The Nile Cooperation for Climate Resilience Project-NCCR (P172848)

ANNEX 1. TERMS OF REFERENCE

Individual Consultancy Services to Support the implementation of environmental and social management plans and mitigation measures of hydromet stations in Nile Basin countries

Location:	Nile Basin Initiative Secretariat in Entebbe/Uganda with regular travel to Nile Basin countries
Application deadline:	**7th June, 2023**
Type of contract:	Individual Contract - Environmental and Social Safeguard consultant
Language :	English
Duty station	Home based assignment and travel to Nile-SEC on request
Duration of Contract	**120 days** spread over a period of Two years (**60 days** per year)
Project title:	**Construction and Rehabilitation of Hydrological and Water Quality Monitoring Stations under Nile Basin Initiative (NBI)**

1. Introduction

The Nile Basin Initiative (NBI) is an inter-governmental organization initiated and led by the Nile riparian countries to promote joint development, protection and management of the common Nile River Basin water resources. NBI was established on 22nd February, 1999 by riparian countries and continues to be led by 10 Member States namely Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda. Eritrea participates as an observer. NBI has a Shared Vision Objective: "**to promote sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources"**. A wide range of programs and projects are currently under varying stages of identification, preparation and implementation under NBI, designed to contribute towards the realization of the NBI shared Vision.

The NBI provides a unique forum for the countries of the Nile Basin to move towards a cooperative process to realize tangible benefits in the basin and build a solid foundation of trust and confidence. The Nile Council of Ministers [Nile-COM] serves as the highest decision-making body of the NBI. The Nile-COM is supported by the NBI Technical Advisory Committee [Nile-TAC], which is composed of two senior officials from each member country.

NBI is managed from three centres. The first Centre at Entebbe, Uganda, forms the NBI Secretariat (Nile-SEC) and was launched in September 1999. It has a coordinating role across the Basin, supports the platform for Basin-wide dialogue, and provides and manages an interactive, intelligent, basin knowledge base and promotes Water Resources Management. Another Centre at Addis Ababa, Ethiopia, Eastern Nile Technical Regional Office (ENTRO) and a third Centre at Kigali, Rwanda, Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP-CU) both manage the facilitation of Cooperative Water Resources Development in their respective sub-regions.

The NBI performs three core functions;

1. **Facilitating Cooperation.** The NBI's main objective is to facilitate, support and nurture cooperation amongst the Nile Basin countries to promote timely and efficient joint actions required for securing benefit from the common Nile Basin water resources.
2. **Water Resources Management.** The NBI provides member countries with analytic tools and a shared information system that will enable monitoring and the sustainable management of the basin.
3. **Water Resource Development.** The NBI assists member countries to identify development opportunities and prepare projects and seek investments. Development programs are focused on power trade and generation, agriculture and watershed management.

The Nile Basin's ecosystems are of fundamental importance to the wellbeing of its 272 million inhabitants and comprise the backbone of national economies as they provide numerous socioeconomic benefits. Services provided by rivers, lakes, wetlands and other water-related ecosystems range from replenishing groundwater over controlling floods to providing fishery-based diets. In the Nile Basin, as in many other parts of the developing world, a great share of people directly depends on these services, i.e., they constitute most of their day-to-day subsistence and income. Environmental pollution causes habitat degradation which results in loss of capacity of ecosystems to generate these services thereby threatening millions of livelihoods and inhibiting economic growth.

The causes of water quality deterioration in the Nile Basin include untreated waste from ever growing urban areas and industries as a result of rapid population growth, intensification of agriculture, and deforestation. Across the basin, environmental sanitation is poor, resulting in bacteriological contamination and nutrient enrichment of the Nile waters. While the quality of large parts of the Nile system – in particular in the sparsely populated areas – remains acceptable, localized high pollution is experienced mainly around urban centers. Urgent actions are required by the Nile Riparian countries to address these critical threats. Common water quality problems throughout the Basin include declining fisheries, contamination by agricultural inputs (including fertilizer, pesticides, insecticides), soil erosion/sedimentation, and discharge of untreated domestic and industrial effluents. Many of water quality challenges exhibit a transboundary character and addressing these challenges requires a coordinated approach with countries working together to identify risk areas and design and implement joint responses.

