Concept Environmental and Social Review Summary

Concept Stage

(ESRS Concept Stage)

Date Prepared/Updated: 06/15/2023 | Report No: ESRSC03259

I. BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
Nigeria	WESTERN AND CENTRAL AFRICA	P179684	
Project Name	Sustainable Power And Irrigation For Nigeria Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Water	Investment Project Financing	6/1/2024	7/1/2024
Borrower(s)	Implementing Agency(ies)		

Proposed Development Objective

To increase utilization of existing storage for irrigation and hydropower generation, and strengthen the institutional arrangements for integrated water resources management in Nigeria.

Financing (in USD Million)	Amount
Total Project Cost	700.00

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

C. Summary Description of Proposed Project Activities

The proposed Sustainable Power and Irrigation in Nigeria (SPIN) project will address water resources management, water security, and energy security challenges in Nigeria through investments in irrigation, dams, storage infrastructure, and hydropower facilities. By mobilizing water for productive purposes, optimizing the use of existing storage facilities, and enhancing hydropower generation capacity, the project aims to promote sustainable development, efficient water resource utilization, and strengthen integrated water resources management practices. The proposed project includes four main components:1) Institutional strengthening and capacity building for improved Irrigation, Hydropower and Storage Management; 2) Irrigation Management and Agricultural Services Modernization; 3) Rehabilitation and Improvement of Hydropower and Storage Services;and 4) Project Management.

D. Environmental and Social Overview

D.1 Overview of Environmental and Social Project Settings

The SPIN project intervention will target selected dams in Nigeria with Irrigation and hydropower potential. The project objective is to increase the availability and utilization of existing storage for irrigation and power generation services, enhance hydropower capacity, and strengthen institutional arrangements for integrated water resources management in Nigeria.

For the Hydropower component, at this concept stage, the team is exploring potential interventions in both greenfield and brownfield investment opportunities. The Gurara II multipurpose dam in Niger state is a priority greenfield investment project for the Government. With a hydropower capacity of 360 megawatt (MW) and a reservoir capacity of 400 million cubic meters (MCM), the project aims to support irrigation schemes, aquaculture, and electricity generation. The Oyan multipurpose dam in Ogun state represents a potential brownfield investment opportunity with a hydropower capacity of 9 MW and a reservoir capacity of 270 MCM. A detailed analysis of the preferred option based on Dam Safety, Economic viability, Environmental, Social and Procurement due diligence will be selected before the Decision Meeting.

Under the irrigation component, the project will rehabilitate about 30,000 existing hectares of irrigated command areas. The specific areas are not known yet; however, the Project will scale-up the activities supported by the TRIMING Project. The TRIMING Project is focused on improving access to irrigation and drainage services and strengthening institutional arrangements for integrated water resources management and agriculture service delivery in selected large-scale public schemes in Northern Nigeria. The TRIMING Project will end in April 2024.

The SPIN project will cover Southern and Northern parts of Nigeria across coastal terrain, forest and flat terrain that are prone to flood. The river Niger and river Benue are the major rivers in Nigeria, the two rivers form a conference in Lokoja.

Northern Nigeria is characterized by fragility, conflict, and violence, endemic poverty, low literacy, degradation of natural resources, poor agricultural productivity, high increase of climate change vulnerability, desertification, and weak institutional capacity. Southern Nigeria is characterized by heavy rainfall, erosion, and flooding issues. Agriculture activities are mainly small to medium scale.

Insecurity remains a major concern, particularly in Northern Nigeria, due to ongoing incidents involving Boko Haram, Islamic State West African Province (ISWAP), community rivalries and Farmer-Herder conflicts. These attacks primarily occur in the Grain Belt and other regions that could greatly benefit from the SPIN project. Southern Nigeria also experiences issues of farmer-herder conflicts, uprising from secessionist groups in the Southeast and South-south regions of the country.

Agriculture has the potential to create jobs, improve standards of living, and restore stability to the area. Agriculture is a crucial component of the Nigerian economy and the largest employer, with a significant portion of the population involved in the industry. However, there is still room for improvement in terms of competing with international markets, particularly in major crops production.

