schedules shall be on A3 paper size.

Electronic copies shall be PDF (for drawings & narrative documents) and MS Excel (for BOQs).