



REPUBLIC OF LIBERIA
ENVIRONMENT PROTECTION AGENCY

P.O. Box 4024
4th Street Sinkor, Tubman Boulevard,
1000 Monrovia, 10 Liberia



**CROSS-CUTTING CAPACITY DEVELOPMENT (CCCD)
PROJECT**

Terms of Reference

Project Title: Strengthening National Capacities to Meet Global Environmental Obligations with the Framework of Sustainable Development Priorities

Job Title		INFORMATION TECHNOLOGY CONSULTANT	
Division/Department		Environmental Protection Agency/EPA	
Programme/Project Number		GEF ID number: 9390 (Cross-Cutting Capacity Development Project/CCCD)	
Activity Result		Install the technological hardware and software of the EKMS as recommended in the approved feasibility study	
Assignment		Install the technological hardware and software of the Environmental Knowledge System as recommended in the approved EKMS designed	
Location		Monrovia, Liberia	
Reports to	National Project Director Executive Director, EPA	Consultancy Duration:	Eight weeks (2months)

BACKGROUND

The Environmental Protection Agency (EPA) through the United Nations Development Program (UNDP) obtained funding from the Global Environmental Facility (GEF) to support the Cross-Cutting Capacity Development (CCCD) Project for Liberia. The project will support the Government of Liberia to Strengthening National Capacities to Meet Global Environmental Obligations within the Framework of Sustainable Development Priorities. The project has four components:

1. Integrated Environmental Knowledge Management System (EKMS)
2. Enhanced institutional and technical capacities for mainstreaming
3. Improving awareness of global environmental values
4. Updating the National Capacity Self-Assessment (NCSA)

The UNDP through the EPA as Implementing Entity (IE) intends to recruit the service of a Local Consultant, who will design/upgrade information technology infrastructure for collecting storing and sharing EKMS data and

information. This project is in line with the GEF-6 CCCD Strategy objective 1, 3, and 5 which call for countries to: a) integrate global environmental needs into management information systems and monitoring, b) integrate MEA provisions into national policy, legislative, and regulatory frameworks, and c) update NCSAs, respectively. The goal of this project is for Liberia to make better decisions to meet and sustain global environmental obligations. This requires the country to have the capacity to coordinate efforts, as well as best practices for integrating global environmental priorities into planning, decision-making, and reporting processes. To this end, the objective of this project is to strengthen a targeted set of national capacities to deliver and sustain global environmental outcomes within the framework of sustainable development priorities. The project will be carried out via four linked components. Component 1: calls for the establishment of an integrated Environmental Knowledge Management System to meet global environment and sustainable development priorities, Component 2: focuses on enhanced institutional and technical capacities to mainstream, develop, and utilize policies for implementation of the three Rio Conventions, Component 3: works to improved environmental attitudes and values for the global environment, and Component 4: is the updating of the National Capacity Self-Assessment (NCSA). The project will take an adaptive collaborative management (ACM) approach to implementation, which calls for stakeholders to take an early and proactive role in the mainstreaming exercises, as well as to help identify and solve unexpected implementation barriers and challenges. By taking an ACM approach, project activities and outputs can be more legitimately modified and adapted to maintain timely and cost-effective project performance and delivery. As a National Implementation Modality (NIM) project, its management team will be seated at the EPA.

Terms of Reference for the CCCD Consultant

Under general supervision of the Executive Director of the EPA, as Project National Director, the Information Technologist Consultant duties and responsibilities shall include:

Duties and Responsibilities

- Evaluate the technological needs, potential costs of operating the system, list of what is required over time, but is not immediately available
- Procure and install the needed technology including user-friendly software and an operationalize technological infrastructure (Environmental Knowledge Management System) for collecting, storing, and sharing EKMS data and information between Natural Resources Management System
- Early implementation and piloting of the integrated environmental knowledge management system
- Support the CCCD Management Team to facilitate gender inclusive dialogues on the EKMS and its implementation with decision- and policy-makers to enhance their understanding and secure their support and championship
- Prepare a list and describe the individuals in the transformation
- Prepare a list and a description of the dedicated EKMS Team that will run the system
- Integrate report of the key features by drafting a checklist of the technology to make sure that it is efficient
- Launch the EKMS System and test its functionality and capability
- Support the CCCD Management team to Convene gender inclusive learning-by-doing training to use the EKMS to demonstrate its value at improving a more holistic and resilient construct of the selected sectoral plan in keeping with Rio Convention obligations.

