



REPUBLIC OF KENYA

**THE NATIONAL TREASURY
STATE DEPARTMENT FOR PUBLIC INVESTMENTS AND ASSETS MANAGEMENT**

PUBLIC PRIVATE PARTNERSHIPS DIRECTORATE (PPPD)

TERMS OF REFERENCE

FOR

**TRANSACTION ADVISORY SERVICES FOR IRRIGATION DAMS AND
ASSOCIATED INFRASTRUCTURE**

MARCH 2026

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INTRODUCTION

The Public Private Partnerships Directorate (PPPD) of the National Treasury, on behalf of and in consultation with the Contracting Authority (CA), the State Department for Irrigation (SDI) under the Ministry of Water, Sanitation and Irrigation (MWSI) seeks to engage a Transaction Advisor (TA)/ Consultant to assist in carrying out detailed feasibility studies for; Radat Dam and Canal Project, Barsalinga Dam irrigation Development Project, Lowaat Dam Irrigation Development Project and, Soin Koru Dam Irrigation Development Project.

The Consultant shall review the existing feasibility studies, undertake engineering investigations where necessary and provide advisory services on the development of the business case for the four (4) proposed dam projects. The Transaction Advisor shall undertake a comprehensive technical, financial, environmental, legal, and institutional viability assessment of the proposed projects to determine their suitability for implementation and identify the optimal project structure capable of attracting private sector participation in accordance with the provisions of the PPP Act, 2021.

2. DESCRIPTION OF THE PROJECT

2.1 Project Description

The State Department for Irrigation, under the Ministry of Water, Sanitation and Irrigation is implementing the National Irrigation Sector Investment Plan (NISIP) 2025–2035, which aims to establish and operationalize a robust, coordinated investment and financing framework for the irrigation sector over a 10-year period. The National Irrigation Sector Investment Plan (NISIP) seeks to strategically align investments from multiple sources, promote coordinated action, enhance adaptability, and risk management, build the capacity of government institutions, the private sector, and farmers, and embed accountability and transparency measures throughout the sector. The primary objective of the NISIP is to expand the national irrigation area by 1,000,000 acres through the Maximized Community Scheme Benefits pathway. As of 2023, the total area under irrigation was 711,993 acres, and the goal is to increase this coverage to 1,289,142 acres by 2028. NISIP has conceptualized five pathways to align investments to the irrigation sector and has prioritized development of mega dams contributing to PATHWAY 3 on Enabled corporate agribusiness to scale-up corporate and commercial investments in irrigated agriculture that is majorly focusing on the PPP projects particularly in the government owned large tracks of land; and PATHWAY 4 on Revitalized irrigation in

ASALS that will focus on ensuring food and fodder production in vulnerable pastoralist communities through water harvesting for fodder production and watering their livestock.

It is against this background that the State Department for Irrigation intends to develop the following proposed Irrigation Dams to support irrigation and promote food security:

- i. Radat Dam Irrigation and Canal Project in Baringo County
- ii. Barsalinga Dam Irrigation Development Project in Isiolo and Samburu County
- iii. Lowaat Dam Irrigation Development Project in Turkana County
- iv. Soin Koru Dam Development Project in Kisumu and Kericho County

2.1.1 Radat Dam and Canal Development Project

The Radat Dam and Canal Development Project is a transformative water infrastructure and agricultural development initiative aimed at enhancing food security, expanding irrigation, and driving socio-economic growth in Baringo County. The project is expected to directly benefit approximately 100,000 farmer households within the project area through improved agricultural productivity, enhanced food sufficiency, and increased household incomes. In addition, more than 600,000 residents of Baringo County are projected to benefit from improved water access, employment opportunities, and expanded economic activity.

The core component of the project is the construction of an 81.6-metre-high dam with a storage capacity of 126 million cubic meters (MCM). The dam will supply water to meet an irrigation demand of approximately 280,000 cubic meters per day through an integrated conveyance and distribution system. The irrigation infrastructure will comprise approximately 30 kilometers of primary conveyance canals and 50 kilometers of secondary distribution canals, ensuring efficient delivery of water to agricultural zones. Beyond irrigation, the project will support multiple water uses, including domestic, industrial, and agricultural supply. The dam will also incorporate hydropower generation capacity of approximately 10 megawatts (MW), contributing to local energy access and supporting agro-processing and other productive uses.

Upon completion, the Radat Dam and Canal Development Project is expected to catalyze significant human settlement and economic expansion in the region. Large-scale farming operations are projected to attract an estimated 2,000 workers and

associated personnel annually, with an additional 3,500 people per year anticipated through secondary settlement and related economic activity. Domestic water demand is estimated at 50 liters per person per day, while agricultural operations will require substantial water allocations to sustain intensified production. Increased logistical and commercial activity is projected to generate demand for approximately 200 transport vehicles daily to support farming operations and ancillary services.

Overall, the Radat Dam and Canal Development Project represents a strategic investment in climate-resilient agriculture, water resource management, renewable energy generation, and inclusive regional development. The project is positioned to significantly enhance livelihoods, stimulate local enterprise, and promote sustainable economic transformation in Baringo County.

Project Specific Outputs:

- i. Construct a 395M long and 81.6m High Radat Dam.
- ii. Construction of 80Km Conveyance Canal.

2.1.2 Barsalinga Dam Irrigation Development Project

The proposed Barsalinga Dam Project (or Isiolo Dam Project) is located at the junction of Isiolo County and Samburu County in Kenya. The dam site is near the confluence of the Ewaso Nyiro North River and the Ewaso Narok River, at the eastern outlet of the Rift Valley canyon.

The project is a comprehensive water conservancy hub with engineering scope including irrigation, water supply, power generation, and flood control. A reservoir will be formed by constructing the dam, creating a high-altitude reservoir with multi-year regulation capacity. It will supply irrigation water of 8.053 m³/s to a 30,000-acre irrigation area through gravity flow, including 25,000 acres in Isiolo County and 5,000 acres in Samburu County, and meet the domestic water demand of Isiolo County of 48,000 m³/day.

The project consists of a Roller-Compacted Concrete Dam with a total reservoir capacity of 226.27 million m³, a crest length of 434.5m, and a dam height above the ground of 60m. The project targets to increase the area under irrigation by an additional 30,000 acres, of which 25,000 acres of land are within the 200,000-acre Isiolo Disease-Free Zone (DFZ). This is a Vision 2030 flagship and a key project under the "Agriculture, Livestock and Fisheries Development Sector Plan (2018-2027)" This will consist of a main irrigation canal of 56 km in Isiolo and 30 km in Samburu, with secondary canals distributing water to in-field blocks of about 1,000 acres each;

pressure pipes of about 5.2 km total length, and 6 regulating tanks of 25,000 m³ each will be constructed.

2.1.3 Lowaat Dam Irrigation Development Project

The proposed Lowaat Dam Project is located in Turkana East Sub-County, across the lower reach of Kerio river, 180 km upstream of Lake Turkana, 15Km upstream of Lokori Town in Turkana County, an area characterized by arid and semi-arid climatic conditions, high rainfall variability, and limited water storage infrastructure. The proposed Lowaat Dam will be a multipurpose Dam project designed for flood control, 10MW Hydro power generation, and to expand irrigation from the existing 4,942 acres in Morulem, Lokubae, and Elelea to 32,370 acres.

The project proposes construction of a 53-metre-high rockfill dam along the Kerio River with an estimated storage capacity of approximately 400 million cubic meters. The dam will be supported by approximately 20 kilometers of primary canal infrastructure to convey irrigation water to command areas.

2.1.4 Soin Koru Dam and Irrigation Development Project

The Proposed Soin Koru Dam is located on the River Nyando at the boundary between Kericho and Kisumu Counties. The project targets to supply potable water to both counties, irrigate about 27,000 acres in Kisumu County, generate Hydroelectric power, and Control flooding downstream. The target irrigation area spans Muhoroni, Chemilil, Existing Ahero and West Kano schemes.

The agronomic and soil assessments indicate that the area is expansive with different soil types, Muhoroni and Chemilil dominant soils are vertic Planosols and Fluvic Cambisols, while Ahero, West Kano and South West Kano soils are fluvic Geysols and Fluvic Cambisol which is suitable for grasses (maize, wheat, rice, and sugarcane), fruits and vegetables, and soybean. The irrigation development includes a main conveyance canal—approximately 74 km, 232 km secondary canals distributing water to infield blocks of about 1,000 acres each. Flood irrigation for rice and Drip and overhead sprinkler irrigation are recommended because of their high water-use efficiency, crop adaptability, and topographical compatibility.

The proposed dam is a zoned rock-fill structure with an impervious core. The dam wall is 55 meters high (including 5m freeboard) from bed level of 1695m and crest length of 1400 meters. The catchment area at the dam location is 1,350 km² with an estimated annual yield of 242.82 Mm³ (7.7 m³ /s) based on river gauging data

between 1956 to 2011. The net available irrigation is estimated at 5.17 m³/s which translates to 27,000 acres at 16 m³/acre/day.

2.2 Profile of the Contracting Authority

The proposed Public-Private Partnership (PPP) irrigation dam projects will be implemented by the State Department for Irrigation, whose mandate and functions include the formulation and implementation of the National Irrigation Policy and Management framework; water harvesting and storage for irrigation; management and development of irrigation schemes; water storage and flood control management; mapping, designation, and development of areas suitable for irrigation schemes; development of irrigation infrastructure; and land reclamation.

The overarching objective of the Contracting Authority (CA) is to develop, manage, and regulate irrigation in Kenya to support sustainable food security, economic growth, and socio-economic development. Irrigation development in Kenya is guided by key national policy frameworks, including the Kenya Vision 2030, the Fourth Medium Term Plan (MTP IV), the Bottom-Up Economic Transformation Agenda (BETA), and the Constitution of Kenya, among other relevant legal and policy instruments. These priorities are further operationalized through the NISIP and the State Department's Strategic Plan (2023–2027).

3. OBJECTIVES OF THE TRANSACTION ADVISORY SERVICES

The CA seeks to engage a TA to provide comprehensive advisory services for the preparation, structuring, procurement, and financial close of the proposed four (4) Irrigation Dam Projects under a PPP framework in accordance with the PPP Act, 2021. The TA will undertake feasibility studies and/or review and update existing studies to determine the technical, financial, environmental, social, legal, and institutional viability of the proposed projects in line with Section 32 of the PPP Act, 2021.

The assignment will establish the technical configuration, commercial viability, and bankability of the projects and provide recommendations on the most appropriate PPP model for their development, financing, construction, operation, and maintenance. The TA will support the CA throughout the transaction process, including project preparation, structuring, procurement, negotiations, and financial close of the projects. In addition, the TA will advise on suitable implementation phases based on technical and commercial assessments and support the development of viable commercial agricultural activities associated with the irrigation schemes.

The assignment will further support the structuring and implementation of the proposed PPP projects for irrigation dams and associated infrastructure, including irrigation networks required to serve the agricultural needs of the identified areas within the mandate of the SDI. The TA will also advise SDI on optimal risk allocation, develop the resulting project structure, prepare all necessary documentation, obtain the requisite approvals, and provide support through to Financial Close. Further, in structuring the Irrigation Dam Projects, the Transaction Advisor is expected to explore means of mobilizing local capital to contribute to the sources of capital where possible.