Climate change issues have been exacerbated more than ever before in the country, with the issue of flooding now becoming a challenge in the country's northern region with increasing variability in weather conditions.

The proposed project activities will include minor to major civil works during the rehabilitation of dams. Impacts from project activities are anticipated on water resources, air quality, terrestrial ecology, natural resources, occupational health and safety of workers/ public, community health and safety, land use and land resources from disposal of waste and other wastes which will vary depending on extent of dam rehabilitation activities proposed.

D.2 Overview of Borrower's Institutional Capacity for Managing Environmental and Social Risks and Impacts

Nigeria has experience applying the World Bank's Safeguard Policies and ESF through various investment projects. The country is building capacity around ESF through the Sustainable Procurement, Environmental and Social Standard Enhancement (SPESSE) Project (P169405).

The power sector has successfully implemented several World Bank financed projects, including the Nigeria Electricity Development, Electricity and Gas Infrastructure, West Africa Gas Pipeline, Electricity Transmission, and Nigeria Electrification Project. The Water Sector is implementing the TRIMING Project (prepared under Safeguard Policies) and the Sustainable Urban and Rural Water Supply, Sanitation, and Hygiene Program (SURWASH) (P170734) which is using ESF for the Technical Assistance (TA). Some of the staff of Ministry of Water Resources and Ministry of Power have also taken the ESF roll-out training in-country.

Considering the Fiduciary and Environmental and Social team capacity developed under TRIMING, the Project intends to utilize the existing TRIMING Project Management Unit (PMU) as the National Project Management Unit (NPMU). Under the NPMU, three (3) different PMUs will operate, specifically, the Dams Department of the Federal Ministry of Water Resources (FMWR), the Irrigation Department of the FMWR and the Hydropower Department of the Federal Ministry of Power (FMP). Each representative will manage the components and sub-components within their respective departments. Given the nature of the Project, there will be a need for good synergy between the FWWR and FMP (including the Transmission Company of Nigeria [TCN]), particularly in the identification/selection of dams to be included in the Project and the nature of hydropower intervention.

The TRIMING PMU is familiar with the World Bank's environmental and social safeguard policies. In the ongoing TRIMING Project, the Client prepared an Environmental and Social Management Framework (ESMF), Resettlement Policy Framework (RPF) and Integrated Pest Management Plan (IPMP) during the Project preparation. The TRIMING Project have also implemented several Environmental and Social Impact Assessments (ESIAs) and Resettlement Action Plans (RAPs) for some of the largest irrigation scheme and dams in country such as the Bakolori Irrigation Scheme and dam, Goronyo Irrigation Scheme, and dam, ESIA with Cumulative Impact for Kano River Irrigation Scheme and Tiga dam, Hadejia Barrage, Challawa Gorge dam and Dadin kowa irrigation scheme and dam. However, since the Environmental and Social Framework (ESF) is utilized for the SPIN Project, capacity need to be built up for all the implementing agencies with a specific focus on the NPMU, relevant government departments and the Irrigation schemes officers (Project Manager, Engineers, Environment and Social Officers, etc.).

Component 4 of the Project includes an activity focused on ESF Capacity Building for the Implementing Agencies and the relevant Ministries, Departments and Agencies (MDAs) at large.