2. Background information

The Nile Basin Initiative (NBI) is currently implementing the "NBI Strategy 2017-2027" that is organized around six (6) goals with which World Bank (WB)/ International Waters in Africa (CIWA) support strategically aligns. Goal 4 of the NBI Strategy 2017-2027 aims at protecting, restoring and promoting sustainable use of water related ecosystems across the basin. The Nile Basin Initiative Secretariat (Nile-SEC) has embarked on its five (5)-year Basin Wide Program 2017 – 2022 (BWP) implementation with substantial component on transboundary water resources management. One of the specific objectives of the BWP is to strengthen and apply the evidence basis and policy instruments for protection, restoration and sustainable utilization of wetland, river and lake ecosystems. To support the achievement of the above goal, NBI intends to support improvement of national water quality monitoring networks and regional water quality information systems to facilitate basin states to take joint actions to address and reverse the impacts of deteriorating water quality in different parts of the basin. It is within this context that Nile Cooperation for Climate Resilience (NCCR) project was proposed for supporting riparian countries to cooperatively address the ever-increasing water quality and pollution control challenges in the basin. The program is proposed for support by the World Bank through the Cooperation in International Waters in Africa (CIWA)Trust Fund. The project development objective is to improve mechanisms for cooperation on water resources management and development in the Nile Basin.

NCCR project is implemented by three regional entities, i.e. the NBI, the Nile Basin Discourse (NBD) and the LVBC. Each centre/agency, i.e. Nile-SEC, Eastern Nile Technical Regional Office (ENTRO), Nile Equatorial Lakes Subsidiary Action Program (NELSAP,) NBD and LVBC will lead the implementation of a single component of the project, making use of existing institutional arrangements to ensure national government endorsement, engagement with relevant line ministries and appropriate technical oversight. The thematic area on Water Quality Investment Planning and Prioritization encompasses three related activities: (i) Clarifying options for Policy and Institutional Harmonization, (ii) Enhancing availability and use of Water Quality Data, and (iii) multi-Criteria Analysis to prioritize investments in identified hotspots.

The Nile SEC is leading the implementation of activity (ii) Enhancing availability and use of water quality data and is executed in collaboration with ENTRO, NELSAP and LVBC. This activity will result in improved water quality monitoring and data base. Below are sub activities of the activity (ii)

1. **Upgrade of water quality monitoring systems:** Building on the ongoing EU-GIZ Regional Hydromet Project, this activity will identify need for, purchase, equip, and install water quality and sediment field kits, water quality laboratory analysis equipment, and water quality sensors in selected hydromet stations. A sub-set of the seventy-three (73) stations being rehabilitated or constructed under the GIZ project have been tentatively identified to receive basic and/or advanced water quality sensors. This number will be finalized during the water quality equipment design update during implementation.
2. **Development of a water quality database and associated user interface in the Integrated knowledge Portal (IKP):** The IKP will be upgraded to include a user-interface with capacity to compile and analyse data from the field and earth observation.
3. **Capacity building** includes training for technicians, academics, and senior planners at national, sub-regional and regional levels on concepts relating to water quality management, modelling and sustainable water resources management; and
4. **Communication and awareness raising** to aid WQ action planning and policy development.

The project shall be implemented over a period of 5 years from March 2021 to November 2025.

NCCR project was developed based on the hydromet design report conducted in 2015 under the funding resources of German Cooperation (BMZ) through GIZ[1] . That report came up with seventy-three (73) hydromet stations across nine (9) of Eleven (11) Nile Basin countries. This study also identified Fifty-two (52) water quality monitoring stations among the seventy-three (73) hydrological monitoring stations, among which twenty seven (27) will be supplied with basic water quality sensors and twelve (12) with advanced water quality sensors for daily and sub-daily provision of water quality data (see Figure 1). The water management agencies and water quality laboratories in each member country will be supplied with water quality equipment, sediment sampling and water quality field kits. The number of hydrological stations, water quality stations and water quality sensors and other water quality field kits to be provided for each country under NCCR project is summarized in Table 1, while the location of hydrological and water quality monitoring stations is presented in Figure 1.

