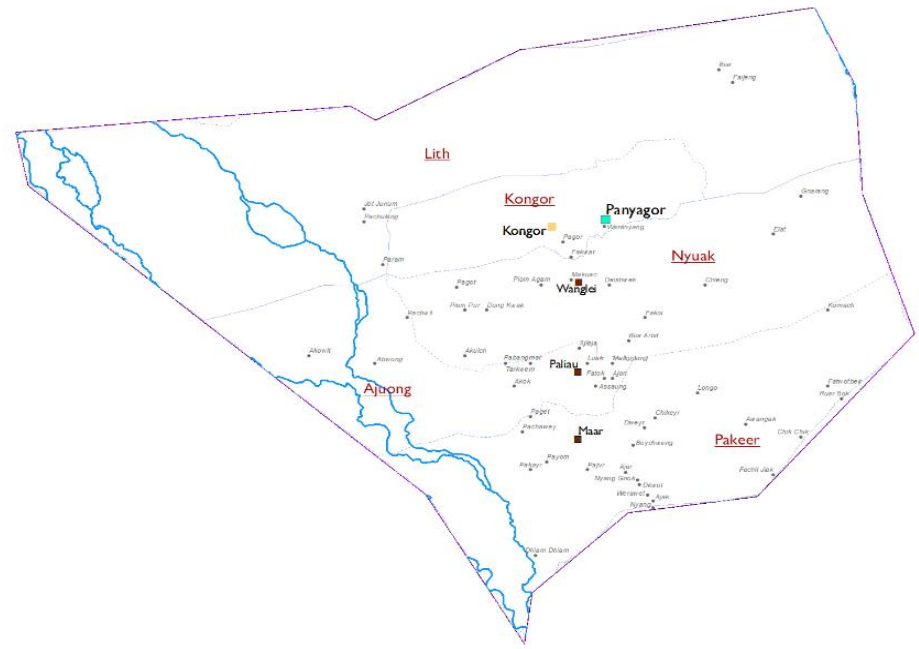
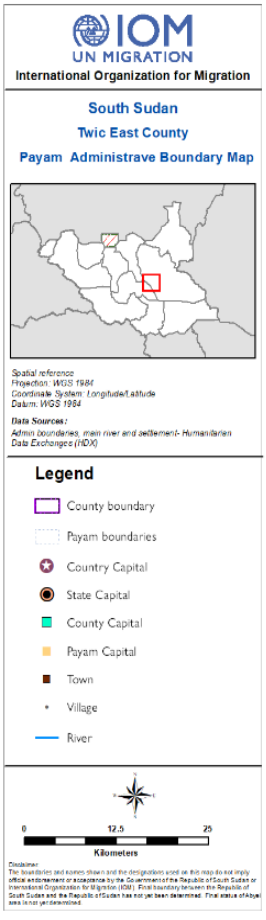
Enhancing Community Resilience and Local Governance Project Phase II (ECRP II)

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)
FOR
Immediate Flood Mitigation Measures for Twic East County

[Construction of a New Dikes in Panyagor Town, Pawel and Wangle villages including the Upgrading of existing community rehabilitated dikes, and the construction of drainage network in Panyagor]

TWIC EAST COUNTY, JONGLEI STATE





March 2025

DOCUMENT CONTROL

DOCUMENT TITLE: Environmental and **S**ocial **M**anagement **P**lan (ESMP) for the Immediate Flood Mitigation Measures for Twic East County (*[Construction of a New Dikes in Panyagor Town, Pawel and Wangle villages* ***including*** *the Upgrading of existing community rehabilitated dikes and the construction of drainage network in Panyagor])*, South Sudan under the Enhancing Community Resilience and Local Governance Project (ECRP) II (P177093).

TYPE OF PROJECT: Community Disaster Risk Management Infrastructure sub-projects

DOCUMENT VERSION NO.	ECRP II_ESS_001/2024
DATE	10 DECEMBER 2024
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EXECUTIVE SUMMARY

The Enhancing Community Resilience and Local Governance Project Phase II (ECRP II) is funded by the World Bank and managed by the Ministry of Finance and Planning and the Local Government Board (LGB), with the International Organization for Migration (IOM) as the project's implementing partner in 12 counties while the government implements emergency flood response interventions in four other counties through contracted international NGOs. The project seeks to improve access to services, strengthen flood resilience, and enhance institutional capacity for local service delivery and integrated disaster risk management at the national and local levels. Under this project, the proposed sub-projects have been prioritized and will be implemented under ECRP II. The proposed Sub-projects will focus on the (a) Construction of new dikes in panyagor town (12KM) and Pawel and Wangle villages (7.5KM) (b) Upgrading of the community rehabilitated existing 8.5 KM secondary dike around Panyagor town, and (c) construction of a drainage channel which is about 1 KM to facilitate the drainage of rainwater to a collection pond from which it will be pumped out are earmarked to be implemented in Jonglei State, Twic East County. This Environmental and Social Management Plan studies were undertaken and finalized in December 2024 in view of identifying significant environmental and social impacts and risks that may emanate from the implementation of the projectsubprojects within the context of the Jonglei State environment.

Affected Environment:

The proposed sub-projects[1] will be implemented in Twic East County. This ESMP is designed to inform the proposed Immediate Flood Mitigation Measures works in Twic East County, Panyagor Town. The ESMP is designed to inform the works by identifying potential environmental and social risks and impacts associated with the proposed works and provides mitigation measures, monitoring, performance indicators, estimated costs for implementation, and responsible institutions. Further, the ESMP provides specific environmental and social mitigation measures to be observed and applied during the construction/ works. In addition, the ESMP provides a Grievance Redress Mechanism (GRM) for guidance of stakeholders on how they can raise grievances or provide feedback involved in the dike construction, rehabilitation and construction of drainage networks.

Interested and affected parties

The communities in Twic East County, Panyagor Town are the main interested and affected parties (I&AP). While the affected communities support the Immediate Flood Mitigation Measures for Twic East County (Upgrading of existing community rehabilitated dikes, and construction of drainage network*)*, the communities requested that the measures be swiftly executed before the rise in water levels. The primary driver being the need to protect existing infrastructure.

Policy Requirements and overall approach

As required by the project, the proposed sub-projects were subjected to Environmental and Social Screening before developing this ESMP. This ESMP was developed before implementing the proposed sub-projects in compliance with the project's Environmental and Social Management Framework (ESMF) requirements. The ESMF, the Environmental and Social Commitment Plan (ESCP), the Stakeholder Engagement Plan (SEP), and other environmental and social instruments prepared for ECRP-II are the basis for the development of this ESMP. This ESMP was developed following an elaborate process that involved technical experts and stakeholders at all stages of the process.

[1]Upgrading of existing community rehabilitated dikes, and construction of drainage network

ES impacts:
The major impacts that have been identified include employment creation, occupational health and safety risks, potential gender and GBV related risks, likelihood on in-migration, the spread of infectious diseases, public health and safety risks, environmental (air, water, and land) pollution, waste management issues, impact on vegetation (flora) and fauna and community safety risks. Most of the impacts will be temporary and short-lived except for the unavoidable release of GHGs from fuel combustion. The hierarchy of mitigation informed measures that have been proposed in this ESMP include the following:

Mitigation Hierarchy focus	*Practical Steps to be undertaken*
Anticipate and avoid	-Design considerations and incorporation of components to avoid the release of certain pollutants -Selective procurement of materials. -Design and Optimize processes in a bid to limit or avoid waste generation -Focusing on the sound management of waste by embracing the Reduce, Reuse, and Recycle waste management approach, -ES Education, awareness raising, and capacity building of contractor staff on the sound management of general waste adopting the 3R (Reduce, Reuse and Recycle) approach.
Risk/Impact minimization/reduction	-Adoption of pollution abatement technologies to minimize and reduce pollution risk and impact to ensure compliance of the proposed Sub-projects to set standards. -Development and Implementation of Standard Operating Procedures, work instructions, and guidance documents -Education. awareness raising and capacity building of beneficiaries. -Establishment of systems to monitor and control impacts, hazards, and risks
Compensation approaches	-Consider planting of trees to stabilise the dike as a way of compensating for trees that might have been cut down or disturbed during dike construction works

E&S SCREENING	RESULTS AND RECOMMENDATION			
Screening Results:	**Risk/Impact**	**Individual Risk**	**Impact Rating**	**Mitigation**
Summary of Critical Risks	**Occupational Health and safety**	medium	medium	IOM to have an occupational, health and safety management in place. Dust protection masks for concrete batching teams and all necessary appropriate PPE

and Impacts Identified				shall be provided for working teams. Ensure provision of potable water and ablution facilities for workers
	Gender/GBV, PSEA/H	Medium	High	Development and implementation of an HIV/AIDS, Gender/GBV, PSEA/H awareness programmes for workforce and community. Contractor staff induction and training
	Gender mainstreaming	Medium	High	Gender mainstreaming during recruitment and allocation of work packages, as well as awareness creation and capacity building of staff and community workers on GBV.
	Uncovered borrow pit areas	Medium	High	The borrow pit shall be fenced and labelled. Systematic abstraction of soil shall be done according to an agreed plan. Backfilling shall be done before decommissioning the borrow pits.
	Recurrent natural disasters	Medium	Medium	Design and construction of robust and resilient dike structures which can withstand anticipated floods.
	Social Conflict	medium	high	Inclusive planning of labour-based works with specific gender inclusion strategies. Stakeholder engagement in planning.
	Sustainability	Medium	Medium	Involve the beneficiaries and community leadership in all project related work. Support capacity building on dike infrastructure and drainage network management. Establish and train the PDRMCs, & CDRMCs

At all stages of the sub-projects implementation, the hierarchy of controls will be used to ensure a safe working environment and the sound management of occupational health and safety hazards and risks. This will include taking steps to eliminate risks and when this is impossible, other measures will be used. For instance, engineering controls will be used in situations when the hazard cannot be eliminated, and this can be coupled with the use of administrative controls. In worst case scenarios, the provision of adequate PPE will be opted for to ensure employees are protected from the hazard.

ACRONYMS AND ABBREVIATIONS

BDCs:- Boma Development Committees ----14
CERC:- Contingency Emergency Response Component ----15
CRS:- Coordinate Reference System----33
E&S:- Environmental and Social----15
ECRP I:- Enhancing Community Resilience and Local Governance Project Phase I ----15
ECRP II:- Enhancing Community Resilience and Local Governance Project Phase II ----14
ESMF:- Environmental and Social Management Framework ----15
ESMP:- Environmental and Social Management Plan ----15
ESS:- Environmental and Social Safeguarding ----29
FM:- Financial Management ----15
GoSS:- Government of South Sudan ----30
GPS:- Global Positioning System----33
IOM:- International Organization for Migration ----14
KML: Keyhole Markup Language----33
LGB:- Local Government Board ----14
M&E:- Monitoring and Evaluation ----15
MoFP:- Ministry of Finance and Planning ----15
O&M:- Operation and Maintanace ----14
PDCs:- Payam Development Committees ----14
PDO:- Project Development Objective ----14
PHCC:- Public Health Care Centre ----20
PHCU:- Public Health Care Unit----20
PMU:- Project Management Unit ----15
TPM:- Third-Party Monitoring ----15
WB:- World Bank----32
WHO:- World Health Organisation ----32

I. CHAPTER 1

A. BACKGROUND AND INTRODUCTION

Enhancing Community Resilience and Local Governance Project Phase II (ECRP II)

The Enhancing Community Resilience and Local Governance Project Phase II (ECRP II) is funded by the World Bank and managed by the Ministry of Finance and Planning and the Local Government Board (LGB), with the International Organization for Migration (IOM) as the project's implementing partner in 12 counties while the government implements emergency flood response in four other counties through contracted international NGOs The project seeks to strengthen the capacity of local governance and community-level institutions and to build infrastructure to address gaps in basic services in 16 counties across six states and two administrative areas in South Sudan. Since implementation began, IOM has engaged selected communities in participatory planning processes at the county, payam, and boma levels. These processes mobilize and empower communities to convey their needs, analyze challenges they are facing, propose adaptive solutions to those challenges, and vocalize their preferences to promote and shape community development. ECRP II works to operationalize South Sudan's Local Government Act by supporting the functioning of Boma Development Committees (BDCs) and Payam Development Committees (PDCs) as sustainable drivers of community development. The overall Project Development Objective (PDO) is to improve access to services, strengthen flood resilience, and enhance institutional capacity for local service delivery and integrated disaster risk management at the national and sub-national levels.

The project consists of the following components:

Component 1: Infrastructure and Services for Community Resilience

The component supports eligible investments in community-level infrastructure and services and physical investments for flood risk reduction.

Subcomponent 1.1: Community Infrastructure and Services.

This subcomponent supports eligible investments in community-level infrastructure and services in selected vulnerable areas, including additional support for refugee hosting counties, through a participatory planning process.

Subcomponent 1.2: Flood Risk Reduction Investments:

This subcomponent will finance physical infrastructure for flood risk reduction and related technical assessments including feasibility studies, detailed engineering designs, and safeguards assessments. The appropriate solutions and physical investments for flood risk reduction will be determined based on detailed studies considering the flood hazard, exposure of people, and assets, as well as the vulnerabilities of at-risk communities in the target counties. The proposed immediate flood mitigation measures in Twic East County and other flood affected counties are implemented under this subcomponent.

Subcomponent 1.3: Operations and Maintenance (O&M).

The ECRP-II envisions implementing a variety of O&M approaches based on the type of infrastructure, the socioeconomic character of project communities, and the demographic features of locations.

Component 2. Institution Strengthening

The component supports the participatory planning process for the identification of sub-projects to be financed under Component 1, monitoring of the dike construction of sub-projects, as well as capacity building of relevant national and local institutions.

Subcomponent 2.1. Community Institution Strengthening.

This subcomponent will build on the activities undertaken under Enhancing Community Resilience and Local Governance Project Phase I (ECRP I), albeit recalibrated based on lessons learned.

Subcomponent 2.2. County Government Strengthening.

This subcomponent will support county governments to fulfill their responsibilities for local service delivery and disaster risk management.

Subcomponent 2.3 National and State Government Strengthening.

This sub-component will support the capacity building of the Project Management Unit (PMU), the Ministry of Finance and Planning (MoFP), and the LGB (based on an assessment of their technical competencies) in the areas of Financial Management (FM), procurement, project planning, Monitoring and Evaluation (M&E), O&M planning and execution community engagement methods, and Environmental and Social (E&S) standards.

Component 3: Emergency flood response:

This component will provide emergency flood response activities in selected flood-affected vulnerable areas including areas experiencing a large inflow of displaced population in Northern Bahr el Ghazal (NBeG) and Warrap States. The component will support the rehabilitation of damaged community infrastructure and services or the construction of new infrastructure to reduce flood risks based on an open-menu approach. These include water supply and sanitation facilities, footpaths and community roads, dykes for flood protection, and health and education facilities, as well as Haffirs, among others. All community infrastructure will be built based on the 'build back better' principle and will be resilient to future disasters and climate events.

Component 4: Project Management and Learning

This component will support (a) project management including technical planning, Financial Management, procurement, E&S risk management, and communications; (b) project monitoring which includes a geo-enabled monitoring system and beneficiary feedback/grievance redress mechanism (GRM) which will be accessible by refugees, IDPs and host communities; (c) impact evaluation; (d) continuous conflict analysis; (e) just-in-time studies, as needs arise; (f) financing for a Third-Party Monitoring (TPM) agent; and (g) PMU operating costs.

Component 5: Contingency Emergency Response

A Contingency Emergency Response Component (CERC), initially without a budget allocation, will allow for the rapid reallocation of project funds in the event of natural or man-made crises and major disease outbreaks of public health importance during the implementation of the project, following the World Bank Investment Project Financing (IPF) Policy, paragraphs 12 (Projects in Situations of Urgent Need of Assistance or Capacity Constraints). Implementation modality and eligible activities to be financed under the CERC will be described in a separate CERC Project Implementation Manual.

Project Design Principles

The project design is premised on the following key principles:

Principle 1: Engagement in early recovery and advancing the humanitarian-development nexus to address service needs and strengthen institutions for resilient and sustainable development.

Principle 2: Coordination and leveraging ongoing and planned government/partner investments through working in synergy with other complementary development initiatives, led by the government or other partners to maximize on project investment.

Principle 3: Investment in conflict-sensitivity approaches to ensure the project promotes inter-communal cohesion, including engagement in thematic and geographically themed studies two to four times per year, and assessing the interaction between sub-projects interventions and different conflict and social dynamics.

Principle 4: Focus on sustainability and community-centric development approaches, including promoting climate-resilient designs and building infrastructure that are appropriate for end users to withstand, respond to, and recover rapidly from the negative consequences of climate hazards. Furthermore, designs and building infrastructure consider the use of locally available materials, parts, and labor in dike construction and maintenance.

Principle 5: Ensure appropriate evidence-based O&M approaches are deployed in project communities taking demographic, socio-economic, and sub-projects type factors into consideration.

Principle 7: Inclusion of marginalized groups by being deliberate about gender, age, disability, and displacement status representation across all areas of project activities, for example, through the active participation of women in BDCs and PDCs, as well as youth and others in ongoing project activity.

Principle 8: Reduce South Sudan's vulnerability to flooding and climate-related disasters by addressing the root causes of climate change through the provision of physical infrastructure (levees, embankments, stormwater drainage, and green infrastructure solutions) to protect communities from floods and improve government technical capacities for flood and disaster risk management.

IMMEDIATE FLOOD MITIGATION MEASURES FOR TWIC EAST COUNTY (Dike *rehabilitation & Drainage System construction Works)*

In compliance with the project's Environmental and Social Management Framework (ESMF), all proposed sub-projects should be subjected to the environmental and social screening process to assess and determine their environmental and social risks and the corresponding risk management strategy to be adopted. The proposed sub-projects have been subjected to ES Screening and assessment leading to their subsequent classification as subprojects with potential ***moderate*** ES risks.

As such, in a bid to provide for the sound management of environmental and social risks, this Environmental and Social Management Plan has been developed to guide the management of identified environmental and social risks during the implementation of the proposed sub-projects.
The identified significant impacts are site specific and are limited in scope and can be readily addressed through mitigation measures outlined in this Environmental and Social Management Plan (ESMP).

This ESMP is therefore prepared to set out mitigation, monitoring, and institutional measures to be taken during implementation to avoid adverse environmental and social impacts, offset them, or reduce them to acceptable levels whilst enhancing the positive impacts.

II. CHAPTER 2

A. SUB-PROJECTS DESCRIPTION

Sub-projects location

The proposed Sub-projects will focus on the (a) Construction of new dikes in Panyagor town (12KM) and Pawel and Wangle villages (7.5KM) (b) Upgrading of the community rehabilitated existing 8.5 KM secondary dike around Panyagor town, and (c) construction of a drainage channel which is about 1 KM to facilitate the drainage of rainwater to a collection pond from which it will be pumped out are earmarked to be implemented in Jonglei State, Twic East County, See below. Twic East County is located on the western edge of Jonglei State. It borders Duk County to the north, , Bor South County to the south, and Lakes and Unity States to the west. The White Nile and several tributary rivers flow along Twic East's western border.

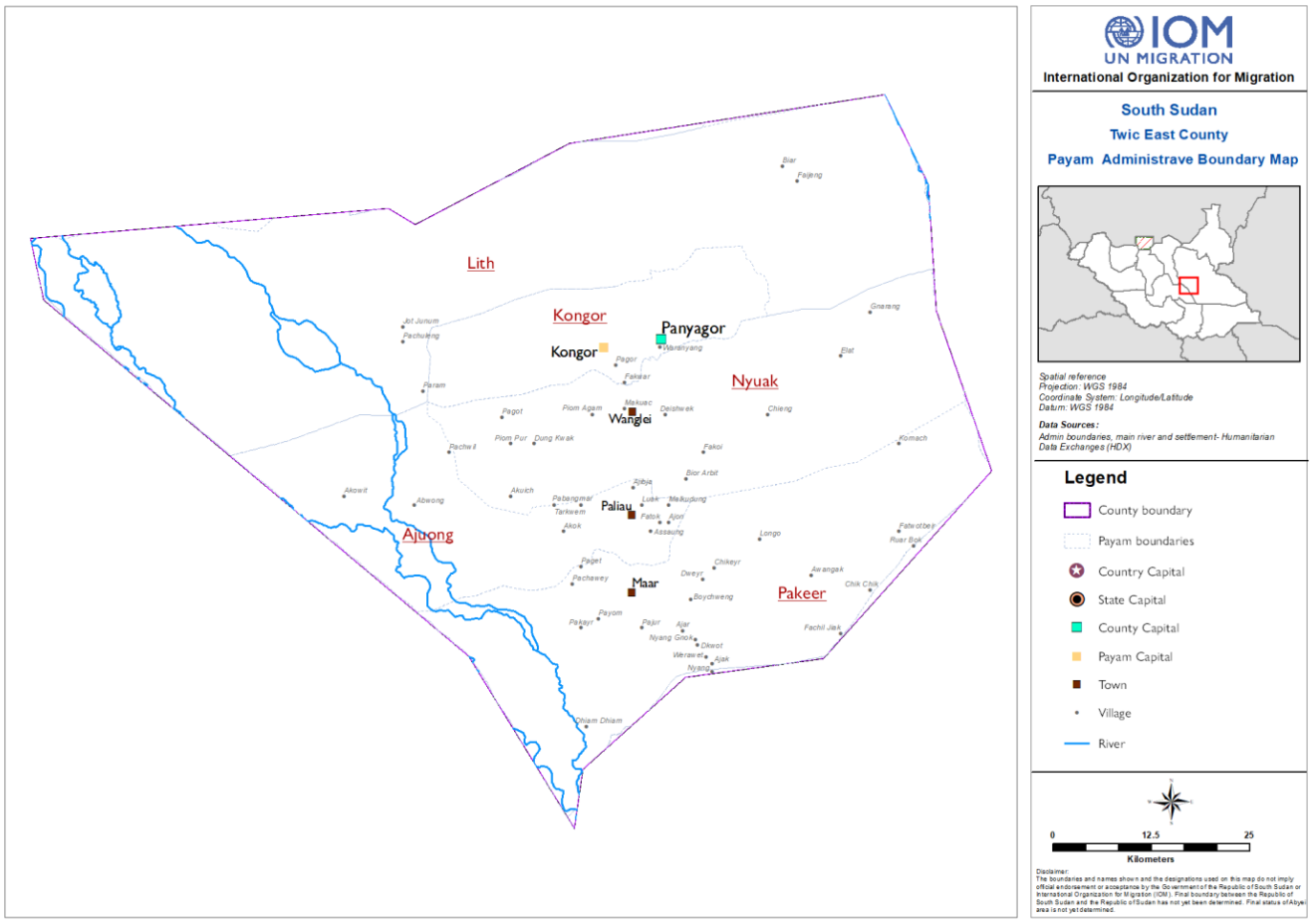


Figure 1. Location of Twic East County in Jonglei State

Typical Situation in Twic East

The County is prone flooding which has affected community infrastructure, including WASH facilities, Health, Schools and other social services infrastructure. The photo-grid below shows the dike and some of the infrastructure that is submerged in water.

Figure 2. Photo grid showing the dike and community infrastructure that is submerged in water

General overview of the proposed sub-projects

The proposed dike modification works will target the existing community dike that surrounds Panyagor town. The dike modification will enhance the structural integrity of the current dike and improve the protection of community infrastructure and provide safety to communities in Panyagor.

The new dikes will target the expansion of the Panyagor town and construction around two nearby villages (Pawel and Wangle villages).

To ensure the sustainable management of the storm water from the communities that will be surrounded by the dike, a drainage system that is about 1km will be constructed in the enclosed area. The drainage network shall be linked in such a way that all the storm water shall be channelled to one main duct that will drain the water towards a single sump where the storm water will be pumped out to the river network.

Installation and operation of two pumping stations equipped with a xxx horsepower diesel engine to support the pumping out of drained storm water from the central soak pit will be part of the subproject to be implemented in Panyagor town. This will allow for the sound management of the storm water during the rain season.

This ESMP has been developed to cover all the sub-projects that have been subjected to ES Screening (see ANNEX 7: SCREENING REPORT for details) and have been approved by PMU under the Immediate Flood Mitigation Measures for Twic East County.

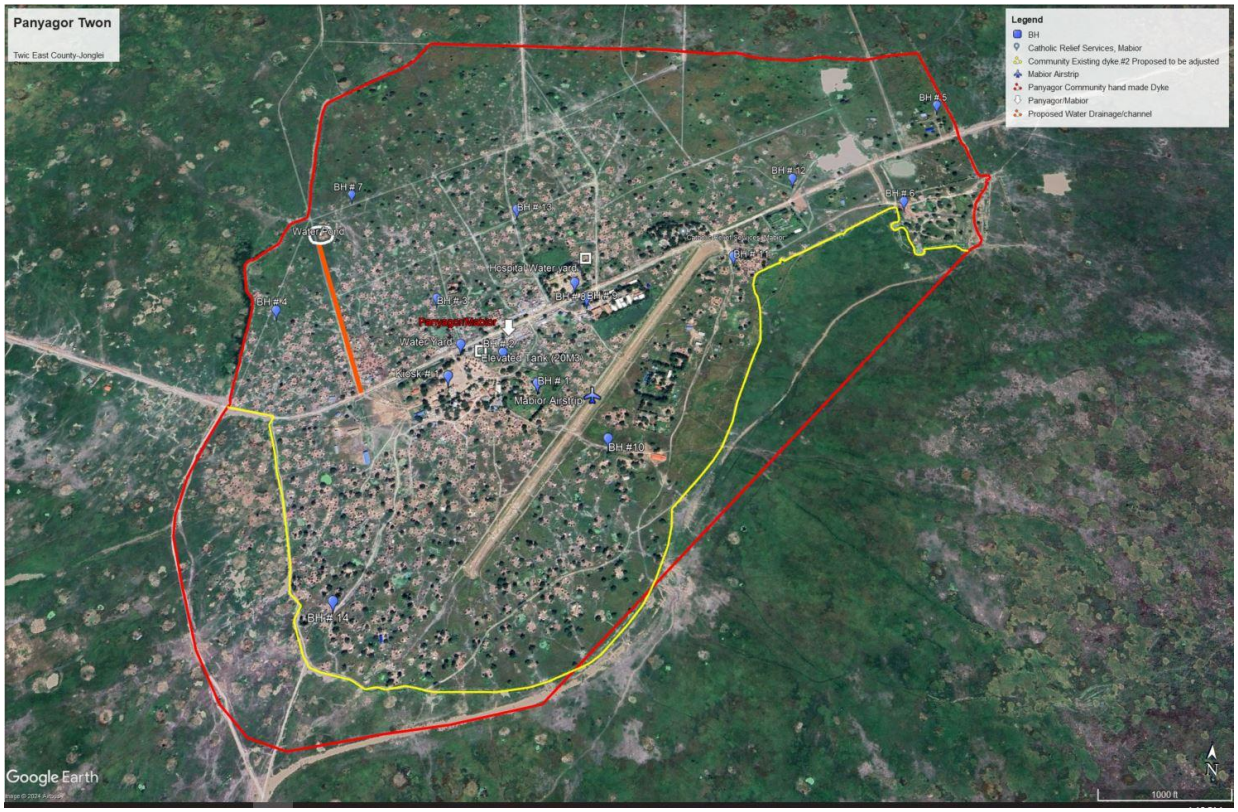


Figure 3. Overview of dikes in Panyagor town, Twic East County

Scope of Work

The proposed scope of work will include:

a) Construction of new dikes in Panyagor Town (12.5KM) and Pawel and Wangle villages (7.5KM).
b) Upgrading of the existing community rehabilitated dike which is approximately 8.5km including the general protection and rehabilitation of the airstrip in length protecting Panyagor Payam Town.
c) Construction of 1km of a storm water drainage network with a single sump which shall be connected to a dewatering pump.
d) Installation of two pumping stations equipped with dewatering pumps for the pumping out of drained storm water.

a) Dike designs

The proposed dikes will feature a 1:1 slope on the dry side (habitable side) and a 1:2.5 slope on the wet side (retained water) for filling. To prevent damage from human and animal crossings, dike crossing points and dike docking points will be constructed. The design for these key dike sections will use sandbags to reinforce them and make them more resistant to wear and tear. The cross-section of a typical dike is illustrated in and below. Some typical sections may vary from location to location, and this depends on location, height of existing, and type of material used for the dike structure, taking into account the highest previous flood level records and the projected/anticipated flood levels.