4. Role of the Transaction Advisor

The Transaction Advisor (TA) will be a firm or consortium of firms, collectively covering the range of financial, technical, environmental, legal, and other expertise required to procure the Project through a PPP transaction. The TA will provide all needed support, inputs, documentation, services, and content for the Project to achieve successful financial close, including but not limited to:

- i. Undertake a comprehensive gap analysis of the existing feasibility studies for the proposed projects.
- ii. Review and update existing feasibility studies to ensure compliance with the requirements of the PPP Act 2021 and international best practices.
- iii. Prepare feasibility studies for projects where prior studies do not exist, including technical, financial, environmental, social, legal, and institutional assessments.
- iv. Recommend the most appropriate PPP structure and procurement model based on analysis of alternative technical configurations and PPP modalities.
- v. Advise the Contracting Authority on optimal risk allocation and the appropriate contractual and institutional framework for project implementation.
- vi. Prepare and finalize all necessary transaction and procurement documents, including the Request for Qualification (RFQ), Request for Proposals (RFP), draft Project Agreement, technical specifications, and related schedules.
- vii. Support the CA in obtaining all required statutory, regulatory, and institutional approvals for the project.
- viii. Provide advisory support during the competitive PPP procurement process, including market sounding, bidder engagement, bid evaluation, and competitive dialogue where applicable.

- ix. Participate in bid review, evaluation, and scoring, and provide technical and commercial guidance during interactions with bidders and their lenders.
- x. Provide advisory support during negotiations with the preferred bidder, leading to the signing of the Project Agreements.
- xi. Provide transaction advisory services through to financial close, including support for the finalization and execution of financing agreements.
- xii. Advise on the institutional and organizational arrangements required for effective PPP contract management and project implementation.
- xiii. Facilitate capacity building and knowledge transfer to the CA, and the PPP Directorate on PPP transaction management and contract administration.

4. SCOPE OF THE TRANSACTION ADVISORY WORK

The scope of work is divided into the following three key phases:

Phase I: Reviewing existing feasibility studies, undertaking the PPP feasibility Study, including the Project Implementation Schedule, marketing sounding, and all the PPP approvals. Screening of the listed projects to determine the most suitable to proceed for procurement as PPPs.

Phase II: Development of the transaction documents, tender process organization, and support on transaction implementation through to Financial Close.

Phase III: Project-Based Learning. This entails capacity building for the Project Implementation Team (CA & PPP Directorate), including knowledge and skills transfer. This phase shall be implemented simultaneously with phases I and II.

4.1 PHASE I: FEASIBILITY STUDY AND PROJECT IMPLEMENTATION SCHEDULE

The TA shall undertake a comprehensive PPP feasibility study to assess the technical, legal, environmental, social, economic, and financial viability of the proposed irrigation dam projects. The feasibility studies shall be conducted in accordance with the requirements of the PPP Act 2021 and international best practices for PPP project preparation.

Phase I will involve reviewing existing project documentation, identifying gaps, undertaking additional assessments where required, and preparing updated feasibility studies to inform the optimal project structure and implementation approach.

TASK 1: Project Feasibility Assessment

Task 1.1: Review and Update of Existing Feasibility Studies

The TA shall review and update the existing feasibility studies and related project documentation for the four (4) proposed projects. This task will involve a comprehensive assessment of the available studies and supporting documentation to ensure that the feasibility studies meet the requirements for PPP project preparation and are compliant with the provisions of the Public Private Partnership Act 2021.

Specifically, the Consultant shall undertake the following activities:

- i. Conduct a detailed review of the existing feasibility studies and all relevant project documentation, including technical studies, engineering assessments, hydrological investigations, and environmental and social assessments, to develop a comprehensive understanding of the proposed projects and identify any gaps, or outstanding issues that must be addressed prior to proceeding to the procurement stage.
- ii. Update and complete the feasibility studies to address the identified gaps, including undertaking additional assessments where required, such as hydrological analyses, technical investigations, and economic and financial evaluations. The updated feasibility studies shall be prepared in compliance with Section 32 of the Public Private Partnership Act 2021.
- iii. Assess the extent to which physical climate risks have been evaluated in the existing studies and determine whether appropriate climate resilience, mitigation, and adaptation measures have been incorporated into the project design.
- iv. Review the alignment of the proposed projects with relevant national and regional climate change strategies and water resources management frameworks and recommend appropriate mitigation and adaptation measures where necessary.
- v. Review and update site-related information for the four (4) projects, including assessments relating to land availability, potential encumbrances, existing utilities, geotechnical and geological conditions, archaeological considerations, biodiversity impacts, local regulatory requirements, resettlement implications, economic displacement, and land ownership records.

Task 1.2 Technical, Commercial, Irrigation Options Assessments

The TA shall undertake a comprehensive Technical and Commercial Feasibility Assessment of the proposed irrigation dams and associated infrastructure projects.

The assessment shall analyze alternative technical configurations and commercial arrangements for the projects, drawing on hydrological records, water resource assessments, agricultural demand projections, climate data, and existing feasibility studies.

The Technical and Commercial Feasibility Assessment shall evaluate the projected demand for irrigation water and bulk water supply services, assess water availability and catchment sustainability. As well as examine the implications for ancillary infrastructure such as power supply, potable water supply, road access, and utilities. The assessment shall also propose an appropriate implementation strategy suitable for procurement under a PPP framework. Specifically, the TA shall undertake, but not be limited to, the following activities:

A. Dam Component Assessment

- i. Review and assess all available feasibility studies, engineering designs, hydrological assessments, geotechnical investigations, environmental and social impact assessments, water resource studies, demand analyses, and other relevant technical or financial assessments related to the proposed irrigation dams and associated infrastructure.
- ii. Assess the physical, hydrological, environmental, geotechnical, and topographical conditions of the proposed project sites and associated infrastructure and determine their suitability for development under a PPP arrangement.
- iii. Undertake preliminary engineering assessments, including geological, hydrological, and topographical surveys, establish preliminary technical configurations; and prepare reference/indicative designs for each dam site, defining critical structural parameters, reservoir capacities, and the associated irrigation command areas.
- iv. Evaluate alternative technical configurations, including dam typologies, gravity versus pumped systems, canal versus piped distribution networks, and phased or modular development approaches, and recommend the most appropriate configuration based on agreed evaluation criteria.
- v. Assess water availability, abstraction sustainability, and competing uses at the catchment level, and analyse water-use efficiency and energy intensity before and after project implementation under projected climate scenarios.
- vi. Identify and estimate ancillary infrastructure requirements necessary for the projects, including access roads, power supply, and utility extensions, and

- prepare indicative cost estimates for required upgrades and supporting infrastructure.
- vii. Estimate the full life-cycle costs of the projects, including capital expenditure (CAPEX), operations and maintenance costs (OPEX), major maintenance requirements, and asset replacement schedules.
 - viii. Evaluate potential commercial structures for the projects, including availability-based payment models, user-pay irrigation tariffs, and hybrid structures, and identify potential ancillary revenue opportunities associated with the projects.
 - ix. Assess the adequacy of power generation potential associated with the projects, including evaluation of hydrological conditions, generation capacity, grid integration requirements, and the technical and financial viability of power production where applicable.
 - x. Identify and assess key technical risks, including design, construction, hydrological variability, operational, permitting, technology, and climate-related risks, and prepare a Technical Risk Register recommending appropriate risk allocation between the CA and the Private Partner.
 - xi. Undertake a Site Utilities Feasibility Assessment by reviewing and analysing the availability and capacity of utilities at the project sites. This shall include identification of existing utilities such as water supply, stormwater drainage, and roads among others. The assessment shall determine the available capacities and identify the infrastructure extensions or upgrades required to support the projects.
 - xii. Prepare a preliminary Operations and Maintenance (O&M) Plan for costing purposes, including staffing requirements, maintenance cycles, dam safety monitoring systems, asset management systems, and energy consumption assumptions.
 - xiii. Define preliminary technical performance requirements, including water delivery reliability standards, irrigation supply pressure requirements, service interruption thresholds, system efficiency targets, and dam safety monitoring parameters for use in evaluating technical options.
 - xiv. Review and update the existing project risk matrix and develop a comprehensive Technical Risk Register identifying and assessing key technical risks, including construction, design, operational, hydrological variability, permitting, and market interface risks.
 - xv. The TA shall recommend an appropriate allocation of such risks among the Government, the prospective Private Partner, and other relevant stakeholders

in accordance with PPP best practices and the requirements of the Public Private Partnership Act 2021.

B. Irrigation Component Assessment

In addition to the above technical and commercial assessments, the TA shall undertake a detailed Irrigation Component Assessment to evaluate the viability, scale, and operational sustainability of the irrigation schemes associated with the proposed dams. The assessment shall include, but not be limited to, the following activities:

- i. Review and validate existing irrigation water demand studies, including assessment of projected agricultural water demand under current and future cropping scenarios.
- ii. Assess water resource availability, reservoir operation strategies, seasonal variability, and climate resilience considerations affecting irrigation water supply reliability.
- iii. Review the proposed irrigation command areas and recommend an optimal distribution of the proposed irrigation coverage, clearly distinguishing between community-based irrigation schemes and commercially operated irrigation blocks.
- iv. Determine irrigation water demand requirements for each proposed command area based on cropping patterns, irrigation methods, soil characteristics, and projected agricultural expansion.
- v. Establish water availability and supply reliability for each proposed irrigation site and recommend appropriate reservoir operation rules and allocation strategies to ensure sustainable water use.
- vi. Using the annual bulk water production estimate, determine the maximum reliable irrigable area under optimized irrigation regimes for priority food and high-value crops, and prepare a detailed irrigation water distribution network for the selected on-farm application method(s)
- vii. Evaluate alternative options for efficient irrigation water conveyance, distribution, and on-farm application systems, including pipelines, lined or unlined canals, sprinkler irrigation, drip irrigation, and center pivot systems, and recommend the most appropriate technologies for each irrigation zone.
- viii. Prepare reference designs for bulk water abstraction systems, diversion structures, conveyance infrastructure, distribution networks, and recommend suitable irrigation water application methods for each proposed irrigation command area.

- ix. Assess all infrastructure requirements necessary for efficient conveyance of irrigation water from the headworks to farm level, including main canals, secondary canals, pipelines, control structures, drainage infrastructure, and farm-level development.
- x. Evaluate the associated operations and maintenance requirements and costs for irrigation infrastructure and propose sustainable cost recovery and management arrangements to support efficient water utilization in the community irrigation schemes areas.
- xi. Assess the institutional capacity of farmer organizations and irrigation management entities involved in community irrigation schemes, including their ability to participate in irrigation management, operation, and maintenance, and identify constraints requiring institutional strengthening.
- xii. Review and validate the proposed irrigation infrastructure design, including conveyance systems, distribution networks, drainage systems, and command area development plans.
- xiii. Evaluate suitable crop types for irrigated agriculture within the project areas, including assessment of crop margins, farm adoption potential, value chain integration, and agricultural market access.
- xiv. Assess irrigation tariff frameworks, cost recovery mechanisms, and affordability considerations for both community irrigation schemes and commercially operated irrigation developments.
- xv. Recommend the optimal phasing and commercial structuring approach for the irrigation component.

Task 1.3: Economic and Social Cost-Benefit Analysis (ESCBA)

The ECSBA will comprise both a qualitative and quantitative assessment of the economic, social costs and benefits of the proposed project, including a determination of the Economic Internal Rate of Return. The TA will, inter alia, carry out the following tasks.