Table 1: Number of hydrological monitoring stations, sensors and field equipment to be provided to the countries by NCCR project

Country	Hydromet stations installed under GIZ project	WQ sensors		Field kits	
		Basic	Advanced	Sediment	water quality
NBI (for demos and trainings)				2	2
Burundi	2	1	0	1	1
DRC	1	1	0	1	1
Ethiopia	15	4	2	2	2
Kenya	6	3	4	1	1
Rwanda	6	2	2	1	1

[1] NBI Technical Reports- WRM 2015- 5_Needs Assessment and Design of a Regional Nile Basin Hydromet Services and a National Water Resources Monitoring System for South Sudan, 2015.

South Sudan	7	3	0	2	2
Sudan	13	6	1	2	2
Tanzania	8	4	1	1	1
Uganda	15	3	2	2	2
Total	**73**	**27**	**12**	**15**	**15**

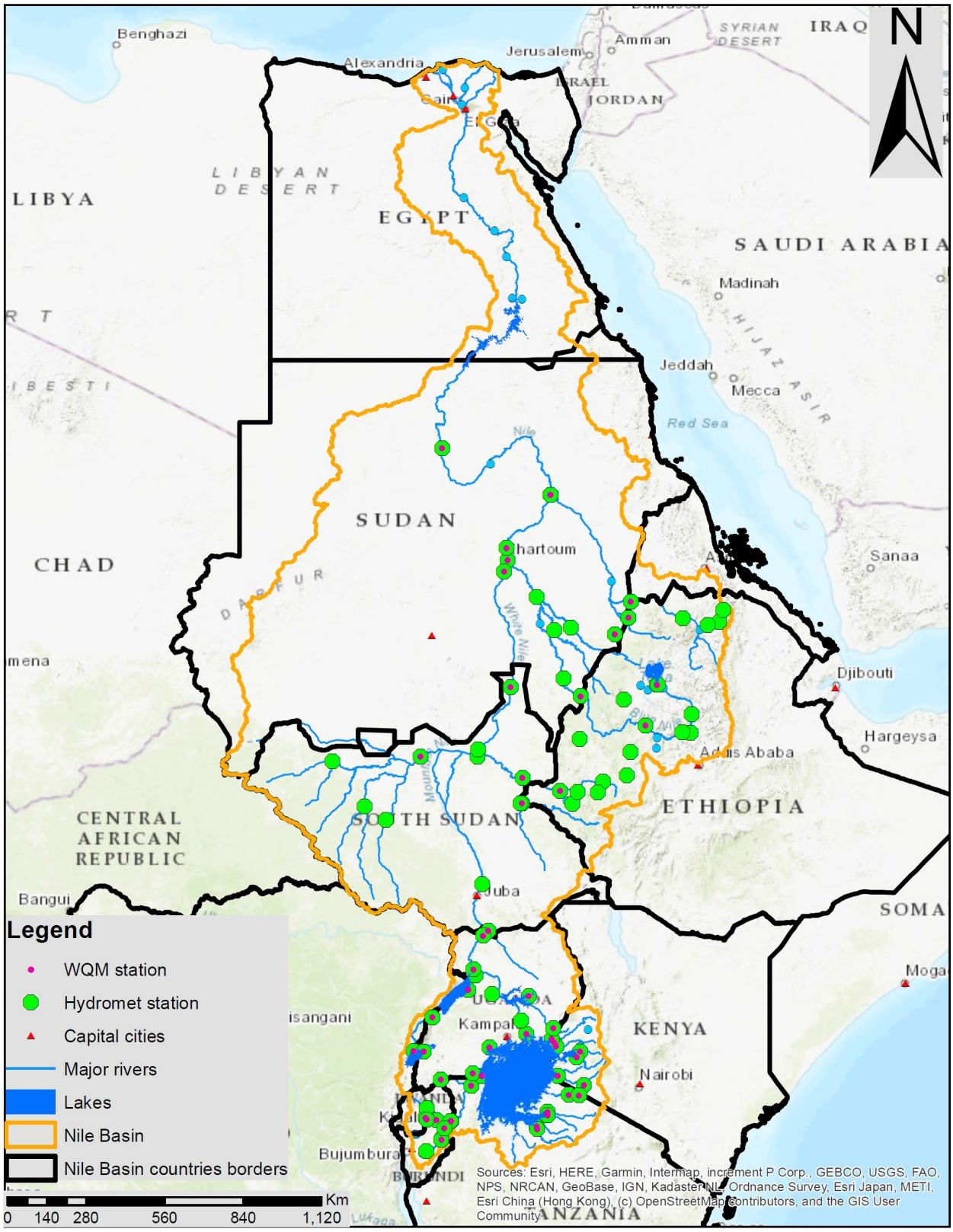

Figure 1: Location of regional hydrological and water quality monitoring stations in Nile Basin