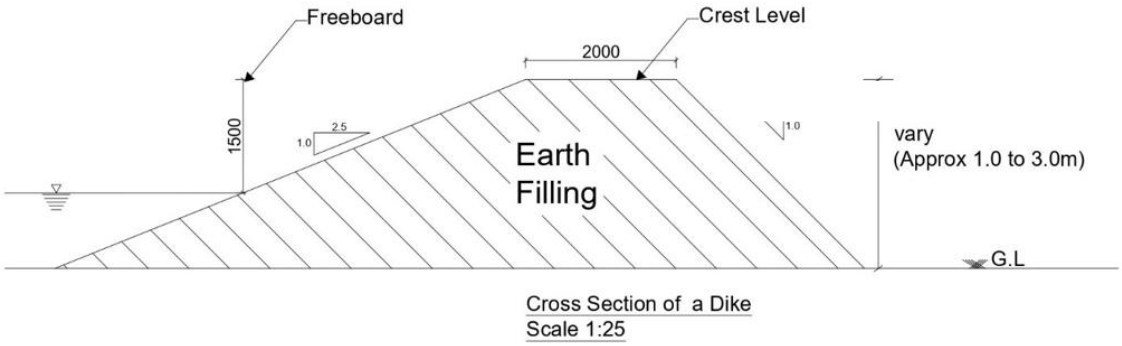


Figure 4. Dike cross section

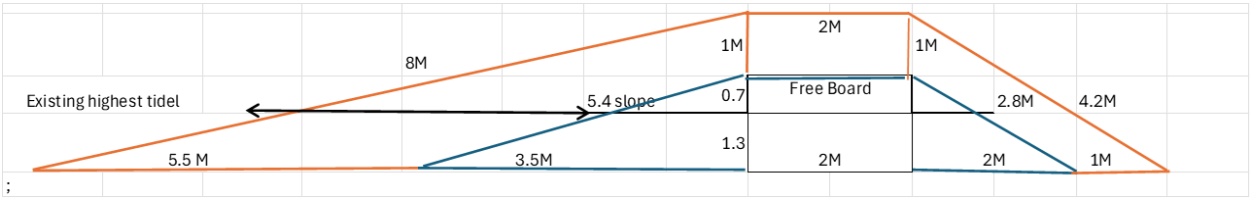


Figure 5. Typical Cross Section of the dike

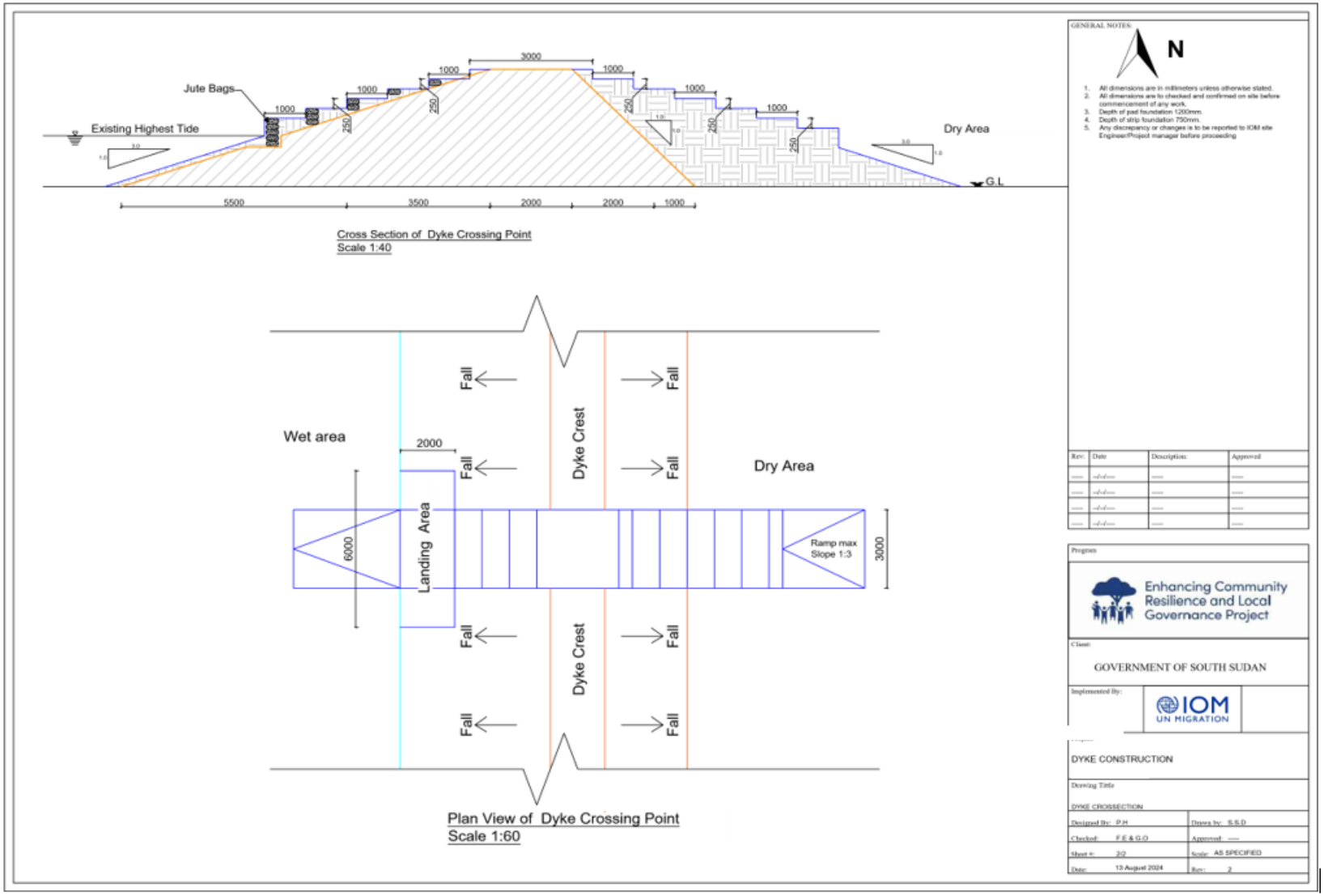


Figure 6.Dike Crossing point

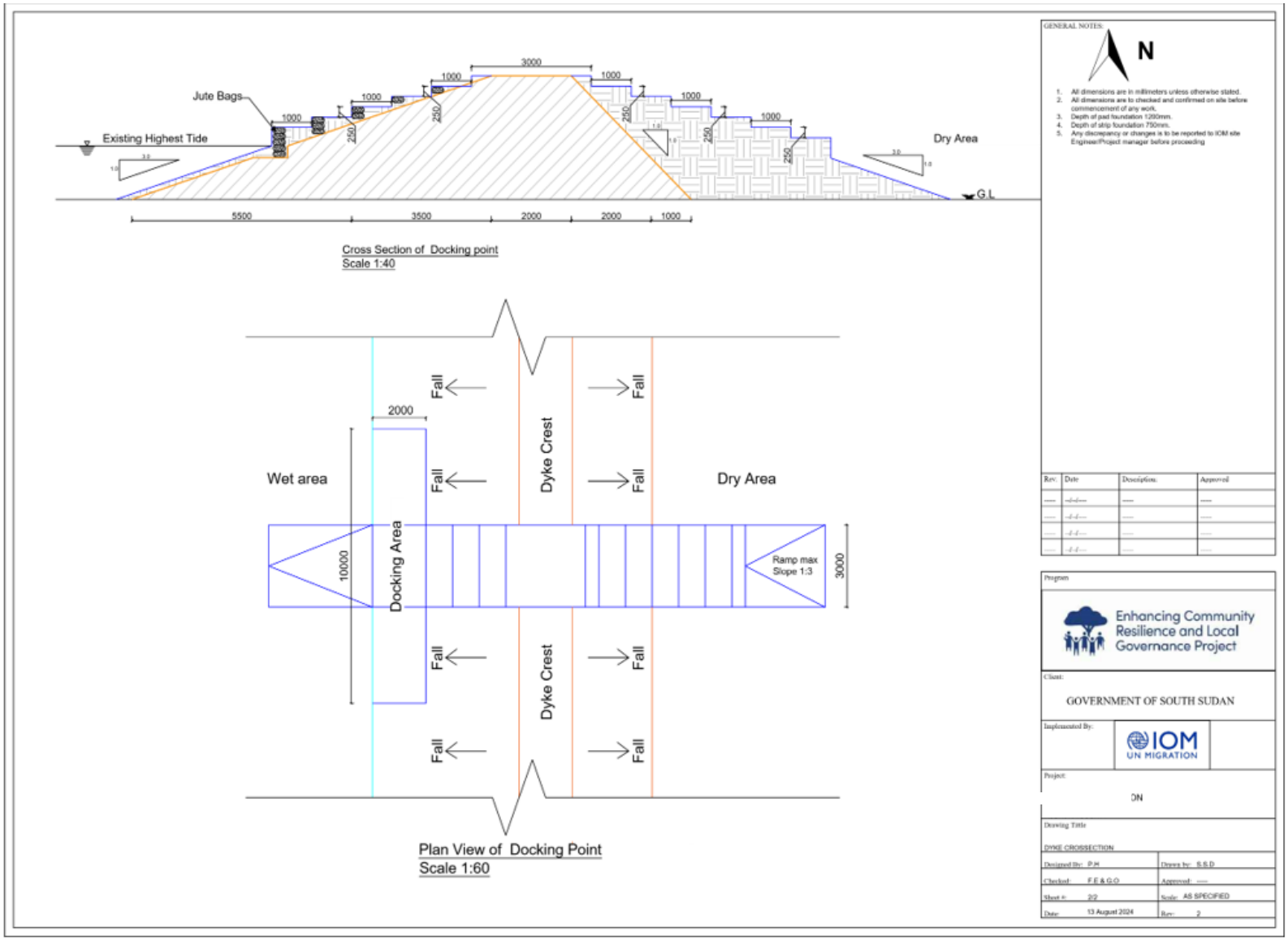


Figure 7: Dike Docking Point

b) Drainage system works.

The construction of a drainage network will result in the establishment of a 1km drainage system which drains into a sump that is approximately 3m deep, figure 7 refers. Figure 9 shows the cross-sectional drawing of the proposed drainage canals that will be constructed.

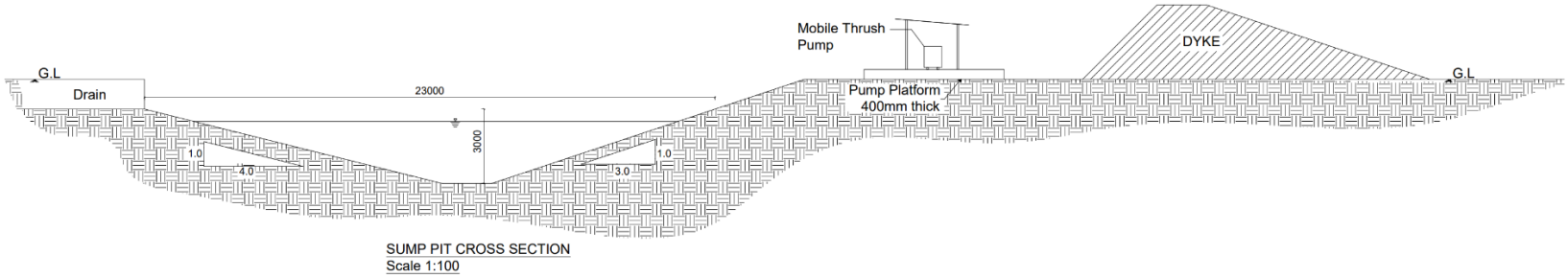


Figure 8: Drainage sump pit.

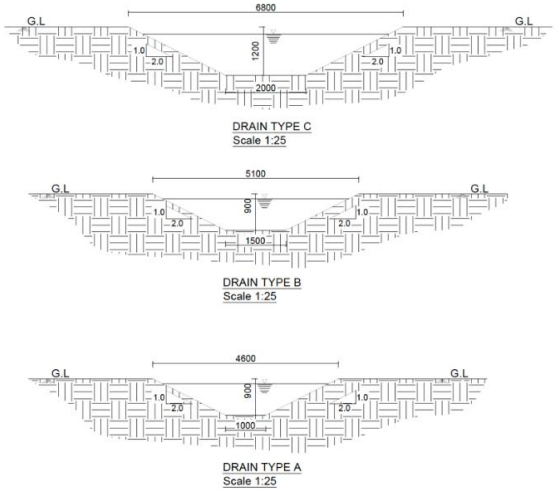


Figure 9: Cross sectional drawings for the three drainage systems

Protection and rehabilitation of the Air Strip

Under ECRP-II, the community has requested increased airstrip and minor rehabilitation works. The scope of work will involve the elevation of the embankment of the airstrip in Paynagor Town to ensure reliable access for aircraft during all seasons, including the flood season, and constructing a protective dike around the air strip to protect the infrastructure against flooding. The project involves raising the embankment by about 40 cm using selected materials and adding a layer of gravel, which will increase the airstrip's elevation by an additional 40 cm, making it usable throughout the year. The airstrip measures 1200 meters long by 30 meters width, a size deemed sufficient to serve the needs of the Twic-East community, local businesses, and humanitarian organizations, thereby enhancing access and improving livelihoods in the area.

Pumping Stations

A total of two (2) pumping stations shall be established for the management of storm water that will be channelled by the drainage network to two central soak points. The Ndume dewatering pumps will be installed and will be used as and when necessary.

Figure 10. Ndume Dewatering water pump

Laboratory Analysis of materials

The soil characteristics of available material from the designated borrow pit will be checked for permeability, stability, the potential for seepage, settlement, and compressibility. The material utilized will be the locally available clay soils commonly known as the Black Cotton Soil (BCS), whose high clay content makes it an excellent structural material for construction. The BCS's characteristics and fine soil particles inhibit water permeation. The clay covering the bank, though, is exposed to air and sun, which changes its moisture content making it drier and prone to erosion from human activities and moving water.

Schedule of work

Table 1. Proposed workplan

PROPOSED WORK PLAN																								
Immediate Flood Mitigation Measures for Twic East County [Upgrading of existing dikes, and drainage network construction in Twic East County, Jonglei State]																								
	Month 1				Month 2				Month 3				Month 4				Month 5				Month 6			
	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4
Detailed Site Assessment of the community rehabilitated in Panyagor, Twic East																								
Environmental and Social Screening																								
Development of the ESMP &Approval of ESMP																								
Community Engagement activities																								
Mobilization Excavators, Dump Trucks																								
Upgrading of Community rehabilitated dikes and construction of a drainage network																								
Handover of assests																								

Summary of ESMP Terms of Reference

The ESMP has been developed in a bid to meet the requirements of the ECRP II ESMF and site-specific Environmental and Social Standards (ESSs) Screening results and recommendations of the environmental and social checklist. Accordingly, the site-specific ESMP details measures necessary to prevent, minimize, or mitigate predicted negative impacts of the sub-projects during implementation, and specifically, this ESMP is designed to ensure the following:

- Identify potential environmental and social impacts that may occur during the implementation stage of the sub-projects and maintenance.
- Develop detailed specific mitigation measures with relevant cost implications that will need to be achieved during and after sub-projects.
- Specify responsibilities and institutional arrangements that will be put in place to ensure that the mitigation measures are implemented.
- Integrating environmental and social aspects fully into the various activities during the sub-projects and ensuring inclusion of environmental and social requirements into tender documents,
- continuing management, monitoring and evaluation of the environmental and social performance of the sub-projects.
- Providing detailed design criteria for specific mitigation measures to be implemented.
- Tracking completion and effectiveness of the proposed mitigation measures at meeting the discharge standards.
- Provide implementation and monitoring schedule.

III. CHAPTER 3

A. STUDY METHODOLOGY

The ESMP study was conducted following a multifaceted approach that was anchored on the use of both qualitative and quantitative methodologies. The use of mixed methods was deliberately adopted to ensure data completeness and provide for data triangulation. The Approach to the study is summarized below:

Overview of the Approach

The sub-projects adopted an inclusive approach in the development of the Environmental and Social Management Plan (ESMP). The approach focused on involving all the relevant stakeholders at various stages of the preparation of the ESMP to ensure that views, concerns, and inputs are captured. Consultations took place starting 3 August until October 2024. The ESMP has been prepared following the requirements stipulated by the Government of South Sudan (GoSS) as contained in the ECRP-II environmental and social instruments signed with the World Bank including the ESMF, ESCP, and SEP.

The approach used enabled the team to meet the requirements of the ECRP II ESMF, ESCP, and SEP together with the Environmental and Social laws of the Government of South Sudan. Focus was put on understanding the sub-projects background, technology and processes, implementation modalities, and operations given proactively identifying potential significant environmental and social risks. Furthermore, environmental, and social baseline information was obtained using mixed methods which included a review of available literature, detailed physical and biological investigation of the proposed project and its surrounding areas, stakeholder consultations, and the use of advanced scientific information gathering techniques such as remote sensing and the use of geo-spatial tools for data analysis and gathering. The key activities undertaken during the various stages of the ESMP development process are summarized in the process below:

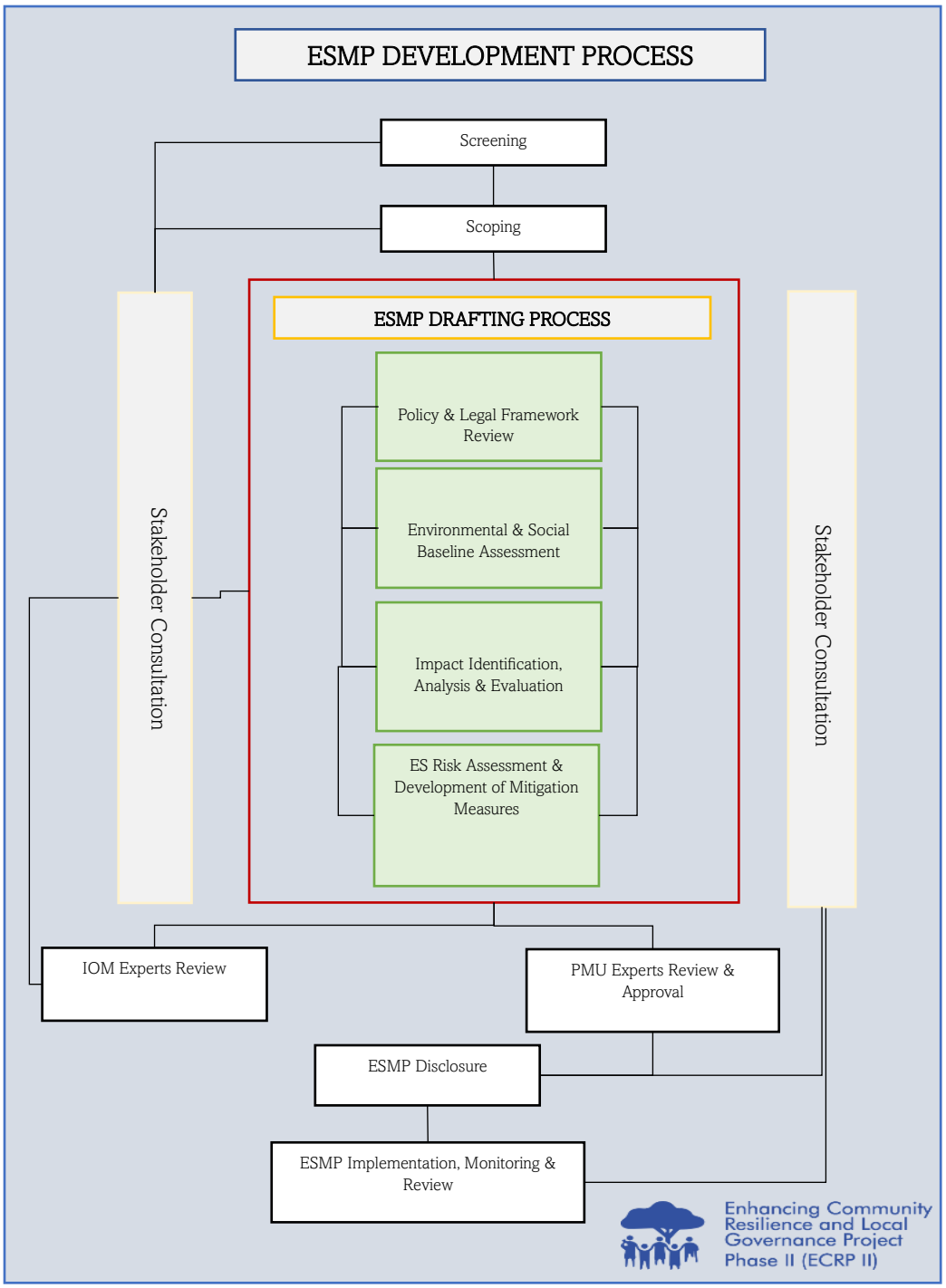


Figure 11: Overview of the ESMP Development process

A summary of the methods employed is presented below:

Document review.

Document review gave the team a detailed description of the project regarding spatial coverage, preliminary design layout, magnitude, implementation schedules, and anticipated costs. Relevant documents were reviewed to obtain information on the baseline information. A review of project documents was undertaken prior to specialist site visits. Documents reviewed included but were not limited to the review of:

- ECRP I Environmental and Social Reports for similar sub-projects
- South Sudan's Environmental and Social Laws, Guidelines, and associated government documents
- ECRP II Environmental and Social Commitment Plan
- ECRP II Environmental and Social Management Framework
- World Bank (WB) Environmental and Social Framework
- World Bank Environmental, Health and Safety guidelines
- World Health Organisation (WHO) Incinerator guidelines
- Multilateral Environmental agreements
- ECRP I county profiles for Twic East County and other counties
- Available ECRP II screening reports and associated documents
- ECRP II Project documents
- Engineering designs for proposed infrastructure
- Academic and general literature

Field Visit

The IOM ESMP team undertook site visits to several project sites located in Twic East County, between 3 August and 10 October 2024. The purpose was to gain an appreciation of the sub-projects sites, undertake public consultations with key stakeholders and to gain an understanding of potential environmental and social impacts. The field visits focused on assessing and verifying environmental and social baseline information which included landform trends, land use patterns, biodiversity, natural resources, hydrology, climatic variations, socio-economic activities, social setup and social infrastructure. The field visits were planned to enable determination of the actual physical environmental and social features that could potentially be affected by the sub-projects. Furthermore, the visits enabled the identification of potential positive and negative impacts. Overall, the assessments contributed to the in-depth understanding of the proposed works. Various methods were used during field work which included: (1) Field observations, (2) Checklists and Matrices, (3) Consultations and public participation and (4) Use of geo-spatial and temporal analysis techniques.

Impact identification, assessment, and mitigation

Following the site visits and data collection, the project team members identified and assessed the potential project related impacts according to:

- Nature of impact (Positive or Negative)
- Magnitude of impact (short, medium, or long term)
    - short-term – the impact is temporary and lasts for up to 12 months.
    - medium-term – the impact occurs for up to 5 years.
    - long-term – the impact remains for a substantial time, perhaps permanent.

- Likelihood of impact (likely or unlikely)
- Extent of impact (local, widespread)
- Timing and Duration (during which project phase)
- Reversibility (is the impact reversible without mitigation)
- Significance - Impact significance was rated as significant, moderately significant or of low significance.

Socio-Economic and Stakeholder Consultation and Engagement

The project followed a structured manner in the engagement of relevant stakeholders. The engagement was characterized by stakeholder mapping, coupled with the development and implementation of a detailed stakeholder engagement plan. The stakeholder engagement processes sought to define a technically and culturally appropriate approach to consultation and disclosure of relevant project information. The focus of the process was to improve and facilitate decision making and create an atmosphere of understanding that actively involves relevant stakeholders in a timely manner with special focus on vulnerable groups making sure that these groups are provided sufficient opportunity to voice their opinions and concerns that may influence Project decisions. The project used Key Informant Interviews, meetings, focus group discussions and community meetings to engage relevant stakeholders.

Geo-Spatial and Temporal Analysis and Remote Sensing Techniques

The maps of soil types, settlements and other land uses were undertaken using a combination of Google Earth Pro (version 7.3.1.4507) and QGIS (version 2.12.3-Lyon), aided by MS Paints (version 6.1). Coordinates noted during the site investigations were recorded using the Global Positioning System (GPS) (Model: Garmin, Extex 10) set to the ARC1950 Coordinate Reference System (CRS). The coordinates and the Keyhole Markup Language (KML) files for the project area were loaded onto Google Earth Pro after converting the CRS from ARC 1950 to WGS84 using the Franson Coord Trans software Version 2.30 (Franson Technology AB, Sweden). Coordinate transformation in QGIS was done automatically using the 'on the fly' CRS transformation. The other datasets for mapping were the topography maps and satellite images from Google Earth Pro. The images were useful in locating the boundaries and areas under cultivation, settlements, civil structures, and other features.

IV. CHAPTER 4

A. STAKEHOLDER CONSULTATION

Stakeholder consultations serve as a platform for engaging people in the decision-making process by sharing information, addressing concerns, and fostering ownership and participation. During the preparation of this ESMP, stakeholder consultation was carried out between July and December 2024. These consultations were a build-up to a series of other consultations that had been conducted in the past during the sub-projects preparation phase and engagement with communities under Capacity Building activities, particularly the training of PDCs. The focus of the consultations was to ensure the broad group of stakeholders was consulted at the planning and early stages of the project and their concerns, feedback, and input were documented following the requirements of ESS10. The following sections provide information on stakeholder mapping, a summary of stakeholder feedback, and present the Stakeholder Engagement Plan (SEP).

The consultation of stakeholders is fundamental to the development of the ESMP. The activity provided a platform for enhancing public understanding of the proposed sub-projects identified needs. Consultations provide a platform for the different stakeholders to be involved and to promote ownership throughout the sub-projects cycle. This process aids in identifying issues related to sub-projects and understanding the needs of affected populations, enabling local participation in decision-making.

The World Bank Environmental and Social Framework, ESS 10 emphasizes engagement in meaningful consultations with all stakeholders. The stakeholders with timely, relevant, understandable, and accessible information, and consult with them in a culturally appropriate manner, which is free of manipulation, interference, coercion, discrimination, and intimidation. A documented record of stakeholder engagement, including a description of the stakeholders consulted, a summary of the feedback received, and a brief explanation of how the feedback was considered is presented in this ESMP.

Objectives

Stakeholder engagement for the sub-projects was undertaken to:

- discuss with identified key stakeholders of the proposed sub-projects and create public awareness of environmental and social risks associated with the sub-projects.
- Identifying opportunities and risks that are likely to be encountered when implementing the proposed sub-projects.
- Address stakeholders' comments and concerns, that are related to the proposed sub-projects.
- Achieve a transparent decision-making process with greater input from stakeholders and their support of the decisions that are taken.
- To enhance the project to support the aspirations and needs of the local communities, including the vulnerable and marginalized groups living within the project area.

Gather feedback and collect stakeholder inputs to project design and implementation approaches.