- i. Conduct qualitative and quantitative evaluations, determining the Economic Internal Rate of Return (EIRR) and Benefit-Cost Ratio (BCR) to gauge the project's Socio-Economic value, including sensitivity analysis as required for PPP Committee approval.
- ii. Conduct the Economic and Social Cost-Benefit Analysis (ESCBA) to determine whether the project provides net benefits to society. It will consider social and economic impacts, evaluating direct and indirect costs and benefits. A key

component of the ESCBA will be analysing the financial effects on local communities and the broader national economy, such as job creation, health, sanitation improvements, and security enhancements.

- iii. The study should also identify potential risks, propose mitigation strategies, and outline measures to maximize the project's social and economic outcomes, ensuring long-term benefits for the staff and society.
- iv. The feasibility study will include a Value for Money analysis, both qualitative and quantitative, using a Public Sector Comparator analysis.

Task 1.4: Financial Feasibility

The TA shall undertake a comprehensive Financial Feasibility Assessment for the proposed irrigation dam and irrigation infrastructure projects, including reservoirs, irrigation distribution networks, and associated infrastructure. The TA shall develop a robust Project Financial Model for each of the proposed projects to assess their financial viability, affordability, and bankability under a PPP framework.

The financial analysis shall evaluate capital investment requirements, operational and maintenance costs, potential revenue streams, funding options, and risk allocation mechanisms to determine the financial sustainability of the projects and identify the most appropriate financing structure. Specifically, the TA shall undertake, but not be limited to, the following activities:

- i. Develop project financial model for each proposed irrigation project, including detailed funds flow requirements over the project lifecycle. The model shall incorporate capital investment costs associated with dam construction, reservoirs, irrigation networks, and ancillary infrastructure, as well as operational and maintenance costs.
- ii. Assess the financial viability of the projects, including the determination of key financial indicators such as Project Internal Rate of Return (IRR), Equity IRR, Net Present Value (NPV), and key financial ratios, including the Debt Service Coverage Ratio (DSCR).
- iii. Assess the project funding requirements, including upfront capital investment requirements (CAPEX), phased investment requirements, and long-term operational and maintenance (O&M) costs.
- iv. Analyze the annual funding requirements necessary to support project development, operations, and maintenance, debt servicing obligations, and other recurring costs throughout the project lifecycle.

- v. Determine the annual revenue requirements necessary to ensure the financial sustainability of the projects, including irrigation service fees, bulk water supply charges, or other potential revenue streams.
- vi. Prepare and analyse annual cash flow projections over the project lifecycle, including projected expenditures and revenues, and assess the financial performance and sustainability of the projects under different scenarios.
- vii. Assess potential revenue sources and tariff structures, including irrigation water tariffs, bulk water supply charges, and other ancillary revenue opportunities, and evaluate the potential need for public sector financial support, including viability gap funding, capital grants, or availability-based payments.
- viii. Assess the affordability of the proposed projects for irrigation scheme beneficiaries, water users, and the public sector, including the potential impact of irrigation service charges on farmers and agricultural productivity, and analyse the willingness and capacity of beneficiaries to pay for irrigation and related water supply services.
- ix. Assess acceptable Equity IRR benchmarks for the sector, informed by market analysis and market sounding with potential investors and lenders.
- x. In accordance with the Government of Kenya's framework for managing Fiscal Commitments and Contingent Liabilities (FCCL) under PPP projects, analyse the potential fiscal risks and contingent liabilities associated with the proposed projects. The TA shall quantify these liabilities under the recommended project structure and propose appropriate mechanisms for managing and monitoring such fiscal commitments.
- xi. Update the financial model, feasibility study, and associated analyses throughout the transaction process, including prior to issuance of procurement documents, during bidder engagement, negotiations, and up to financial close.
- xii. Support the CA during the procurement process by using the financial model as a shadow bid model for the purpose of bid evaluation, financial comparison, and robustness testing of bidder proposals.
- xiii. Provide financial advisory support during bid evaluation, negotiations with preferred bidders, and financial close, including review of bidder financial models and financing structures.
- xiv. Evaluate alternative financing mechanisms, including global climate finance and concessional financing, in strengthening the projects' financial structure and enhancing their overall bankability.

The Financial Feasibility Report shall include a clear description of the financial model structure, key assumptions, methodologies, and analytical outputs, and shall demonstrate how the model supports the conclusions and recommendations presented in the report. The TA shall promptly inform the CA and the relevant PPP oversight institutions of any proposed changes to the financial model or underlying assumptions, including justification for such changes.

The FCCL assessments shall be prepared using the formats prescribed by the Government of Kenya and shall comply with the applicable Fiscal Commitments and Contingent Liabilities (FCCL) Management Framework and Government Support Measure (GSM) Policy. The TA shall also propose appropriate mechanisms for monitoring and managing fiscal commitments and contingent liabilities throughout the lifecycle of the projects.

Task 1.5: Legal and Institutional Analysis

The TA shall undertake a comprehensive legal and institutional due diligence of the proposed irrigation dam and irrigation infrastructure projects to assess the legal, regulatory, and institutional framework within which the projects will be implemented. The objective of this task is to identify any legal, regulatory, or institutional constraints that may affect the development, procurement, implementation, and operation of the projects under a PPP arrangement, and to recommend appropriate mitigation measures. The legal assessment shall be undertaken in accordance with the provisions of the Public Private Partnership Act 2021 and other applicable laws and regulations in Kenya. Specifically, the TA shall undertake, but not be limited to, the following activities:

- i. Conduct a comprehensive review of the applicable legal, regulatory, and policy framework governing irrigation development, water resources management, land acquisition, environmental management, and PPP project implementation to identify any legal or regulatory constraints that may affect the implementation of the projects.
- ii. Map the institutional environment for the projects by identifying key stakeholders, including relevant government ministries, agencies, regulators, and other stakeholders, and define their roles and responsibilities in the development and implementation of the projects.

- iii. Review the legal status of the project sites, including land ownership, title validity, existing encumbrances, easements, rights of way, and any other land-related constraints that may affect project implementation.
- iv. Assess the feasibility of transferring or granting rights related to land, water abstraction, infrastructure, licenses, permits, and other project-related assets required for the development and operation of the projects.
- v. Analyse the legal requirements and procedures for land acquisition, resettlement, and compensation where required, and prepare a recommended implementation approach including a schedule of actions and responsible stakeholders.
- vi. Identify any existing contractual commitments, financial obligations, contingent liabilities, or legal disputes that may affect the projects, including existing agreements, insurance arrangements, ongoing litigation, environmental liabilities, or other government obligations, and recommend an appropriate way of transferring the responsibility to the private party.
- vii. Identify and document all project-related approvals, licenses, permits, and regulatory clearances required for the development, construction, and operation of the projects and recommend appropriate allocation of responsibilities for obtaining such approvals between the CA, relevant government agencies, and the private partner.
- viii. Evaluate alternative procurement approaches and PPP structures for the projects and assess their legal feasibility under the prevailing legal and regulatory framework.
- ix. Recommend appropriate institutional arrangements and governance structures for project procurement and subsequent contract management, including advice on:
 - a) Public sector procurement management and procurement steering arrangements;
 - b) Contract management arrangements and performance monitoring arrangements;
 - c) Prepare terms of reference and procurement strategy for the appointment of an Independent Engineer/Consultant.
- x. Develop a legal and contractual framework for the projects consistent with the recommended PPP model, including allocation of legal responsibilities and contractual obligations among the relevant parties.
- xi. Prepare a comprehensive Legal Risk Register identifying key legal risks associated with the projects, including land acquisition risks, regulatory risks,

permitting risks, contractual risks, and institutional risks, and recommend appropriate risk mitigation measures and allocation of risks between the public and private partners.

- xii. Provide legal advisory support to the Contracting Authority during the procurement process, including guidance on legal issues arising during procurement, bidder engagement, negotiations, and project documentation.
- xiii. Provide recommendations on policy, regulatory, or institutional reforms required to facilitate the successful implementation of the projects, drawing on international best practices in PPP irrigation and water infrastructure projects.

Task 1.6: Site Surveys, Mapping, and Infrastructure Due Diligence

The TA shall undertake detailed site investigations, surveys, and mapping for the proposed dam sites, reservoirs, and associated irrigation infrastructure. The purpose of this task is to generate accurate spatial and topographical data necessary for the technical design, feasibility assessment, and structuring of the projects.

(a) Aerial Survey and Mapping

The TA shall undertake aerial surveys and mapping of the proposed dam sites, reservoir areas, irrigation command areas, and associated infrastructure corridors. The activities shall include:

- i. Establish vertical and horizontal survey control points across the proposed dam sites, reservoir footprint, irrigation command areas, and associated infrastructure locations.
- ii. Conduct aerial surveys and generate high-resolution spatial data covering the dam site, reservoir basin, irrigation distribution network corridors, and related infrastructure.
- iii. Prepare detailed topographical maps and orthophotography maps of the surveyed areas to support project design, feasibility studies, and environmental and social assessments.
- iv. Develop longitudinal and cross-sectional profiles for the proposed dam structures, reservoir basin, irrigation canals, pipelines, and other key infrastructure components.
- v. Map land use, settlements, infrastructure, environmentally sensitive areas, and other physical features that may affect project design, land acquisition, or environmental and social safeguards.

(b) Dam and Irrigation Infrastructure Design

The TA shall undertake reference engineering designs for the proposed dam structures, reservoirs, irrigation conveyance systems, and associated infrastructure to enable the development of technical specifications and preparation of reliable cost estimates for the purposes of the feasibility study and PPP transaction structuring.

The activities shall include, but not be limited to, the following:

- i. Conduct geotechnical investigations at the proposed dam sites, reservoir areas, and locations of key infrastructure such as spillways, intake structures, canals, and pumping stations, and prepare indicative foundation design recommendations.
- ii. Prepare conceptual and reference engineering designs for the dam structures, reservoirs, irrigation canals or pipeline systems, water control structures, and associated infrastructure.
- iii. Develop reference dam layout designs, including spillways, intake structures, outlet works, diversion works, and irrigation conveyance systems.
- iv. Prepare indicative alignment profiles for irrigation conveyance infrastructure, including main canals, secondary canals, pipelines, and pumping systems where applicable.
- v. Develop reference engineering drawings and cost estimates for the proposed infrastructure to support the feasibility analysis and PPP structuring process.

NB: The reference engineering designs prepared under this assignment are intended solely to inform the feasibility assessment, project structuring, and procurement process. The successful private concessionaire shall be responsible for reviewing, refining, and adjusting the reference designs as necessary, and for preparing the detailed engineering designs required for the construction, implementation, and operation of the Project in accordance with the requirements of the Project Agreement and applicable engineering standards.

(c) Site Due Diligence

The TA shall undertake comprehensive site due diligence for the proposed dam sites, reservoir areas, irrigation command areas, and associated infrastructure with a view to identifying any legal, technical, environmental, social, or land-related constraints that may affect project development and implementation.

The due diligence shall include, but not be limited to, the following:

- i. Assessment of land requirements and land availability for dam structures, reservoir footprint, irrigation infrastructure, and associated facilities.
- ii. Review of land ownership status, including titles, rights of way, easements, and any existing encumbrances that may affect project implementation.
- iii. Assessment of site accessibility, including access roads and logistics requirements for construction and operation.
- iv. Identification of potential resettlement and livelihood impacts, including displacement of communities, economic activities, or infrastructure.
- v. Assessment of the land acquisition requirements, including the applicable procedures, timelines, and indicative cost estimates for land acquisition and compensation.
- vi. Identification of any other technical, environmental, or social constraints that may affect the development of the projects and recommendation of appropriate mitigation measures.