II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC) High

A.1 Environmental Risk Rating High

The environmental risk rating at PCN stage is “High”. Irrigation and agricultural services modernization entails the rehabilitation of about 30,000 existing hectares or irrigated command area. Component 2 will include among others, rehabilitation and upgrading of the irrigation and drainage infrastructure. Component 3 will include improvement of hydropower and storage works and will involve structural and/or non-structural measures for seepage reduction, hydrological and structural safety measures, strengthening of dam structures, repairing foundation damages, strengthening dam sections, and improving basic dam facilities. These measures will include civil works, hydro-mechanical work, instrumentation confined to the existing dam area, rehabilitation of existing approach roads, construction of drains, repair of barrage roads, fencing, and others. Environmental risks and impacts associated with these works: The potential risks associated with the irrigation works are mainly construction related, which include dust due to earth movement and construction activities, as well as construction vehicle movement on unpaved access road; noise and vibrations mainly associated with materials extraction activities, excavation, stockpiling, and construction vehicle, transit; solid waste mainly associated with rock waste and removal of topsoil-overburden, construction debris/waste, as well as domestic waste from work camps, if any; wastewater discharges including stormwater runoff from disturbed areas, and effluents from worker camp operations. Key environmental risk identified are related to siltation in the dam without effective sediment management resulting into issue of dam safety, flooding and thus impacts at the downstream population. The other risks are Occupational health and safety risks of workers which include physical hazards from over-exertion, slips and falls, work at height, moving machinery, dust, and confined spaces and excavations. Traffic safety, community health and safety, dam safety and emergency preparedness and response, and potential reservoir slope failures are other issues related to these types of projects. Finally, irrigation energy use can be significant, and biodiversity may also be impacted. Since the rehabilitation activities proposed under the dam investments/sub-projects are concentrated within the dam area, most of the structural interventions are expected to be confined within dam premises and will be carried out in areas of restricted access, and therefore will not have direct interface with the population around the dam sites except impact on the community health and safety from the vehicles and equipment that transport construction materials and workers to the project sites. The potential risks and impacts from the hydropower works include: large-scale land clearing for the footprints of the proposed facilities and the reservoir and relevant impacts on biodiversity. The potential impacts during the operation and maintenance (O&M) stage of hydropower plants will include changes in downstream flows and water quality and impact on aquatic ecology and fish migration Given the nature and scale of the identified risks and impacts stated above, the spread of the project across geopolitical zones and areas with fragile and climate vulnerable, the capacity and experience of TRIMING to implement ESF requirements, the environmental risk rating at PCN stage is rated as “High” and will be further reviewed prior to appraisal.

A.2 Social Risk Rating High

Based on currently available information, the project will have significant benefits in improving livelihoods of farmers, water users and rural communities, improve available power generation for the national grid and ensure effective early warning system for communities downstream of the dams during potential high flooding season. The social risk of the project is rated as High at this stage due to the types and scale of the activities proposed (construction of additional spillway, strengthening of existing dam structure, e.g. gates, repairs of foundation damages, strengthening dams section and improvement of dam access roads). Certain locations in Northern Nigeria where these activities occur, particularly in the semi-arid regions, face significant security challenges. In the proposed project, largescale construction activities are envisaged only in a few specific sub-projects. Significant land acquisition is not likely, since no new lands will be acquired under the project. Potential social impacts under the project include impacts on land, private and community owned assets including structures, trees, and crops within existing land; physical and economic displacement due to possible impacts on farmlands that may have encroached on irrigation drainages and close to dam reservoirs. Management of these risks would be undertaken by preparing and implementing Resettlement Action Plans (RAPs) in line with the ESF requirements. Further activities undertaken in dams in rural areas, depending upon the nature and type of intervention, could have adverse impacts on population. Such dam sites and proposed interventions shall be identified during project preparation. Besides impacts on general population, vulnerable and disadvantage individuals (Women, Persons with Disabilities, marginalized groups) could also be impacted if not well consulted and included as Project beneficiaries. Other potential social risks identified include inadequate coordination between concerned agencies; labour influx during the rehabilitation works which can lead to potential Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) issues; security risks since the project is implemented in areas of fragility, conflict and volatile settings, which was also an issue for TRIMING Project; community health and safety issues; grievance as result of poor implementation of the interventions and compensation (where it becomes relevant). Poor stakeholder engagements can also impact the project if stakeholders are not adequately consulted. Overall, ESMF and RPF will be developed to address the emerging issues. These documents will be disclosed prior to Project Appraisal. Other sub-project specific documents such as the ESMPs, ESIAs and RAPs will be developed during Project implementation.