Stakeholder mapping

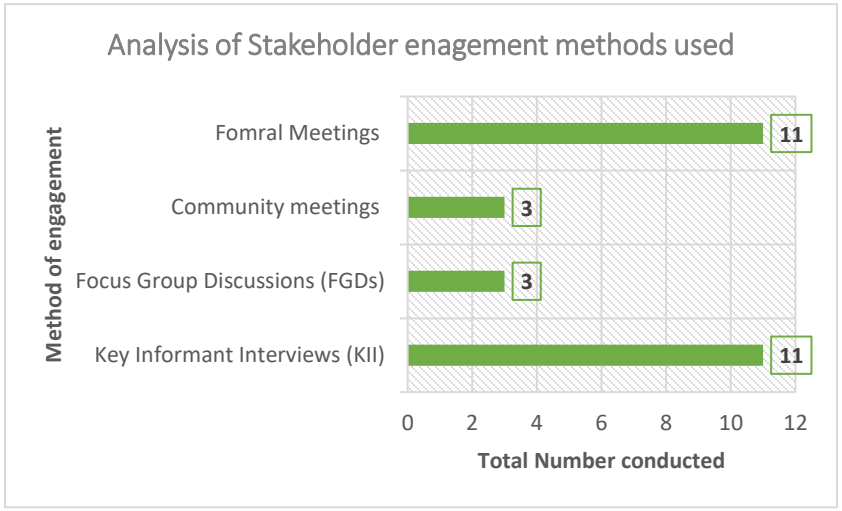
The stakeholder mapping exercise was aided by a series of processes that involved engagement with IOM personnel both at national Level and at the field level. Brainstorming sessions, coupled with the review of secondary data information and anchored on the in-depth knowledge about the targeted areas community set up in the project area were used to identify major stakeholder groupings. The major stakeholder groups that were identified are presented in

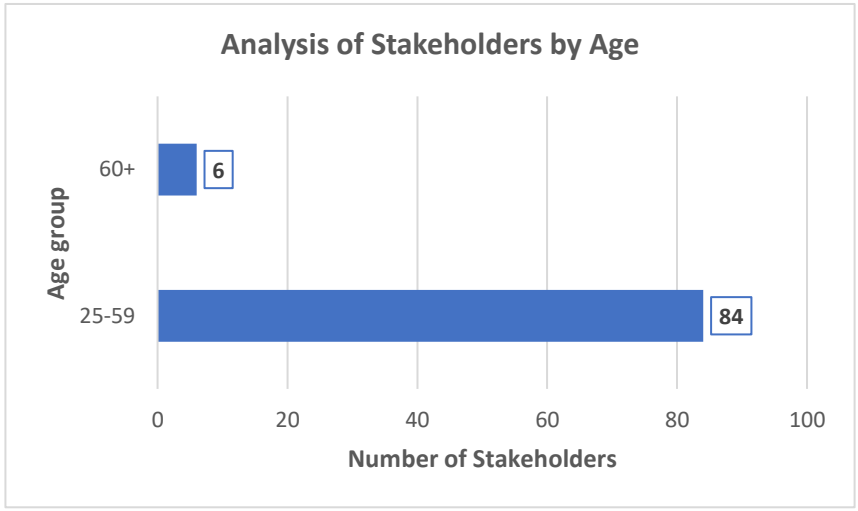
Under ECRP II, stakeholder engagement and consultation were conducted at all administrative tiers starting at (i) National level (ii) State level, (iii) County level, (iv) Payam level, (v) Boma level and (vi) Community level. Following the approval of the Community engagement and revalidation methodology by the PMU and the Bank, the ECRP II project was officially introduced to the targeted State government officials. State entry meetings which were later followed by County project inception workshop introducing the ECRP II project to its selected Counties, Participatory Payam and Boma entry meetings and finally community meetings and consultations were held at the sub-project's locations.

The community engagement and consultation meetings were conducted at county levels involving stakeholders from the various Payams and Bomas drawn from the affected areas. The approach was mainly centred on the focus group discussion approaches in a bid to allow free participation and to ensure that feedback from communities is captured.

General Overview

The stakeholder engagement targeted relevant stakeholders at State, County, Payam and Boma levels. Key government ministries and departments were engaged including the Ministry of Local government, Physical Infrastructure, RRC, The payam administrator and head chiefs. The project also consulted general community members and beneficiaries including women representatives. A total of 90 participants were reached during the direct consultations. A total of eleven (11) Key Informant Interviews (KII) were conducted, three (3) Focus Group Discussions (FGDs), three (3) community meetings and eleven formal meetings were conducted during the stakeholder consultation phase, figure below refers:





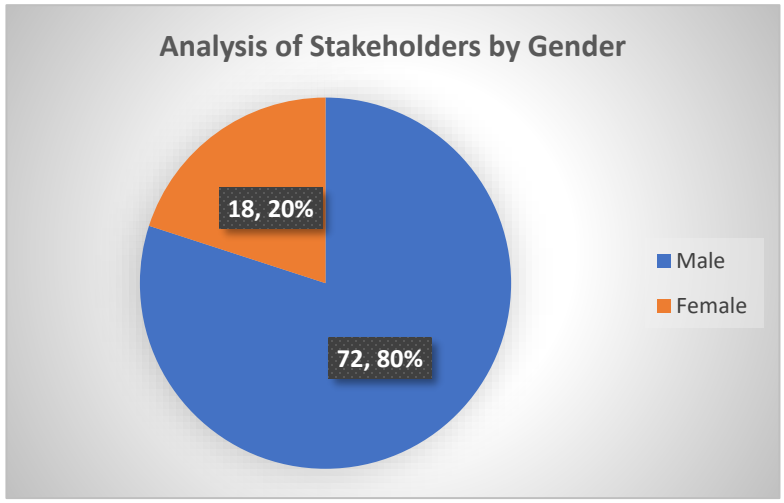


Figure 12.Analysis of Stakeholders

Summary of stakeholder Consultation

Table 2. Stakeholder Mapping

ENGAGEMENT LEVEL	PROJECT ACTIVITY	PROJECT STAKEHOLDERS INVOLVED
County	-Project introduction -Formation of County Coordination Team -Environmental and social standards screening approach awareness raising	- County Commissioner - Executive Director - Departmental Heads - PDC -CDRMC - Paramount Chief - RRC Representative at county level
Payam	-Project Introduction -Confirmation of Sub-projects Payams and Bomas	-Payam Chief - PDC -PDRMC
Boma	-Project Introduction -Identification and reactivation of BDC	-Boma chief -Village chiefs -BDC Members
Community Level (Sub project site)	-Community engagement and consultation. -Environment and Social screening	-Community members comprising of women and men, youth and elderly, People with disability and local community leaders -BDC Members

DRM IFMM general Stakeholder Engagement, October 2024, Twic East

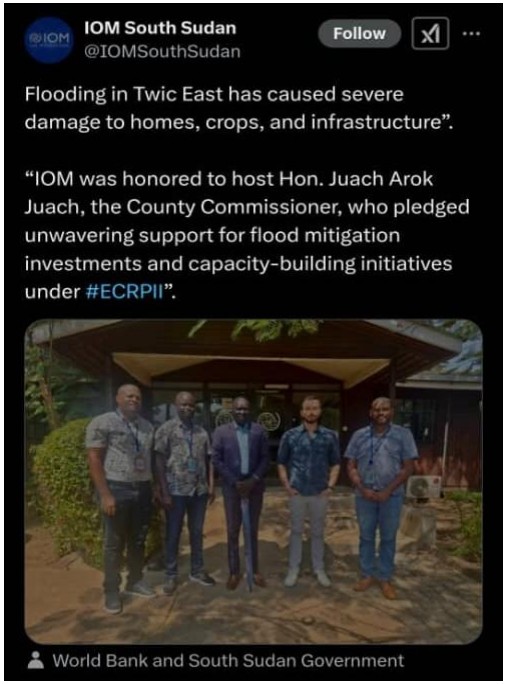
Stakeholder engagement of DRM IFMM, August 2024, Twic East

General Stakeholder engagement October 2024, Twic East

DRM stakeholder engagement, August 2024, Twic East

Figure 13. Photo grid on DRM IFMM stakeholder engagement in Twic- East

Stakeholder engagement, 24 January 2025, Twic East



Meeting with county commissioner, 3 December 2024; Juba

Stakeholder engagement with Senior Government Officials at County Level, 24 January 2025, Twic East

Meeting with county commissioner, 3 December 2024; Juba

Figure 14. Photo grid showing Engagement of County government Official and other key stakeholder on the DRM IFMM

Summary of Feedback obtained during consultations (County/Payam/Boma Level)

Need for the subprojects: The communities in Twic East emphasised that the proposed sub-projects are much needed in their communities, and they envisage the proposed sub-projects as key investments that will help in the protection of the community from the flood. Furthermore, they indicated that such sub-projects would bolster community capacity to respond and manage floods better.

Government officials who are part of the CDRMC, & PDRMC alluded that they were in full support of the sub-projects that have been prioritised in their area. They emphasised that the Upgrading of the community rehabilitated dikes aligns with the focus by government to ensure that people are protected from the flood. In a bid to pave way to the sustainable implementation of the sub-projects, the government stakeholders stated that the land that will be used for the implementation of the proposed sub-projects will be part of the government reserve and belongs to the government. Such land will voluntarily be donated to the project by the government for the purposes of constructing infrastructure that will save lives.

Training and capacity building: The CDRMC and the PDRMC confirmed that they were engaged by IOM on DRM IFMM projects in July-August 2024. Training of the two was done in January 2025. They pledged that they will actively provide support to the implementation of the subprojects including management of the communities and engagement of relevant local people in a bid to ensure ownership and smooth implementation of the subproject.

Proposed designs: The communities highlighted that the dikes to be constructed should be strong and be constructed in a manner that will protect them from the anticipated bigger flood. The designs were improved in consideration of the community requirements and also to meet the recommendations from the PMU with the focus to ensure that the infrastructure will be resilient and durable.

Table 3. Feedback from stakeholders

REF.	STAKEHOLDER FEEDBACK/COMMENT	COMMENT/RESPONSE
1.	Air Pollution may result from the operations	The proposed project will have to ensure measures are put in place to adhere to air emissions standards during the implementation of the targeted sub-projects. Prio notification of community leaders was also requested to ensure that the communities are made aware of planned activities.
2.	Waste management	Waste management will be guided by the environmental safeguards policies outlined in the ESMF and ESCP of the ECRP II. The proponent shall ensure that all the guidelines are adhered to including raising awareness on sound wate management with the focus of reducing waste generation. The 3R approach shall be adopted in this project as a way of managing waste.

REF.	STAKEHOLDER FEEDBACK/COMMENT	COMMENT/RESPONSE
3.	There might be noise pollution from the movement of dike construction vehicles and equipment	Noise levels shall be maintained within the required limits. Efforts to select equipment that is equipped with noise control devices shall be done by the contractor to ensure little or no changes in the ambient noise levels.
4.	Risk of road accidents may increase due to proximity to communities	The contractor shall establish a traffic management system to ensure safety of the community. Road traffic control signs should be used appropriately coupled with the use of traffic controllers when necessary. Prio notification of community leaders was also requested to ensure that the communities are made aware of planned activities.
5.	Injuries of community employees	Training, capacity building and awareness raising including specific induction of employees shall be conducted. Employees shall be provided with adequate PPE, and first aid and medical referral pathways shall be developed and assistance provided to communities to access those services.
6.	Employment creation for local community members	Priority will be given to local community members for non-skilled jobs as well as skilled jobs. In exceptional circumstances, contractors may be allowed to hire skilled workers outside the county but relevant authorities (RRC, County Commissioner and PDC) shall be informed of such arrangements in advance.
7.	Likelihood of spread of sexually transmitted diseases	Awareness outreaches to communities, equipping the hospital with relevant protective materials like condoms and PEP kits. These shall be made available to all employees. Education of employees on sexually transmitted diseases and other communicable diseases will be carried out.
8.	Need for continuous engagement of stakeholders	Engagement will be done constantly with the requirements of the SEP. Stakeholders are encouraged to use the available project GRM platforms to share feedback and concerns at any stage of the project.
9.	Accidents and incidents at the borrow pit site	The contractor shall ensure that the borrow pit is fenced and protected. Rehabilitation of the borrow pit shall be done prior to the closure of the project.

POSITIVE	NEGATIVE
Positive Impacts on Flood Control	**Concerns about Environmental Impact**
- Reduced flood risk for the people in the county	- Alteration of natural water flow patterns
- Improved floodwater control through drainage network	- Potential disruption to aquatic ecosystems
- Increased capacity of existing culverts	-Loss of natural vegetation
- Comprehensive drainage network development	
- Enhanced floodwater diversion capabilities	
Community Safety and Well-being	**Social and Economic Concerns**

- Increased safety from flood-related hazards	- Disruption to local businesses and economy during subproject implementation especially for boats
- Protection of infrastructure and property	- Economic costs of project implementation
- Long-term resilience and security	
Economic Opportunities	**Infrastructure and Planning Issues**
- Job creation during construction phase	- Potential conflicts
- Boost to local economy through project implementation	- Compatibility with urban planning schemes
- Investment attraction and growth potential	- Land acquisition and rights-of-way issues
- Improved property values and market stability	- Infrastructure maintenance and sustainability
Environmental Conservation	**Operational and Maintenance Challenges**
- Mitigation of environmental degradation through flood control measures	- Long-term maintenance costs especially the pumping stations
- Restoration of natural habitats and ecosystems	drainage channels over time
- Compliance with environmental regulations	- Potential for system failures and breakdowns
- Potential for habitat enhancement projects	- Environmental and social monitoring
- Mitigation of environmental degradation	
Stakeholder Engagement and Participation:	**Project Management and Governance:**
- Opportunities for community input and feedback	- Transparency and accountability of project implementation
- Collaborative decision-making processes	- Governance and oversight of project funds
- Building trust and partnerships with stakeholders	- Project timeline and delivery

Stakeholder Engagement Plan (SEP)

Table 4. Stakeholder Engagement Plan

PROJECT STAGE	LIST OF STAKEHOLDERS	TOPICS OF ENGAGEMENT	METHODS OF ENGAGEMENT	RESPONSIBILITY/ FREQUENCY
PREPARATION	- Ministry of Finance & Planning (MoFP) - Local Government Board (LGB) - Ministry of Gender, Child, and Social Welfare (MoGCSW) - Relief and Commission (RRC - State Governor - State Minister, State Ministry of Local Government (SMoLG) - Director General (DG) SMoLG & Law Enforcement (LE) - State Minister of Physical Infrastructure - DG, State Ministry of Physical Infrastructure - State Minister of Health - DG State Ministry of Health - Minister of Education - DG State Ministry of Education - County Commissioner - Executive Director - MoFP and/ LGB - County Commissioner - Executive Director - Departmental Heads - PDRMC - PDC - Paramount Chief	- Need of the project - Planned activities. - E&S principles, Environment and social risk and impact management/ESMP - Grievance mechanisms (GM) - Health and safety impacts - Project sustainability - Operation and maintenance - Provision of security to project workers - Monitoring and supervision - Labour management procedures - Integration with similar projects in the area	- Coordinated meetings, - Disclosure of written project related information - Grievance mechanism - Emails	- IOM - PMU

PROJECT STAGE	LIST OF STAKEHOLDERS	TOPICS OF ENGAGEMENT	METHODS OF ENGAGEMENT	RESPONSIBILITY/ FREQUENCY
	- RRC Representative at the county level			
	- Local community leadership (Payam/Boma Chief, Headman, Councillor) - Vulnerable Groups - Local community people - Organised community groups - Surrounding communities - Health Facility Staff	- Need of the project - Planned activities. - E&S principles, Environment and social risk and impact management/ESMP - Grievance mechanisms (GM) - Health and safety impacts	- Coordinated public meetings, - FGDs - separate meetings specifically for women and the vulnerable. - Disclosure of written information - Grievance mechanism	- IOM - PMU
	- NGOs - Pressure groups. - Religious groups - Other Civic Organizations	- Need of the project - E&S principles, Environment and social risk and impact management/ESMP - Grievance mechanisms (GM) - Health and safety impacts	- Coordinated public meetings, - separate meetings specifically for women and vulnerable - Disclosure of written information - Grievance mechanism	- IOM - PMU
DIKE CONSTRUCTION PHASE	- Ministry of Finance & Planning (MoFP) - Local Government Board (LGB) - Ministry of Gender, Child, and Social Welfare (MoGCSW) - Relief and Commission (RRC - State Governor - State Minister, State Ministry of Local Government (SMoLG) - Director General (DG) SMoLG & Law Enforcement (LE) - State Minister of Physical Infrastructure - DG, State Ministry of Physical Infrastructure - State Minister of Health	- Permits and associated conditions. - Required set standards. - Project progress update - Any challenges faced during construction. - Overview of the status of ES issues (Reports to be submitted to the Ministry of Environment & Forestry)	- Coordinated meetings, - Email communication. - Documented Telephonic engagement	- IOM - PMU

PROJECT STAGE	LIST OF STAKEHOLDERS	TOPICS OF ENGAGEMENT	METHODS OF ENGAGEMENT	RESPONSIBILITY/ FREQUENCY
	- DG State Ministry of Health - Minister of Education - DG State Ministry of Education - County Commissioner - Executive Director - MoFP and/ LGB - County Commissioner - Executive Director - Departmental Heads - PDRMC - PDC - Paramount Chief - RRC Representative at the county level			
	- Local community leadership (Payam/Boma Chief, Headman, Councillor) - Vulnerable Groups - Local community people - Organised community groups - Surrounding communities - Health Facility Staff	- Progress of project implementation - Challenges faced on implementation. - Overview of the status of ES issues (Reports)	- Coordinated Meetings - Focus group discussions - Documented Telephonic engagement	- IOM - PMU
	PROJECT AFFECTED PARTIES. - Affected households. - Health Care facility Staff - Residents at the Hospital	- Progress of project implementation - Planned activities. - Anticipated Hazards, Impacts, Risks and Aspects of oncoming activities - Recommended mitigation and preparedness required for PAPs to do. - Challenges faced on implementation.	- Face to face meetings - Direct telephonic	- IOM - PMU - Contractors *(Weekly; more frequently as and when necessary)*

PROJECT STAGE	LIST OF STAKEHOLDERS	TOPICS OF ENGAGEMENT	METHODS OF ENGAGEMENT	RESPONSIBILITY/ FREQUENCY
		- Overview of the status of ES issues (Reports)		
	- Religious and other Civic groups	- Progress of project implementation - Challenges faced on implementation. - Overview of the status of ES issues (Reports)	- Meetings - Email communication. - Documented Telephonic engagement	- IOM - PMU *(Monthly; more frequently as and when necessary)*
	- Interested Parties	- Progress of project implementation - Challenges faced on implementation. - Overview of the status of ES issues (Reports) - Feedback from PAPs and other stakeholders	- Meetings - Email communication. - Documented Telephonic engagement	- IOM - PMU *(Monthly; more frequently as and when necessary)*
OPERATIONAL PHASE	- Ministry of Finance & Planning (MoFP) - Local Government Board (LGB) - Ministry of Gender, Child, and Social Welfare (MoGCSW) - Relief and Commission (RRC - State Governor - State Minister, State Ministry of Local Government (SMoLG) - Director General (DG) SMoLG & Law Enforcement (LE) - State Minister of Physical Infrastructure - DG, State Ministry of Physical Infrastructure - State Minister of Health - DG State Ministry of Health - Minister of Education	- Permits and associated conditions. - Required set standards. - Overview of the status of ES issues (Reports to be submitted to Ministry of Environment & Forestry)	- Coordinated Meetings - Reports	- Beneficiary/Health Care Facility Administrator *Monthly/Quarterly/as and more frequently as and when necessary*

PROJECT STAGE	LIST OF STAKEHOLDERS	TOPICS OF ENGAGEMENT	METHODS OF ENGAGEMENT	RESPONSIBILITY/ FREQUENCY
	- DG State Ministry of Education - County Commissioner - Executive Director - MoFP and/ LGB - County Commissioner - Executive Director - Departmental Heads - PDRMC - PDC - Paramount Chief - RRC Representative at county level			
	- Local community leadership (Payam/Boma Chief, Headman, Councillor) - Vulnerable Groups - Local community people - Organised community groups - Surrounding communities - Health Facility Staff	- Challenges faced. - Future Plans	- Meetings - Reports - Telephonic engagement	- Beneficiary/Health Care Facility Administrator *Monthly/Quarterly/as and more frequently as and when necessary*
	PROJECT AFFECTED PARTIES. - Affected households. - Health Care Facility Staff - Residents at the Hospital	- Operational schedule and challenges - Planned activities. - Anticipated Hazards, Impacts, Risks and Aspects of oncoming activities - Recommended mitigation and preparedness required for PAPs to do. - Overview of the status of ES issues (Reports)	- Meetings - Reports - Telephonic engagement	- Beneficiary/Health Care Facility Administrator *Monthly/Quarterly/as and more frequently as and when necessary*
	- Religious and other Civic groups	- Challenges faced on implementation. - Overview of the status of	- Meetings - Reports - Telephonic engagement	- Beneficiary/Health Care Facility Administrator

PROJECT STAGE	LIST OF STAKEHOLDERS	TOPICS OF ENGAGEMENT	METHODS OF ENGAGEMENT	RESPONSIBILITY/ FREQUENCY
		ES issues (Reports)		*Monthly/Quarterly/as and more frequently as and when necessary*
	- Interested Parties	- Operational issues - Required set standards. - Overview of the status of ES issues (Reports to be submitted to EMA as part of Quarterly reporting requirements) - Feedback from PAPs and other stakeholders	- Meetings - Reports - Telephonic engagement	- Beneficiary/Health Care Facility Administrator - *Monthly/Quarterly/as and more frequently as and when necessary*
DECOMMISSIONING PHASE	- Ministry of Finance & Planning (MoFP) - Local Government Board (LGB) - Ministry of Gender, Child, and Social Welfare (MoGCSW) - Relief and Commission (RRC - State Governor - State Minister, State Ministry of Local Government (SMoLG) - Director General (DG) SMoLG & Law Enforcement (LE) - State Minister of Physical Infrastructure - DG, State Ministry of Physical Infrastructure - State Minister of Health - DG State Ministry of Health - Minister of Education - DG State Ministry of Education - County Commissioner - Executive Director - MoFP and/ LGB	- Site management Plans - Detailed ESMP - Permits and associated conditions. - Required set standards. - Overview of the status of ES issues Reports to be submitted to Ministry of Environment & Forestry.	- Meetings - Reports - Telephonic engagement	- Beneficiary/Health Care Facility Administrator *Monthly/Quarterly/as and more frequently as and when necessary*

PROJECT STAGE	LIST OF STAKEHOLDERS	TOPICS OF ENGAGEMENT	METHODS OF ENGAGEMENT	RESPONSIBILITY/ FREQUENCY
	- County Commissioner - Executive Director - Departmental Heads - PDRMC - PDC - Paramount Chief - RRC Representative at county level			
	- Local community leadership (Payam/Boma Chief, Headman, Councillor) - Vulnerable Groups - Local community people - Organised community groups - Surrounding communities - Health Facility Staff	- Planned activities. - E&S principles, - Environment and social risk and impact management - Grievance mechanisms (GM) - Health and safety impacts	- Coordinated meetings. - Reports	- Beneficiary/Health Care Facility Administrator *Monthly/Quarterly/as and more frequently as and when necessary*
	PROJECT AFFECTED PARTIES. - Affected households. - Health Care facility Staff - Residents at the Hospital	- Site management Plans - Planned activities. - E&S principles, - Environment and social risk and impact management Grievance mechanisms (GM) - Community Health and safety	- Coordinated meetings. - Reports	- Beneficiary/Health Care Facility Administrator *Monthly/Quarterly/as and more frequently as and when necessary*
	- Religious and other Civic groups	- Planned activities. - Grievance mechanisms (GM) - Community Health and safety impacts	- Coordinated meetings. - Reports	- Beneficiary/Health Care Facility Administrator *Monthly/Quarterly/as and more frequently as and when necessary*
	- Interested Parties	- Site management Plans - Planned activities. - Environment and social risk and impact		- Beneficiary/Health Care Facility Administrator - *Monthly/Quarterly/as and more frequently as and*

PROJECT STAGE	LIST OF STAKEHOLDERS	TOPICS OF ENGAGEMENT	METHODS OF ENGAGEMENT	RESPONSIBILITY/ FREQUENCY
		management - Grievance mechanisms (GM) - Community Health and safety impacts	- Coordinated meetings. - Reports	*when necessary*

V. CHAPTER 5

GRIVANCE REDRESS MECHANISM

The ECRP II project is guided by the WB ESF requirements and the management of grievances is a key component of the ESF requirements. Thus, in a bid to provide for the sound management of environmental and social risks, the Grievance Redress Mechanism (GRM) guidelines have been developed for the management of complaints and grievances under the ECRP II project. These guidelines shall apply during the implementation of the proposed subprojects. The GRM system seeks to provide a suitable, centralized system for the reception, recording, investigation, management and closure GRM cases. The GRM is based on six core principles namely:

1. Fairness: Grievances are treated confidentially, assessed impartially, and handled transparently.
2. Objectivity: The GRM incorporates all interested parties in order to guarantee an objective focused on the grievance and not the complainant. GRM officers who include the Safeguards Specialist, Social Mobilizer/Community Outreach Assistant and Health and Safety officers will be trained by the Project team and will have adequate means and mandate to document grievances (e.g. through interview of witnesses and access to records).
3. Simplicity and accessibility: Procedures to file grievances and seek action are simple enough that PAPs can easily understand them. PAPs have a range of contact options including, at a minimum, a hotline telephone number. The GRM is accessible to a wide range of stakeholders, irrespective of their level of education or income. The GRM processes have been made simple and user-friendly to avoid creating confusion or anxiety to potential users.
4. Responsiveness and efficiency: The GRM is designed to be responsive to the needs of all complainants. Accordingly, staff handling grievances are trained to take effective action, and respond quickly to grievances and suggestions.
5. Speed and proportionality: All grievances, simple or complex, are addressed and resolved as quickly as possible. The action taken is swift, decisive, and constructive.
6. Participation and social inclusion: A wide range of PAPs, including community members, members of vulnerable groups, project implementers, civil society, and the media, are encouraged to bring grievances and comments to the attention of the Project staff. Special attention is given to ensure that marginalized or vulnerable groups, including those with special needs, can access the GRM.

5.1. Categorization of Grievances

Grievances have been categorized as summarized in . **Grievances outside the ECRP II mandate will be referred to the appropriate statutory institutions**.

Table 5.Categories of grievances

Categories of Grievances
1. Access to Basic information
- Limited access to basic information on the sub-project itself and the GRM processes
- Correction and deletion of untrue or misleading information that affects the PAP
2. Ethics and conduct
- Implementing Partner staff may not exercise appropriate work ethics, like taking bribes from any relevant stakeholders. - Violation and breach of codes of ethics by staff of Implementing Partners and contractors
3. Corruption and economic crimes
- Unethical conduct
4. Labor and working conditions
- Termination/summary dismissal/wrongful termination
- Breach of employment contract terms
- Conflicts with trade unions
- Work injury
- Discrimination
- Remuneration
- Suspension
- Waiver of claims
5.Land Use Related Grievances
Physical and Economic displacement, Valuation, Entitlement and Eligibility, Compensation Payment, Relocation Assistance, Resettlement assistance etc.
6. Occupational Health and Safety (OHS)
Violation of occupational health and safety measures and standards laid out in the ESMF, ESMPs
7. Sexual Exploitation and Abuse (SEA/SH) / Sexual Harassment (SH)

- Sexual exploitation and abuse committed by sub-project workers of an IP associated to the sub-project (including any worker employed by sub-contractors) against a sub-project beneficiary.
- SH committed by any sub-project worker (including any worker employed by sub-contractors) against another sub-project worker
8. Other
- All other sub-project related grievances that are not captured above but relate directly to the sub-project for example land disputes in relation to the sub-project.

5.2. Means of Filing Grievance

There are four distinct means that must be made available at the sub-project locality for people to file a grievance:

- A Help Desk: This will be set up by IOM during the implementation of physical sub-project activities in an area and will be manned by a social mobilizer.[2] The help desk can be open at hours decided upon by the IP, with a minimum a half working day (4hrs) and the help desk must be set up at a public space easily accessible and in close proximity to the sub-project activities. It should be manned by IP staff, especially its community sub-project facilitators, in close coordination with local authorities. At the help desk, PAPs can inquire about information regarding sub-project activities, or they can file a grievance directly with the person manning the desk. Grievances can be filed in writing or verbally at the help desk. The staff manning the desk will register the grievance in a GRM log. The social mobilizers will undergo an intensive training program before being deployed to operate as desk minders. The staff will be trained in a) the registration of a grievance; b) the interaction with complainants; c) appropriate handling of SEA/SH related grievances; and d) workers' GRM.