Task 1.7 Environmental and Social Feasibility

The TA shall conduct Environmental and Social (E&S) safeguards studies to identify, assess, and propose mitigation measures for environmental and social risks and impacts associated with the planning, design, financing, construction, and maintenance of the four (4) proposed irrigation dam projects. All environmental and social safeguard activities shall be undertaken in accordance with:

- i. The Environmental Management and Coordination Act and applicable subsidiary regulations;
- ii. Requirements of the National Environment Management Authority (NEMA);
- iii. Applicable international environmental and social standards where relevant to project financing, including the International Finance Corporation Performance Standards and the Equator Principles Association where applicable; and
- iv. The Environmental, Social and Land Studies Framework set out in Annex 1 to these Terms of Reference, which forms an integral part of this assignment.

Environmental and social safeguard activities shall follow a structured approach that reflects the different levels of existing safeguard documentation for the four projects.

Task 1.8 Review and Updating of Existing ESIA and RAP for Radat, Barsalinga and Soin Koru

For the three dam projects for which Environmental and Social Impact Assessments (ESIA) and Resettlement Action Plans (RAP) have previously been prepared, the TA shall:

- i. Review all existing environmental and social safeguard documentation, including ESIA reports, RAPs, Environmental and Social Management Plans (ESMPs), stakeholder consultation records, environmental permits, and associated studies, and assess the adequacy of the existing documentation in relation to:
 - a. Current Kenya environmental and social regulatory requirements;
 - b. Applicable international environmental and social standards;
 - c. The updated technical concept or reference design prepared under this assignment.
 - d. PPP project structuring and lender due diligence requirements.
- ii. Identify any gaps, outdated analyses, missing baseline information, or inconsistencies between the existing safeguard documents and the updated project reference design.
- iii. Undertake additional baseline studies, consultations, and technical assessments where necessary to address identified gaps.
- iv. Update and revise the existing ESIA, ESMP, and RAP documentation to ensure compliance with applicable regulatory requirements and international standards.
- v. Update land acquisition requirements, livelihood restoration measures, and compensation cost estimates based on the updated project footprint and cadastral survey results.

Task 1.9 Environmental and Social Assessment for Lowaat Projects

For the Lowaat dam projects where no prior environmental or social safeguard studies have been undertaken, Environmental and social safeguards shall follow a two-stage structured approach:

- a) Government-Led: Preliminary Environmental Social Impact Assessment (PESIA) to be undertaken by the Transaction Advisor in accordance with this section of the TOR and Annex 1.
- b) Private Partner-Led: full Environmental Social Impact Assessment ESIA to be undertaken by the Concessionaire or Private Party in compliance with applicable law upon commercial close.

Task 1.9.1 Government-Led Preliminary Environmental Social Impact Assessment (PESIA)

Preliminary Environmental Social Impact Assessment (PESIA) will be undertaken by the Transaction Advisor in accordance with this section of the TOR and Annex 1. The TA shall ensure that the Environmental, Social, and Safeguards activities are strictly undertaken in accordance with the scope, methodology, safeguards strategy, and deliverables prescribed under Annex 1 (Environmental, Social, and Land Acquisition Studies). Without limiting the requirements under Annex 1, the TA shall:

1. Undertake PESIA, which entails:
 - i. Environmental and social assessment)to inform project structuring, risk allocation, and procurement documentation;
 - ii. A stakeholder engagement plan (SEP) and execution of stakeholder consultations consistent with Kenya requirements and applicable standards;
 - iii. A full Resettlement Action Plan (RAP) including land acquisition impacts, livelihood restoration measures and cost estimates
 - iv. A land acquisition plan (LAP), and
 - v. An Environmental and Social Management Plan (ESMP) based on the preliminary ESIA (and where necessary, supporting management plans) covering mitigation, monitoring, and institutional arrangements.
2. Assessment of project-specific environmental risks and impacts based on the TA's concept/reference designs, including construction impacts.
3. Assessment of project-specific social risks and impacts based on the TA's, including but not limited to:
 - i. Land acquisition, physical and economic displacement, and livelihood impacts;
 - ii. Labour and working conditions, labour influx and community interface;
 - iii. Identifying Community health and safety risks (including road safety and communicable disease risk management);
 - iv. Gender and social inclusion (including GBV/SEA/SH risk screening and mitigation);
 - v. Stakeholder engagement and grievance redress mechanisms.
4. Undertake climate and disaster risk assessment.
5. Identify permits, approvals, and E&S conditions precedent, including:
 - i. A permitting and approvals register with indicative timelines and sequencing;

- ii. Critical E&S preconditions required prior to PPP launch and/or Financial Close.

6. Develop Terms of Reference for the Private Partner-led Full ESIA.

All E&S outputs shall inform the Feasibility Study Report, project structuring and risk allocation, and be integrated into the PPP procurement documentation (RFQ/RFP and draft PPP agreements), consistent with Annex 1.

Task 1.9.2 Private Partner-Led Full Environmental and Social Impact Assessment(ESIA)

The full ESIA and Social Safeguards studies will be carried out after the procurement of a private concessionaire. The private concessionaire shall conduct the full ESIA based on the final design and construction plan. The Preliminary ESIA and RAP prepared by the TA shall not replace the requirement for a statutory full ESIA. The Private Concessionaire shall be responsible for:

- i. Preparing a Full ESIA Study Report based on final designs.
- ii. Obtaining all required approvals and licenses from NEMA, and
- iii. Ensuring compliance with the World Bank ESF and lender requirements, all prior to financial close, as a condition precedent under the PPP Agreement.

Task 1.10 Communications on the Project

In consultation with the CA, the TA shall assist the CA in developing a comprehensive project-specific communications strategy and a stakeholder management plan and provide technical support to the implementation of the strategy and plan. The Communications Plan will include:

- i. Stakeholder identification and mapping for each dam project;
- ii. Stakeholder communication needs analysis for the project;
- iii. Communication strategies across multiple stakeholders to address the identified communications needs;
- iv. Means to seek feedback from stakeholders on critical aspects of the project and to find mutually acceptable solutions for potentially conflict issues;
- v. A comprehensive communication plan for the implementation phase of the project (key messages on issues anticipated to arise such as economic and financial aspects, the environment, gender, labor influx, GBV, and social risks associated with project implementation, including implementation of proposed mitigation measures, among others; communication activities and

tools; communication implementation plan; processes for engaging stakeholders; required resources and costs of implementing the communication plan).

The TA will be expected to provide technical support to the implementation of the Communications Plan and the stakeholder management plan, which will be led by the CA. The communication strategy and plan should target project beneficiaries, the public, the media, and members of Parliament, among others.

TASK 2: Procurement Options and PPP Options, and Structure Analysis

Upon completion of the Project Feasibility assessment, the TA shall determine the most appropriate procurement approach for the Project, including an evaluation of traditional public procurement versus Public-Private Partnership (PPP) delivery. Where a PPP is identified as the preferred option, the TA shall further assess and recommend the most suitable PPP structure for the Project.

In their analysis, the TA must consider all infrastructure that needs to be developed for the Project – including generation assets, if any, ancillary, access, and supporting infrastructure - recognizing that different procurement and PPP options may be appropriate for different types of infrastructure.

Task 2.1: Options Development, Evaluation, and Selection

The TA will:

1. Describe a range of credible alternative procurement and PPP options, including justification for their selection. Options must include the Public Sector Comparator. For each option, the TA will set out:
 - i. The key roles and responsibilities of the private sector and of the public sector
 - ii. The key risk allocation under each option
2. Develop, describe, and justify a set of evaluation criteria to be used in evaluating alternative procurement and PPP options, to include, inter alia:
 - i. Value for Money assessment. The Value for Money assessment is expected to examine both the choice between traditional public sector and PPP procurement, as well as alternative risk allocations between the alternative PPP options. The report should present clearly how the Public Sector Comparator Model, the Risk Adjusted Public Sector Comparator Model, the PPP Reference Model, and the Risk Adjusted PPP Reference Model have been developed and populated with data

- ii. Affordability for users and the public sector
 - iii. Assessment of Fiscal Impact, including any contingent liabilities for the public sector
 - iv. Private sector feedback on attractiveness, bankability, and risk allocation, based on a Preliminary Market Sounding amongst potential operators, developers, investors, and financiers
3. Present the results of the Evaluation
4. Provide a detailed description of the preferred Procurement Option and PPP Structure, including:
- i. Key Risk Allocation
 - ii. Outline Payment Mechanism/ Tariff arrangements
 - iii. Indicative Financing Structure and sources – private sector bank debt, multilateral debt, public sector debt, project bonds, grants (indicate source), developer equity, other (specify)
 - iv. Key Heads of Terms for the proposed PPP Structure

In support of the Options Analysis, the TA will:

- i. Develop a detailed and comprehensive Financial Model
- ii. Carry out Market Sounding to determine the optimal risk allocations/ PPP structures

Task 2.2: Financial Modeling

The Feasibility Study is expected to be supported by detailed and comprehensive Financial Modeling. In particular, the financial model is expected to include:

- i. The Economic Cost-Benefit Analysis of the Project and Alternative Technical Solutions
- ii. The Financial Viability Analysis, including but not limited to the determination of revenue requirements to meet Project Funding needs, the determination of necessary tariff levels, the evaluation of affordability for both user pays and public sector pays models, including fiscal and public sector borrowing impact
- iii. The Project's Financing requirements and the evaluation of alternative financing structures and sources
- iv. An evaluation of alternative procurement options and PPP options, including Value for Money analysis

And in the implementation phase of the Project:

- v. The detailed design of the Payment Mechanism/ Tariff arrangements
- vi. Act as a shadow Bid Model and assist in evaluating bids and their robustness.

The Financial Model will be used to analyse the market potential for private sector investors and lenders, assess the financial risks involved for both the public and the private parties, assess the impact of various project inputs on the earnings and net cash flow potential, and compute the refinancing mechanisms of capital expenditure costs.

The Financial Model will be used to compare alternative Project procurement and PPP options and propose an optimized project structure for the transaction from the financial point of view.

The Financial Model should be designed to provide for analysis of project structuring options including the imposition of appropriate project financing constraints including, but not limited to, debt service coverage ratio (DSCR), Loan Life Coverage Ratio (LLCR) and Project Life Coverage Ratio (PLCR) which optimize scenarios for the disbursement of available projected cash flows to potential project creditors and other ratios. The Financial Model should allow the conduct of sensitivity analysis for the purpose of quantifying the financial impacts of different structuring options.

In detail, the TA will undertake the following comparative financial analyses of the Project:

- i. Review and discuss applicable approaches for enhancing the project's attractiveness to both investors and their lenders/financing institutions, such as Viability Gap Funding (VGF) and/or operational subsidies, fee payment mechanisms, Water Purchase Agreements (WPAs), pre-conditions of a private operator for meeting service obligations, as well as specific default and risk clauses, and step-in rights of lenders and the contracting authority.
- ii. Conduct a project risk analysis to determine, assess, allocate, and manage risks (such as, but not limited to, project, commercial/market risk, environmental, financial, political, economic, force majeure, and legal risks) during all project stages. The risk analysis should cover valuation, allocation, and mitigation measures. In doing so, assessment and applicability of various risk mitigation mechanisms should be carried out, including review of the extent to which the risks of the project can be underwritten by commercial insurance cover and the likely cost of such cover.
- iii. Based on the risk analysis, prepare a contingent liability model for use by the PPPD, SDI, and ultimately the Debt Management Office that quantifies the contingent liabilities, how the same shall be managed, and the funding requirements.