Functional Competencies:

- Good knowledge of Liberia's Information Technology Infrastructures adaptation challenges and climate sensitive sectors, including the political environment and legal statutes as they pertain to environmental data collection, sharing and managing
- Ability to work and act under pressure
- Sound decision making, impartiality, diplomacy and discretion
- Proven ability to establish priorities and to plan, organize, coordinate and monitor own work plan and

provide advice and guidance to others; in-depth understanding of the climate change strategic direction; resourcefulness, sound judgment and decision-making skills

- Demonstrated sound judgment in resolving issues/problems; ability to proactively seek and recommend sound technical initiatives
- Ability to actively seek to improve programmes/services, offer new and different options to solve problems/meet deadlines
- Excellent and effective communication (verbal and written) skills, including ability to prepare reports and conduct presentations by clearly formulating positions on issues, articulating options concisely conveying maximum necessary information, making and defending recommendations; ability to convey difficult issues and positions to senior officials
- Excellent interpersonal skills; ability to establish and maintain effective working relations with people in a multi-cultural, multi-ethnic environment with sensitivity and respect for diversity
- Effective negotiating skills and ability to work with others to reach mutually benefiting and lasting understandings

Activity Summary

The goal of this activity is to improve the implementation of three Rio Conventions, i.e. United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention on Biological Diversity (UNCBD) and United Nations Convention to Combat Desertification (UNCCD), in Liberia through the development of national capacities to better coordinate and generate information related to the implementation of these Conventions.

The project will also support activities to strengthen the coordination between key sectors to address biodiversity, climate change and land degradation issues at systemic and institutional levels. In this activity the project will install an integrated environmental knowledge management system for collecting, storing, and sharing EKMS data and information

Conceptual/substance-wise Responsibilities:

- Have a technical competence in IT infrastructure designing, installation and curriculum development and training,
- Demonstrates high integrity and ethical standards
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability

Functional Competencies:

- Good knowledge of Liberia's Information Technology Infrastructures adaptation challenges and climate sensitive sectors, including the political environment and legal statutes as they pertain to environmental data collection, sharing and managing
- Ability to work and act under pressure
- Sound decision making, impartiality, diplomacy and discretion
- Proven ability to establish priorities and to plan, organize, coordinate and monitor own work plan and provide advice and guidance to others; in-depth understanding of the climate change strategic direction; resourcefulness, sound judgment and decision-making skills
- Demonstrated sound judgment in resolving issues/problems; ability to proactively seek and recommend sound technical initiatives
- Ability to actively seek to improve programmes/services, offer new and different options to solve problems/meet deadlines
- Excellent and effective communication (verbal and written) skills, including ability to prepare reports and conduct presentations by clearly formulating positions on issues, articulating options concisely conveying maximum necessary information, making and defending recommendations; ability to convey difficult

issues and positions to senior officials

- Excellent interpersonal skills; ability to establish and maintain effective working relations with people in a multi-cultural, multi-ethnic environment with sensitivity and respect for diversity
- Effective negotiating skills and ability to work with others to reach mutually benefiting and lasting understandings

ACTIVITIES

Step 1: Identify the various Rio issues

The first step is to identify the various operational issues in the entities by conducting an internal analysis of the various ministries to be able to align the knowledge management systems with the operational goals and objectives. The consultant must thus evaluate or assess the variety and quantity of the information that the various ministries and agencies have stored in databases, on the web, as well as that which employees possess through their personal experiences and knowledge.

Step 2: Prepare for transition

Once the relevant areas and information have been identified, the next step is the consultant to prepare the relevant individuals in the institutions as well as the entire workforces for the transition. Application and implementation of KM systems deal with cultural changes at the workplace rather than change in technology alone. To avoid resistance to change the CCCD Project has followed a smart or wise approach of awareness raising through workshops and dialogues with the stakeholders on the benefits of the EKMS, required data, information and knowledge required for the EKMS System. The Consultant must provide stakeholders with the aid and training to adapt to new systems and make sure this phase is dealt with patience and understanding. The Consultant must thus make further efforts to make the stakeholders understand the importance of implementation of knowledge management systems so that they can embrace change happily.