B. RELEVANCE OF STANDARDS AND POLICIES AT CONCEPT STAGE

B.1 Relevance of Environmental and Social Standards

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

The potential E&S risks identified above will need to be further assessed during project preparation and actively mitigated throughout the project's lifecycle. The project envisages structural and non-structural measures for dams. Structural measures could include measures for seepage reduction (grouting, geomembranes, etc.), hydrological and structural safety measures (e.g., additional spillways, fuse plugs), strengthening of dam structures (e.g., gates), repairing foundation damage, strengthening dam sections, and improving basic dam facilities (e.g., access roads). Non-structural measures could include standardized dam safety instrumentation, monitoring, assessment, and reporting protocols for dam health/audit, flood forecasting and early warning systems; integrated reservoir operations including streamflow forecasting for climate resilient dam management; preparation and implementation of Emergency Preparation Plans (EPPs); and preparation and implementation of sediment management plans. Structural and non-structural measures will be identified in dam rehabilitation plans that will be prepared after

conducting thorough investigative studies and dam safety assessments to ensure the appropriateness of interventions for dam rehabilitation and improvements. A dam safety assessment is required per ESS4 and would be prepared early in the project preparation as the basis for the dam rehabilitation plans.

The environmental risks anticipated under the project arise from the fact that the project is spread across geopolitical zones and areas with fragile and climate vulnerable terrain but focuses on dam rehabilitation activities, as mentioned in the above paragraph. The project will likely generate moderate to high direct and indirect environmental impacts. Also, accidental risks are high for downstream populations where there may be design weakness, dam stability, or disaster like heavy rains. In addition, the critical environmental risk identified is related to siltation in the dam without effective sediment management resulting in issues of dam safety, flooding and thus impacts on the downstream population. Other risks include biodiversity impact, dust generation, noise and vibrations, solid waste, wastewater discharges, occupational health and safety, traffic safety, community health and safety, and dam safety related to potential reservoir slope failures. Addressing environmental risks and impacts from dams through various rehabilitation measures is required because unmanaged and unmitigated environmental impacts could have far-reaching negative consequences.

Since all the potential sub-projects and the locations are not known, the client will prepare an ESMF for the Project. The ESMF will detail principles, rules, guidelines, and procedures to assess the environmental and social risks and impacts of the subprojects. During the implementation, the subproject specific ESIA and/or ESMP or Occupational Health and safety management Plan (OHSMP) will be prepared and implemented for each sub-project / dam based on the ESMF. In addition, environmental skills and capacity assessment will be undertaken for NPMU and at the Irrigation schemes levels to understand any challenges to implementation and recommend improvements. An Environment and Social Commitment Plan (ESCP) will be prepared for implementation.

At this stage, social impacts likely include those on land, and physical and economic displacement too is very likely. As migration of skilled labour required for many of the specialized dam works will be a common feature, labour influx and resultant SEA/SH issues and mitigation measures prepared following the World Bank's Guidance note "Managing the risks of adverse impacts on communities from temporary project induced labour influx". The Project will prepare a SEA/SH Action Plan which will indicate preventive and response measures for SEA/SH incidents, including clearly defined Code of Conducts (CoCs) which will be signed and understood by all Contractors and their workers, and provisions of referral pathway for SEA/SH complaints. Where SEA/SH provisions have been established through the TRIMING Project, such as the Mapping of GBV Service Providers and referral pathways for SEA/SH complaints, the Project will continue to rely on them.

Insecurity is a critical challenge in the potential locations and the entire country. The TRMING Project had experienced several issues of security including fatality cases which affected the project including issuance of "STOP WORK ORDER". The SPIN Project will reflect on lessons learnt from TRIMING on the issues of Security Management and Use of Security at the Irrigation schemes and dam sites. The Project will be required to develop a Security Management Plans (SMPs) at the scheme levels during Project implementation.

The determination of the interventions under components 2 and 3 will require extensive consultation in a manner that promotes inclusion, protect farmers' livelihood, and water users and also ensure the safety of beneficiaries, including women, children, youth, Persons with Disabilities, marginalized and other vulnerable groups and to ensure that the project risk does not fall disproportionately on them. There will be a conscious effort to engage the women groups (farmers, water users) in the intervention and the agriculture value chain interventions.

Where an emergency preparedness plan is developed, it will involve working closely with downstream communities near the dams. Traditional leaders and youth groups will also play an active role in the planning process.

Active consultation and engagement with women's groups, Persons with Disabilities and other ethnic minority groups are also needed to manage SEA/SH risks.

Areas where "Use of Borrower Framework" is being considered:

This project will adopt the Bank's new Environmental and Social Framework and its Environmental and Social Standards rather than the borrower's E&S framework. The required steps will be detailed out in ESCP. The Project, however, is subject to the national, state laws and clearances as per the existing legal-institutional framework. These laws and clearances will be obtained prior to approval.