- iv. The project's risk analysis and allocation and contingent liabilities model shall be presented to representatives of the CA and the PPP Directorate soon after the submission of the Feasibility Study.

In their proposals, Bidders should describe in detail the structure and functionality of the Financial Models they would develop and the methodologies and tools they would employ in carrying out the necessary financial analysis.

Task 2.3: Market Sounding

To enable the preparation of a responsive Feasibility Report and RFP, the TA shall undertake a Market Sounding exercise that shall include the following tasks:

- i. Propose, discuss, and agree with SDI on an appropriate approach to market sounding on the project;
- ii. Prepare a Market Sounding document that will include a Project information memorandum (which will cover the objectives of SDI, an overview of the Project, the process, timetable for procurement, and outline of Risk Allocation matrix), as well as a summary of the key issues to be discussed with and questions to be asked of the market, i.e. equity investors, debt financiers, contractors and operators, the process of how the market sounding will be conducted, the proposed list of parties to be approached;
- iii. Provide the Project Profile to the identified private parties and hold one-on-one discussions with them, either telephonically or, if practical and cost-effective, face to face;
- ii. Organize and participate in workshops with SDI and other stakeholders to review findings of the market sounding and determine key areas that will need consideration in preparing the Feasibility Report. This shall include two investor conferences in jurisdictions that have successfully implemented PPPs in dams and/or irrigation;
- iii. Prepare a Market Sounding Report (which will form an appendix to the Feasibility Study) that will summarize the findings from the exercise and will consist of, but is not limited to, the following information:
 - a. Market sounding objective;
 - b. Key issues that needed to be considered;
 - c. List of companies consulted;
 - d. List of questions and answers;
 - e. Summary findings and matters considered in the Feasibility Report.

In summary, the TA will organize consultation discussions with potential market participants, including, but not limited to, potential developers, operators, equity partners, investors, lenders, and guarantors, to fulfill the market sounding requirements. The conclusions drawn from these consultation meetings shall be considered in the preparation of the feasibility report and in designing the PPP transaction structure.

Task 2.4: Summary Recommendations, Project Implementation Plan, and Feasibility Study Report

The TA will prepare a comprehensive Feasibility Study Report in accordance with the requirements of the PPP Act 2021. This Report will present the analysis carried out, the conclusions reached, and the recommendations made concerning the Project Feasibility and the preferred method of procurement, including recommended PPP structure, as well as legal, regulatory, institutional, financial, economic, funding, tariff structure, environmental, social, and risk allocation recommendations necessary for the successful implementation of the Project.

The Report will include a complete description of the Project as structured, based on the recommendations contained in the Report, covering:

- i. A summary of how the proposed PPP project addresses SDI's strategic objectives and its consistency with the sector's master plans;
- ii. A summary of the output specifications for the Project;
- iii. Other potential commercial activities that the private party may undertake to augment revenues and lessen the fees charged to the off-taker;
- iv. A list of significant Government assets which will be used for the Project (such as land and existing structures, access roads, etc.)
- v. A summary of the fiscal implications and potential contingent liabilities for the public sector;
- vi. A detailed description of the type of PPP project proposed and its envisaged payment mechanism/ tariff regime;
- vii. A detailed description of the proposed Key Risk Allocation;
- viii. Draft Heads of Terms which will form the basis for the PPP agreements to be developed in Phase 2.
- ix. The proposed methodology and strategies for achieving financial close, including the proposed financing structure.

The Report will also include a detailed Project Implementation Plan, which will set out a clear timetable for the Project Implementation and monitoring, and will cover all the tasks required of all parties to procure the Project, identifying: Tasks, Timing, Responsibilities for each task, Key approval/ decision points and milestones

TASK 3: Support to SDI on Securing PPP Committee Approval and All Other Government Approvals

The Feasibility Study Report will be submitted in the first instance to SDI and the PPP Directorate, and subsequently to the PPP Committee through PPP Directorate. The TA shall assist the CAs to address all PPP Directorate concerns and provide requested clarifications, if any, to facilitate approval by the PPP Committee and any other relevant government entity.

CONTRACT BREAK BETWEEN PHASE I AND PHASE II

If it is determined at the feasibility study stage that the project is not suitable for implementation under PPP arrangements, the consultancy services shall be deemed completed under the contract, and the TA shall be paid for the milestone(s) completed. If any of the project(s) is determined to be suitable for procurement as PPP and approved for procurement as PPP, the TA will proceed to Phase 2.

PHASE II: PPP PROCUREMENT

The TA will work with SDI and the PPP Directorate to implement the PPP procurement process in accordance with the PPP Act. The TA is expected to provide complete project management of the entire procurement process, including, together with SDI, identifying and managing the tasks of all parties required for successful procurement implementation. The work of the TA will include, inter alia, the tasks described below:

Task 1: Approval and administration of the bidding process

The TA must prepare a complete set of procurement documents that comply with applicable laws and other relevant policies and guidelines. The following steps and deliverables are envisioned, subject to the TA's recommendations in the Feasibility Study and the requirements of applicable law and related regulations.

Bidders may suggest possible modifications to this procurement plan in their proposals if they wish, together with clear arguments and available evidence for any such modifications.

The TA must also provide the CAs with all the necessary drafting, bidder communication and administrative support necessary for the entire procurement process through to financial close to be conducted in accordance with law and policy, and to the highest standards of efficiency, quality and integrity.

Task 2: Detailed Procurement Plan

The TA will design a complete procurement plan and process, based on applicable procurement requirements, including:

- i. Advice on optimum bid strategy;
- ii. Advice on mechanisms to maximize competition while avoiding unrealistic bids and project vulnerability from overly aggressive bidding;
- iii. Review of information to be provided by SDI to bidders to manage third-party liabilities;
- iv. Design of pre-qualification and bidding procedures and evaluation criteria, including advice and justification on the best-value bidding parameter, including, but not limited to, least cost/NPV, least viability gap funding, lowest average tariff, shortest concession period, lowest operating subsidy, highest concession fees, etc;
- v. Design of key aspects of the tender procedure, for example the number of stages in the process, use of competitive dialogue (if necessary), deciding whether and to what extent to accept variant bids and non-conforming bids, how many bidders must bid before the process is valid, what rules to set in relation to the assessment of bids (scoring regimes, timing of bids and rejecting of excessively low bids) and how to maximize competition without sacrificing quality of bids;
- vi. Design of the bidder communication strategy, including marketing, road shows, bidder conferences, data room creation and management (actual and virtual), dialogue meetings, and mechanisms to gather bidder comments and concerns and resolve them. The Data room shall be proprietary to this project and the CA, but it will be managed throughout the procurement process by the TA;
- vii. Information Memorandum and other marketing materials,
- viii. Tender documentation;
- ix. The PPP Project Agreements (including all annexes) that implement the chosen PPP approach:
 - a) Applying the risk matrix and heads of terms developed during the Feasibility Study, updated, if needed, to address all project issues and market context,
 - b) Incorporating, as appropriate, the outputs from the financial model,

- c) Explaining to SDI whether and to what extent certain provisions could be amended (e.g., in the process of negotiations) without disturbing the key risk allocation goals of SDI
- x. All advice shall be compliant with applicable law (and considering any constraints or opportunities associated with applicable law), international best practice, and market feedback. The TA will prepare and deliver a draft procurement plan to SDI, and subsequently a final procurement plan. The TA will conduct workshops with SDI and other key stakeholders to explain risk assessment and allocation, the procurement plan, and the roles and responsibilities of all parties.

Task 3: Pre-qualification

The TA, in consultation with SDI will design and administer a pre-qualification (request for qualification (RFQ) process with the intention of:

- i. Ensuring that SDI's objectives and requirements are communicated clearly to the market
- ii. Determining the extent and nature of interest from the private sector
- iii. Pre-qualifying a competitive number of competent bidders in an equitable and transparent way

The desired result is that every pre-qualified bidder is capable of implementing the Project to the standards required, and considering the risk allocation established in the Feasibility Study, the TA will:

- i. Prepare all the necessary RFQ documentation, including advertising and marketing material.
- ii. Set up and administer the process by which SDI can pre-qualify the parties, including responding to questions and interfacing with bidders; and
- iii. Assist SDI evaluate and pre-qualify bidders

As part of this process, the TA shall develop a tightly focused promotional campaign for the Project, which may include (based on the advice of the TA) short press briefings, advertisement inserts to be published in international trade publications and business newspapers, followed up by the targeted marketing of identified companies. Prequalification submissions will be evaluated in accordance with the Act and tender documents, and the TA will prepare a Prequalification Evaluation Report for approval.

Task 4: Bid Evaluation Criteria and Tender Process Design

The TA will develop a bid evaluation framework, including a scoring methodology and evaluation forms for use by the evaluation committee. Specifically, the TA will:

- i. Ensure that the evaluation criteria are clearly included in the tender documents;
- ii. Design a tender process that promotes compliant, high-quality, and comparable bids;
- iii. Establish effective systems for communicating with bidders throughout the tender process; and
- iv. Inspire market confidence by ensuring transparency and fairness.

Task 5: Request for Proposals (RFP)

The TA will prepare an RFP document in accordance with best industry practice and applicable laws and regulations, consistent with the results of the Feasibility Study.

The RFP must concisely set out:

- i. Design criteria;
- ii. The output and performance specifications;
- iii. Requirements for compliant bids;
- iv. A risk profile as established in the feasibility study;
- v. The payment mechanism;
- vi. Tariff arrangements;
- vii. A draft PPP/concession agreement;
- viii. The bid process;
- ix. Evaluation criteria;
- x. Bidder communication systems and procedures;
- xi. Bid forms – technical and financial bid submission forms, bid letter, statement of compliance etc;
- xii. All other information necessary to ensure compliant, high-quality, and comparable bids.

Task 6: Draft PPP Project Agreements

The TA will prepare a draft PPP agreement, related agreements, and ToR for the Independent Engineer/Expert, in close liaison with SDI, implementing the risk allocation regime and using best practices. The agreement will include all necessary annexes and subsidiary documentation, such as performance specification, project scope, SDI requirements, technical specification, Project performance monitoring regime, code of construction practice, requirements for network integration, and reporting.

Task 7: Necessary Approvals

The TA will compile all documentation required for SDI to obtain the necessary approvals to begin the procurement process.

Task 8: Administration of the Bidding Process

The TA will provide all necessary support to SDI for the efficient and professional management of the bidding process. This includes and is not limited to creating & managing a data room, facilitating structured engagement between the TA, SDI and bidders, helping SDI communicate effectively with bidders, (including responding to bidder queries, managing bidder conferences and one on one/ dialogue meetings) amending documents further to bidder comments, receiving bids, helping in bid evaluation processes and compilation of the evaluation report.

Task 9: Evaluation of bids

Bids will be evaluated with the support of the TAs in accordance with the PPP Act and with the framework for bid evaluation developed earlier.