3. Environmental and social management plan (ESMP) of hydromet project

An Environmental and Social Management Plan (ESMP) for hydromet stations under Nile Basin Initiative Regional hydromet project funded by GIZ was prepared in 2021. ESMP has identified the project activities or components under NCCR project that are relevant under the World Bank Environmental and Social Framework (ESF) and the GIZ safeguards system. These are the flood and drought risk mitigation and water quality investment planning and prioritization. These activities involve the construction of new hydromet stations, rehabilitation of existing hydromet stations and installation of specialized water quality and quantity equipment through the fundings of GIZ and World Bank in the nine (9) Nile Basin countries.

Some of the activities and interventions considered in ESMP of a hydrological and water quality station:

- Instrument enclosure (gauging station), solar power supply system, telemetry communication system equipment, water level sensors, raingauge and water quality sensors
- Supply and installation of water quality equipment and capacity building of water technicians on installation, operation and maintenance of WQ equipment
- Site clearance, levelling and soil excavation, construction of a concrete walk-in shelter
- Titling and non-titling mast, staff gauge footings and posts, raingauge foundation, fence, inspection pit (manhole), underground and above ground conduits, benchmarks, grounding cables and rod and site completion

The negative and positive environmental and social impacts of the project activities and corresponding mitigation measures are detailed in the ESMP.

4. Scope of works

The work of an Environmental and social consultant will focus but not limited to the implementation of ESMP of NCCR project with a focus on the water quality monitoring stations to be supplied with water quality sensors and will span from planning, installation, to commissioning of the water quality sensors. Description and geographic location of the water quality monitoring stations per each country will be provided after completion of update design of the water quality monitoring network, its presentation and approval by the countries technical Advisory Committee (TACs) and national and regional water quality experts.

4.1 Objectives of the consultancy:

Ensure the effective integration of environmental due diligence as defined by WB environmental and social framework and international good practice documents into planning, installation and commissioning of water quality interventions executed by NBI under NCCR project.

- Provide advice to NBI centres, NBD and LVBC, project teams, countries, consultant and contractors with regard to the plans for ESMP monitoring, reporting, evaluation, consultation plans and specific plans related to water resources quantity and quality management based on detailed analysis of baseline conditions.
- Provide expert support to executing agencies and to in country designated E&S Specialists in the office and field,
- provide support to implement activities related to the project components to the compliance of the environmental safeguards and mitigation measures through:Support

the implementation of environmental and social management plan of NCCR project during supply and installation of water quality equipment

- Preparation of the training of the national water quality task team members on World Bank environmental and social standards
- Review and comment on the contractors ESMP report of civil work of hydromet project (the country report to be provided to the consultant by NBI)
- Conducting an environmental and social management auditing of completed and ongoing hydromet activities and water quality activities using the check list provided in ESMP (2021). ESMP auditing will determine extent to which the E&S issues are being implemented on the ground and their adherence to the WB requirements. It will also identify specific management measures that NBI and contractors have to implement in order to improve the effectiveness of the ESMP implementation.
- Site visit of the water quality monitoring stations to be equipped with water quality sensors
- Organizing regional/national consultation meetings with environment, water resources management agencies and water quality monitoring laboratories.
- Deal with environmental aspects of the project and provide feedback to the Project team leader on implementation of environmental action plan under the activities of the project.
- Oversee environmental monitoring of the ESMP and site specific ESMPs
- Organize and conduct training on ESF and ESMP compliances as proposed in mitigation plan.
- Prepare concept note and ToRs related to Environmental safeguard activities of the unit
- Prepare quarterly progress reports of Environment and Social Management Plan (ESMP).
- Prepare final progress report of the ESMP and submit to the client/NBI.
- Ensure the Health Safety and Environmental (HSE) compliance onsite by the civil works consultants / contractor at project sites.
- Coordinate and conduct Environmental Field Monitoring visits of Project Areas.
- Review and revision of documents and ensuring timely delivery of outputs as agreed with the NBI.
- As and when required contribute to the ongoing activities of the E&S task team of NBI.