ESS10 Stakeholder Engagement and Information Disclosure

The Project is expected to involve multiple stakeholders with diverse interests and influence. The inputs and concerns of these stakeholders would need to be considered in Project design and implementation through meaningful stakeholder engagements.

The project scope and complexity will require significant coordination and inputs from different stakeholder groups, including those who will be directly affected and those with other interests in the project interventions. In this regard, the Project working with the Bank will prepare and implement an inclusive stakeholder's engagement plan. The plan will identify specific vulnerable groups and state how their concerns were addressed.

Key project stakeholders will include: (i) Ministry of Water Resources (Federal/State); (ii) Ministry of Power (Federal/state) (iii) State Governors; (iv) Ministry of Finance, Budget and National Planning; (v)Irrigation Department of FMWR; (vi) Dams Department of FMWR; (vii) Hydropower Department of FMP; (vii) River Basin Development Agencies; (ix) Transmission Company of Nigeria (TCN); (x) Irrigation Schemes (xi) Irrigation Project Officers; (xii) National Emergency Management Agency (NEMA) and State Emergency Management Agency (SEMA); (xiii) Project beneficiaries; (xiv) Local Government administrations of areas with dams; (xv) Traditional and Religious rulers; (xvi) Departments of forests, horticulture, agriculture; (xvii) local communities living upstream and downstream; (xviii) civil society organizations; (xix) media agencies – both print and audio/visual; (xx) security organisations; (xxi) private companies; (xxii) Ministry of Environment (Federal /state) and (xxiii) people likely to be affected due to project activities and response providers i.e. NGOs/CSO involved as part of the SEA/SH mitigation plan. The exact composition of stakeholders may change because of changes to the project design or shifting circumstances during project implementation, prompting updates to the SEP, which will be a living document and will be updated accordingly if needed during implementation and this shall be a condition in ESCP.

The Client will be required to prepare SEP consistent with the requirements of ESS10 before completion of Appraisal. The borrower will engage in meaningful consultations with all stakeholders throughout the project life cycle taking into account the different access and communication needs of various groups and individuals, particularly the vulnerable and disadvantaged groups (persons with disabilities, gender groups, elderly and vulnerable children). The SEP will include stakeholder mapping and communication strategy for interested parties, various beneficiaries and project affected persons, including disadvantaged and vulnerable groups, to ensure adequate inclusion of vulnerable people and allow for meaningful stakeholder consultations and inputs in the project design.

The SEP will: (i) describe the Project stakeholders and how they will be engaged throughout the project life, with a focus on identifying vulnerable individuals or groups and applying measures to remove barriers to their participation; (ii) describe the grievance redress mechanism (GRM), including SEA/SH sensitive referral pathways. The existing GRM under TRIMING will be assessed, improved and utilized by the Project.

ESS2 Labor and Working Conditions

The project activities will require engagement of contractors with large labour work force (skilled and unskilled). In this regard, the requirements of ESS2 will be relevant.

The Project will involve a) Direct workers (Federal Ministry of Water Resources, Federal Ministry of Power, NPMU, Irrigation scheme officers and implementing agencies); b) Contracted workers engaged in construction works including migrant skilled workers, consultancy services firms (for preparing the E&S instruments, Dam safety reports, designs, etc); and c) primary supply workers who could include suppliers of equipment necessary towards the many structural and non-structural interventions. There could also be community volunteers involved particularly in the operationalization of the Security Management Plans (SMPs), maintenance at the irrigation drainage, voluntary grievance redress officers and for information gathering.
The potential labor risks include issues of poor health and safety conditions, occupational health and safety during implementation of civil works, accidents and incidents, use of child labor and force labor, non-compliance to safety, grievances and issues of SEA/SH.

The Project will prepare, disclose, and implement a Labour Management Procedure (LMP) that spells out the condition of engagement and the age of eligibility to work in line with national standard. The LMP will specify (i) Terms and conditions of employment; (ii) Non-discrimination and equal opportunity; (iii) The development and adherence to Code of conduct by all workers engaged (iv) Worker's organizations; (v) Child labor; (vi) Forced labor; (vii) A grievance mechanism (viii) Journey management procedure; and (ix) Occupational health and safety management plan. The LMP will be prepared during Project Appraisal and subsequently included in the ESIAs/ESMPs prepared during implementation.