Value for money, affordability, fiscal impact, and potential contingent liabilities must be reassessed for the received bids.

The results of the bidding and evaluation of bids must be presented in a single bid evaluation report (with relevant annexures) that demonstrates clearly how value for money will be achieved by the preferred bidder and the implications of the preferred bid on affordability, the fiscus and public sector contingent liabilities. The TA will provide this report and any other documents required by law, in the form and content sufficient to secure the approval of the selected preferred bidder. The report must clearly indicate the preferred and second-ranked bidders.

Task 10: PPP Agreement Negotiations, PPP Agreement Management Plan

The Consultant shall assist the Contracting Authorities and the PPP Directorate in its negotiations with the preferred bidder until the signing of the Project Agreements (“Commercial Close”). The Consultant shall include assisting in drafting and negotiating Power Purchase Agreement (PPA) and all other associated agreements as will be recommended and developed by the TA. The Consultant will assist with the negotiations with the preferred bidder to reach an agreement on outstanding elements of the Project Agreements. In case negotiations are not successful, the Consultant will support the Contracting Authority and the PPP Directorate in negotiations with the reserve bidder (second-highest-scoring bidder) in the same manner.

The TA will assist the CAs in final negotiations with the preferred bidder (if any). This will involve:

- i. Draft the negotiation criteria to guide the Contracting Authorities and the PPP Directorate in negotiations with the preferred bidder;
- ii. Evaluate the terms of negotiation proposed by the preferred bidder from the perspectives of impact on the Government risk profile and the sanctity of the procurement process.
- iii. Assist the Government in negotiating with the preferred bidder by recommending the positions to take on the terms being negotiated (including categorising issues appropriately, developing timelines for completion, and planning negotiation tactics) and drafting suitable responses subject to approval by the Government.
- iv. Review and advice on technical, legal, financial and accountable aspects of the project's contractual documentation and other proposals made by the preferred bidder.
- v. Amend the Projects Agreements and any other relevant agreements consistent with the final outcome of the negotiations.
- vi. Review proposed sub-contracts, in particular with construction contractors and operators, and ensure conformity with the PPP Project Agreements and the Procurement Documents.
- vii. Document any agreed changes to the technical provisions arising out of negotiations and implement them in the final contract documents as appropriate.
- viii. Advice on public and private sector satisfaction of the conditions precedent to the PPP contract, often including the validity of licenses and permissions obtained by the preferred bidder, formation of corporate vehicles in the form required, financial close of the project financing, and implementation of the commercial requirements for performance of the project,
- ix. Manage relationships with second-ranked and third-ranked bidders, including managing bid bonds and ongoing discussions to prepare for the eventual withdrawal of the preferred bidder,
- x. Assist the Contracting Authorities and the PPP Directorate in validating the contracts as needed.
- xi. Manage the preparation of the execution versions of the Project Agreements and any other relevant agreement.
- xii. Assist in monitoring the obligations of the Government under the Project Agreements and recommending actions to the Government to ensure they are met.

- xiii. Assist the Contracting Authorities in evaluating requests, if any, raised by the Private Party that are meant for achieving Financial Close and recommending suitable responses.
- Support the Contracting Authorities and the PPP Directorate in the discussions about the Lenders' Direct Agreement (legal and financial) and eventual amendments to the Project Agreements.
 - Manage and assist with additional sets of negotiations with lenders. This may involve extended discussions of Government financial participation to protect the lenders from specific risks.
 - Review and negotiation of the financial documentation (which will often have a direct effect on the rights and obligations of the Government Legal opinions as required e.g. that transaction is binding on its terms, on security and financial management structure, on revenue structure and current regulatory mechanism).
- xiv. Assist the Contracting Authorities and the PPP Directorate in the finalisation of all financial documentation necessary to reach the financial close of the project in a timely manner and, in the discussions with the Private Party and its potential Financiers, advising the Contracting Authorities for the CAs' best interest in order to preserve the general balance of risks and responsibilities.
- xv. Coordinate with the other advisors for the Private Party as required, if any, managing the achievement of conditions precedent and making sure that the Contracting Authorities have met all conditions precedent that must be satisfied to achieve Financial Close.
- xvi. Review the Private Party's audited financial model and verify that the adjustment required in payments is fair and the process of adjustment is followed. The financial model will be updated and adjusted at financial close / signing of financing agreements with the relevant data such as the latest macroeconomic values and long-term swap rate wherever necessary and appropriate.

The TA will ensure that all agreements reached are incorporated into all the financial, commercial and legal documentation, and will assist with drafting the necessary and related correspondence. The final terms of the agreement, each as negotiated with the preferred bidder, must be approved in accordance with the PPP Act. The TA will be responsible for compiling the necessary submissions for the CAs to secure this approval. The TA will, in close liaison with the CAs, draft a comprehensive Contract Management Framework for the CAs. This will include a clear, complete and easy to

follow guide for the CAs on the implementation of the PPP Project, with mapping of the different rights and obligations of all parties, including the role of the Independent Expert (IE) and guidance to the CAs on processes, remedies and mechanisms set out in the PPP contract, all other project agreements at law, and will be in accordance with the provisions of the PPP Project Agreements. The TA will be required to carry out a two-day training workshop with the CAs and other government stakeholders including those who will form a part of the contract management team.

Task 11 Development of Contract Management Framework for the Project

During the bidding process, the TA, in close liaison with SDI, shall design a project-specific contract management framework in accordance with the provisions of the Project Agreement (PA) and the project's risk allocation structure. This will include a clear, complete and easy to follow guide for SDI on the implementation of the PPP, with mapping of the different rights and obligations of all parties, including the role of the Independent Engineer and guidance to SDI on processes, remedies and mechanisms set out in the PPP contract, all other project agreements and at law, and will be in accordance with the provisions of the PPP agreement. Institutional roles, actors, monitoring & evaluation methodologies, and project reporting protocols and tools should also be included. These should be packaged into a manual, guidelines, norms, and practices that are project-specific.

The TA will be required to carry out training workshops, as required, with SDI and other government stakeholders, including those who will form a part of the contract management team.

Task 12: PPP contract signature and case study report

The TA will provide all necessary help to SDI with all functions and activities related to signing the final PPP contract (Commercial Close). The TA must also compile a case study covering experience and lessons learnt up to commercial close. The case study report will be a confidential document of SDI and the PPP Directorate.

Task 13: Financial closure, close-out report, and case study

The TA will support SDI throughout the process of financing the Project, up until Financial Close. The TA will be expected to update the financial model through the period between commercial close and financial close, and must incorporate any additional factors required by SDI. This case study shall then be consolidated with the earlier one and packaged as the final case study for the project. The TA will also prepare a close-out report at financial close. The close-out report and any other

engagement that may arise from lenders will be a confidential document of SDI and the PPP Directorate.

Task 14: Disclosure of information

The TA will be expected to assist SDI and the PPP Directorate in providing the requisite disclosure of basic project and procurement information, which will be based on the proposed disclosure framework as contained in the report on improving transparency and accountability in PPP i.e. disclosure diagnostic report for Kenya (2018).

PHASE III: PROJECT-BASED LEARNING (TO RUN CONCURRENTLY WITH PHASES I AND II)

To ensure knowledge and skills transfer by the TA to SDI and the PPP Directorate, the TA will be required to provide classroom-based and on-the-job capacity building to a cohort of at least 30 Public officials within SDI and the PPP Directorate (Project Implementation Team) at critical points of the project preparation process.

All bidders are therefore expected to enumerate a clear and deliberate approach, as to how knowledge and skills will be transferred to the Project Appraisal Team and any other Project Teams that would be tasked to carry out various roles in the course of the preparation and implementation of the project to effectively manage the PPP contract and supervise the Project Company post Financial Close. In particular, a selected cohort of officials from SDI and PPP Directorate will shadow the respective TA expert teams at every stage of the PPP project preparation and structuring, i.e., inception stage, feasibility study stage, pre-tender stage, tender, and at project closeout stage.

At the inception stage, SDI and the PPP Directorate will be apprised of the approach and methodology proposed by the TA so as to gain a deeper understanding of the process of project development and structuring. At the feasibility study stage, the TA will, beyond presenting the findings and recommendations of the updated study, present lessons learnt during the feasibility study process. At the pre-tender stage, the TA will sensitize SDI and PPP Directorate on critical tender documents and processes, including the rationale for content in the tender documents. After the commercial close but before the financial close, the TA shall build the capacity of the Project Implementation Team on the implementation of the contract management framework.

The Transaction Adviser is expected to provide classroom-based training by organizing workshops for each of the assignment deliverables and contract management training for the Project Implementation Team. An outline of such a Training Programme should be included in the TA's Technical Proposal

The TA will meet its personnel costs associated with facilitation of the trainings while GOK shall meet costs associated with the training venue and logistics for the GOK staff that shall participate at these training workshops.

5. TRANSACTION ADVISOR SPECIFICATIONS

The Consultant will be a single organization or consortium of firms led by either a Financial or Technical Advisor with advanced expertise in PPP, project finance, designing and development of dams, design and development of water supply, and/or Irrigation projects. The Lead Advisor will be held accountable for ensuring Project deliverables and the professional conduct and integrity of the team. The TA will collectively cover the range of technical, financial, economic, legal, environmental, and social and PPP/project finance expertise required to procure the Projects under the PPP framework. The TA shall enter into a contract with the National Treasury of Kenya and SDI.

The members of the Consultant's team will have both the skill and experience necessary to undertake the range of tasks set out in these Terms of Reference (TOR). Everyone on the team must be personally available to do the work as and when required. Consultant's team members may not be changed or removed without the prior written approval of SDI and the PPP Directorate, and replacement with equally qualified and capable team members. The skills and experience required as a minimum of the Consultant's team are as follows.

5.1 Qualification Requirements of the Firm

The Consultant shall comprise either a single firm or a consortium of firms, led by a Technical Advisor (Dams Design and Engineering Firm). The lead firm shall be responsible for overall coordination, integration of deliverables, and quality assurance across all workstreams.

The Consultant (or consortium collectively) shall demonstrate the following skills and experience:

- i. Experience in project structuring, financial modelling, analysis, advisory, procurement, and negotiations of PPPs or project-financed projects in dams and

- irrigation, with evidence of having led TA assignments on at least three (3) PPP projects, with at least two (2) financially closed projects. Significant merit will be given for designing and development of large dams (only experience in the last 15 years will get credit, with preference given for more recent experience); Additional credit will be given to experience in Africa.
- ii. Experience in technical designs, construction, supervision, and procurement for large dams projects, including IPP projects(only experience in the last 15 years will get credit, with preference given for more recent experience); Additional credit will be given to experience in Africa.
 - iii. Experience in technical designs, construction, supervision, and procurement for large irrigation projects (only experience in the last 15 years will get credit, with preference given for more recent experience); Additional credit will be given to experience in Africa.
 - iv. Experience in conducting environmental and social safeguards in conducting Environmental and Social Impact Assessment (ESIA), Resettlement Action Plans (RAP), and related safeguards studies for large dam or water sector projects in Africa for at least 1 large infrastructure project. Significant merit will be given for large dams, water, and/or irrigation projects, in accordance with international best practice (only experience in the last 15 years will get credit, with preference given for more recent experience).
 - vi. Experience in commercial and contract law in undertaking legal feasibility studies, drafting PPP contractual agreements and other related documents/agreements; PPP procurement, managing bidding process, and resolving legal issues, policy, and institutional assessment; and successfully prepared at least two financially closed project-financed/PPP projects. In addition, the consortium shall demonstrate relevant experience in PPPs. Demonstrate understanding of Kenya’s Legal and Institutional Framework with specific knowledge of Kenya’s PPP legal framework, including the PPP Act 2021, the Public Procurement and Asset Disposal Act, and the Energy Policies. Additional credit will be given to experience in Sub-Saharan Africa and local markets.