Step 3: Get together a dedicated team

To make the implementation of knowledge management system successful, the consultant will help the EPA put together a strong team with an experienced team leader to be in charge as a Knowledge Management Officer. Getting together a dedicated team helps to streamline the implementation and get a focused approach for reaching the objective. The consultant must bring together a team consisting of a wide range of expertise so that the skills and experience of each team member can be united for a high-impact result. The team leader the consultant selects must possess strong IT skills, extensive experience, broad knowledge and top-level people skills. He/she must have good leadership qualities and should be able to understand the importance of knowledge

management.

The team the consultant gather must chart out a well-detailed plan before starting the process of implementing a nation-wide KM system. The consultant must be closely involved in the process to ensure everything runs smoothly.

Step 4: Evaluate technology needs and prioritize them

The next step is to evaluate and assess the various technology needs identified by the design consultant and then prioritize them. The consultant must try to figure out the various sources of knowledge needed to solve the information silos problems. In order to implement knowledge management systems throughout the NRM institutions, it is imperative to know the potential costs that will be incurred, the expertise and the technology tools that the institutions currently don't possess but would be required. Identification of what is needed and then evaluating what they have already got will help the CCCD determine what is missing. Do not jump the gun and purchase expensive technology without discussing it with the core team or concerned individuals.

The consultant must make the decision of purchasing and installing the needed technology including software, he/she must try to determine the best sources for getting that technology. Compare prices, quality, and brand and only then choose the most affordable yet suitable source.

Step 5: Determine the major attributes of knowledge management system

Now the next step involves determining the major aspects or attributes of knowledge management system. The Consultant now needs to define the key features by drafting a checklist to make sure that the technology that he/she will be acquiring will be able to address the information and knowledge problems and will also enhance the overall efficiency. The following are some of the key features of EKMS system:

Open – Open systems are those which enable the institutions/stakeholders to have access to any information from their current location.

Measurable – The system must be measurable in the sense that it must be able to measure who accesses which information from which location and so on. Measurable systems enable better management and analysis of the effectiveness of the overall knowledge management within the NRM Sector organization.

Customizable – The EKMS system must be extremely customizable and flexible in order to make way for better usability and better individual experience.

Secure – The EKMS system must be secure for the threat of loss of information, the threat of duplication and other security issues.

Step 6: Rolling out the building blocks

The implementation process of the installed knowledge management system must be a phased-out process to ensure that the overall objective can be divided into smaller goals to ease out the procedure and make it more efficient. The following are some of the building blocks which the consultant can use for successful implementation of the EKMS systems:

Phase 1 – This phase involves the search for text-based electronic data sources so as to retrieve advanced information with the ultimate goal of improving existing knowledge.

Phase 2 – This phase requires Knowledge Mining Software as the technology building block in order to improve the process of finding useful knowledge.

Phase 3 – Automated Categorization Tools must be used to reach the goal of improving the overall speed of categorizing knowledge and improving its accuracy.

Phase 4 – The 4th phase involves rolling out of the Knowledge Warehouses so as to improve security, functionality and overall performance of knowledge management.

Phase 5 – This phase involves allowing users to contribute their knowledge to the Knowledge Warehouses so as to welcome contribution and expand the database of information.

Phase 6 – This is the phase including the pre-building of knowledge maps through Knowledge Mapping software in order to enable quicker access to knowledge.

Phase 7 – Phase 7 involves execution of the Knowledge Directory software to locate those individuals who possess a certain required knowledge.

Step 7: Link knowledge to people

The NRM Sector in Liberia is faced with a certain business problem, therefore help of knowledge databases is needed. These databases are not just records and reports of existing information but also solutions or knowledge possessed by employees. In such a situation therefore, the consultant is required to find out who knows what, therefore, he/she will link knowledge to people in advance as a part of the overall implementation of knowledge management systems. There are 2 major ways to do so, and they are given

as follows:

A knowledge directory: The consultant will include a knowledge directory to help stakeholders to find out subject-specific experts within the sectors so that they can share the knowledge possessed by them. This directory will act as a platform where a users can find out the list of experts who are most capable of solving a particular problem. This very link between people and knowledge makes knowledge management different from other applications that manage explicit knowledge.