ESS3 Resource Efficiency and Pollution Prevention and Management

Natural resources such as water, sand, gravels, earth, and chemical compounds are required to rehabilitate and upgrade the irrigation and drainage infrastructure and rehabilitate and improve hydropower and storage works. Optimal use of these resources will be essential with best construction practices and reuse of construction waste. Commitment to optimal use of resources and adoption of guidelines for optimal use of required resources following the 3R (recycle, recovery, reuse) principle of pollution prevention will be taken from the borrower. As the project involves the revitalization of 30,000 hectares of irrigated perimeters, the use of technicality and financially feasible and cost-effective options will be promoted as part of mitigation measures to avoid or minimize impacts related to poor soil conservation and management, nutrient management, solid waste management, water management, pesticides and fertilizers management, and air quality. Also, general pollution prevention and control aspects associated with the commissioning and operations of hydropower may include the following: water quality, contaminants, nutrients, and minerals, greenhouse gas (GHG) emissions, and waste management. In addition to ESF, the World Bank Group Environmental Health & Safety Guidelines and Good Practice Note on Environmental Health & Safety Approach for Hydropower Project will also be considered in the project. An assessment of the impact on the water use during construction and/or operation may also be needed. Thus, the Client will include Water Resources Management Plan in the ESIAs. The project will ensure cleaner production principles, improve the irrigation efficiency and reduce water losses.

ESS4 Community Health and Safety

Potential community health and safety risks that could result from the project activities include risk of accidents and incidents during structural interventions such as rehabilitation and upgrading of irrigation and drainage infrastructures structural and access road improvements works etc. These activities will lead to movement of heavy equipment from trucks, or when heavy trucks are moving around the community, other social issues such as petty theft of equipment and SEA/SH due to influx of workers from outside the project intervention areas, etc. The Project will prepare a SEA/SH Action Plan which will indicate preventive and response measures for SEA/SH incidents including clearly defined Code of Conducts (CoCs) which will be signed and understood by all Contractors and their workers, provisions of referral pathway for SEA/SH complaints. Where SEA/SH provisions have be established through the TRIMING Project such as Mapping of GBV Service Providers and referral pathway for SEA/SH compliant, the Project will continue to rely on them.

Dam safety assessments of all dams are required as per ESS4 and would come early in the project preparation as basis for the dam rehabilitation plans. Dam safety reports will be technical reports and will be a separate assessment from other relevant ESF documents. The dam safety reports shall have components such as (i) plan for construction supervision and quality assurance, (ii) instrumentation plan, (iii) operation and maintenance plan, and (iv) emergency preparedness plan.

The design measures will also include consideration of likely effect of climate changes and geological risks for dam rehabilitation and structural changes.

As security has been indicated as a pertinent risk, Security Management Plans will be developed at each scheme level during Project implementation. Where security or armed personnel are engaged in participating sub- project locations, it must be noted that the Project Proceeds will be not be used to support the procurement of firearms. In addition, deployment of such personnel will follow the requirements of ESS4 and adopt the World Bank's Guidelines

of the Good Practice Note on "Assessing and Managing the Risks and Impacts of the Use of Security Personnel." Overall, before deploying military or security personnel, the NPMU and Irrigation scheme Project Managers shall take measures to ensure that security personnel are:

1. Screened to confirm that they have not engaged in past unlawful or abusive behavior, including SEA/SH or excessive use of force.
2. Adequately instructed and trained regularly on the use of force and appropriate behavior and conduct (including SEA and SH) and will adopt the Voluntary Principles on Security and Human Rights as the relevant good international industry practice to meet the requirements of ESS4 (these will be provided in the SMPs).
3. Deployed in a manner consistent with applicable national law.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