- Community Focal Persons: Each relevant boma will have a community selected focal person in the local community – for the GRM during sub-project activities: the 'boma or payam GRM focal point'. Community Focal Persons (volunteers) elected by the community available in each sub-project site will be required to accept formal grievances and ensure that avenues for lodging grievances are accessible to the public and all PAPs. This volunteer is elected by the Boma Development Committee (BDC) members. The first point of contact for all potential grievances from community members are these elected community focal persons. They will be required to accept formal grievances; or they can point out the phone number (+211927928043) that can be used, the help desk (when relevant/operational) or suggestion boxes and the Social Mobiliser who will further accept and register the grievance in a log. Each relevant volunteer will be trained by the IP or PMU in a) the registration of a grievance; b) the interaction with complainants; c) appropriate responses to SEA/SH related grievances; and d) workers' GRM. The volunteer will be trained by the PMU and will be in direct contact with the IP and Social Mobiliser for any assistance.

[2] The help desk must be budgeted by the IP, the manning of the help desk will depend on the nature of the activity

- A Suggestion Box: This must be installed at the nearest Boma administrative office of the sub-project site. Suggestion boxes provide a more anonymous way of filing a grievance or for providing feedback. Grievances or feedback submitted to the suggestion box must be expressed in writing. Boxes are clearly marked as ***ERCP II - related*** feedback and grievance mechanisms. They will also clearly indicate when the box will be opened, and grievances addressed and recorded. A signature sheet for when this is done will also be at the box for accountability purposes. The Social Mobilizer for the respective county holds the key to the suggestion boxes who will be stationed one at the boma and the other one at payam level. IOM will procure the suggestion boxes and IOM will be responsible for the set-up of the boxes in the counties where they have infrastructure sub-projects. The contents of the boxes will be emptied on a weekly basis by the Social Mobilizer or assigned person and then transferred to the Safeguards Specialist in charge of the GRM. However, use of suggestion box comes with challenges of ability to write either in local language or English; and centralizing the box at the County may disadvantage those people in Payams and Bomas. Therefore, this should be encouraged where its practically possible.

5.3. Case Processing Schedule

The management of grievances will follow a systematic process as presented in **Error! Reference source not found.** 8.

Table 6. GRM Case processing guide

Type of Case	Actions Required	Response Required	No. of days for action
GBV/SEA/SH		Refer to step 4 and Annex 3	
Straight-forward cases with little anticipated complications e.g (holding long meetings exceeding agreed times)	Minimal checks and consultations	Acknowledge receipt of the grievance, detail follow-up steps and set timelines (number of days) for follow-up activities: verify, investigate, if needs be, and communicate outcomes and next steps based on outcomes	1-2 days
Cases that require some minimal processes e.g. (delayed payment of a contractor)	Delete misleading information, collect information, analyse existing information, prepare communication materials to disclose delayed information, clarify existing information, and correct misleading information	Acknowledge reception of the grievance, detail the steps to follow, and provide the appropriate practical timelines	7-14 days
Cases that require investigation (land ownership dispute)	Access and review of relevant documentation (reports, policy documentation), field-based fact findings missions (visits and interviews), analysis and preparation of reports, consultative sessions to rectify or adjust the implementation approaches	Acknowledge reception of the grievance, provide follow-up steps and outline steps that will be followed to provide a comprehensive response	1 - 2 months
Cases that require escalation to higher ECRP II implementation level e.g (Fraud)	Transfer case to relevant higher level (e.g. state-level or national IOM or to PMU)	Acknowledge reception of the grievance, provide the need for escalation of the grievance to the next project implementation level, and set timelines for a comprehensive response	1-4 Months

Type of Case	Actions Required	Response Required	No. of days for action
	Transfer case to relevant institution (National Police Service, WB)	Acknowledge reception of the grievance, provide the need for referral of the grievance to an appropriate institution, and set timelines for a comprehensive response on referral progress	6 months and more

5.4. GRM Case management Process

The process of managing grievances is summarised in .

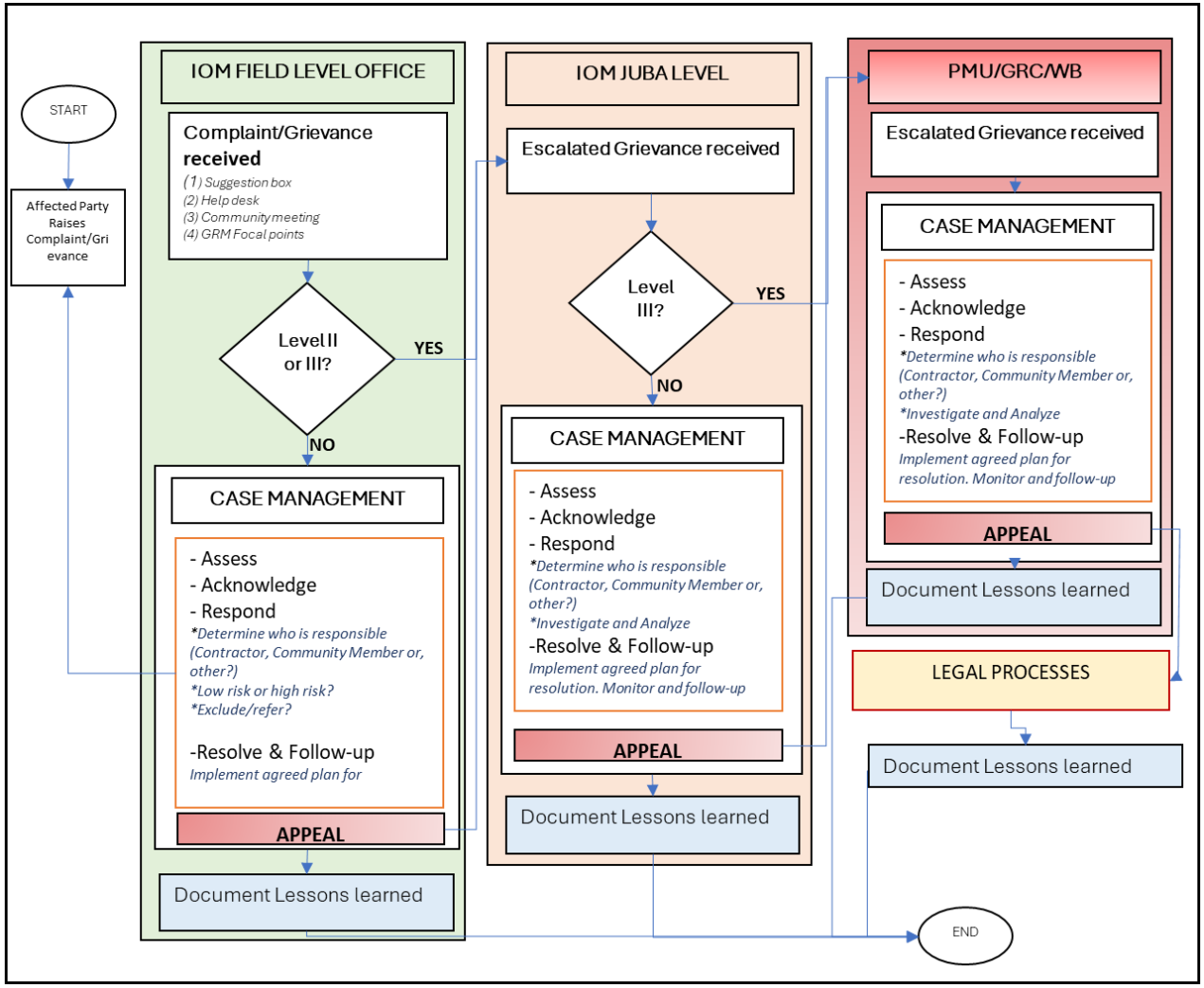


Figure 15. Overview of the case management process and escalation modalities

VI. CHAPTER 6

A. ENVIRONMENTAL AND SOCIAL BASELINE

Flora and Fauna

Twic East County is in Jonnglei State. The county is largely covered by different forms of vegetation with more than half of the county being covered by herbaceous vegetation while other parts are covered with herbaceous wetlands. The herbaceous wetlands proliferate due to the perennial submersion of most areas close to the river. There are relatively small areas that are covered by open forests in the northern and central parts of the county. Even though county is dominated by herbaceous vegetation, open forests, Typha grass, reeds, and numerous other grasses, the earmarked sub-projects are targeting the built up Panyagor town. As such, the sub-projects do not transverse any sensitive ecosystem and protected ecosystem around Twic East County. The land cover map below provides the spatial distribution of landcover types in Twic East County.

The county is part of the Boma Badingilo Jonglei Landscape (BBJL).This landscape is home to the known largest land mammal migration on Earth. Millions of white-eared kob, Mongalla gazelle, tiang and Bohor reedbuck merge in Badingilo during the wet season for breeding, before migrating north and east towards Boma National Park and the Sudd during the dry season for pasture and water. The subproject will be located in a built-up area where communities are residing. However, due to the county's proximity to the Badingilo, it is anticipated that the interaction with wildlife may be possible though rare.

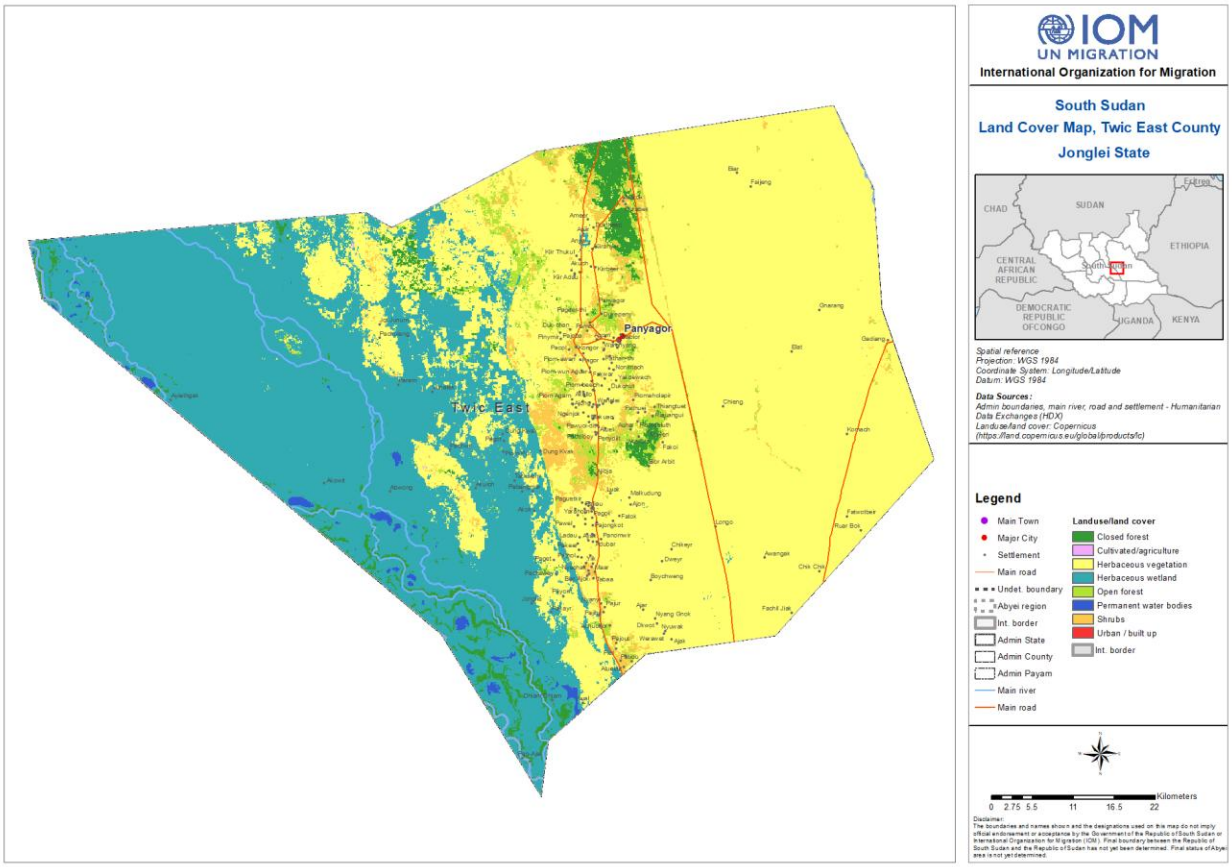


Figure 16. Land Cover map

Geology

The predominant geological formations in the county are the unconsolidated recent alluvial sediments and the unconsolidated sediments of the Umm Ruwaba Formation as indicated in figure 11 below.

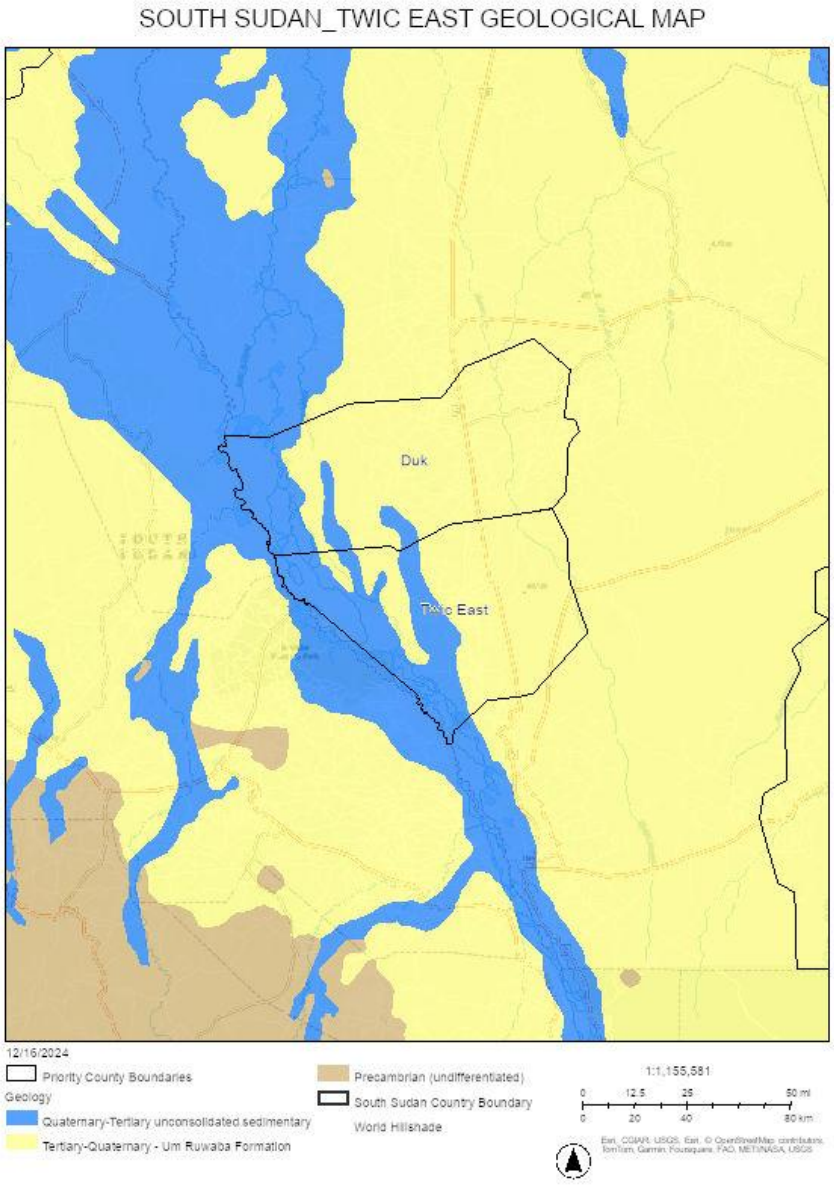


Figure 17. Geological Map of Twic East County

Soils

The major soil types in Twic East County are the Vertisols, Luvisols and the Fluviosols. Shows the distribution of soil types in Twic East County. The soils in the specific project areas are predominantly Luvisols.

Vertisols:- are blending heavy clay soils that contain high proportions of expansive clay minerals such as smectites. They exhibit high swell-shrink potential, leading to the formation of deep cracks that open and close periodically with soil moisture variations, and wedge-shaped aggregates and/or slickensides at depth. Vertisols are a group of heavy clayey soils, with a massive blocky structure due to the presence of cracks when dry and a dark colour. They usually contain 30–95% clay fraction.

Luvisols:- are characterised by an argic horizon, a subsurface zone with higher clay content than the material above it. This typically arises as clay is washed downward by water and accumulates at greater depth. The clay minerals have not been extensively weathered and are therefore of the high-activity, 2:1 type. In the targeted are, the clay type is 2:1 expansive. The Luvisols have a high cation exchange capacity and high base saturation.

Fluvosols: Appearing manly along riverbanks, these soils are formed due to alluvial deposits.

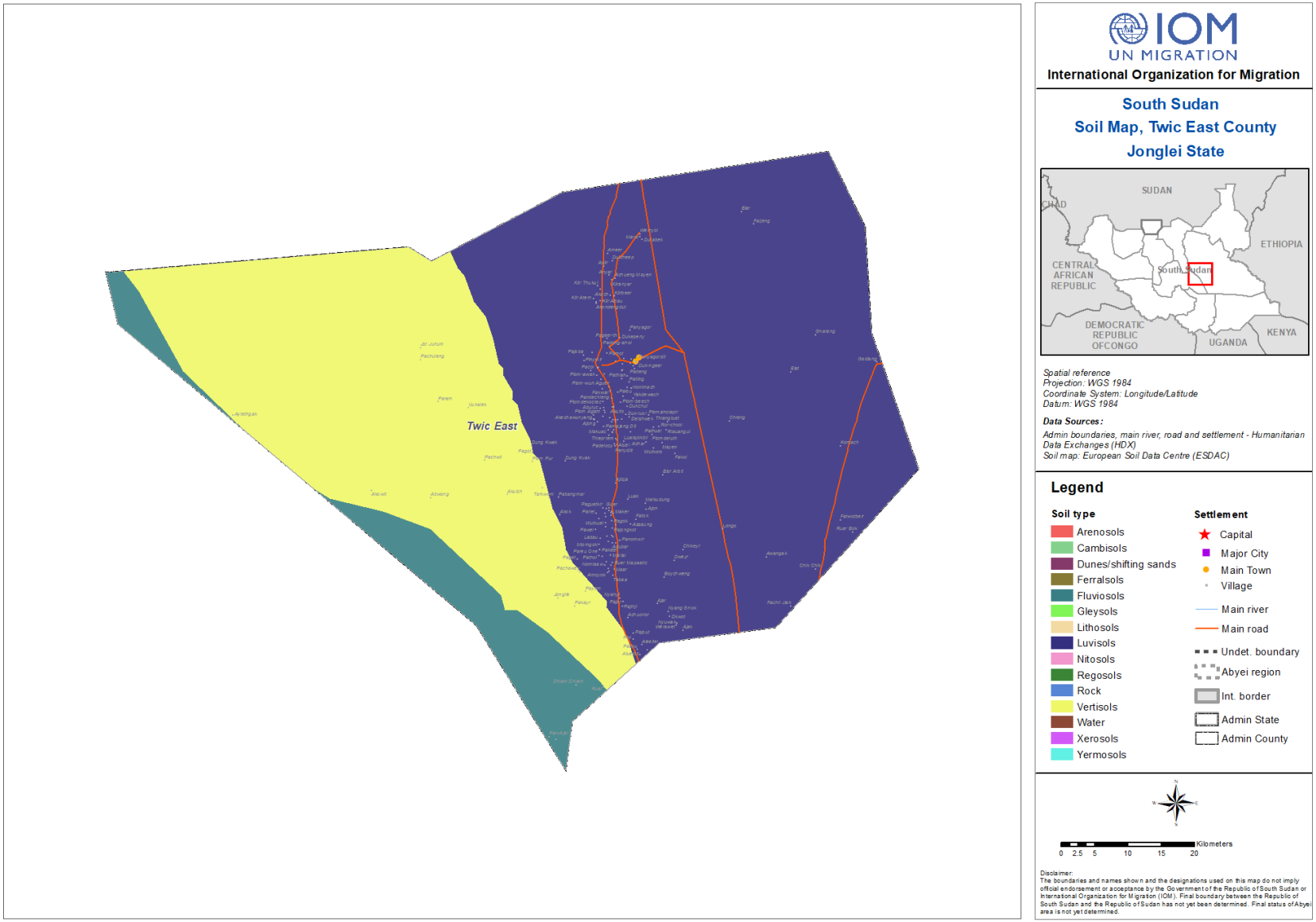


Figure 18. Soil Map

Hydrology

A variety of water bodies which are an integral part to the livelihoods of the people are present in Twic East County.

- The White Nile River flows near the county and is a crucial water source for irrigation, fishing, and transportation. It forms a significant part of the hydrological system in the county.
- The Bahr el Zeraf River: A branch of the White Nile, the Bahr el Zeraf River flows through Twic east and affects water availability in the county. It provides water for agriculture, fishing, and supports local ecosystems.
- Wetlands and Swamps: Parts of the county are part of the extensive Sudd wetlands, these wetlands are important for biodiversity, providing habitats for various wildlife species and supporting fishing and livestock rearing.
- Seasonal Streams and Floodplains: During the rainy season, various seasonal streams and floodplains emerge in Twic East, contributing to the local water supply and agricultural activities.

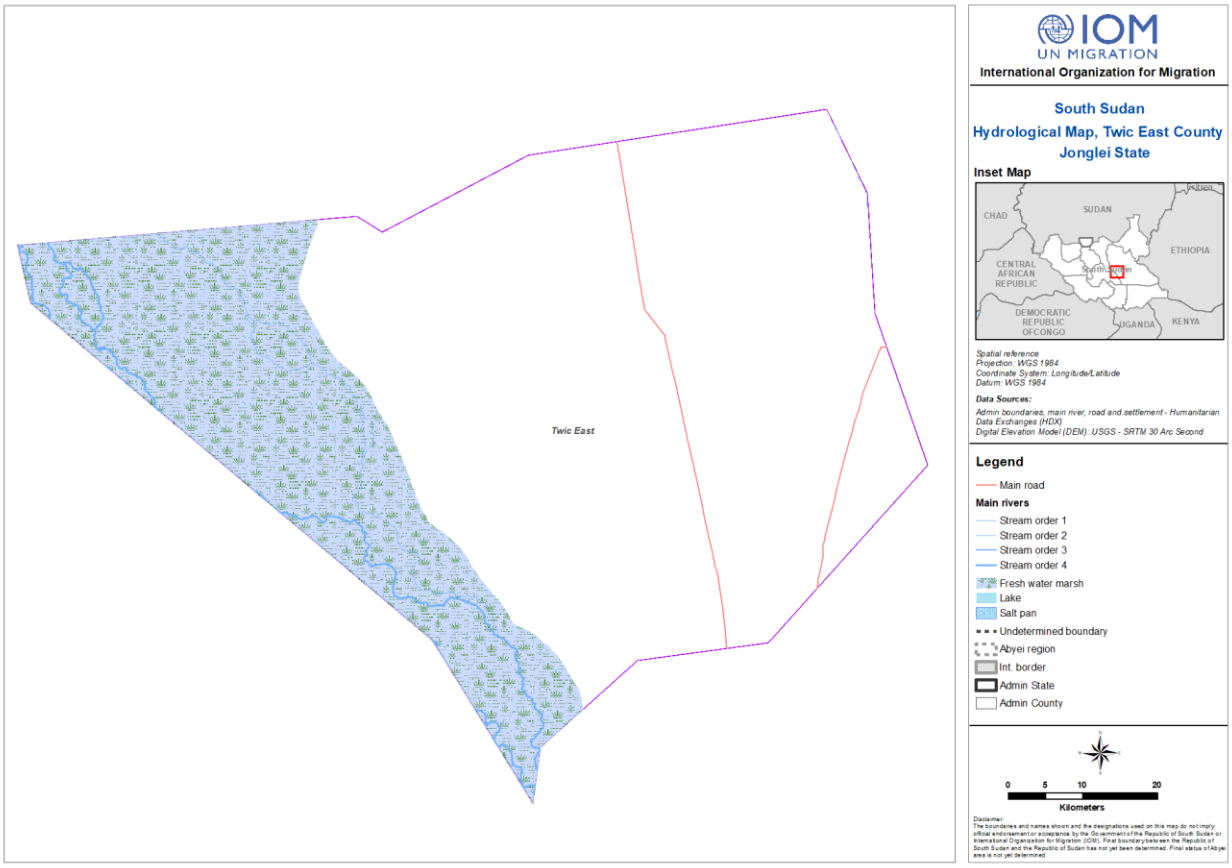


Figure 19. The riverine system in South Sudan

Socio-Economic Environment

Administrative Division and Demography

Twic East County is within the Jonglei State and it is divided into five Payams: Kongor (where Panyagoor the County Capital is located), Ajuong, Lith, Nyuak, and Pakeer. Twic East County is bordered by Bor South to the south, , Duk to the east and north, Yirol East to the west in Lakes state, and a 7km border with Panyijar County of Unity State to the northwest. Figure 2 below presents the Payam headquarters as well as the neighboring counties of Twic East County.

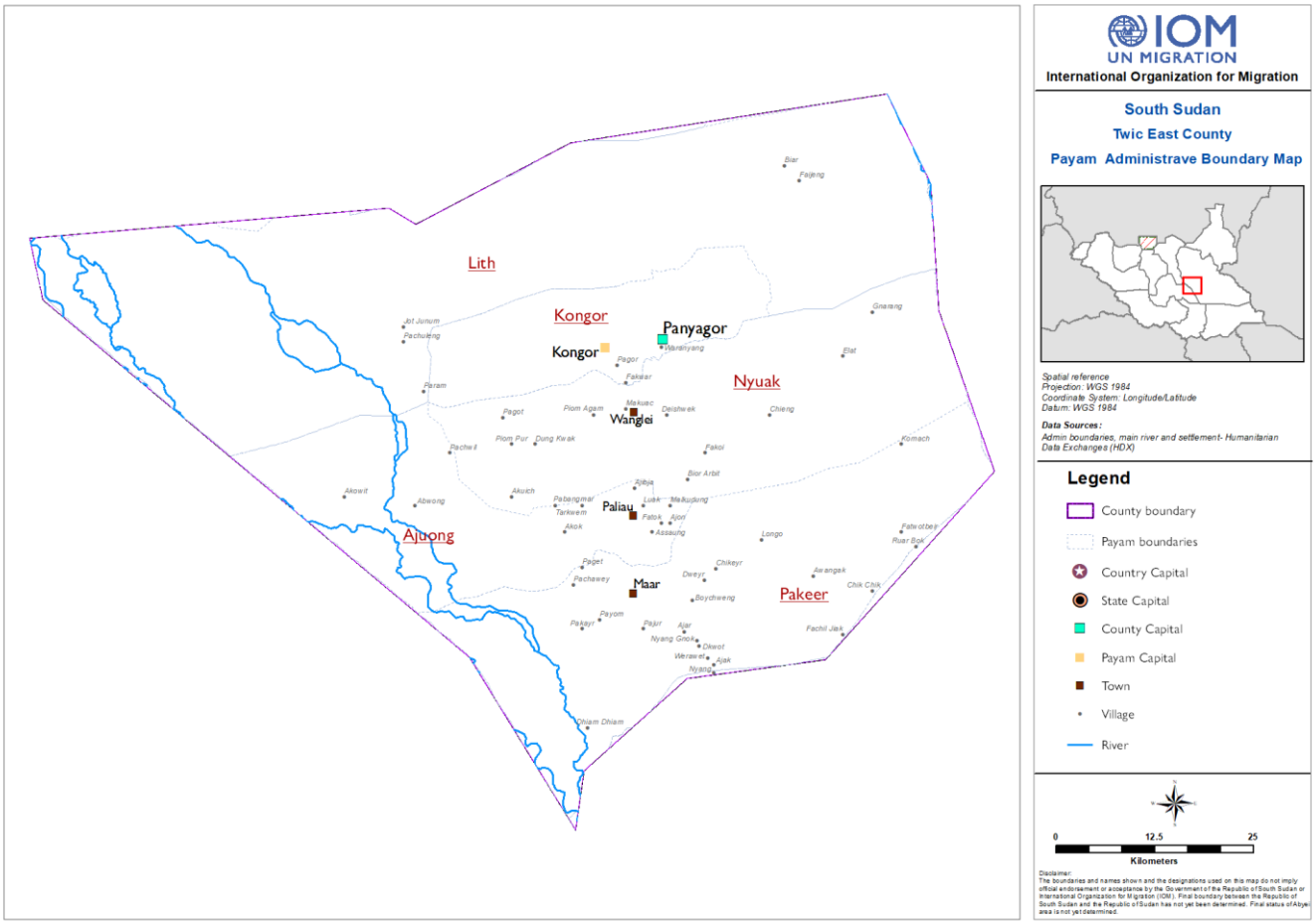


Figure 20. Administrative map of Twic East County

Language and Ethnic Groups

The main language and ethnic group are Dinka (Twic) in Twic East. Other minority groups are mostly traders from neighboring Uror County (Nuer speaking Lou Nuer) and Darfurian traders (Arabic speaking Sudanese).