Content management: Content management also forms a crucial part of the environmental knowledge management systems and is another way to link people with knowledge. The consultant must consult content managers or use the existing ones who will be responsible for gathering information, editing and updating it, as well as ensuring that it is useful and accurate. Maintenance of content or information is of vital importance and can prove to be a lot of importance when a user is looking for certain data for a project or for finding a business solution.

Step 8: Launch the KM system

Now that the consultant knows what the goal of the EKMS is and now that he/she has addressed the cultural issues and met technology needs, it is time to launch the program. Once the program is launched, certain problems may come across such as issues and gaps that he/she needs to address as he/she moves forward.

Step 9: Measure and constantly Improve your KM system

Only after launching or implementing sector-wide environmental knowledge management system will the installation team come to know the areas that are not working as per expectations. The consultant will formulate ways to measure the effectiveness of the program and then make efforts to fill the gaps and make required improvements. After making the improvements, compare old results with the new ones and measure the difference.

Install a Knowledge Portal System (KPS)

The KPS application shall offer a single access to various sources of Rio Conventions related knowledge. This is Liberia' solution for knowledge and information sharing among sector employees, stakeholders, partners, members of the public and the global community. KPS shall optimize knowledge distribution within the entire environmental community and shall be an extension of the EPA's information portal to knowledge management.

The function of the KPS shall be:

- The main goal of KMs is that of creating, collecting, storing, distributing and converting individual's knowledge in order to add value to the Rio Conventions
- KM refer to the ability of Rio Convention administrators in Liberia to create, acquire, store, maintain and spread their knowledge of the Rio Conventions to the intended audience (sectoral staff in the first place)
- KM represents the efforts of the Liberian Government to make Rio Conventions knowledge available within its environmental and natural resources management...sectors, in order to increase the performance of the employees and the respective institutions
- KM shall enable information and knowledge to grow, flow and generate value in the environmental and natural resources management sectors in Liberia
- ICT Is important in contributing to the success of KM in the project as it will enhance the primary organizational processes of knowledge generation, codification, sharing an implementation management of heterogeneous databases and document types. Structured access, customize interfaces, collaborative working, multi-level security, real-time information and future-proofing

DELIVERABLES

1. EKMS inception meeting with partner institutions held;
2. Prepare a short report of the various issues;
3. Prepare a list and describe the individuals/stakeholders in the transformation;
4. Prepare minutes of a meeting to prepare the relevant stakeholders;
5. Prepare a list and a description of the dedicated EKMS Team that will run the system;
6. Evaluate the technological needs, potential costs of operating the system, list of what is required over time, but is not immediately available;
7. Subscribe for Cloud System for web and Database hosting. The Business Plan must be one of the best services;
8. Get the Environmental Knowledge management theme from a user-friendly platform;
9. Install Cloud System Plug-ins with high security levels;
10. A Domain for web platform purchased;
11. EPA's internet bandwidth increased;
12. Cloud backup equipment purchased;
13. Procuring and installing the needed technology including a user-friendly software;
14. Integrate report of the key features by drafting a checklist of the technology to make sure that it is efficient;
15. Launch the EKMS System and test its functionality and capability;
16. Early implementation and piloting of the integrated environmental knowledge management system;
17. Support the CCCD Management Team to facilitate gender inclusive dialogues on the EKMS and its implementation with decision- and policy-makers to enhance their understanding and secure their support and championship; and
18. Support the CCCD Management team to Convene gender inclusive learning-by-doing training to use the EKMS to demonstrate its value at improving a more holistic and resilient construct of the selected sectoral plan in keeping with Rio Convention obligation
19. Installation of a Knowledge management software to centralize and organize knowledge, helping eliminate information silos spread across departments and units of the Natural Resources

Management Sector in Liberia. The software should provide a single information repository where content can be created, managed, and redistributed through search tools and similar features, making it easy for stakeholders to consume Rio Convention knowledge and users to find answers quickly.