4.2. Desired qualifications and experiences

The Environmental and social consultant to be eligible, shall meet the following requirements, at least Ten (10) years of experience in conducting Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Framework (ESMF), Environmental Auditing, conducting stakeholder engagement/mobilisation, managing grievances, gender analysis and implementing ESMPs .

- At least Master's degree in a relevant discipline, preferably in environmental management, environmental sciences /engineering or social sciences
- Minimum of Five (5) years of relevant working experience in Environmental and Social Governance (ESG) consultancy, covering environmental and social assessment studies, impact assessment, due diligence audit and monitoring

- Should demonstrate working experience with international development institutions like the World Bank with knowledge of World Bank Environmental and social framework, International Finance Corporation Performance Standards (IFC PS) or equivalent international environmental and social standards used in project finance (e.g. Equator Principles)

5. Assignment arrangement and schedule

5.1. Facilities to be provided by the client:

The environmental and social consultant shall be provided with the following project documents:

- Environmental and Social Management Framework for Hydromet stations
- Environmental and Social Management Plan for Hydromet Stations Under Nile Basin Initiative Regional Hydromet Project (ESMP), 2021
- Hydromet design report: NBI Technical Reports- WRM 2015- 5_Needs Assessment and Design of a Regional Nile Basin Hydromet Services and a National Water Resources Monitoring System for South Sudan, 2015.
- Country environmental and social management monitoring reports of the contractor
- Country Nile Basin Regional Hydrological Monitoring Network Design, Final Design Report, 2020
- Update design report of water quality monitoring network and other relevant project documents

5.2. Expected output/deliverables

The environmental and social consultants are expected to submit to the client the following:

- An Environmental and social management monitoring report (ESMM) for each country after visiting all the water quality monitoring stations to be provided with water quality sensors, using the check list to be provided by the client. But the consultant is free to adjust and update it. The format and content of this report will be discussed with the client
- The consultant will be required to prepare and submit to the Client the updated monitoring matrix for Social Safeguards.
- Training of national water quality task team members on environmental and social standards relevant to the project.
- The consultant will be required to prepare and submit to the Client monthly/or quarterly reports of each month within His/her contract detailing the implemented activities

5.3. Terms of engagement and payment modalities

The consultants will be recruited on part time basis throughout the life of the project. His/her level of efforts is estimated to **60 days per year with the option of extending into a second year based on need**. The consultant shall sign a contract with the Nile-SEC and will be reporting for all technical functions and duties to the Deputy Executive Director of Nile-SEC or another designated person.

The consultant will be paid professional fees per man-days in accordance with the negotiated and agreed rates upon submission of deliverables. The cost for official travels including workshop,

training and field visits, air tickets should be reimbursed at the cost of economy class tickets and will need to be approved by the Nile-SEC regional water quality expert.

6. Beneficiaries and stakeholders

The main beneficiaries of this project are the institutions and organizations responsible for water resources and water quality monitoring and management in the Nile Basin countries. These include high learning and research institutions, national water quality laboratories, non-government organizations, local government bodies, the private sector and the local communities.

7. Operational procedures

It is also the responsibility of the Consultants to adhere to the World Bank Operation Procedures for environmental and social safeguards to ensure that their activities together with the people accompanying him/ her in the field work during the execution of this assignment do not pollute the environment, encourage gender-based violence and child labour. The consultants shall always observe work safety & occupational hazards guidelines during this consultancy study.

8. Application modalities and deadlines

Interested individual consultants who meet the requirements in the ToRs should submit their applications to the Executive Director of Nile-SEC, attention to procurement officer at Email wrmconsult@nilebasin.org in Entebbe/Uganda, not later than the closing business: **7th June 023** with the mention of: " Individual E&SS consultant to support the implementation of environmental and social management plans and mitigation measures of hydromet stations in Nile Basin countries"

The application documents will include:

(1) Application letter indicating how the application meets the requirements of the ToRs
(2) An updated CV indicating education/qualification, professional certification, employment records and experience
(3) A methodological note, not exceeding two pages, for the execution of the consultancy.