Displacement impacts

It was projected in 2020 that the population of Twic East County is 122,775 (OCHA, 2020), however due to the prolonged flooding in 2018, 2019, and 2020, there was an immense decrease of population due to the flood displacement. GRID3 data estimated that the population decreased to 35,267 in 2020 (Table 2, Grid3, 2020). Furthermore, flooding in 2021 impacted an additional 27,685 people (ECRP II data, 2021; Grid3, 2020), which was estimated to be 79% of the county population.

According to Relief and Rehabilitation Commission (RRC) and community leaders, most of the population has moved to Mangalla IDP camp, Mingkaman IDP camp, Bor town, Awerial County in Lakes State, Juba, and refugee camps in Uganda, and Kenya. It is important to note that inter-state displacement became often with prolonged floods, replacing the regular coping mechanism where population would move to the higher lands

(within or to the neighboring counties) until the flood water recedes. Figure 3 below highlights some of the main migration destinations of Bor, Awerial, and Mangalla for former residents of Twic East.

The populations that do remain in Twic East are confined to a few island locations, the main one being Panyagoor (the county capital). In Panyagoor and other island communities that remain have either constructed their own secondary dikes or are living on top of the primary dike.

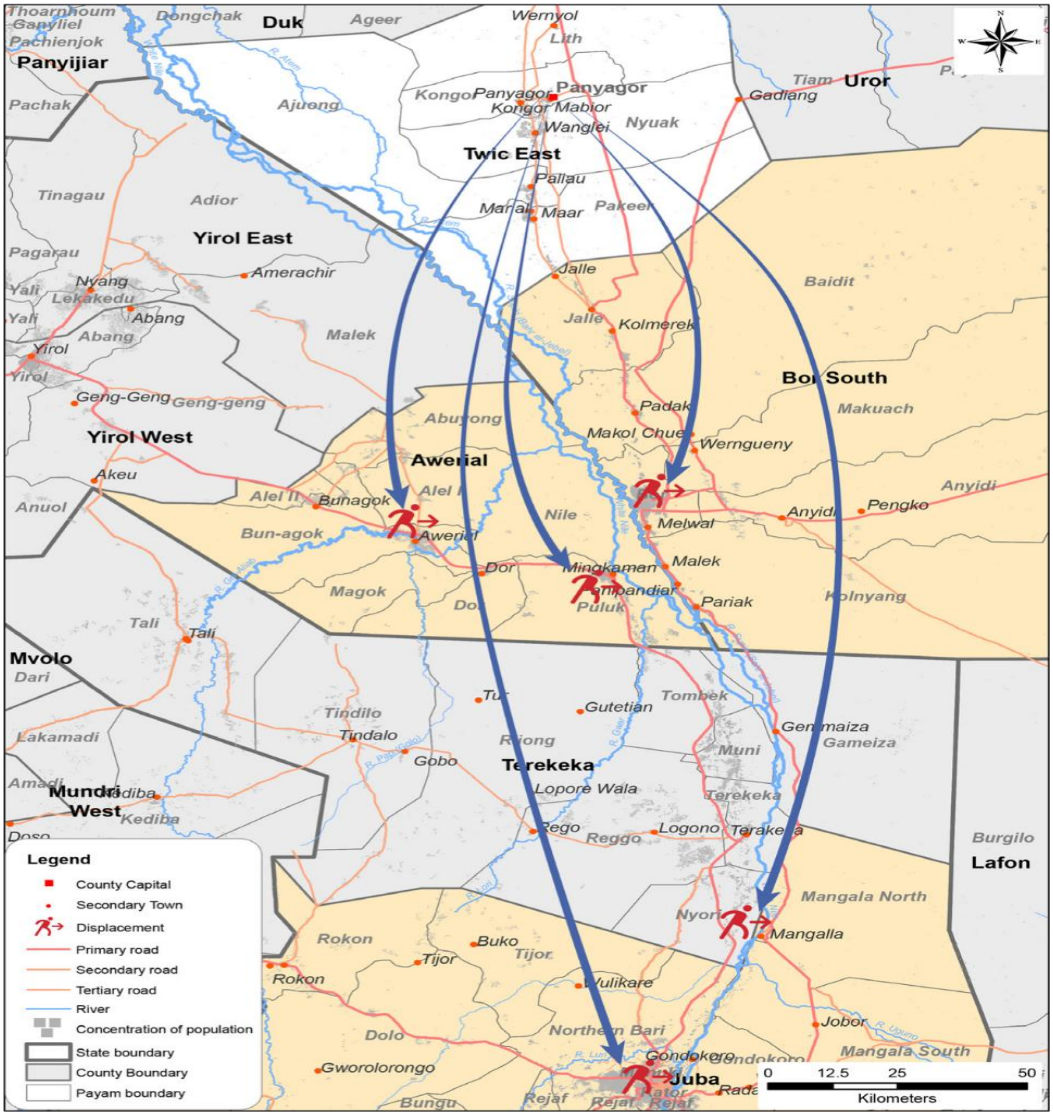


Figure 21. Administrative Map of Twic East County showing migration of IDPs Bor, Awerial, Mangalla, and Juba

Twic east flood context

Based on secondary sources and a focused group discussions the below table outlines the major disasters from 1943 to 2022. It was indicated that the current flooding (2019-2022) had the largest impact on the community followed by the 1964 flood.

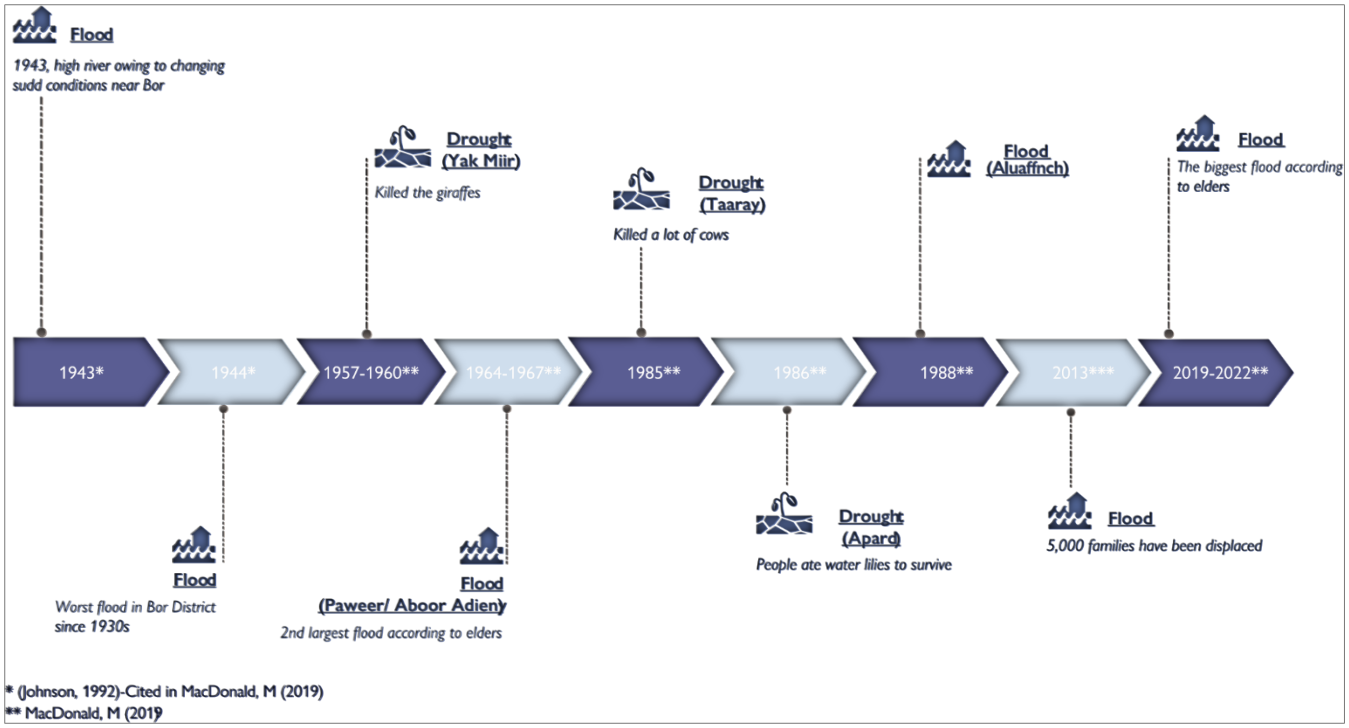


Figure 22. Disasters Timeline in Twic East

Disaster History

More than 70% of the county is inundated except for ring dikes at the County headquarters, Paliau and several highlands in Pakeer Payam, which has devasted the county's physical infrastructure Site observation indicated that nearly all the payams' primary schools and PHCUs (Primary Health Care Unites) are inundated except for Kongor Payam that's within the diked area. Panyagoor town has been saved by 8km ring dike buitd by community covering a small section of the county headquarters. The current depth of flood water varies depending on the topography. Based on various measurement taken when traveling along the dike by boat, the average water depth within the low-lying areas of Dong boma, Lith Payam is about 85cm.

Livelihoods

Based on secondary reports and FGDs it was found that Twic East County is known for livestock rearing (cattle and goats) and limited rain-fed cultivation (e.g., sorghum, millet, groundnut, sesame, and pumpkins) (FEWS NET, 2018); (Hassan, et al., 2006). These key livelihoods are supplemented by fishing, hunting, and gathering wild foods and bush products. The main assets are goats, cattle, and land (FEWS NET, 2018). In interviews it was noted that livestock often moves toward the Nile waters during the dry season (February to April) to graze on grasslands (Hassan, et al., 2006). This is often the time that conflict over pasture and cattle raiding occurs (FEWS NET, 2018); (MotmacDonald, 2019).

Figure 23. Displaced residents living on the primary dike in Dong Boma drying fish

Poorer households traditionally relied on the sale of firewood, charcoal, construction poles, goats, and homebrew. More well-off homes tended to get most of their income from the sale excess of crops, cattle, and milk (FEWS NET, 2018) which was validated by FGDs when asking residents "what was your life like prior to the flooding".

There are various hazards that impact the livelihoods of Twic East residents (see main hazards to livelihoods and approximate frequency). During data collection it was found that the recent flooding has not only displaced most of the population (see displacement section) but has changed livelihood activities. By 2020, most income generation is generated through means of fishing.

When interviewing cattle keepers that have remained behind, they have adapted to the flooding by fishing using canoes and hand-woven gill nets. Many of these younger men now live on the dike. They descale, fillet, and cover the fish in salt and dry them on racks in the sun. Larger boats come by biweekly to buy wholesale the fish and later sell them in Bor, Juba, Uganda, and Congo. These fishermen make a relatively good income and support displaced family

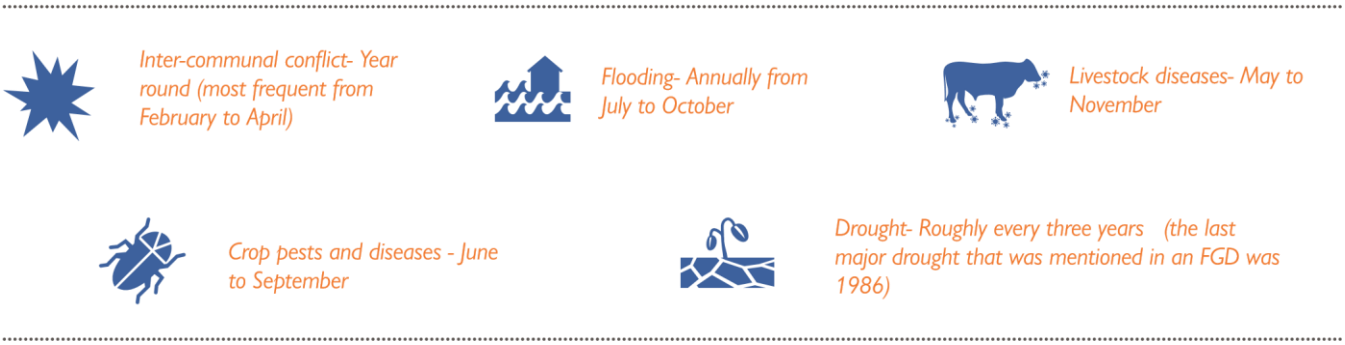


*Figure 24. Main Hazards to Livelihoods and Approximate Frequency. *Adapted from (FEWS NET, 2018)*

Roads

There are two major roads that run through Twic East. Due to the flooding since 2019 neither of these roads are accessible (indicated by the Logistics Cluster as a "red warning"). The main road connects Twic East to Bor and Malakal. From interviews with partners and community consultation it was found that partners such as WFP are planning to rehabilitate this road to enhance the accessibility of the county for humanitarian aid.

The other major road connects Twic East to Akobo. As of 14 March 2025, the road that connects Bor and twic east had been rehabilitated allowing the ease mobilisation of equipment and resources.

Due to the flooding, the main means of transportation are locally made canoes and walking through the water. The canoes are made and purchased in Yirol, Lakes state (across the Bahr El Jabel) from mahogany trees.

Figure 25. Houses flooded in Ajuong Payam, Twic East

Market Functionality

Due to flooding since 2019 the major roads have not been reliable and thus forced private companies and NGOs to increasingly rely on the Dhiam-Dhiam river port and the Mabior airstrip. Traders have indicated that this has increased the prices of transport, thus they have had to increase the general price of goods in the market.

The Dhiam-Dhiam river port is in Pakeer Payam in the southern area of Twic East County where boats transport both people and goods to larger cities such as Bor, Juba, and Malakal. Traveling from Dhiam-Dhiam to Bor by speed boat takes roughly six hours and by larger commercial boat around twelve hours.

There is one major market in Twic East. The market is in the county headquarters of Panyagoor, Kongor Payam. At the main market, food items, clothing, cooking, and other daily materials are available. The shop owners vary from longtime Twic East residents to Darfurians and Lou Nuer cattle tradesmen. Additionally, the only cellphone network operational is Zain.

Water Infrastructure

The main water source for Panyagoor residents is boreholes (which most have small community dikes around them). According to an RRC staff member, there are roughly 21 boreholes within the Panyagoor town, and a surface water treatment plant (SWTP) built by Tearfund.

Based on discussions with individuals along the dikes and WASH partners, due to the flooding most of the population, including, people living on the dike, either drink untreated water directly from the river or use aqua

tabs when available (NGOs distribute aqua tabs but they are often not enough). There are some exceptions such as Paliau in Ajuong Payam, where there is a SWTP built by Tearfund (which does need some maintenance).

Figure 26.Flooded Borehole in Nyuak Payam

Social Infrastructure

The social infrastructure section outlines Twic East County's health, education, and religious institutions and provides a few examples of the social impacts flooding has had on the community.

(a) Health

According to CARE International and RRC, there are seven functioning healthcare facilities in Twic East with the main hospital in Panyagoor. The other facilities are in a few island communities, but as people have been displaced throughout the county and a lack of transport options due to the flooding make accessing health services very challenging (IRNA, 2020). Additionally, in an interview with CARE International, it was shared that the health facilities have a high turnover of medical staff due to the difficult living conditions, are overcrowded, and are undersupplied facilities (e.g., malaria medication).

(b) Education

The Ministry of Education and RRC indicated that 40 schools have been either destroyed or deemed not functional throughout the county due to the recent flooding. Two primary schools and one secondary are currently operational in the county capital of Panyagoor but are very overcrowded. Additionally, some island communities (those that have created secondary dikes on highlands) have constructed makeshift schools but lack many necessary resources to adequately function (physical materials and teachers).

Figure 27. Flooded school in Kongor Payam © IOM 2022

(c) Religious institutions

Though many of the physical structures of religious institutions are damaged by the recent floods the institutions are still very active. It was indicated that the Episcopal Church of South Sudan (ECSS) was the largest religious group but that there were four other large Christian denominations (Seven-day Adventist, Church of Christ, Pentecostal, and Catholic) in Twic East County and a small mosque located in Panyagoor (mostly used by Darfurian traders).

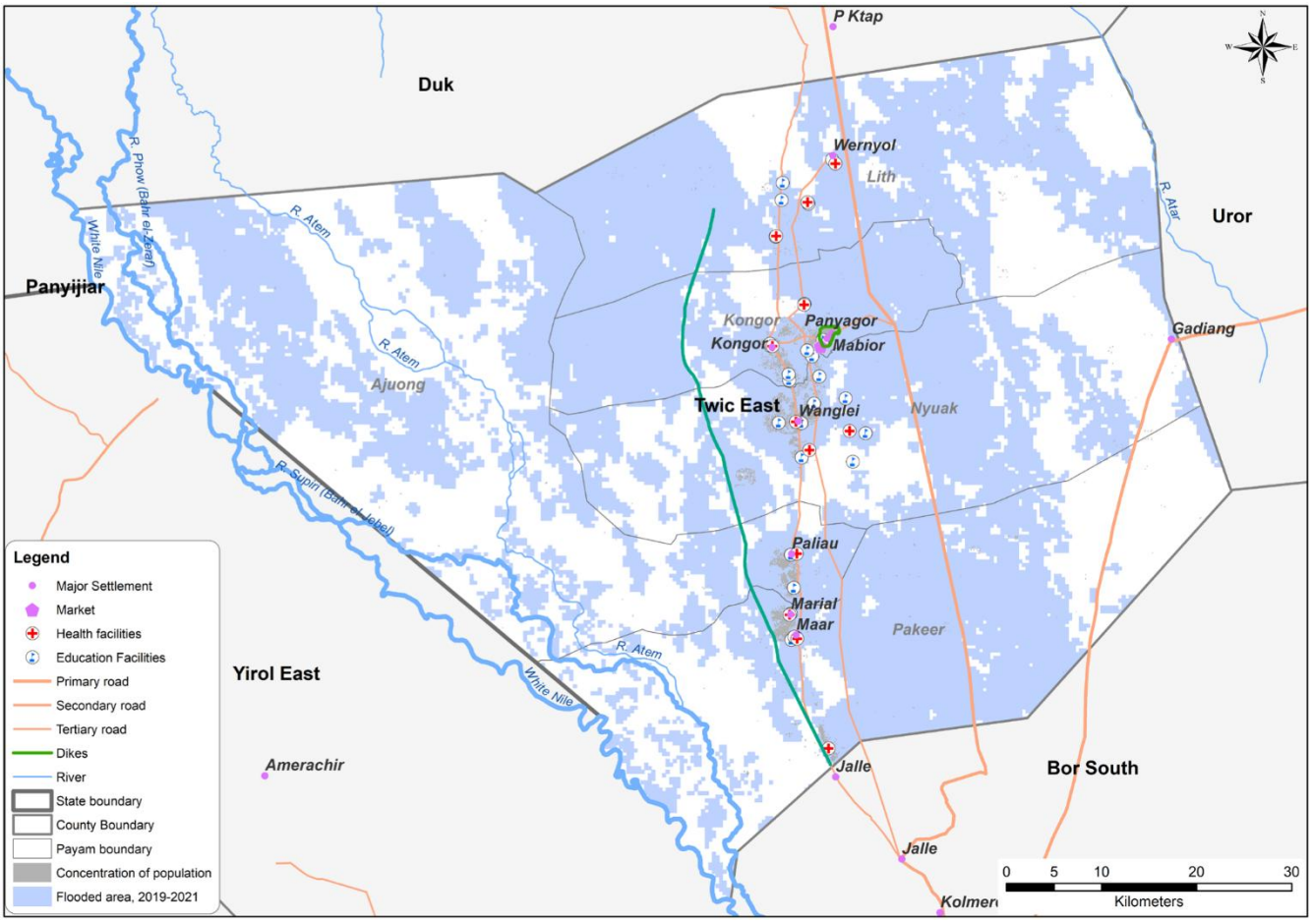


Figure 28. Existing infrastructure in Twic East Map and the area flooded during the 2019-2021 flooding

Social and Cultural Impacts of Flooding

The flood has impacted the community in various ways which have affected the people of Twic East, Panyagor town in diverse ways. Som of the feedback obtained from the communities during the engagement are presented in table below.

Table 7. Social and Cultural Impacts of Flooding

Category of Impact	Participant Reponses
Livelihood	"Many of our chickens, goats, crops, and cattle have died leaving us with nothing" - Chief, Women leader, Payam Administrator, and Youth leader
Marriage	"Dowry used to be 30-40 cows but now everyone has lost their cows and our daughters get married for nothing, we have no wealth" - Chief
	"The rates of marriage have gone down; our young men and women are getting married at lower rates" - Women Leader
Environment	"Most of the trees and grass for construction has been destroyed We can no longer build our houses the traditional way with grass roofs. Now we have to live under tarps." - Chief
	"There are no trees for cooking or construction of homes, they have all been destroyed" - Youth representative
Youth	"The youth that have gone to Bor, Mangalla, Juba, etc. have been forced to beg on the street and joined gangs, this was never the case before the flooding" - County Commissioner
	The youth (and everyone) is overcrowded in the few places that we can live (e.g., the dike, Panyagoor) this causes us to feel confined. The few schools and health clinics are also overcrowded." - Youth representative
Women	"Women birth rates have gone down due to water borne diseases" - Women Leader

VII. CHAPTER 7

IMPACT IDENTIFICATION AND EVALUATION

Impact Analysis and Management/Mitigation Measures

7.1 Positive impact of the sub-projects

7.1.1 Positive impact during the construction/ phase of the project

Employment Creation

Likely, Positive, Short-term, localized, moderate significance.
The dike construction and phase will result in workers being needed for casual labour and semi-skilled labour. It is expected that the Contractor and project workers will buy local materials, and services which represent indirect employment opportunities to others during the dike construction period.

Enhancement and Management Measures

- Preference for casual labour should be given to locals irrespective of gender, or physical characteristics such as disability as guided by the Labor Management Plan (LMP).
- Gender equity to be accepted in all communities.
- Applicants must provide identification as proof of origin and avoid child labour.
- Where possible employ the disadvantaged and disabled.

7.1.2. Positive impact during the operation phase of the sub-projects

Human life

The proposed sub-projects are earmarked for the protection of current existing infrastructures that will protect the communities and save lives. The existing dykes will have a net positive impact in Panyagor, Twic East. Protecting the population in Twic East County will reduce the likely incidents of displacement which will further worsen protection issues that are already in a bad state compared to other locations. Over 76,000 people are expected to benefit from the proposed sub-projects in the county.

Mitigation/enhancement Measures

- Ensure the community structures are organized to foster orderly allocation of the reclaimed land.

Domestic livestock health

It is likely that the dikes will reduce disease transmission/incidence in cattle causing a moderate positive effect.

Mitigation/enhancement Measures

- Ensure structures are in place to maintain the integrity of the dikes

Economic Welfare and Food Security

The anticipated implementation of the proposed sub-projects is expected to improve the food security and nutritional status of households. This improvement is likely to stem from greater availability of animal protein and the opportunity to grow food crops. Additionally, the land recovered through the efforts is projected to offer new areas for farming and livestock grazing.

Mitigation/enhancement Measures
- Communities should ensure continued maintenance of the dikes.

Access to safe drinking water

The access to safe drinking water within the county has been flagged as a critical aspect that needs attention. The proposed sub-projects are expected to protect the only existing water treatment plant in Twic East County, and this will ensure that more than 13,000 people will continue to have access to safe drinking water.

Mitigation/enhancement Measures
- Ensure structures are in place to maintain the integrity of the dikes.

Human habitation and flood disaster reduction

The proposed sub-projects will bring many benefits to the communities returning to the reclaimed areas, most of high significance, through making more habitable land available for settlement and cultivation of crops, providing protection against the adversities of floods, reducing the need for maintaining two areas of residence and associated socioeconomic disruptions caused by the need to migrate for some members of family, among other benefits.

Mitigation/enhancement Measures
- Ensure structures are in place to maintain the integrity of the dikes.
- Training of PDRMCs to respond to disasters/crises.
- Formation of O&M committees.
- Awareness on land ownership to mitigate against land dispute during resettlement

Restoring the education, health and facilities:

Due to the new dike infrastructure, most facilities that were submerged in floodwaters shall be reclaimed. As such, the project will be in position to rehabilitate the damaged infrastructure or construct new education, health and water facilities in the protected area thereby, directly benefiting the community.

7.1.3 Overview of the Impacts of footpaths, crossing points & Docking points

The sub-projects will involve undertaking works that will include the rehabilitation of existing crossing points and docking points. During sub-project implementation specific impacts may be experienced and this section provides some guidance in the management of the identified impacts. Impacts that are generic as a result of similarity of activities with dike construction activities, such impact have been discussed under section 6.2 with adequate mitigation to be implemented as described.

Disruption of normal movement

Likely, Negative, Short-term, reversible, localized, insignificant
During the construction, normal routes may be closed to allow the machines to work in a safe environment. This may affect the normal day to day activities of the communities.

Mitigation measures

- Engagement of communities prior to the closure of certain routes to allow for proper planning.
- Community members to use alternative routes since they are numerous routes currently in existence.
- Ensure the areas are barricaded when working

Noise and Vibrations

Likely, Negative, Short-term, reversible, localized, insignificant

Limited temporary impact of noise pollution expected from moving heavy equipment

Mitigation measures

- Prior notice/community awareness will be undertaken for the local community members to keep them informed of what will take place/schedules of the project activities so that they are able to plan accordingly.
- Movement will be limited to only daytime hours.
- Noise monitoring will be undertaken within the area and at nearby sensitive receptor sites during construction.
- Using noise control devices, such as temporary noise barriers and deflectors for impact and blasting activities, exhaust muffling devices for combustion engines.
- Avoiding or minimizing project transportation through community areas.
- Use of well-maintained and serviced equipment that generates low noise levels will be emphasized.
- Workers involved in dike construction activities will be provided with requisite Personal Protective Equipment.
- Idling of machinery including vehicles will be prohibited unless necessary.

Air pollution: - Dust, & Particulate matter

Likely, Negative, Short-term, reversible, localized, insignificant

The operation of machines and their movement will result in generation of air pollutants like dust and particulate matter.

Mitigation Measures

- Machinery must be serviced regularly to reduce emissions.
- Engines must be turned off when vehicles are not in use or when waiting for loading or off-loading. Idling must be prohibited.
- Workers must have dust masks and goggles where necessary.
- Dike construction vehicles to travel at low speeds and caution to be taken during windy periods.
- Water can be sprinkled to reduce dust emission and wind erosion during windy periods.
- Minimizing dust from material handling sources, such as conveyors and bins, by using covers and/or control equipment (water suppression, bag house, or cyclone).
- Minimizing dust from open area sources, including storage piles, by using control measures such as installing enclosures and covers, and increasing the moisture content.
- Dust suppression techniques should be implemented, such as applying water to minimize dust from vehicle movements

Community safety

Likely, Negative, Short-term, reversible, localized, insignificant

The safety of communities may be compromised during establishment of the crossing points and docking points. Tripping hazards may also be an issue post establishment since there is going to be an increase in the height of the dikes.

Mitigation Measures

- Dissemination of project information must be done to make the communities aware of project and associated risks. Public Awareness Campaigns: Inform the community about the construction activities, timelines, and potential hazards through meetings.
- Implementation of the recommended public safety actions should be always done including Securing Construction Zones: Use barriers, fencing, and signage to clearly mark construction areas and restrict unauthorized access.
- Warning signs must be erected in places where pits have been dug and in dike construction sites to keep public out.
- A concerns/complains register must be made and follow ups done on each complain.
- Regular Safety Audits: Conduct frequent safety inspections to identify and address any emerging risks.
- Emergency Response Plans: Develop and communicate emergency response plans to handle any incidents promptly and efficiently.

Land degradation

Likely, Negative, Short-term, reversible, localized, insignificant

The extraction of materials e.g. soil form embarkments, excavation works may result in land degradation.