NB: Under each of the experience criteria, firms are expected to clearly state relevant projects or transactions for the experience required, the country where the project was done, and the stage in the PPP project cycle where the firm reached with the project. This should be supported by relevant documentation (TA contract award

letters, completion certificates, letters of recommendation or extracted relevant sections of the consultancy contracts etc).

5.2 Qualifications Requirements of Key Personnel

Bidders are free to propose their own team structure; they are advised that the Contracting Authorities expect, as a minimum, the personnel specified as Key Experts under this section of the TOR.

Bidders must propose distinct individuals for each key expert position; personnel cannot be duplicated across multiple roles. Bidders may propose two complementary (not alternative) CVs for one position if they do not have personnel with the full range of expertise required for such a position. However, bidders must make it explicitly clear that this is what they are doing in order to ensure proper evaluation.

The Key Experts required are as indicated below and will be evaluated against the Expertise Expectations set out in the table below:

Position	Qualification Requirements
<p>Team Leader/ Dam Expert</p>	<ul style="list-style-type: none"> i. A university degree in civil and Structural Engineering, Geotechnical Engineering. ii. A postgraduate qualification in Civil Engineering, Dam Engineering, or related disciplines will be an added advantage. iii. Specialized training in dam safety, dam risk assessment, and dam instrumentation will be an added advantage. iv. A minimum of fifteen (15) years of professional experience in the engineering with at least 10 years' experience specifically in design, construction, operation, and maintenance of dams, including demonstrated experience in the design of large dams (above 30 meters in height in accordance with ICOLD standards) and dam safety investigations, monitoring, risk management, and preparation of Emergency Action Plans (EAPs). The expert shall have hands-on experience in construction

Position	Qualification Requirements
	<p>supervision and field assignments, preferably in complex, remote, or developing country contexts.</p> <ul style="list-style-type: none"> v. Demonstrated proficiency in dam engineering and hydrological modelling software: numerical modelling for seepage, stress-strain, and flood routing. vi. Transaction advisory experience for PPP/project finance or IPP projects is an added advantage, particularly in the dams and/or water sector. <p>Good English communication and writing skills, especially in report writing, are essential.</p>
PPP Financial Expert	<ul style="list-style-type: none"> i. A relevant university degree in commerce, Finance, investments, Economics, or project finance. ii. A postgraduate qualification (Master’s or MBA) in Finance, investments, Economics, Infrastructure/Project Finance will be an added advantage. iii. Certification as a Certified Investment Financial Analyst (CIFA) or equivalent, CFA, financial modelling, or a related certification in investment or finance will be an added advantage. iv. A minimum of 10 years’ demonstrated experience in infrastructure project management and development, with at least 7 years providing PPP transaction advisory services/ development of large infrastructure projects on PPP basis including extensive experience in project structuring and risk analysis, allocation and management; project agreements; bid process management including preparation of bidding process documentation and post-bid process monitoring.

Position	Qualification Requirements
	<ul style="list-style-type: none"> v. Successful preparation of PPP/project finance or IPP projects with at least three (3) financially closed projects. vi. Good English communication and writing skills, especially in report writing, are essential.
PPP Legal Expert	<ul style="list-style-type: none"> i. A university degree in Law. ii. A post graduate qualification in law or related field is an added advantage. iii. The candidate must be a registered Advocate of the High Court with a valid practicing license. iv. A minimum of 10 years’ demonstrated experience in international law, Commercial Law, Contract Law, drafting PPP contractual agreements and other related documents/ agreements; PPP procurement, managing bidding process, and resolving legal issues, policy and institutional assessment; and, successful preparation of PPP projects with at least two financially closed PPP projects. v. Experience in irrigation and water resource management projects will be an added advantage. vi. Demonstrate understanding of Kenya’s Legal and Institutional Framework with specific knowledge of Kenya’s PPP legal framework, including the PPP Act, cap 430, Public Procurement and Asset Disposal Act, and water policies. <p>Good English communication and writing skills, especially in report writing, are essential.</p>
Technical engineer expert on Water Resources Management and specific	<ul style="list-style-type: none"> i. A degree in water engineering, civil engineering or related field. ii. A postgraduate university degree in water resource management or any other relevant field will be an added advantage. iii. Registered by the Engineers Board of Kenya as a Professional Engineer or similar professional body in

Position	Qualification Requirements
hydraulic experience on Dams, Irrigation Networks, and Water Supply Networks.	<p>other jurisdictions (provide registration certificate as evidence)</p> <ul style="list-style-type: none"> iv. Minimum of ten (10) years of demonstrated experience in the design of dams and/or big water infrastructure projects including evidence of undertaking at least two (2) large dams projects that have been successfully commissioned and are operational. v. Demonstrate experience in water infrastructure development, operation & maintenance of water projects, dam safety, Water Supply Networks, climate risks assessment, and in developing countries. vi. Good English communication and writing skills, especially in report writing, are essential.
Environmental & Social (E&S) Safeguards Specialist	<ul style="list-style-type: none"> i. A university degree in environmental sciences, environmental studies or another related field. An advanced degree will be an added advantage. ii. Must be accredited by a relevant and recognized professional body. The candidate must be registered as a lead expert with Kenya’s National Environment Management Authority (NEMA). (Evidenced by valid practicing license). iii. A minimum of ten (10) years of demonstrated experience in the assessment and management of environmental and social risks for large-scale infrastructure projects with at least two (2) similar assignment in dams/water or agriculture projects. (Water, Energy, Transport, or Agriculture), preferably in Sub-Saharan Africa. iv. Participation in ESIA, RAP, SA and VMGP preparation, land acquisition in dam projects/ water project requirements that met the requirements of an International Financial Institution, such as the World Bank, IFC or an Equator bank, AfDB, or EIB

Position	Qualification Requirements
	<ul style="list-style-type: none"> v. Demonstrated experience in applying Environmental and Social Management Frameworks and development partner safeguard policies (including involuntary resettlement, indigenous peoples, and physical cultural resources) in large infrastructure projects specifically Dam. vi. Experience in assessment of PPP infrastructure projects is an added advantage, particularly in dams, water or irrigation projects. vii. Experience in assessing social risks including labour influx and displacement, GBV risks, vulnerability assessments, gender and disability inclusion, and development of mitigation measures. viii. Demonstrated experience in stakeholder consultations in accordance with Kenyan regulations and development partner standards. ix. Demonstrated proficiency in written and spoken English, with strong report writing skills. <p>The E&S Team Leader will be stationed in Nairobi, Kenya, for the duration of the assignment and will be required to coordinate the efforts</p>
Resettlement Specialist	<ul style="list-style-type: none"> i. A degree in Sociology / Anthropology /Community/Rural Development or any social science discipline from a recognized university (Development Studies, Social Anthropology, Sociology, Gender and Development, International Development or a related field). ii. A postgraduate degree in social science or any other related field will be an added advantage. iii. 10 years’ in conducting socio-economic surveys and demonstrate experience in at least three (3) projects of similar scope and nature, particularly involving land acquisition, involuntary resettlement, and livelihood restoration. Specific experience on this

Position	Qualification Requirements
	<p>requirement for dam, water projects will be an added advantage.</p> <ul style="list-style-type: none"> iv. Experience in the assessment and management of social and environmental risks for large-scale infrastructure projects (Water, Energy, Transport or Agriculture), including social impact assessment, gender analysis and community health and safety for publicly and privately funded investment projects in Sub-Saharan Africa. v. Experience in applying development partner Environmental and Social Management Frameworks and safeguard policies including the Environmental and Social Framework (ESF) and ESS7 (including involuntary resettlement, indigenous peoples and physical cultural resources) in large infrastructure or PPP projects will be an added advantage. vi. Excellent written and oral communication skills in English (knowledge of Kiswahili will be an added advantage), with the ability to present complex issues to diverse audiences. <p>The Social and Resettlement Specialist will be required to spend at least 75% of their time in the project site to ensure the right level of supervision for the various succeeding social aspects of the various studies – ESIA, RAP, Social Assessment and VMGP.</p>
Agricultural/ Irrigation	<ul style="list-style-type: none"> i. A University degree in Agricultural, Agricultural Engineering, Soil Environment & Land Use Management, or any other relevant degree ii. A relevant postgraduate qualification will be an added advantage. iii. A minimum of ten (10) years of professional experience in the planning, design, construction, supervision and contract administration of large-scale irrigation and water conveyance infrastructure projects.

Position	Qualification Requirements
	iv. Demonstrated experience in at least three (3) irrigation projects each covering a minimum command area of 3,000 hectares, undertaken as a design, supervision or lead irrigation engineer. v. Good English communication and writing skills, especially in report writing, are essential.

All proposed Individual members of the team must be personally available to do the work as and when required.

5.3 Non-key Expert/ Short-Term Specialists

The Consultant may mobilize the following additional non-key experts as short-term specialists as and when required. The subsequent description of the non-key experts is not intended to be prescriptive and will not be scored, but is provided as a guide for consideration by bidders:

The proposed non-key experts may include, but are not limited to, the following profiles:

- N-1 Position - Land Valuer / Valuation Expert
- N-2 Position - Economist
- N-3 Position - Geotechnical Engineer
- N-4 Position – Local Capital Markets Expert/Financial Markets Expert
- N-5 Position – Gender Expert
- N-6 Position - Communication and stakeholder Engagement Expert
- N-7 Position – Agronomy
- N-8 Position – Geologist
- N-9 Position – Hydrologist
- N-10 Position – Topographical Surveying,
- N-12 Position - Climate Change
- N-13 Position - GIS
- N-14 Position - Hydraulic Engineering

6. DURATION OF THE ASSIGNMENT

Considering that several activities will be undertaken concurrently, the above services are expected to require approximately 12 calendar months. In addition, an

estimated cumulative period of two months will be required to obtain government approvals at various stages. Consequently, the total duration from the commencement of services to the project’s financial close is expected to be approximately 12 calendar months. The appointed TA is expected to sign a contract for 12 months, extendable at no extra cost for a further 12 months if Financial Close has not been reached within the first 12 months.

Bidders are expected to provide a comprehensive and detailed Project Implementation Plan, preferably using Microsoft Project or equivalent software, indicating all the key tasks, deliverables, milestones, responsibilities, timetables, and critical path for successful project implementation, capturing as a bare minimum the following tasks. The bidders may propose timelines, and the detailed plan will be discussed and agreed with the Contracting Authorities and the PPP Directorate before signing the contract.