20. The standard features shall include:
21. Search engine/search tools
22. Rio Conventions content aggregation from EPA and Stakeholder Entities
23. Information sharing/collaboration
24. Taxonomy for content classification
25. Expertise location
26. Views/dashboards/reports
27. Accessibility/access permissions
28. Scalability
29. Integrations

As a knowledge base software, the consultant shall equip their product with extras such as online self-service, contact center, and help desk features. Multi-lingual support shall be appreciated but not mandatory which is especially helpful for global organizations like the EPA. The Knowledge and information boils down to content, and knowledge management software should handle or aggregate any type of content like documents and/or pdf, images, video, audio, graphics, emails, website links, unstructured notes, and other information bearing collections.

EDUCATION

Candidate should hold a Bachelor Degree in Computer Science and Above. Certificate in any Programming Language are added advantage.

Consultant Skills and Qualifications

- Consultant must know how to Analyzing and visualizing Data
- Consultant must have advance knowledge on the following Database Development Application (Microsoft SQL Server, MYSQL and Oracle Database infrastructure)
- Consultant Must have Advance knowledge on Deployment of Window Server 2012
- Consultant must have Advance knowledge on Computer Network Equipment and their functionality
- Consultant must have advance knowledge on the following programming Language (PHP, HTML, CSS, JAVA SCRIPT ,C# and ASP.NET
- Consultant Must have advance knowledge on Application troubleshooting in case the Application has bugs
- Consultant Must have Advance knowledge on Dynamic Website Development
- Consultant Must have good Reporting Writing Skill Verbal Communication Skill, Presentation Skills, Public Speaking, Written Communication, Oral Communication, Analytical Knowledge, Quantitative Skills, Problem Solving,, Research Skills, ,Team Management, Interpersonal Skills

- A minimum of 5-7 years of active progressive working Experience with Application Development and Network Administration
- Demonstrated Technical knowledge Web Application Development and Hosting
- Demonstrate Knowledge on Staff Cooperate Training on the Application usage
- Very good experience with project development, implementation or management.
- Experience in policy development process associated with Related project
- Experience in working and collaborating with government institutions, UNDP and private sector
- Extensive working experience in Liberia
- Excellent knowledge of English including writing and communication skills
- A minimum of 5 years of progressive and relevant experience in the field of Research, project implementation, demonstrated experience and knowledge in writing policies and analysis
- Experience working with best practices for integrating global environmental priorities into planning, decision-making, and reporting processes
- Experience in development work, partnerships building and resource mobilization
- Strong analytical skills
- Excellent research skills
- Ability to lead large teams and inspire other staff members to think creatively

OTHER SKILLS

- Excellent team player with good interpersonal skills
- Ability to manage workload with minimum supervision
- Ability to work under pressure and tight deadlines
- Ability to accommodate additional demands at short notice
- Ability to work in a multi-cultural environment
- Ability to effectively communicate orally and in writing English in order to communicate complex, technical information to technical and general audiences
- Strong strategic planning, results-based management and reporting capabilities
- Displays cultural, gender, religion, nationality and age sensitivity and adaptability

1. Remuneration

The successful consultant will be paid on UNDP terms and condition for the relevant contract modality. Payment will be done against a disbursement schedule as outlined under schedule of payments above.

2. Application process

Interested and qualified candidates should submit their applications which should include the following:

1. Detailed Curriculum Vitae; 2. Technical proposal for implementing the assignment; 3. Financial proposal for implementing the assignment;

1. Submission of applications

Interested candidates should send a one-page cover letter-expression of interest (EOI), indicating suitability for the post, as well as a CV to the Environmental Protection Agency. All interested candidates are to address their letter of applications and curriculum vitae to the below address on or before 5:00pm,

16 September 2019:

ATTENTION:

Human Resource Department
 Environment Protection Agency (EPA)
 4th Street, Sinkor
 1000 Monrovia, 10 Liberia

P.O. Box 4024

or through email (eduncan@epa.gov.lr), indicating in subject area “Application for CCCD **INFORMATION TECHNOLOGY (IT) CONSULTANT** Closing date for applications is 5PM, 20 September 2019. Any application coming/received after this deadline will not be given consideration. The position is re-advertised and all those who applied earlier can resubmit their application. Only short-listed candidates whose applications correspond to the above criteria will be contacted for an interview

NOTE: This information is also posted on the below websites: www.emansion.gov.lr, www.epa.gov.lr