Mitigation Measures

- The extraction of natural resources shall be done sustainably only in legally allowed designated areas.

- Rehabilitation of all areas disturbed during dike construction shall be done by the Contractor.
- Excavation shall be controlled and only restricted to areas that will be worked on only.

7.2 Adverse Impact of the sub-projects

7.2.1 Pre-construction/ phase

Planning/ Designing Ensure compliance with the dike construction legislation of South Sudan

Likely, Negative, Short-term, reversible, localized, insignificant

Mitigation measures

- Acquire construction/ permit. Provide Water management guidelines if sub-projects are executed near surface watercourses.

Planning/ Designing Potential damages to the existing infrastructure and facilities

Likely, Negative, Short-term, reversible, localized, insignificant

Mitigation measures

- Preserving existing local infrastructure and working in cooperation with relevant institutions at all levels of authority.

Poor drainage system and dike /dike construction planning.

Likely, Negative, Short-term, reversible, localized, insignificant

Mitigation measures

- Careful selection of engineering options at planning stage.
- Limitation of degree of channel modification on maintenance.

7.2.2. Construction/ Phase

Possible impacts associated with the construction/ phase are presented in the sections that follow.

7.2.2.1 Environmental impact and risk of the sub-projects

<u>Air Pollution –Dust and emissions</u>

Likely, Negative, Short to medium term, localised, insignificant to moderately significant (within the project context) dike construction and material extraction, and machinery movement will result in air

pollution from emissions and dust particulates which can be harmful to human health or become a nascence during the dike construction and phase.

Mitigation Measures

- Machinery must be serviced regularly to reduce emissions.
- Engines must be turned off when vehicles are not in use or when waiting for loading or off-loading. Idling must be prohibited.
- Workers must have dust masks and goggles where necessary.
- Use human labor in favour of machinery to reduce carbon emissions that result from the use of machinery.
- Dike construction vehicles to travel at low speeds and caution to be taken during windy periods.
- Water can be sprinkled to reduce dust emission and wind erosion during windy periods.
- Different air analysis methods must be employed daily to keep track of ambient air quality.
- Minimizing dust from material handling sources, such as conveyors and bins, by using covers and/or control equipment (water suppression, bag house, or cyclone).
- Minimizing dust from open area sources, including storage piles, by using control measures such as installing enclosures and covers, and increasing the moisture content.
- Dust suppression techniques should be implemented, such as applying water or non-toxic chemicals to minimize dust from vehicle movements.

Air Quality - Greenhouse gases

Likely, Negative, Short to medium term, localised, moderately significant
Emissions from dike construction vehicles carrying dike construction material contribute to the emissions of carbon dioxide, methane, nitrous oxide and greenhouse gas precursors such as non-methane volatile organic compounds and oxides of nitrogen.

Mitigation Measures

- As much as is reasonably practical, use local manual labour and well serviced vehicles.
- Re-vegetation of disturbed areas should be with indigenous species.

Accelerated Soil Erosion and Siltation/sedimentation

Likely, Negative, Short to medium term, localized, reversible, and significant.
Soil disturbance, particularly during the rainy season results in accelerated soil erosion. slopes and shoulders are prone to soil erosion. These areas have a steep gradient that can cause significant soil loss and siltation of the rivers.

Mitigation Measures

- Implement soil conservation measures.
- Scheduling to avoid heavy rainfall periods (i.e., during the dry season) to the extent practical.
- Contouring and minimizing length and steepness of slopes
- Mulching to stabilize exposed areas.
- Re-vegetating areas by replanting grass and or reforestation promptly.

- Reducing or preventing off-site sediment transport through use of settlement ponds, silt fences, and Upgrading or suspending activities during extreme rainfall and high winds to the extent practical.

Impact on Vegetation distribution (flora) and fauna

The vegetation type that will be most affected in some sections is the flooded grassland that will be in areas that dike construction and will take place. The prevention of flooding will change the previously river-flooded land behind the rain flooded grassland systems with expected natural succession and encroachment of woody components. Post sub-projects implementation, grass lands will appear in sections of the reclaimed land, and this will support livestock keeping in the area. The implementation of the subprojects may also affect the fauna/wildlife of the subproject areas.

Mitigation/enhancement Measures

- A detailed layout plan to be developed which focuses on avoiding vegetation loss
- Dike construction and works should only be confined to planned areas to avoid disturbance of vegetation in other areas.
- Designate selected areas as grazing land and ensure controlled grazing.
- Flora -Land clearance should be restricted to that which is required for the project components to minimize the loss of vegetation;
- -Restrict vehicle movements to and from the project site(s) to the project access road – offroad driving should be prohibited;
- -Site restoration should be undertaken for areas where temporary project infrastructure will be established during the dike construction phase. The affected areas should be restored, and only indigenous vegetation replant or re-seed vegetation e.g. grasses, trees -Intentional restoration using exotic plant species should be avoided;
- -Sensitize workers against unnecessary destruction, trampling and clearance of flora/crops and fauna;
- -In an event that the project activities may have potential adverse impacts on biodiversity, biodiversity management plan should be developed, if the potential risk of project activities are insignificant, the appropriate mitigation measures should be implemented.
- For wildlife, including hippos, reptiles and wetland dependent birds, which are dependent on natural flooding regime, minimize disruption of flow in the subproject areas to extent possible.

- In case of any potential adverse impact on Sudd region during the implementation of this subproject, the following activities need to be done.
- Avoid any significant conversion or significant degradation of critical Habitats of Sudd region. The PMU/IOM/contractor ensure that any activities undertaken are consistent with the area's legal protection status and management objectives.
- Conduct consultation and involve protected area sponsors and managers, project-affected parties including Indigenous Peoples, and other interested parties on planning, designing, and implementing.

Noise pollution

Limited temporary impact of noise pollution expected during excavation and embankments work and drainage system.

Mitigation measures

- Prior notice/community awareness will be undertaken for the local community members to keep them informed of what will take place/schedules of the project activities so that they are able to plan accordingly;
- Dike construction activities will be limited to only daytime hours;
- Noise monitoring will be undertaken within the area and at nearby sensitive receptor sites during construction;
- Using noise control devices, such as temporary noise barriers and deflectors for impact and blasting activities, exhaust muffling devices for combustion engines.
- Avoiding or minimizing project transportation through community areas.
- Use of well-maintained and serviced equipment that generates low noise levels will be emphasized.
- Workers involved in dike construction activities will be provided with requisite Personal Protective Equipment; and
- Idling of machinery including vehicles will be prohibited unless necessary.

Solid waste

Solid waste, like, wood, stones, plastic materials, and fuels spill might be generated during project implementation activities.

Mitigation measures

- Implement waste management hierarchy.
- Non-hazardous wastes can be managed by reusing, recycling, or can be sold to authorized collectors and recyclers and should be dispose using the South Sudan solid waste disposal facilities.
- As there are no known facilities to dispose of hazardous waste in the country.
- The Contractor should consider designing a temporary hazardous waste storage facility in consideration of the generated amounts and timing before final disposal by licensed hazardous waste handlers in accordance with the national legislative requirements and world Bank ESF requirements and GIIP practices;
- Maximize the re-use of all excavated materials in the dike construction works.
- Disposal of surplus material (spoil) only at designated sites approved by the responsible local authority and only by approved methods.
- No spoil should be disposed of in wetlands, near watercourses and other important habits.
- No spoil should be disposed of in wetlands, near watercourses and other important habits
- Contract a licensed hazardous waste handler to safely transport and dispose of hazardous waste;
- Capacitate and support licensed personnel who are involved in hazardous waste disposal and management in all aspects including financial and technical supports.
- Identify the potential waste streams to be generated by the project activities, and how best they can be managed;
- All wastes shall be properly disposed of in accordance with the national legislative requirements and in accordance with ESF requirements and GIIP practices.

Risk of vibration

Increased levels of vibration from moving of dike construction vehicles and machinery.

Mitigation measures

- Restrict vehicle movement to defined routes.
- Notification communities through awareness exercises.
- Avoiding or minimizing project transportation through community areas.

Potential surface and ground water impacts

Surface and ground water sources can be polluted because of soil erosion and sedimentation

Mitigation measures

- Establish appropriate erosion and sediment control measures (e.g. silt fences) to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.
- Drainage depth will be less than 2m. A properly organized waste disposal is a mandatory requirement for the Project.

Potential water and soil pollution

- Water and soil can be polluted due to improper material storage, management, and usage, waste disposal, and drainage of wastewater from dike construction site.
- All wastes generated during dike construction activities should be collected and disposed of appropriately at designated sites;
- Undertake monitoring of the soil and water quality and devise corrective action when changes attributed to project implementation have been observed;
- The waste management hierarchy should be followed during the dike construction phase. According to this hierarchy, source reduction of waste will be the first option and disposal of unavoidable waste as the option of the last resort;
- Dispose waste material at authorised location protected from washing out, should be marked in the site plan.
- Undertake routine preventive maintenance of motorized equipment to avoid any fuel leakage and spills;
- Storage of fuels and oils should be undertaken in a manner that does not allow leakage to the soil as the fuel can readily infiltrate the soils polluting the soils, ground and surface water.
- Preparing plans and procedures to respond to the discovery of contaminated media to minimize or reduce the risk to health, safety, and the environment.
- Managing contaminated media with the objective of protecting the safety and health of occupants of the site, the surrounding community, and the environment.
- Organize and cover material storage areas;
- Select areas for washing that are not free draining directly into watercourse; and
- Installation of ecological toilettes for workers to avoid direct discharge of wastewater to water body.

Land degradation.

Likely, Negative, Short-term, reversible, localized
The extraction of materials e.g. soil form embarkments, excavation works may result in land degradation.

Mitigation Measures

- The extraction of natural resources shall be done sustainably only in legally allowed designated areas.
- Rehabilitation of all areas disturbed during dike construction shall be done by the Contractor.
- Excavation shall be controlled and only restricted to areas that will be worked on only.

Disturbance to the cultural, religious, and archaeological sites

Possibility of encountering an archaeological site, archaeological materials, cultural significance, shrines

Mitigation measures

-Avoid any cultural or religious sites. If cultural or archaeological items are found during soil excavation and dike embankment works or drainage system, the contractor shall immediately suspend the Works. and barricade the area and follow the chance finds procedure.

Environmental Liabilities

The excavation of materials and the backfilling of borrow pits should be done according to the national laws and the requirements of the World Bank ESF, project ESCP as read together with the project ESF.

7.2.2.2 Occupational Safety/Health and employment of dike construction workers

Likely Negative, Short to Medium-term, localised, significant
dike construction, drainage system and docking point construction activities involve working with tools, machinery and materials that pose significant risk of injury and fatalities if not managed well.

Mitigation Measures
- The Contractor must make sure that there is a site Safety, Health & Environmental Officer or appointed focal person.
- A Safety, Health and Environment awareness induction training should be conducted for both contractual and casual employees before dike construction commences.
- Dike and docking point construction should be carried out in accordance with relevant occupational health and safety (OHS) standards of the World Bank and the national OHS requirement if any.
- Integrity testing must be done before work begins on heights.
- Workers must be trained on climbing techniques and fall protection measures.
- Adequate PPE and tool bags must be used by workers.
- Minimum standards of provision of segregated lockable sanitary facilities for males and females where necessary.

7.2.2.3 Social impact and risks

Increased Pressure on existing social infrastructure

Negative, Likely, short term, localised, moderately significant
The proposed subproject will result in project workers relying on existing social infrastructure particularly for water and sanitation. This may exert pressure on existing communities and may be a source of conflict and possible may affect the health of workers. Since the work will be mechanised, the number of employees onsite will be few and are likely not to cause a significant impact in the county.

Mitigation measures

- Were possible contractor to use mobile ablution facilities for their teams.
- Stakeholder engagement and dialogue to ensure harmonious relations and access to available resources

Conflicts, fights

Negative, Likely, short term, localised, moderately significant
Interaction of the contractor workers with the community may result in misunderstanding and conflicts

Mitigation measures

- Induction and training of contractor staff
- Stakeholder engagement and dialogue to ensure constant updates and harmonious relations with communities
- Enforcement of the employee Code of Conduct

Grievances

Likely, Negative, Short to medium term, localized, reversible, and significant
The implementation of sub-projects may result in grievances emanating from the interaction of the project Contractor, employees, communities and other stakeholders. These grievances can occur at any stage of project implementation and have the potential to affect and cause delays in project implementation.

Mitigation Measures
- Establishment of a platform to receive and manage grievances as provided for under the ECRP II.
- Education and awareness raising on the GRM to be extended to all relevant stakeholders.
- Disclosure of the GRM including information of cases received and how they have been managed within the project area.
- Multiple channels will be made available for aggrieved parties to file their complaint, grievance, or feedback which include the suggestion boxes, BDC community volunteer, social mobilisers and the help desk as means upon which the aggrieved party may approach to lodge a complaint.

Risk of accidental damage cultural heritage objects Likely, *Negative, Short to medium term, localized*.
The implementation of the sub-projects may result in the exposure of archaeological remains. Such happenings may not be predicted but once observed the relevant necessary procedures and protocols should be followed.

Mitigation Measures

- If there are any chance finds during the implementation of the sub projects, IOM and the Contractor s are obliged to comply with the requirements of the Bank, national laws, and guidance from the traditional leaders. The provisions of the ECRP II ESMF and the Chance Finds procedure should guide such cases.
- Discrimination in employment and occupation with respect to gender and disability may also occur as well as possible child labor.

Gender Based Violence (GBV)

Likely, Negative

Floods and food insecurity are affecting several parts of Twic East which increases women's/ girls' vulnerability to GBV. Population is concentrated in an area increasing more risks for GBV. Increased cases of child/forced marriage and teenage pregnancies due to prolonged school closure and Hunger. Schools have been submerged by water; Farms are carried off by floods forcing families to send girls for marriages to get living. Cultural and Social norms which perpetuate and reinforce multiple forms of violence against women and girls. Girls are seen as bride price and Liabilities. Worst with the ongoing floods and the 2021 conflict and crisis. Gender discrimination and social stigma prevent GBV survivors from seeking help and accessing services. Both men and women Fear reporting GBV cases. Men are seen superior not allowing them to report. Women face even more violence when they attempt to report. The assessment noted that there are limited reporting opportunities and support services to child survivors of GBV.

Mitigation Measures

- Staff induction and training. Ensuring that all project workers, contractor workers or suppliers are briefed on the project PSEA requirements and Code of conduct.
- Training and creating more awareness on GBV/SEA
- Continue GBV safety Audits of every sub-projects. Safety Audits sessions also act as a space for creating more awareness and educating the communities on General protection and GBV in specific.
- Service mapping of protection and GBV related services. This helps to identify the updated referral pathways to the communities.
- Women Leadership Trainings and confidence Building to empower women to speak and raise concerns related to them.
- Promotion of reporting systems that are anonymous and that protect the victim

7.2.2.4 Community health and safety risk

Risks and impact of road safety and poor traffic management for worker and communities

Mitigation measures

- Implementation of a traffic management system i.e. speed limits, traffic controllers, installation of signage.
- Ensure adequate warning signs, protective fencing etc.
- Observe and respect traffic rules.

- Clean dike construction waste from the dike construction site when closing the dike construction site.
- Journey-specific risk assessments which will include the identification of potentially sensitive receptors along the traffic routes should be conducted. For significant traffic movements, including transport of dike construction materials to site, any affected communities/residents along the route should be sensitized, and wherever possible, attempts made to undertake the traffic movements assessments.
- Only approved drivers should be allowed to operate vehicles; and
- Dike construction materials should wherever possible, be preferentially sourced locally in a manner that reduces environmental and social impacts (e.g., transport distances) and maximizes local economic development opportunities.
- All roads should have clear and visible signage especially in community areas, around schools and hospitals to minimize the risk of-All staff should undergo an Environment, Health and Safety induction process which includes rules for safe driving, including speed limits in community areas.
- Dike construction equipment should be maintained on site until the dike construction is complete to reduce on vehicle movement (Taking into consideration, their security

Risk to community health and safety e.g. accidents at burrow pits, UXOs, and mines

The implementation of the sub-projects will result in the establishment of borrow pits that will present a risk to the community.

Mitigation measures

- Ensure clearance from UNMISS is obtained regarding UXOs and mines prior to working in any areas
- Awareness training and induction of staff on UXOs and mines
- Fence the quarry site to prevent people and livestock trespass.
- Installation of hazard warning signs.
- Awareness raising initiatives.
- Rehabilitate the burrow pit to the extent possible.

Public Health and Safety Risk

Likely, Negative, Short-term, reversible, localised, insignificant
This assessment identifies potential impacts of the Project on Community, Health, and Safety. Impacts will primarily occur in the dike construction and phase and result in increased safety risks for communities in the Project area. These include increase in ambient noise levels, elevated dust levels and risk of accidents or injuries if equipment is left lying around and accidents.

Mitigation Measures
- Dissemination of project information must be done to make the public aware of project and associated risks.

- Implementation of the recommended public safety actions (refer to the Environmental Management & Monitoring Plan)
- Warning signs must be erected in places where pits have been dug and in dike construction sites to keep public out.
- A concerns/complains register must be made and follow ups done on each complain.
  Workers must take tools to proper storage or leave it safely stored after work.

Communicable diseases

Likely, Negative, Short-term, reversible, localised, insignificant

The interaction of contractor workers and the communities may lead to the spread of communicable diseases

Mitigation measures

- Providing surveillance and active screening and treatment of workers.
- Preventing illness among workers in local communities by:
- Undertaking health awareness and education initiatives, for example, by implementing an information strategy to reinforce person-to-person counseling addressing systemic factors that can influence individual behavior as well as promoting individual protection, and protecting others from infection, by encouraging condom use.
- Training health workers in disease treatment.
- Conducting immunization programs for workers in local communities to improve health and guard against infection.
- Providing health services.
- Providing treatment through standard case management in on-site or community health care facilities.
- Ensuring ready access to medical treatment, confidentiality and appropriate care, particularly with respect to migrant workers.
- Promoting collaboration with local authorities to enhance access of workers families and the community to public health services and promote immunization.

Water born disease (vector)

Likely, Negative, Short-term, reversible, localised, insignificant

Related to Pools of water act as breeding grounds for disease and illness(mosquitoes)

Mitigation measures

- Prevention of larval and adult propagation through sanitary improvements and elimination of breeding habitats close to human settlements
- Elimination of unusable impounded water.
- Increase in water velocity in natural and artificial channels.
- Considering the application of residual insecticide to dormitory walls.
- Implementation of integrated vector control programs.
- Promoting use of repellents, clothing, netting, and other barriers to prevent insect bites.
- Use of chemoprophylaxis drugs by non-immune workers and collaborating with public health officials to help eradicate disease reservoirs.
- Monitoring and treatment of circulating and migrating populations to prevent disease reservoir spread.

- Collaboration and exchange of in-kind services with other control programs in the project area to maximize beneficial effects.
- Educating project personnel and area residents on risks, prevention, and available treatment.
- Monitoring communities during high-risk seasons to detect and treat cases.
- De-vegetation in area of burrow pit, work ways along the dike section.

7.2.3. Operation Phase

The sub-projects assessed include brown field and greenfield sub-projects. The magnitude of the proposed sub-projects is small to medium, and their environmental and social footprint is not big. Thus, it is anticipated that the implementation of the sub-projects will pose moderate environmental and social risk. Possible impacts associated with the operation phase, are presented in the sections that follow.

7.2.3.1 Environmental impacts and risks

Flooding problems created downstream should be incorporated.

Likely, Negative, Short term, localized, reversible, significant.

Mitigation measures

- Protection of natural overflow areas downstream.
- Consider creation of overflow basins where possible after assessment of the likely impacts of the basins.
- Implement emergency preparedness measures (see section 8).

Potential for structural failure and floodwaters higher than capacity of control structures /measures

Likely, Negative, Short term, localized, reversible, significant.

Potential for structural failure and floodwaters higher than capacity of control structures /measures, leading to increased risk to life and property because local project adaptations are relaxed or abandoned or increased development on the floodplain has occurred post-project.

Mitigation measures

- Implementation of non-structural measures, such as watershed management activities (e.g., increasing vegetative cover, particularly on slopes, improving agricultural practices, implementing gully erosion control measures, etc.), planting of vegetation along riverbanks to help contain and reduce flooding, and protection of, or restriction of, use of wetlands which have a natural flood control effect to prevent increased flood risk, and
- Implement flood warning system using the emergency preparedness measures (See Chapter 8).

7.2.3.2 Social impact and risks

Land acquisition, Involuntary displacement and relocation

Likely, Negative

The project may have challenges of land acquisition particularly looking at the location of the dike as guided by the model results.

Mitigation measures

- The project shall exclude all sub-projects with land issues. The project shall implement subprojects on government land that is voluntarily donated.
- Obtain wayleave forms form relevant government ministries at local level granting the project authority to construct the dike following the specified route.
- Awareness raising of communities to ensure that they understand position of the project relating to land acquisition
- The project shall not implement subprojects in private lands.

Conflicts, fights

Negative, Likely, short term, localised, moderately significant

Interaction of the community groups relating to the use and management of the sub-projects

Mitigation measures

- Encourage community dialogue and peaceful engagement
- Clear communication from the community PDRMCs on activities
- Enforcement of laws by local community leadership

Gender Based Violence (GBV)

Likely, Negative

Floods and food insecurity are affecting several parts of Twic East which increases women's/ girls' vulnerability to GBV. Population is concentrated in an area increasing more risks for GBV. Increased cases of child/forced marriage and teenage pregnancies due to prolonged school closure and Hunger. Schools have been submerged by water; Farms are carried off by floods forcing families to send girls for marriages to get living. Cultural and Social norms which perpetuate and reinforce multiple forms of violence against women and girls. Girls are seen as bride price and Liabilities. Worst with the ongoing floods and the 2021 conflict and crisis. Gender discrimination and social stigma prevent GBV survivors from seeking help and accessing services. Both men and women Fear reporting GBV cases. Men are seen superior not allowing them to report. Women face even more violence when they attempt to report. The assessment noted that there are limited reporting opportunities and support services to child survivors of GBV.

Mitigation Measures

- Staff induction and training. Ensuring that all project workers, contractor workers or suppliers are briefed on the project PSEA requirements and Code of conduct.
- Training and creating more awareness on GBV/SEA

- Continue GBV safety Audits of every sub-projects. Safety Audits sessions also act as a space for creating more awareness and educating the communities on General protection and GBV in specific.
- Service mapping of protection and GBV related services. This helps to identify the updated referral pathways to the communities.
- Women Leadership Trainings and confidence Building to empower women to speak and raise concerns related to them.
- Promotion of reporting systems that are anonymous and that protect the victim

7.2.3.3 Public Health and Safety Risk

Likely, Negative, Short-term, reversible, localised, insignificant
This assessment identifies potential impacts of the Project on Community, Health, and Safety. Impacts will primarily occur in the operation and maintenance phase and result in increased safety risks for communities and their livestock. These include elevated dust levels and risk of accidents or injuries if equipment is left lying around and accidents.

Mitigation Measures
- Dissemination of ES risks must be done to O&M committees and the public.
- Implementation of the recommended public safety actions (refer to the Environmental Management & Monitoring Plan)
- Warning signs must be erected in places where pits have been dug and in dike construction sites to keep public out.
- A concerns/complains register must be made and follow ups done on each complain.
- Workers must take tools to proper storage or leave it safely stored after work.

Access issues

Due to limited road transport and accessibility issues during the rainy season, most transportation is conducted via waterways and air.

Mitigation Measures
- Proper planning and route assessments
- Use of barges and riverine vessels navigate the White Nile through the county, linking Malakal and Renk.

7.2.4. Decommission Phase

7.2.4.1 Environmental impact and risk

Environmental pollution

Likely, Negative, Short to Medium-term, localized, significant.
The key environmental pollution anticipated from the decommissioning phase includes the following:

(a) Deposition of emitted particulate matter and dust on land affects the soil quality and the effect could compromise the integrity of nearby water sources.

Mitigation measures

- Environmental monitoring of the ambient air and water quality of the surrounding environment
- Adherence to the pollution management guidelines stipulated in the decommissioning plan.
- Education, Training and Capacity building of operators.

Waste generation.

Negative, Likely, medium to long term, localised, reversible moderately significant

During the decommissioning phase, dike construction materials and waste oil can be discarded, forgotten, or left on site.

Mitigation measures

- Soil waste materials can be used in the backfilling of waste disposal cells.
- Hazardous waste like oils should be disposed of in an environmentally sound manner at designated sites under the authority of the Ministry of Environment and Forestry.

7.2.4.2 Occupational, Health and Safety

Likely, Negative, Short to Medium-term, localised, significant
Decommissioning activities involve working with tools, machinery and materials that pose significant risk of injury and fatalities if not managed well. Work will also be carried out on heights during demolition and thus increasing risk of injury or death by falling. Discrimination in employment and occupation with respect to gender and disability may also occur as well as possible child labour.

Mitigation Measures

- The Contractor must make sure that there is a site Safety, Health & Environmental Officer.
- Safety, Health, and Environment awareness training should be conducted for both contractual and casual employees before dike decommissioning.
- Dike decommissioning should be carried out in accordance with relevant occupational health and safety standards.
- Integrity testing must be done before work begins on heights.
- Workers must be trained on climbing techniques and fall protection measures.
- Workers must use adequate PPE and tool bags.
- Minimum standards of provision of segregated lockable sanitary facilities for males and females where necessary?

<u>Noise Pollution</u>
The decommissioning operations are likely to generate noise from the demolition activities. This situation is likely to have occupational health and safety implications as well as effects to the workers. Those within the site and in the neighbourhoods of the project site may be affected.

Mitigation measures

- Avoiding selection of equipment that emits noise beyond prescribed levels.
- Deliberate selection of equipment with noise control devices and mufflers
- Use of documented SOPs
- Development of Noise management Plans
- Use of PPE

7.2.4.3 Social impact and risks

<u>Increased Pressure on existing social infrastructure</u>

Negative, Likely, short term, localised, moderately significant

The proposed subproject will result in project workers relying on existing social infrastructure particularly for water and sanitation. This may exert pressure on existing communities and may be a source of conflict and possible may affect the health of workers. Since the work will be mechanised, the number of employees onsite will be few and are likely not to cause a significant impact in the county.

Mitigation measures

- Contractor to use mobile ablution facilities for their teams.
- Stakeholder engagement and dialogue to ensure harmonious relations and access to available resources

Conflicts, fights

Negative, Likely, short term, localised, moderately significant
Interaction of the contractor workers with the community may result in misunderstanding and conflicts

Mitigation measures

- Induction and training of contractor staff
- Stakeholder engagement and dialogue to ensure constant updates and harmonious relations with communities
- Enforcement of the employee Code of Conduct

Cultural heritage loss

Likely, Negative, Short to medium term, localized.
The implementation of the sub-projects may result in the loss of cultural heritage e.g. exposure of archaeological remains. Such happenings may not be predicted but once observed the relevant necessary procedures and protocols should be followed.

Mitigation Measures
- If there are any chance finds during the implementation of the sub projects, IOM and the Contractor s are obliged to comply with the requirements of the Bank, national laws, and guidance from the traditional leaders. The provisions of the ECRP II ESMF and the Chance Finds procedure should guide such cases.
- Discrimination in employment and occupation with respect to gender and disability may also occur as well as possible child labor.

Gender Based Violence (GBV)

Likely, Negative
Floods and food insecurity are affecting several parts of Twic East which increases women's/ girls' vulnerability to GBV. Population is concentrated in an area increasing more risks for GBV. Increased cases of child/forced marriage and teenage pregnancies due to prolonged school closure and Hunger. Schools have been submerged by water; Farms are carried off by floods forcing families to send girls for

marriages to get living. Cultural and Social norms which perpetuate and reinforce multiple forms of violence against women and girls. Girls are seen as bride price and Liabilities. Worst with the ongoing floods and the 2021 conflict and crisis. Gender discrimination and social stigma prevent GBV survivors from seeking help and accessing services. Both men and women Fear reporting GBV cases. Men are seen superior not allowing them to report. Women face even more violence when they attempt to report. The assessment noted that there are limited reporting opportunities and support services to child survivors of GBV.