7. DELIVERABLES OF THE ASSIGNMENT

The general deliverables of the project are as represented in the table below:

No.	Deliverable	Target Timeline (Time from contract signing)
Phase I		
1	Inception Report	2 weeks
2	Draft Feasibility Study Phase Deliverables including: <ul style="list-style-type: none"> • Draft Feasibility Study Report including drafts of Project Financial Model, Hydrological survey report, Geotechnical report, Site selection and suitability assessment (Site Due Diligence Report) and all other requirements in accordance with this TOR. • Location plan (electronic copy) • Draft deliverables under Annex 1 (Environmental, Social and Land Acquisition Studies) 	1.5 months

3	Updated final Feasibility Study Phase Deliverables including: <ul style="list-style-type: none"> • Complete feasibility Study Report including Project Financial Model, Hydrological survey report, Geotechnical report, Site selection and suitability assessment (Site Due Diligence Report) and all other requirements in accordance with this TOR. • Location plan (electronic copy) • All deliverables under Annex 1 including government-led preliminary ESIA, full RAP, VMGP, and Land acquisition plan, • Market sounding report • Communication Strategy and Plan/Required Disclosures 	3 months
	Phase I Completion	3 months
Phase II		
4	RFQ stage procurement documentation and completion of the RFQ process	4 months
5	RFP bidding stage documents, including RFP, proposed staple-financing structure, draft PPP project agreements, Design Criteria and Performance Specifications, evaluation criteria, including any other relevant bid documents	5 months
6	Completion of the RFP bidding process and evaluation of bids, and delivery of the evaluation report	7 months
8	Negotiated Project Agreement & Negotiation Report	9 months
9	Commercial Close, Project's contract management framework and case study	10 months
10	Financial close, delivery of the close-out report and Case Study	12 months
	Phase II Completion	12 months

* Phase III shall be implemented simultaneously with phases I and II.

All reports shall be submitted to the contracting authorities in electronic format as well as MS Word document and printed in 6 copies. Models and workflow, process and data diagrams shall be submitted electronically in their appropriate dynamic application files.

The TA, in close coordination with the Project Implementation Team, composed of representatives of PPPD & SDI, shall conduct quality reviews to obtain feedback on all draft versions of deliverables as appropriate. The TA shall make presentations to the Project Implementation Team on each deliverable (e.g. draft Feasibility Study), with the team’s key experts present.

8. REMUNERATION SCHEDULE AND DISBURSEMENT ARRANGEMENTS

The Transaction Advisor will be paid on a lump-sum basis in a freely convertible currency acceptable to the Contracting Authority.

Bidders must submit bids in the formats prescribed in this RFP. Bidders should specify a fixed amount in an acceptable currency to the Contracting Authority for each of:

- i. Phase 1 (the “Phase 1 Amount”) – 45% of the Contract Amount
- ii. Phase 2 (the “Phase 2 Amount”) – 55% of the Contract Amount

After Phase 1 SDI will decide whether to proceed with Phase 2. If SDI decides not to proceed with Phase 2, the contract with the TA will be terminated.

9. REMUNERATION SCHEDULE

The following remuneration schedule is set for each phase of the contract. Bidders should keep these in mind when writing their proposals.

Deliverable No.	Milestone / Deliverable	Payment (% of Contract Amount)
1	Delivery and approval of Inception Report	10%
2	Delivery of Draft Feasibility Study	15%
3	Delivery & Acceptance of the Final Feasibility Study	20%
	Total - Phase 1	45%
4	Completion of RFQ process	15%
6	Delivery of RFP, bid evaluation criteria, draft PPP Agreement and related agreements	20%

	Completion of bidding process, evaluation of bids, and submission of Bid Evaluation Report	
7	Completion of negotiations and execution of the PPP Agreement (Commercial Close)	10%
8	Achievement of Financial Close and delivery of the Close-Out Report and Case Study	10%
	Total - Phase 2	55%
	Total - Phase 1 and 2	100%

10. INSTITUTIONAL ARRANGEMENTS AND COUNTERPART ASSISTANCE

The National Treasury will sign the contract (lump sum) with the selected firm for providing transaction advisory services. The Transaction Advisor shall then work closely with SDI, PPP Directorate, and other government agencies as may be required during the assignment.

A Project Implementation Team (PIT), composed of representatives from SDI and the PPP Directorate, will be established to review and assess the acceptability of project deliverables. During the tender stage, a Prequalification Committee, Proposal Evaluation Team, (Contract) Negotiation Committee, and other bodies specified in the PPP Act, 2021 shall be appointed by SDI. The TA shall submit an Inception Report including an updated, detailed work plan for project implementation, covering tasks and responsibilities of all parties involved, not just the TA’s personnel. Every two weeks thereafter and every week during Phase 2, the TA will hold progress meetings with the PIT to discuss any key constraints encountered by the TA, work planned for the subsequent period, inputs and support needed from the contracting authority(ies) and other parties and will update the work plan accordingly.

SDI shall provide the Transaction Advisor with all available pertinent data and previous studies, if any, useful to the Project. SDI will liaise with other agencies to ensure that the TA has access to all information required, as may be allowed under Kenyan laws.

The TA will be responsible for providing all necessary facilities and logistical support for its staff, including office space, vehicles, miscellaneous transportation, office equipment (computers, printers, telephone, and internet services), survey and investigation equipment, communications, utilities, office supplies and other miscellaneous costs for carrying out the services as per the requirements of the TOR.

Further, the TA will need to provide all the administrative, technical professional, and support staff needed to carry out their services including market/demand survey teams, social surveys teams, etc as deemed necessary.

11. BID EVALUATION CRITERIA

The selection method shall be quality and cost-based. The evaluation committee shall evaluate the proposals on the basis of their compliance and responsiveness to ToR's.

ANNEX 1: ENVIRONMENTAL, SOCIAL AND LAND ACQUISITION STUDIES

1. Purpose and Legal Basis

This Schedule sets out the requirements for Environmental, Social, and Land Acquisition Studies to be undertaken as part of the Feasibility Study for the proposed Dams Project, to be implemented under a PPP framework.

The assignment shall be undertaken in accordance with:

- The Public Private Partnerships Act, 2021, and applicable Regulations;
- The Environmental Management and Coordination Act (EMCA) and subsidiary regulations;
- The Land Act, 2012, and applicable National Land Commission (NLC) guidelines;
- The Physical and Land Use Planning Act, 2019;
- The Water Act, 2016, and applicable Water Resources Authority (WRA) regulations;
- Applicable international lender environmental and social standards (including IFC Performance Standards, where relevant).

2. Environmental and Social Safeguards Strategy

Environmental and social safeguards shall follow a structured two-stage approach:

2.1. Government-Led Safeguards at Feasibility Stage (*This will be undertaken by the Transaction Advisor*).

- Preparation of a Government-led preliminary **Environmental and Social Impact Assessment (Government-Led Preliminary ESIA)** in accordance with Section 3 below;
- Preparation of a full **Resettlement Screening and a Resettlement Action Plan (RAP)**;
- Preparation of a Stakeholder Engagement Plan (SEP)
- Preparation of a Land Acquisition Plan (LAP);
- Identification of environmental and social permitting pathway and approvals register
- Develop Terms of Reference for the Private Partner-led Full ESIA.

2.2. Private Partner-Led Full Statutory ESIA. (*This will be undertaken by the Concessionaire or Private Party and not the Transaction Advisor*).

- Preparation of a **Full Statutory ESIA Study Report** based on final engineering designs;
- Obtaining all required NEMA approvals and licenses;
- Compliance with applicable lender environmental and social standards prior to Financial Close.

This approach ensures that land acquisition, reservoir-related displacement, and major site-related risks are identified and addressed prior to concession award, while preserving the requirement for a design-based ESIA by the Private Partner.

3. Government-Led Safeguards

This shall be undertaken by the Transaction Advisor

3.1. Objective

The Transaction Advisor shall prepare a PPP Environmental and Social Safeguards assessment to:

- Identify and assess material environmental and social risks through a preliminary ESIA;
- Inform project structuring and risk allocation;
- Provide baseline environmental and social data;
- Define mitigation principles for procurement documents;
- Develop Terms of Reference for the Private Partner-led Full ESIA;
- Prepare the full RAP (Resettlement Action Plan);
- Prepare a Land Acquisition Plan (LAP).

The Government-Led PPP ESIA shall not replace the statutory ESIA required under EMCA. The full statutory ESIA shall be undertaken by the private party/concessionaire based on their proposed detailed design and not the Transaction Advisor.

3.2. Scope of the Government-Led preliminary ESIA

The Government-led preliminary ESIA is based on the TA concept/reference design and shall identify environmental and social impacts associated with:

- Dam construction and associated civil works;
- Reservoir impoundment and inundation area;
- Hydropower plant development and operation (approximately 700MW installed capacity);
- Irrigation infrastructure development (including conveyance systems, canals, pumping stations, and command area development covering up to 500,000 acres);
- Access roads, borrow areas, construction camps and auxiliary facilities;
- Associated transmission or evacuation infrastructure (where applicable).

The preliminary assessment shall include, at a minimum:

- Hydrological impacts and downstream flow regime (including environmental flows);
- Sedimentation and reservoir management considerations;
- Biodiversity, aquatic ecology and habitat impacts;

- Water quality and public health implications (including vector-borne disease risks);
- Community health and safety, including dam safety and emergency preparedness considerations;
- Noise, dust and construction-phase impacts;
- Climate resilience and climate change implications (including flood and drought risk);
- Cumulative impacts and induced development impacts;
- Decommissioning and long-term asset management considerations.

3.3. Full Resettlement Action Plan (RAP)

The Transaction Advisor shall assess whether land acquisition, physical displacement, economic displacement, wayleaves or easements arise from:

- Dam footprint and reservoir inundation area;
- Irrigation corridors and command areas;
- Access roads and associated infrastructure;
- Borrow pits, quarries, and ancillary facilities.

The Transaction Advisor shall prepare a full **Resettlement Action Plan (RAP)** compliant with Kenyan law and applicable lender standards. The RAP shall include but not limited to:

- Land Acquisition Plan (LAP)
- Census of Project Affected Persons;
- Asset inventory and valuation at replacement cost;
- Livelihood restoration measures;
- Compensation and entitlement framework;
- Grievance redress mechanism;
- Costed implementation schedule and institutional responsibilities.

Land acquisition and compensation, where required, shall be undertaken by Government prior to Financial Close or, where appropriate, considered as part of the project cost to be financed by the private party.

3.4. Stakeholder Engagement

The Transaction Advisor shall prepare an initial **Stakeholder Engagement Plan (SEP)**, including:

- Stakeholder identification and mapping;
- Consultation and disclosure strategy;
- Public participation framework in accordance with EMCA and applicable laws;
- Grievance redress mechanism;

- Roles and responsibilities.

Stakeholder engagement activities shall inform both the Government-Led PPP ESIA and RAP.

4. Private Partner-Led Full Statutory ESIA

The Private Partner/Concessionaire shall be responsible for:

- Preparing a Full ESIA Study Report based on final engineering designs compliant with relevant statute;
- Obtaining NEMA approvals and all required environmental licenses with assistance from Contracting Authority where needed;
- Complying with applicable lender environmental and social standards;
- Satisfying environmental and social conditions precedent prior to Financial Close.

The ESIA prepared at Feasibility Stage shall serve as a baseline reference document.

5. Integration with PPP Procurement

The Transaction Advisor shall ensure that environmental and social obligations are clearly reflected in the PPP procurement documentation, including:

- Allocation of environmental and social responsibilities between Government and the Private Partner;
- Updating of RAP (where applicable) prior to concession award;
- Identification of residual environmental and social risks;
- Definition of environmental and social conditions precedent to Financial Close;
- Environmental and social monitoring, reporting and compliance obligations under the PPP Agreement.