The extent of land acquisition for the project may vary depending on the scope of the intervention and other activities (mostly structural) proposed under component 2 and 3. While new land is not expected to be acquired during rehabilitation of the irrigation schemes, there might be livelihood impact as farmers might not be able to irrigate their field during rehabilitation works. Therefore, a Resettlement Policy Framework (RPF) consistent with ESS5 will be developed before completion of Appraisal while Resettlement Action Plans (RAP) where relevant will be prepared and implemented before commencement of any structural works that would require involuntary resettlement. Similarly, Temporary land might be required for storage of materials or for contractor's site. This land might be individual or communal land. To mitigate this risk, the contractors requiring such land would negotiate with the owners of such land in a willing buyer willing seller contractual situation.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Depending on the location of the proposed sites for irrigated command areas, and the scale of hydropower and storage works, habitat degradation and conversion may cause significant threats to aquatic and terrestrial biodiversity. Habitat degradation and conversion may occur as a result of, changes in hydrologic flow regime, dewatering river reaches, development of access routes and transportation corridors, construction material extraction, inappropriate cultivation techniques (in the case of irrigation), etc. These activities may lead to adverse impacts on downstream water quality like dissolved oxygen and turbidity levels. Impact avoidance should be the goal. Appropriate site selection (especially for component 2) is the single most important impact-avoidance measure. Early screening (using checklist that will be provided in the ESMF) can improve macro-level project site selection to avoid selecting areas with high biodiversity values, such as critical or natural habitat, areas with high conservation values, those modified habitats that contain significant biodiversity value (such as previously abandoned farmland that has subsequently developed into secondary forest), or provisioning or regulating ecosystem services. Such screening can help with the scoping of priorities for further assessment, if complete avoidance is not possible, thus reducing unnecessary biodiversity and/or ecosystem impacts and costs in the future.

All the risks and impacts relevant to ESS6 will be assessed as part of the ESAs and mitigation hierarchy will be applied to manage E&S risks and impacts. If required, a separate Biodiversity Action Plan will be prepared.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

Not relevant

ESS8 Cultural Heritage

The project is rehabilitating existing dams and irrigation systems, thus envisaging low risks and impacts on cultural heritage at this stage.
However, the possibility of chance finds will be relevant for construction activities. Appropriate provision and measures shall be made under ESIAs/ESMPs and contractor's contract to deal with 'chance finds'
and their recovery and preservation. If any such cultural heritage is identified near the project sites, a cultural heritage management plan shall be developed as part of the ESA.

ESS9 Financial Intermediaries

Not relevant

B.2 Other Relevant Project Risks

Security Risks are very relevant under this project and must be thoroughly assessed before commencement of civil work.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways	Yes
OP 7.60 Projects in Disputed Areas	No

III. World Bank Environmental and Social Due Diligence

A. Use of Common Approach

No

Financing Partners

Common Approach may be considered; however, it is not clear at this stage. This will be assessed further during Project Implementation.

B. Proposed Measures, Actions and Timing (Borrower's commitments)

Actions to be completed prior to Bank Board Approval:

1. Preparation, consultation, and disclosure of a draft Environmental and Social Commitment Plan (ESCP) – Before completion of Appraisal. Environmental and Social Commitment Plan (ESCP) will be agreed with each implementing agency in the project.

2. Preparation and disclosure of ESMF before the completion of Project Appraisal. The ESMF will include procedures for preparing Water Resources Management Plan, Biodiversity Management Plans, Waste Management Plans
3. Preparation and disclosure of a RPF before the completion of Project Appraisal
4. Preparation, consultation, and disclosure of a draft Stakeholder Engagement Plan (SEP)- Before completion of Appraisal.
5. LMP will be prepared and disclosed before completion of Appraisal

Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):

- Preparation of ESIA and ESMP including RAPs, GBV, plans and LMPs for all sub-projects as required;
- Implementation of SEPs, LMPs, etc. throughout the life of the project.
- Establishment of Grievance Mechanisms (Project GM and Labor GM)
- Capacity building on the ESF
- Timelines for preparing the SMP

C. Timing

Tentative target date for preparing the Appraisal Stage ESRS 01-Mar-2024

IV. CONTACT POINTS

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V. FOR MORE INFORMATION CONTACT

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VI. APPROVAL

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Safeguards Advisor ESSA	Nathalie S. Munzberg (SAESSA) Cleared on 06-Nov-2023 at 10:17:17 EST