Mitigation Measures

- Staff induction and training. Ensuring that all project workers, contractor workers or suppliers are briefed on the project PSEA requirements and Code of conduct.
- Training and creating more awareness on GBV/SEA
- Continue GBV safety Audits of every sub-project. Safety Audits sessions also act as a space for creating more awareness and educating the communities on General protection and GBV in specific.
- Service mapping of protection and GBV related services. This helps to identify the updated referral pathways to the communities.
- Women Leadership Trainings and confidence Building to empower women to speak and raise concerns related to them.
- Promotion of reporting systems that are anonymous and that protect the victim

7.2.4.4 Community health and safety risk

Risks and impact of road safety and poor traffic management for worker and communities

Mitigation measures

- Implementation of a traffic management system i.e. speed limits, traffic controllers, installation of signage.
- Ensure adequate warning signs, protective fencing etc.
- Observe and respect traffic rules.
- Clean dike construction waste from the dike construction site when closing the dike construction site.
- Journey-specific risk assessments which will include the identification of potentially sensitive receptors along the traffic routes should be conducted. For significant traffic movements, including transport of dike construction materials to site, any affected communities/residents along the route should be sensitized, and wherever possible, attempts made to undertake the traffic movements at the least busy times of day.
- Only approved drivers should be allowed to operate vehicles; and
- Dike construction materials should wherever possible, be preferentially sourced locally in a manner that reduces environmental and social impacts (e.g., transport distances) and maximizes local economic development opportunities.
- All roads should have clear and visible signage especially in community areas, around schools and hospitals to minimize the risk of-All staff should undergo an Environment, Health and Safety induction process which includes rules for safe driving, including speed limits in community areas.
- Dike construction equipment should be maintained on site until the dike construction is complete to reduce on vehicle movement (Taking into consideration, their security

Risk to community health and safety e.g. accidents at burrow pits, UXOs, and mines

The implementation of the sub-projects will result in the establishment of borrow pits that will present a risk to the community.

Mitigation measures

- Ensure clearance from UNMISS is obtained regarding UXOs and mines prior to working in any areas
- Awareness training and induction of staff on UXOs and mines
- Fence the quarry site to prevent people and livestock trespass.
- Installation of hazard warning signs.
- Awareness raising initiatives.
- Rehabilitate the burrow pit to the extent possible.

Public Health and Safety Risk

Likely, Negative, Short-term, reversible, localised, insignificant
This assessment identifies potential impacts of the Project on Community, Health, and Safety. Impacts will primarily occur in the dike construction and phase and result in increased safety risks for communities in the Project area. These include increase in ambient noise levels, elevated dust levels and risk of accidents or injuries if equipment is left lying around and accidents.

Mitigation Measures
- Dissemination of project information must be done to make the public aware of project and associated risks.
- Implementation of the recommended public safety actions (refer to the Environmental Management & Monitoring Plan)
- Warning signs must be erected in places where pits have been dug and in dike construction sites to keep public out.
- A concerns/complains register must be made and follow ups done on each complain.
  Workers must take tools to proper storage or leave it safely stored after work.

Communicable diseases

Likely, Negative, Short-term, reversible, localised, insignificant
The interaction of contractor workers and the communities may lead to the spread of communicable diseases

Mitigation measures
- Providing surveillance and active screening and treatment of workers.
- Preventing illness among workers in local communities by:
- Undertaking health awareness and education initiatives, for example, by implementing an information strategy to reinforce person-to-person counseling addressing systemic factors that can influence individual behavior as well as promoting individual protection, and protecting others from infection, by encouraging condom use.
- Training health workers in disease treatment.
- Conducting immunization programs for workers in local communities to improve health and guard against infection.
- Providing health services.

- Providing treatment through standard case management in on-site or community health care facilities.
- Ensuring ready access to medical treatment, confidentiality and appropriate care, particularly with respect to migrant workers.
- Promoting collaboration with local authorities to enhance access of workers families and the community to public health services and promote immunization.

VIII. CHAPTER 8

ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN (ESMMP)

Table 8. ESMMP Summary Table

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
PRE-CONSTRUCTION/ STAGE								
Tender documents prepared with access to or use of the this ESMP	Tender documents will include a copy of the mitigation and monitoring plan ESMP, which shall be included in the safeguard clauses of the Technical Specifications in the contracts and commitment to comply with Lender Requirements	IOM (ECRP II)	Before recruiting of contractor	Document review, Audits, and inspections	Number of tender documents (which included ESMP requirements) provided to contractors	Ongoing, any time when tenders are prepared.	IOM-ECRP II, County Dyke Management Committee PMU	Monthly
Planning/stakeholder engagement with community, local authorities to ensure buy-in and participation	Communities and local authorities in Twic East are in agreement with the rehabilitation works, including approving specifications, designs and locations of the dikes	IOM (ECRP II) and contractor	Before recruiting of contractor and after work commencement	Stakeholder engagement meetings	Number of meetings and actions agreed	Before tender and continuous	IOM, contractor	Monthly

Planning/ Designing Ensure compliance with dike construction legislation of South Sudan	Acquire dike construction permit Provide Water management guidelines if sub-projects are executed near surface watercourses.	IOM (ECRP II)	Before starting work	Document review, Audits and inspections	Number of permits acquired, and awareness meetings held on dike construction	Monthly	ECRP II, CCCM, County Dyke Management Committee, PMU	At the start of the sub-projects
Planning/ Designing Potential damages to the existing infrastructure and facilities.	Preserving existing local infrastructure and working in cooperation with relevant institutions at all levels of authority.	IOM (ECRP II)	Continuously during planning phase	Inspections	Number of site inspections	Weekly	Contractor and County Dyke Management Committee, PMU,	Continuous throughout project implementation
Poor drainage system and dike /dike construction planning	-Careful selection of engineering options at planning stage. -Limitation of degree of channel modification on maintenance.	IOM (ECRP II)	Continuously during planning phase	Inspections	Number of site inspections	Weekly	Contractor and County Dyke Management Committee, PMU	At planning stage
Occupational Health and Safety	-Pre-Task Risk assessment Adequate PPE supply, Worker Induction, -Close monitoring through inspections, and audits	IOM (ECRP II)	Continuously during planning phase	Document review, Audits and inspections	Documented OHS Management plan Adequate PPE supply Clear Work Procedures Induction register Pre-Task Risk assessment	Weekly by Field teams /Monthly by Juba Teams	ECRP II, CDRMC, PMU	Continuous throughout project implementation

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
Materials supplies: Soil burrow pit; disturbance of wetland edges; water quality	Use the approved quarry/ burrow pits. After exploitation ensure borrow pits are remediated.	IOM (ECRP II)	daily	Inspection reports	Number of site inspections	daily	ECRP II, County Dike Management Committee, PMU	Weekly
Material transportation e.g. soils, sand	-Cover truck load	IOM (ECRP II)	daily	Inspection reports	Number of site inspections	daily	ECRP II, County Dike Management Committee, PMU	Weekly
Soil erosion and Loss of topsoil due to access roads, quarry sites work areas and drainage system and dike construction/ activities	-Scheduling to avoid heavy rainfall periods (i.e., during the dry season) to the extent practical. -Contouring and minimizing length and steepness of slopes -Mulching to stabilize exposed areas. -Re-vegetating areas by replanting grass and or reforestation promptly. -Reducing or preventing off-site sediment transport through use of settlement ponds, silt fences, and Upgrading or suspending activities during extreme rainfall and high winds to the extent practical.	IOM (ECRP II)	daily	Inspection reports	Number of site inspections	daily	ECRP II, County Dike Management Committee, PMU	Monthly
Potential surface and ground water impacts due to	-Establish appropriate erosion and sediment control measures (e.g. silt fences) to prevent sediment from	IOM (ECRP II)	daily	Site inspections	Number of site inspections	weekly	ECRP II, County Dike Management ECRP II,	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
soil erosion and sedimentation	moving off site and causing excessive turbidity in nearby streams and rivers. - - Drainage depth will be less than 2m. A properly organized waste disposal is a mandatory requirement for the Project.						County Dike Management Committee, PMU	
Potential water and soil pollution due to improper material storage, management, and usage, waste disposal, and drainage of wastewater to dike construction site.	-All wastes generated during dike construction activities should be collected and disposed of appropriately at designated sites; -Undertake monitoring of the soil and water quality and devise corrective action when changes attributed to project implementation have been observed; -The waste management hierarchy should be followed during the dike construction phase. According to this hierarchy, source reduction of waste will be the first option and disposal of unavoidable waste as the option of the last resort; -Dispose waste material at authorised location protected from washing out, should be marked in the site plan. -Undertake routine preventive maintenance of motorized equipment to avoid any fuel leakage and spills; -Storage of fuels and oils should be undertaken in a manner that does not allow leakage to the soil as the fuel can readily infiltrate the soils polluting the soils, ground and surface water. -Preparing plans and procedures to respond to the discovery of	IOM (ECRP II)	daily	Site inspection reports	Number of site inspections	weekly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
	contaminated media to minimize or reduce the risk to health, safety, and the environment. -Managing contaminated media with the objective of protecting the safety and health of occupants of the site, the surrounding community, and the environment. -Organize and cover material storage areas; -Select areas for washing that are not free draining directly into watercourse. Installation of ecological toilettes for workers to avoid direct discharge of wastewater to water body.							
Poor maintenance and repairs and refuelling at the dike construction site.	-Avoid servicing and refuelling at the site. -Use protective foils during possible vehicle refuelling and maintenance at the dike construction site. - Provide absorbing material in case of fuel spills. -Used oiled materials and agents should be managed in line with the waste management report.	IOM (ECRP II)	Weekly	Site inspection reports	Number of site inspections	Weekly	ECRP II, County Dike Management Committee, PMU	Monthly
Road safety and poor traffic management risks and impact for worker and communities	-Implementation of a traffic management system i.e. speed limits, traffic controllers, installation of signage. -Ensure adequate warning signs, protective fencing etc. -Observe and respect traffic rules. -Clean dike construction waste from the dike construction site when closing the dike construction site.	IOM (ECRP II)	Daily	Implement the Dike construction Site Organization Plan.	Number of site inspections	Monthly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
	-Journey-specific risk assessments which will include the identification of potentially sensitive receptors along the traffic routes should be conducted. For significant traffic movements, including transport of dike construction materials to site, any affected communities/residents along the route should be sensitized, and wherever possible, attempts made to undertake the traffic movements at the least busy times of day; -Only approved drivers should be allowed to operate vehicles; -Dike construction materials should wherever possible, be preferentially sourced locally in a manner that reduces environmental and social impacts (e.g., transport distances) and maximizes local economic development opportunities. -All roads should have clear and visible signage especially in community areas, around schools and hospitals to minimize the risk of accidents. -All staff should undergo an Environmental, Health and Safety induction process which includes rules for safe driving, including speed limits in community areas; and							

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
	-Dike construction equipment should be maintained on site until the dike construction is complete to reduce on vehicle movement (taking into consideration, their security).							
Disturbance to the cultural and religious sites.	-Avoid any cultural or religious sites. If cultural or archaeological items are found during soil excavation and dike embankment works or drainage system, the contractor shall stop work and trigger the Chance Find Procedure.	IOM (ECRP II)	daily	Site inspection reports	Weekly	Number of site inspections	ECRP II, County Dike Management Committee, PMU	Monthly
Possibility of encountering an archaeological site, archaeological materials, cultural significance, shrines	If an archaeological site is encountered such as a graveyard, the Contractor will immediately suspend the Works. Barricade the area and follow the chance finds procedure. and inform the project, county authorities (trigger chance find procedure).	IOM (ECRP II)	Daily	Chance Find Procedures in place	Weekly	Number of cultural items found	ECRP II, County Dike Management Committee, PMU	Monthly
Equipment maintenance and fuelling	Ensure proper handling of lubricants, fuels and solvents while maintaining the equipment and work vehicles. Put in place gravity oil separator, absorbent mat/ fabric	IOM (ECRP II)	Weekly	Camp and dike construction site inspections	Number of site inspections	Weekly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
Impacts on land use/ settlements expansion	The dikes will be constructed on public land reserves. There will be no physical displacement of any household. The county administration pledged to control encroachment as a result of settlement expansion towards the dikes.	IOM (ECRP II)	daily	Site inspection reports	Number of site inspections	weekly	ECRP II, County Dike Management Committee, PMU	Monthly
Air quality due to dust from transportation of dike construction materials and truck traffic and elevated levels of nitrogen oxide (NOx) and sulfur oxide (SOx) from dike construction equipment exhausts	-Minimizing dust from material handling sources, such as conveyors and bins, by using covers and/or control equipment (water suppression, bag house, or cyclone). - Minimizing dust from open area sources, including storage piles, by using control measures such as installing enclosures and covers, and increasing the moisture content. -Dust suppression techniques should be implemented, such as applying water or non-toxic chemicals to minimize dust from vehicle movements. -Avoiding open burning of solid.	IOM (ECRP II)	Daily	Monitoring speed limit within town	Speed and dust observations	Weekly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
Minimal loss of flora and fauna can occur during material excavation at quarries and embankments (work ways along the dike)	Flora and fauna in the surrounding towns and wetlands might be affected. -Flora -Land clearance should be restricted to that which is required for the project components to minimize the loss of vegetation; -Restrict vehicle movements to and from the project site(s) to the project access road – offroad driving should be prohibited; -Site restoration should be undertaken for areas where temporary project infrastructure will be established during the dike construction phase. The affected areas should be restored, and only indigenous vegetation replant or re-seed vegetation e.g. grasses, trees - Intentional restoration using exotic plant species should be avoided; -Sensitize workers against unnecessary destruction, trampling and clearance of flora/crops and fauna; -In an event that the project activities may have potential adverse impacts on biodiversity, biodiversity management plan should be developed, if the potential risk of project activities are insignificant, the appropriate mitigation measures should be implemented.	IOM (ECRP II)	Weekly	Site inspection reports	Number of site inspections	Weekly	ECRP II, County Dike Management Committee, PMU	Monthly
Noise pollution	Only limited temporary impact during excavation and embankments work. Impact can be mitigated by - Prior notice/community awareness will be undertaken for the local community members to keep them informed of what	IOM (ECRP II)	Weekly	Site inspection reports	Number of site inspections	Weekly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
	will take place/schedules of the subproject activities so that they are able to plan accordingly; -Construction/ activities will be limited to only daytime hours; -Noise monitoring will be undertaken within the area and at nearby sensitive receptor sites during construction/; -Using noise control devices, such as temporary noise barriers and deflectors for impact and blasting activities, exhaust muffling devices for combustion engines. -Avoiding or minimizing project transportation through community areas. -Use of well-maintained and serviced equipment that generates low noise levels will be emphasized. -Workers involved in construction/ activities will be provided with requisite Personal Protective Equipment; and -Idling of machinery including vehicles will be prohibited unless necessary.							
Solid waste, like, wood, stones, plastic materials, and fuels spill from the machine.	- Implement waste management hierarchy -Non-hazardous wastes can be managed by reusing, recycling, or can be sold to authorized collectors and recyclers and should be dispose using the South Sudan solid waste disposal facilities.	IOM (ECRP II)	Weekly	Site inspection reports	Number of site inspections	weekly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
	-As there are no known facilities to dispose of hazardous waste in the country. The Contractor should consider designing a temporary hazardous waste storage facility in consideration of the generated amounts and timing before final disposal by licensed hazardous waste handlers in accordance with the national legislative requirements and world Bank ESF requirements and GIIP practices; -Maximize the re-use of all excavated materials in the dike construction works. -Disposal of surplus material (spoil) only at designated sites approved by the responsible local authority and only by approved methods. -No spoil should be disposed of in wetlands, near watercourses and other important habits -Contract a licensed hazardous waste handler to safely transport and dispose of hazardous waste; -Capacitate and support licensed personnel who are involved in hazardous waste disposal and management in all aspects including financial and technical supports.							

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
	-Identify the potential waste streams to be generated by the project activities, and how best they can be managed; -All wastes shall be properly disposed of in accordance with the national legislative requirements and in accordance with ESF requirements and GIIP practices.							
Impact on natural hydrology. Disruption of hydrology of natural waterways	Develop layout plan to limit haphazard disruption of water channels	IOM (ECRP II)	Weekly	Inspection	Inspection reports	Weekly	ECRP II, County Dike Management Committee, PMU	Monthly
Vibration risk from moving of dike construction vehicles and machinery.	-Restrict vehicle movement to defined routes.-Notification communities through awareness exercises. -Avoiding or minimizing project transportation through community areas.	IOM (ECRP II)	Daily/Weekly	Inspections, Documents review	Reports, meeting minutes	Weekly	ECRP II, County Dike Management Committee, PMU	Monthly
Risk to community health and safety (ESS4) e.g. accidents at burrow pits, UXOs, and mines	-Fence the quarry site to prevent people and livestock trespass. -Installation of hazard warning signs. -Awareness raising initiatives. -Rehabilitate the burrow pit to the extent possible.	IOM (ECRP II)	Prior to the commencement of material abstraction	Inspections, Document review, Observations	Number of Incidents	Weekly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
Health and safety risks posed by the influx of workers or people providing support services into an area	Awareness campaigns Education and awareness raising targeting employees	IOM (ECRP II)	weekly	Document review, Inspections	Number of Incidents	Weekly	ECRP II, County Dike Management Committee, PMU	Monthly
Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA)	All employees to be inducted Education training and capacity building. Signing and adherence with an employee CoC mandatory Demand from all workers to abide by the Protection at work measures. Daily Safety talks	IOM (ECRP II)	Daily	Site inspection reports	Number of site inspections	Weekly	ECRP II, County Dike Management Committee, PMU	Monthly
Communicable diseases	-Providing surveillance and active screening and treatment of workers. -Preventing illness among workers in local communities by: - Undertaking health awareness and education initiatives, for example, by implementing an information strategy to reinforce person-to-person counseling addressing systemic factors that can influence individual behavior as well as promoting individual protection, and protecting others from infection, by encouraging condom use. -Training health workers in disease treatment. -Conducting immunization programs for workers in local	IOM (ECRP II)	Weekly	Site inspection reports	Number of site inspections	Monthly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
	communities to improve health and guard against infection. -Providing health services. -Providing treatment through standard case management in on-site or community health care facilities. -Ensuring ready access to medical treatment, confidentiality and appropriate care, particularly with respect to migrant workers. -Promoting collaboration with local authorities to enhance access of workers families and the community to public health services and promote immunization. -Community awareness campaigns. -Education and awareness raising workshops for staff on spread and management of communicable disease.							
Community health and safety risk related to Pools of water act as breeding grounds for disease and illness(mosquitoes)	-Prevention of larval and adult propagation through sanitary improvements and elimination of breeding habitats close to human settlements -Elimination of unusable impounded water. - Increase in water velocity in natural and artificial channels. - Considering the application of residual insecticide to dormitory walls. - Implementation of integrated vector control programs. - Promoting use of repellents, clothing, netting, and other barriers to prevent insect bites.	IOM (ECRP II)	Weekly	Dike construction Health and Safety Management Plan	Number of site inspections	Monthly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
	- Use of chemoprophylaxis drugs by non-immune workers and collaborating with public health officials to help eradicate disease reservoirs. -Monitoring and treatment of circulating and migrating populations to prevent disease reservoir spread. - Collaboration and exchange of in-kind services with other control programs in the project area to maximize beneficial effects. - Educating project personnel and area residents on risks, prevention, and available treatment. -Monitoring communities during high-risk seasons to detect and treat cases. -Awareness raising campaigns.							
Risk and impacts of occupational health and safety	-The Contractor must make sure that there is a site Safety, Health & Environmental Officer or appointed focal person. A Safety, Health and Environment awareness induction training should be conducted for both contractual and casual employees before dike construction commences. -Dike construction should be carried out in accordance with relevant occupational health and safety standards. -Integrity testing must be done before work begins on heights. -Workers must be trained on climbing techniques and fall protection measures.	IOM (ECRP II)	Daily	Site inspection reports, Dike construction Health and Safety Management Plan	Number of site inspections	Monthly	ECRP II, County Dike Management Committee, PMU	Weekly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
	-Adequate PPE and tool bags must be delivered for workers and ensure workers are used PPE properly. -Minimum standards of provision of segregated lockable sanitary facilities for males and females where necessary. -Machines and Equipment must be operated only by qualified staff. -Fire risks are possible due to improper storage facilities and lack of fire drill, and this requires provision of regular training and awareness creation to the workers; -The entire workforce should be trained in the use of protective gear, handling of chemical products, procedures for entering enclosed areas, fire protection and prevention, emergency response and care procedures; -The contactor must develop workers' Health and Safety Plan for managing risk and impact associated with OHS gaps in case of accidents.							
Labor risks of injuries. Workers may raise their concerns (safety, discontent, maltreatment or else) through the Grievance Mechanism.	-Provide PPEs; Install warning signs at the dike construction site; adopt a dike construction management plan. -Establishment of a worker specific grievance redress mechanism for project workers. -The project worker is entitled to give suggestions, remarks and information regarding health and safety at work. The project workers should be informed on available grievance redress	IOM (ECRP II)	Weekly	Site inspection report	Number of site inspections	Monthly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
CONSTRUCTION/ PHASE								
	mechanisms upon their employment or engagement.							
Reduced access through the area where the works are executed.	-Plan the relocation of equipment at times when daily traffic is not jammed; -Provide alternative passage for pedestrians and vehicles in cooperation with local authorities Avoid roads through inhabited areas especially near schools and hospitals; -Prepare and implement the dike construction Site Management Plan that incorporates good dike construction practice measures.	IOM (ECRP II)	Weekly	Site inspection report	Number of site inspections	Monthly	ECRP II, County Dike Management Committee, PMU	Monthly
Dike construction material leftovers after the completion of dike construction.	-Reuse/recycle leftovers. -Dispose unwanted remnants in approved sites.	IOM (ECRP II)	Weekly	Site inspection report	Amount of materials leftover after completion of work	Monthly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
OPERATION AND MAINTENANCE PHASE								
Handover the dikes County authorities	Provide detail product design and lecture on repair and maintenance of the subprojects/dikes	IOM (ECRP II)	Once off	Dike Operation and Repair Manual	Handover report	Once off	ECRP II, County Dike Management Committee, PMU	Once off
Water logging along the dikes may become a breeding ground for vectors	Provide for drainage from runoff from the dike edges	IOM (ECRP II)	Monthly	Site inspection	Report of site condition	Monthly	ECRP II, County Dike Management Committee, PMU	Monthly
Risk of vandalizing the subprojects	Erect crossing points for people and livestock Monitor the subprojects during O&M inspections	IOM (ECRP II)	Monthly	Site inspection	Completion report	Monthly	ECRP II, County Dike Management Committee, PMU	Monthly
Adverse effects on fisheries and other aquatic resources by disruption of migratory routes, deterioration of habitat and changes water quality (e-g sediment load) leading to reduce to productivity of riverine.	Protection of reproductive sites for fish. -Incorporation of fishery management.	IOM (ECRP II)	Monthly	Site inspection	Report of site condition	Monthly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
OPERATION AND MAINTENANCE PHASE								
Reduction of floodplain grazing, both through ecological changes on the floodplain and intensified development (Irrigated agriculture).	-Production of fodder crops and usage of byproducts of irrigated food crops and development of alternative water sources. -Integration of existing rangeland use (e.g., si-nomadic herding) with planned developments, to ensure substantial ground watering possibilities in valley during dry season.	IOM (ECRP II)	Monthly	Site inspection	Report of site condition	Monthly	ECRP II, County Dike Management Committee, PMU	Twice a year
Loss of wildland and wildlife habitat.	-Identification of critical habitats and planning of flood control measures to minimize effects; -Whose habitats or species are dependent on natural flooding regime, minimize disruption of flow in that area to extent possible. -Establishment of settlements free zones, settlements with migration corridors and hunting protection areas and seasons (dry season).	IOM (ECRP II)	Monthly	Site inspection	Report of site condition	Monthly	ECRP II, County Dike Management Committee, PMU	Twice a year
Flooding problems created downstream should be incorporated.	-Protection of natural overflow areas downstream. -Creation of overflow basins. -Implement emergency preparedness measures (see section 8)	IOM (ECRP II)	Monthly	Site inspection	Report of site condition	Monthly	ECRP II, County Dike Management Committee, PMU	Twice a year
Potential for structural failure and floodwaters higher than capacity of control	-Implementation of non-structural measures, such as watershed management activities (e.g., increasing vegetative cover, particularly on slopes, improving agricultural practices, implementing gully erosion control measures, etc.), planting of	IOM (ECRP II)	Weekly	Site inspection	Report of site condition	Monthly	ECRP II, County Dike Management Committee, PMU	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
OPERATION AND MAINTENANCE PHASE								
structures /measures	vegetation along river banks to help contain and reduce flooding, and protection of, or restriction of, use of wetlands which have a natural flood control effect to prevent increased flood risk, and -Implement flood warning system using the emergency preparedness measures (See Chapter 8).							

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
Material transportation e.g. soils, sand	-Cover truck load	Government of South Sudan, Contractors and other Partners	daily	Inspection reports	Number of site inspections	daily	Government of South Sudan, Contractors and other Partners	Weekly
Soil erosion and Loss of topsoil due to access roads, quarry sites work areas and drainage system and dike construction/ activities	-Scheduling to avoid heavy rainfall periods (i.e., during the dry season) to the extent practical. -Contouring and minimizing length and steepness of slopes -Mulching to stabilize exposed areas. -Re-vegetating areas by replanting grass and or reforestation promptly. -Reducing or preventing off-site sediment transport through use of settlement ponds, silt fences, and Upgrading or suspending activities during extreme rainfall and high winds to the extent practical.	Government of South Sudan, Contractors and other Partners	daily	Inspection reports	Number of site inspections	daily	Government of South Sudan, Contractors and other Partners	Monthly
Potential surface and ground water impacts due to soil erosion and sedimentation	-Establish appropriate erosion and sediment control measures (e.g. silt fences) to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers. -Minimum drainage work for excessive flood waters only within the embankment site, causing temporary turbidity. - Drainage depth will be less than 2m. A properly organized waste disposal is a mandatory requirement for the Project.	Government of South Sudan, Contractors and other Partners	daily	Site inspections	Number of site inspections	weekly	Government of South Sudan, Contractors and other Partners	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
Potential water and soil pollution due to improper material storage, management, and usage, waste disposal, and drainage of wastewater to dike construction site.	-All wastes generated during dike construction activities should be collected and disposed of appropriately at designated sites; -Undertake monitoring of the soil and water quality and devise corrective action when changes attributed to project implementation have been observed; -The waste management hierarchy should be followed during the dike construction phase. According to this hierarchy, source reduction of waste will be the first option and disposal of unavoidable waste as the option of the last resort; -Dispose waste material at authorised location protected from washing out, should be marked in the site plan. -Undertake routine preventive maintenance of motorized equipment to avoid any fuel leakage and spills; -Storage of fuels and oils should be undertaken in a manner that does not allow leakage to the soil as the fuel can readily infiltrate the soils polluting the soils, ground and surface water. -Preparing plans and procedures to respond to the discovery of contaminated media to minimize or reduce the risk to health, safety, and the environment. -Managing contaminated media with the objective of protecting the safety and health of occupants of the site, the	Government of South Sudan, Contractors and other Partners	daily	Site inspection reports	Number of site inspections	weekly	Government of South Sudan, Contractors and other Partners	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
	surrounding community, and the environment. -Organize and cover material storage areas; -Select areas for washing that are not free draining directly into watercourse. Installation of ecological toilettes for workers to avoid direct discharge of wastewater to water body.							
Poor maintenance and repairs and refuelling at the dike construction site.	-Avoid servicing and refuelling at the site. .-Use protective foils during possible vehicle refuelling and maintenance at the dike construction site. - Provide absorbing material in case of fuel spills. -Used oiled materials and agents should be managed in line with the waste management report.	Government of South Sudan, Contractors and other Partners	Weekly	Site inspection reports	Number of site inspections	Weekly	Government of South Sudan, Contractors and other Partners	Monthly
Road safety and poor traffic management risks and impact for worker and communities	-Implementation of a traffic management system i.e. speed limits, traffic controllers, installation of signage. -Ensure adequate warning signs, protective fencing etc. -Observe and respect traffic rules. -Clean dike construction waste from the dike construction site when closing the dike construction site. -Journey-specific risk assessments which will include the identification of potentially sensitive receptors along the traffic routes should be conducted. For significant traffic movements, including transport of dike construction materials	Government of South Sudan, Contractors and other Partners	Daily	Implement the Dike construction Site Organization Plan.	Number of site inspections	Monthly	Government of South Sudan, Contractors and other Partners	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
	to site, any affected communities/residents along the route should be sensitized, and wherever possible, attempts made to undertake the traffic movements at the least busy times of day; -Only approved drivers should be allowed to operate vehicles; -Dike construction materials should,wherever possible, be preferentially sourced locally in a manner that reduces environmental and social impacts (e.g., transport distances) and maximizes local economic development opportunities. -All roads should have clear and visible signage especially in community areas, around schools and hospitals to minimize the risk. accidents;- -All staff should undergo an Environment, Health and Safety induction process which includes rules for safe driving, including speed limits in community areas; and -Dike construction equipment should be maintained on site until the dike construction is complete to reduce on vehicle movement (taking into consideration, their security).							

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
Disturbance to the cultural and religious sites.	-Avoid any cultural or religious sites. If cultural or archaeological items are found during soil excavation and dike embankment works or drainage system, the contractor shall stop work and trigger the Chance Find Procedure.	Government of South Sudan, Contractors and other Partners	daily	Site inspection reports	Weekly	Number of site inspections	Government of South Sudan, Contractors and other Partners	Monthly
Possibility of encountering an archaeological site, archaeological materials, cultural significance, shrines	If an archaeological site is encountered such as a graveyard, the Contractor will immediately suspend the Works. Barricade the area and follow the chance finds procedure. and inform the project, county authorities (trigger chance find procedure).	Government of South Sudan, Contractors and other Partners	Daily	Chance Find Procedures in place	Weekly	Number of cultural items found	Government of South Sudan, Contractors and other Partners	Monthly
Equipment maintenance and fuelling	Ensure proper handling of lubricants, fuels and solvents while maintaining the equipment and work vehicles. Put in place gravity oil separator, absorbent mat/ fabric	Government of South Sudan, Contractors and other Partners	Weekly	Camp and dike construction site inspections	Number of site inspections	Weekly	Government of South Sudan, Contractors and other Partners	Monthly
Impacts on land use/ settlements expansion	The dikes will be constructed on public land reserves. There will be no physical displacement of any household. The county administration pledged to control encroachment as a result of settlement expansion towards the dikes.	Government of South Sudan, Contractors and other Partners	daily	Site inspection reports	Number of site inspections	weekly	Government of South Sudan, Contractors and other Partners	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
Air quality due to dust from transportation of dike construction materials and truck traffic and elevated levels of nitrogen oxide (NOx) and sulfur oxide (SOx) from dike construction equipment exhausts	-Minimizing dust from material handling sources, such as conveyors and bins, by using covers and/or control equipment (water suppression, bag house, or cyclone). - Minimizing dust from open area sources, including storage piles, by using control measures such as installing enclosures and covers, and increasing the moisture content. -Dust suppression techniques should be implemented, such as applying water or non-toxic chemicals to minimize dust from vehicle movements. -Avoiding open burning of solid.	Government of South Sudan, Contractors and other Partners	Daily	Monitoring speed limit within town	Speed and dust observations	Weekly	Government of South Sudan, Contractors and other Partners	Monthly
Minimal loss of flora and fauna can occur during material excavation at quarries and embankments (work ways along the dike)	Flora and fauna in the surrounding towns and wetlands might be affected. -Flora -Land clearance should be restricted to that which is required for the project components to minimize the loss of vegetation; -Restrict vehicle movements to and from the project site(s) to the project access road – offroad driving should be prohibited; -Site restoration should be undertaken for areas where temporary project infrastructure will be established during the dike construction phase. The affected areas should be restored, and only indigenous vegetation replant or re-seed vegetation e.g. grasses, trees -	Government of South Sudan, Contractors and other Partners	Weekly	Site inspection reports	Number of site inspections	Weekly	Government of South Sudan, Contractors and other Partners	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
	Intentional restoration using exotic plant species should be avoided; -Sensitize workers against unnecessary destruction, trampling and clearance of flora/crops and fauna; -In an event that the project activities may have potential adverse impacts on biodiversity, biodiversity management plan should be developed, if the potential risk of project activities are insignificant, the appropriate mitigation measures should be implemented.							
Noise pollution	Only limited temporary impact during excavation and embankments work. Impact can be mitigated by - Prior notice/community awareness will be undertaken for the local community members to keep them informed of what will take place/schedules of the subproject activities so that they are able to plan accordingly; -Construction/ activities will be limited to only daytime hours; -Noise monitoring will be undertaken within the area and at nearby sensitive receptor sites during construction/; -Using noise control devices, such as temporary noise barriers and deflectors for impact and blasting activities, exhaust muffling devices for combustion engines. -Avoiding or minimizing project transportation through community areas.	Government of South Sudan, Contractors and other Partners	Weekly	Site inspection reports	Number of site inspections	Weekly	Government of South Sudan, Contractors and other Partners	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
	-Use of well-maintained and serviced equipment that generates low noise levels will be emphasized. -Workers involved in construction/ activities will be provided with requisite Personal Protective Equipment; and -Idling of machinery including vehicles will be prohibited unless necessary.							
Solid waste like, wood, stones, plastic materials, and fuels spill from the machine.	- Implement waste management hierarchy. -Non-hazardous wastes can be managed by reusing, recycling, or can be sold to authorized collectors and recyclers and should be dispose using the South Sudan solid waste disposal facilities. -As there are no known facilities to dispose of hazardous waste in the country. The Contractor should consider designing a temporary hazardous waste storage facility in consideration of the generated amounts and timing before final disposal by licensed hazardous waste handlers in accordance with the national legislative requirements and world Bank ESF requirements and GIIP practices; -Maximize the re-use of all excavated materials in the dike construction works. -Disposal of surplus material (spoil) only at designated sites approved by the	Government of South Sudan, Contractors and other Partners	Weekly	Site inspection reports	Number of site inspections	weekly	Government of South Sudan, Contractors and other Partners	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
	responsible local authority and only by approved methods. -No spoil should be disposed of in wetlands, near watercourses and other important habits -Contract a licensed hazardous waste handler to safely transport and dispose of hazardous waste; -Capacitate and support licensed personnel who are involved in hazardous waste disposal and management in all aspects including financial and technical supports. -Identify the potential waste streams to be generated by the project activities, and how best they can be managed; -All wastes shall be properly disposed of in accordance with the national legislative requirements and in accordance with ESF requirements and GIIP practices.							
Impact on natural hydrology. Disruption of hydrology of natural waterways	Develop layout plan to limit hazard disruption of water channels	Government of South Sudan, Contractors and other Partners	Weekly	Inspection	Inspection reports	Weekly	Government of South Sudan, Contractors and other Partners	Monthly
Vibration risk from moving of dike	-Restrict vehicle movement to defined routes.-Notification communities through awareness exercises.	Government of South Sudan, Contractors	Daily/Weekly	Inspections, Documents review	Reports, meeting minutes	Weekly	Government of South Sudan, Contractors	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
construction vehicles and machinery.	-Avoiding or minimizing project transportation through community areas.	and other Partners					and other Partners	
Risk to community health and safety (ESS4) e.g. accidents at burrow pits, UXOs, and mines	-Fence the quarry site to prevent people and livestock trespass. -Installation of hazard warning signs. -Awareness raising initiatives. -Rehabilitate the burrow pit to the extent possible.	Government of South Sudan, Contractors and other Partners	Prior to the commencement of material abstraction	Inspection s, Document review, Observations	Number of Incidents	Weekly	Government of South Sudan, Contractors and other Partners	Monthly
Health and safety risks posed by the influx of workers or people providing support services into an area	Awareness campaigns Education and awareness raising targeting employees	Government of South Sudan, Contractors and other Partners	weekly	Document review, Inspections	Number of Incidents	Weekly	Government of South Sudan, Contractors and other Partners	Monthly
Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA)	All employees to be inducted Education training and capacity building. Signing and adherence with an employee CoC mandatory Demand from all workers to abide by the Protection at work measures. Daily Safety talks	Government of South Sudan, Contractors and other Partners	Daily	Site inspection reports	Number of site inspections	Weekly	Government of South Sudan, Contractors and other Partners	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
Communicable diseases	-Providing surveillance and active screening and treatment of workers. -Preventing illness among workers in local communities by: - Undertaking health awareness and education initiatives, for example, by implementing an information strategy to reinforce person-to-person counseling addressing systemic factors that can influence individual behavior as well as promoting individual protection, and protecting others from infection, by encouraging condom use. -Training health workers in disease treatment. -Conducting immunization programs for workers in local communities to improve health and guard against infection. -Providing health services. -Providing treatment through standard case management in on-site or community health care facilities. -Ensuring ready access to medical treatment, confidentiality and appropriate care, particularly with respect to migrant workers. -Promoting collaboration with local authorities to enhance access of workers families and the community to public health services and promote immunization. -Community awareness campaigns. -Education and awareness raising workshops for staff on spread and management of communicable disease.	Government of South Sudan, Contractors and other Partners	Weekly	Site inspection reports	Number of site inspections	Monthly	Government of South Sudan, Contractors and other Partners	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
Community health and safety risk related to Pools of water act as breeding grounds for disease and illness(mosquitoes)	-Prevention of larval and adult propagation through sanitary. improvements and elimination of breeding habitats close to human settlements. -Elimination of unusable impounded water. - Increase in water velocity in natural and artificial channels. - Considering the application of residual insecticide to dormitory walls. - Implementation of integrated vector control programs. - Promoting use of repellents, clothing, netting, and other barriers to prevent insect bites. - Use of chemoprophylaxis drugs by non-immune workers and collaborating with public health officials to help eradicate disease reservoirs. -Monitoring and treatment of circulating and migrating populations to prevent disease reservoir spread. - Collaboration and exchange of in-kind services with other control programs in the project area to maximize beneficial effects. - Educating project personnel and area residents on risks, prevention, and available treatment. -Monitoring communities during high-risk seasons to detect and treat cases. -Awareness raising campaigns.	Government of South Sudan, Contractors and other Partners	Weekly	Dike construction Health and Safety Management Plan	Number of site inspections	Monthly	Government of South Sudan, Contractors and other Partners	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
Risk and impacts of occupational health and safety	-The Contractor must make sure that there is a site Safety, Health & Environmental Officer or appointed focal person. A Safety, Health and Environment awareness induction training should be conducted for both contractual and casual employees before dike construction commences. -Dike construction should be carried out in accordance with relevant occupational health and safety standards. -Integrity testing must be done before work begins on heights. -Workers must be trained on climbing techniques and fall protection measures. -Adequate PPE and tool bags must be delivered for workers and ensure workers are used PPE properly. -Minimum standards of provision of segregated lockable sanitary facilities for males and females where necessary. -Machines and Equipment must be operated only by qualified staff. -Fire risks are possible due to improper storage facilities and lack of fire drill, and this requires provision of regular training and awareness creation to the workers; -The entire workforce should be trained in the use of protective gear, handling of chemical products, procedures for entering enclosed areas, fire protection and prevention, emergency response and care procedures;	Government of South Sudan, Contractors and other Partners	Daily	Site inspection reports, Dike construction Health and Safety Management Plan	Number of site inspections	Monthly	Government of South Sudan, Contractors and other Partners	Weekly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
	-The contactor must develop workers' Health and Safety Plan for managing risk and impact associated with OHS gaps in case of accidents.							
Labor risks of injuries. Workers may raise their concerns (safety, discontent, maltreatment or else) through the Grievance Mechanism.	-Provide PPEs; Install warning signs at the dike construction site; adopt a dike construction management plan. -Establishment of a worker specific grievance redress mechanism for project workers. -The project worker is entitled to give suggestions, remarks and information regarding health and safety at work. The project workers should be informed on available grievance redress mechanisms upon their employment or engagement.	Government of South Sudan, Contractors and other Partners	Weekly	Site inspection report	Number of site inspections	Monthly	Government of South Sudan, Contractors and other Partners	Monthly
Reduced access through the area where the works are executed.	Plan the relocation of equipment at times when daily traffic is not jammed; Provide alternative passage for pedestrians and vehicles in cooperation with local authorities Avoid roads through inhabited areas especially near schools and hospitals; Prepare and implement the Dike construction Site Management Plan that incorporates good dike construction practice measures.	Government of South Sudan, Contractors and other Partners	Weekly	Site inspection report	Number of site inspections	Monthly	Government of South Sudan, Contractors and other Partners	Monthly

Potential risk and Impacts	Mitigation measures	Responsible body for implementation	Time frame for implementation	Method of Monitoring	Monitoring indicator	Monitoring frequency	Responsible body for monitoring	Time frame for monitoring
DECOMMISSION PHASE								
Dike construction material leftovers after the completion of dike construction.	-Reuse/recycle leftovers. Dispose unwanted remnants in approved sites.	Government of South Sudan, Contractors and other Partners	Weekly	Site inspection report	Amount of materials leftover after completion of work	Monthly	Government of South Sudan, Contractors and other Partners	Monthly

IX. CHAPTER 9

EMERGENCY PREPAREDNESS AND RESPONSE PLAN

This section provides a summary of key steps that the project team can follow in the event of an emergency. The hazard/aspect impact identification and assessment process for all ECRP II operations has identified various emergency situations that can arise in the process of implementing sub-projects in Twic East County. This therefore calls for a plan to be put in place in preparation for such a contingency. The following are some broad guidelines when dealing with emergencies: -

- Speed and knowing what to do, are the main points when discovering an emergency.
- Effective communication in cases of emergencies is very important as it saves time and life.
- All persons must be aware of their responsibilities and duties when an emergency arises.
- Regular drills should be conducted to ensure that all key players adapt to the response in cases of real emergency.
- Emergency Co-coordinators, team members and all employees must be trained and familiarize with all the contents of this document including their duties. This will enable them to respond appropriately whenever an emergency arises.

Planning Coordination:
Procedures should be prepared for:
o Informing the public and emergency response agencies.
o Documenting first aid and emergency medical treatment.
o Taking emergency response actions.
o Reviewing and updating the emergency response plan to reflect changes and ensuring that employees are informed of such changes.

Emergency Equipment: Procedures should be prepared for using, inspecting, testing, and maintaining the emergency response equipment.
Training: Employees and contractors should be trained on emergency response procedures.

8.0. HOW TO RESPOND TO AN EMERGENCY SITUATION:

- ESTABLISH:
  - The nature, type and magnitude of the emergency

- CALL:
  - For help by contacting the Emergency call centre (Security).
  - The departmental emergency coordinator.
  - The Site HSE Personnel
  - IOM NOO

- INVESTIGATE:
  - Extent of emergency and establish affected person's location.

- Get the relevant information and inform the IOM NOO, IOM Safeguarding Officer and ECRP II program coordinator.

- ASSIST:
  - The injured or affected persons.

- ASSEMBLE:
  - At the designated Assembly Point, if safe to do so.

- BRIEF:
  - Emergency Coordinator of the sequence of events and follow instructions given when the Emergency Coordinator takes over.

- EVALUATE:
  - The need to systematically shut down operations.
  - Contain hazardous Substances or
  - Protect equipment as well as type of assistance required.

- AWAIT:
  - For instructions and response from the Emergency Coordinator.

- REMAIN:
  - At the assembly point until further instructions from an official

- AWAIT:
  - For declaration of **"ALL CLEAR"** notification

8.1. FIRE RELATED INCIDENTS

What constitutes fire?

- Fire on mobile equipment
- Fire on conveyor belt or other installations
- Fire from fuel pump/stations
- Fire from cooking activities
- Fire on electrical installations (cables, substations)
- Gas Cylinder Explosion

Person at scene to report to the designated onsite Emergency Coordinator

Actions by the Designated onsite Emergency Coordinator

For all emergency scenarios in this category

a)Stop all running machinery/equipment

For fires

b) Try to fight the fire if trained to do so and if safe to do so.
c) If not trained or fire gets out of hand, raise alarm.

Designated on site Emergency Coordinator:

a) Call firefighting team.
b) Evacuate employees to the Assembly point if it is safe to do so
c) Switch off all energy sources (electrical on affected area).
d) Conduct roll call.
e) Communicate with the Security, clinic, Fire Team, IOM ECRP II Local Staff clearly stating the nature and magnitude of the emergency, exact location and number of casualties if any.
f) IOM ECRP II Local staff to communicate to the NOO, Safeguarding officer and Project Manager
g) Call the Ambulance if necessary

8.1.1 Safeguarding Official:

a) Assess situation and take action to assist as necessary
b) Arrange logistics for investigation and reporting in consultation with the safeguarding officer and the project manager.

8.2. MULTI-CASUALITY

What constitutes multiple casualties?

Accidents / incidents in which more than **one person** is injured to warrant evacuation from site of incident/ accident to a safe place of recovery e.g. Clinic. Multi casualty incidents/ accidents can be as a result of anything e.g. road Traffic accidents

Person at Scene report to IOM ECRP II National Operation Officer Immediately

Designated onsite Emergency Coordinator

For all emergency scenarios in this category

a. For Road traffic accidents, person at scene reports the case to the Police and ECRP II National Operation Officer.
b. The National Operations officer has the obligation to report the incident following the ECRP II incident reporting system.
c. Raise alarm.
d. Call Emergency number
e. Withdraw men from dangerous areas
f. Attend to injured and call for ambulance
g. Render First Aid.
h. Transport injured to nearest approved medical facility.

8.3. FLOODING/ DIKE BREACH

This emergency action plan caters for floods and breach scenarios. Although monitoring measures (including closely follow up and monitor current flood warning) have been put in place, a breach may occur due to multiple factors. This may lead to displacement of communities and death of livestock due to flooding.

Person(s) at Scene:

a) Move to safe higher ground
b) Inform the site supervisor and plant operator of the situation.
c) Inform IOM ECRP II Local Officers

d) Inform IOM ECRP II National Operations Officer
e) Warn unsuspecting public of the hazard.
f) Help casualties if any.

Designated onsite Emergency Coordinator

a) Inform the County Disaster Risk Management Committee (DRMC) to sound the emergency alarm/notification immediately
b) Designated onsite Emergency Coordinator to immediately inform the IOM National Operations Officer, Security focal points, Clinic and Safeguarding Assistants.
c) Designated onsite Emergency Coordinator to conduct a preliminary assessment of the magnitude of flood and breach.
d) Call for an ambulance and emergency services including Immediately notifying local emergency management officials, law enforcement, and relevant state agencies.
e) Confirm that the Project Manager, Head of Sub-office, Safeguarding officer, Safety and Security staff, have been notified
f) Once on site, quickly assess the extent of the breach, the potential for further failure, and the areas at risk downstream. Based on the assessment, determine the appropriate emergency level (e.g., alert, warning, imminent failure) and communicate this to all relevant parties. Assess the situation and raise the following for assistance where Necessary:

- Ministry of Humanitarian Affairs and Disaster Management
- Fire Brigade
- Police
- Ministry of Health

g) Alert the public in the affected areas about the imminent danger and the need to evacuate. Confirm with clinic for casualty arrangement.
h) Give instruction for inspections to be done by a team headed by a Senior Engineering Official before issuing emergency evacuation instructions. Initiate the evacuation of people in areas at risk of flooding or inundation. Ensure clear evacuation routes and designated rally points are in place and communicated to the public. Work closely with local emergency responders, including law enforcement, firefighters, and medical personnel.

8.4 HAZARDOUS SUBSTANCES SPILLAGE

This emergency action plan caters for incidents involving the accidental spillage of hazardous material at sub-projects sites. Hazardous substances can be defined as any substances that has the potential to cause irreversible harm or damage to human health and the environment. At ECRP II subproject, common hazardous substances include flammable liquids (Petrol, Diesel), flammable gases e.g. LPG etc. In the event of a spillage or an accidental discharge, the following steps should be taken at ECRP II sites:

Person on site

a) b) Inform the site supervisor and plant operator of the situation.
c) Inform IOM ECRP II Local Officers

d) Inform IOM ECRP II National Operations Officer
e) Warn unsuspecting public of the hazard.

Designated onsite Emergency Coordinator

a) Determine what substance that has been involved in the spillages by asking what type of container the substances were in; and labels on the containers
b) Determine the extent of the spillage
c) Gather resources for attending to the spillage with the inclusion of: Adequate PPE for the complete team attending the spillage; Materials and resources to stop leaks such as wood plugs, self-adhesives, Material to store contaminated soil, clothing, materials, etc.
d) Upon approaching the spillage site, determine the wind direction. Approach spillage scene from upwind as best as possible.
e) Assess the actual type, quality and quantity of the spilled substance, the location and area of the affected site
f) Determine evacuation distances using the ER Guidebook provided
g) Secure the area;
h) Place labels and warning signs on the scene of the spillage to alert the public and other staff members
i) Demarcate scene in Hot, Warm and Cold Zones as guided by the ER Guidebook provided
j) If necessary, evacuate people [Remember the priorities: Save life-Save property-Save the environment]
k) If safe to do so, contain the spillage at one area. Stop leaks if any.
l) Assess the impacts that the spillage has already caused or will cause to the environment
m) Alert the users of the receiving environments of the dangers associated with the spillage.

ECRP II National Operations Office

a) Cause the cleanup operations to be done according to best available cleanup methods to the satisfaction of the relevant authorities following the guidance provided in the safety data sheet as read with the ER Guidebook)
b) Call for an ambulance and emergency services
c) Confirm that the Project Manager, Head of Sub-office, Safeguarding officer, Safety and Security staff, have been notified
d) Once on site, assess the situation and raise the following for assistance where Necessary:
    - Ministry of Humanitarian Affairs and Disaster Management
    - Fire Brigade
    - Police
    - Ministry of Health
e) Give instruction for inspections to be done by a team headed by a Senior Engineering Official before issuing emergency evacuation instructions.

X. CHAPTER 10

TRAINING AWARENESS RAISING & CAPACITY BUILDING

The project recognises the capacity gaps that exist in South Sudan when it comes to the management of Environmental and Social Safeguarding issues. In a bid to ensure the sustainable implementation of the proposed subprojects will focus on providing capacity building training for workers and communities to ensure effective implementation of this ESMP. A summary of the trainings that will be considered are presented in table below.

Table 9. Targeted trainings for the effective implementation of the ESMP

OBJECTIVES	ISSUES FOR ENGAGEMENT	METHOD OF ENGAGEMENT	STAKEHOLDERS/TARGET POPULATION AND AREA	RESPONSIBLE PERSON	TIME FRAME	BUDGET IN USD
Enhance awareness and knowledge about GRM and OHS risk with its prevention measures.	GRM	Training, Plenary discussion with questions and answer	Beneficiaries, Contractors, PDCs, BDCs, PDRMC, Contractor workers, community leaders	ES Safeguarding Officer, Gender GBV Officer, Safeguarding Assistants COAs	Weekly	5000
ES induction training	ES Safeguarding issues	Training	All project workers as defined under ESS2	ES Safeguarding Officer, Gender GBV Officer, Safeguarding Assistants NOOs, Senior Engineers, Site Engineers	Ongoing for all new staff	Included in staff costs
Ensure compliance to implementation of ESMP and Safeguarding requirements	Environmental and Social Risks Management	Training, Focus group discussions, site visits and interviews	Beneficiaries, Contractors	ES Safeguarding Officer, Gender GBV Officer, Safeguarding Assistants COAs	Monthly	5000
Subproject Environmental and Social screening	E&S Screening	Training, On the job training	ECRP II Staff	ES Safeguarding Officer, Gender GBV Officer, Safeguarding Assistants COAs	Prior to commencement of sub-projectss	Included in staff costs
Stakeholder engagement	SEP	Workshop	ECRP II Staff, Contractors	ES Safeguarding Officer, Gender GBV Officer, Safeguarding Assistants	Prior to commencement of sub-projectss	4,000

OBJECTIVES	ISSUES FOR ENGAGEMENT	METHOD OF ENGAGEMENT	STAKEHOLDERS/TARGET POPULATION AND AREA	RESPONSIBLE PERSON	TIME FRAME	BUDGET IN USD
GBV Action Plan	GBV risks	Meetings	Beneficiaries, communities, contractors, subcontractors, primary suppliers, workers	ES Safeguarding Officer, Gender GBV Officer, Safeguarding Assistants COAs	Prior to commencement of sub-projectss	10,000 USD
LMP	Labor risks	Meetings	Contractors, subcontractors, primary suppliers, workers	ES Safeguarding Officer, Gender GBV Officer, Safeguarding Assistants	Prior to commencement of sub-projects	Included in staff costs
Emergency preparedness and response	EPP	Meetings	Contractors, subcontractors, primary suppliers, workers	ES Safeguarding Officer, Gender GBV Officer, Safeguarding Assistants	Prior to commencement of sub-projects	2500 USD
Implementation, monitoring and reporting of ESMPs	E&S risk mitigation	Workshop	Contractors, subcontractors, primary suppliers, workers	ES Safeguarding Officer, Gender GBV Officer, Safeguarding Assistants COAs	Prior to commencement of sub-projecs	Included with other training costs
Provision of a safe working environment and management of OHS risks	OHS risk management	Training, FGDs, site visits, inspections and interviews	Beneficiaries, contractor staff	ES Safeguarding Officer, Gender GBV Officer, Safeguarding Assistants COAs	prior to dike construction works	2500 USD
OHS risk management	OHS training	Training, FGDs, site visits, inspections and interviews	Contractors, subcontractors, primary suppliers, workers	ES Safeguarding Officer, Gender GBV Officer, Safeguarding Assistants COAs	Prior to commencement of sub-projects	Included with other training costs
Safety, security and conflict sensitivity	Conflict sensitivity and insecurity	Training and practical drills	Contractors, subcontractors, primary suppliers, workers and staff	ES Safeguarding Officer, Gender GBV Officer, Safeguarding Assistants COAs	Prior to commencement of sub-projects	Included with other training costs

XI. CHAPTER 11

INSTITUTIONAL ARRANGEMENTS

The successful implementation of this ESMP depends on the commitment and capacity of various institutions and stakeholders to implement the ESMP effectively. Thus, the institutional arrangements as well as the roles and responsibilities of the institutions and persons that will be involved in the implementation, monitoring and review of this ESMP are discussed in the Table 10 below.

Table 10. Table Institutional arrangement for the Implementation of the ESMP

INSTITUTION	ROLES AND RESPONSIBILITIES
MoFP/PMU	▪ Lead national and state level stakeholder engagement and coordination, including disclosing all essential project information to relevant actors in a timely manner. ▪ Review all ESMPs documents prepared by IOM and ensure adequacy under the World Bank Safeguard policies. ▪ Ensure that the project design and specifications adequately reflect the recommendations of the ESMPs. ▪ Coordinate application, follow up processing and obtain requisite clearances required for the project, if required. ▪ Prepare compliance reports with statutory requirements. ▪ Develop, organize and deliver training program for the project staff, the contractors and others involved in the project implementation, in collaboration with IOM ▪ Review and approve the Contractor's Implementation Plan for the environmental measures, as per the ESMF. ▪ Liaise with the Contractors and the IOM team on the implementation of the ESMPs; ▪ Liaise with various National government and State Government agencies on environmental and other regulatory matters. ▪ Continuously interact with the NGOs and community groups that would be involved in the project. ▪ Review the performance of the project through an assessment of the periodic environmental and social monitoring reports. ▪ Provide a summary of the same to the Project Manager, and initiate necessary follow-up actions; ▪ Monitor and evaluate implementation of the ESMP and the sub-projects in close coordination with IOM, contractors and local authorities ▪ Review and authorize release of funds for timely execution of the project by IOM and contractors. ▪
IOM	▪ Management, implementation, monitoring, and compliance of the ESMP, and any approval conditions, including dike construction supervision and performance of project staff, contractors and subcontractors.

INSTITUTION	ROLES AND RESPONSIBILITIES
	▪ Review of ESMP performance and implementation of correction actions ▪ Stop work procedures, in the event of breaches of ESMP conditions that may lead to serious impacts on local communities, or affect the reputation of the Project ▪ Ensure effective communication and dissemination of the content and requirements of the ESMP to contractors and subcontractors. ▪ Assisting the contractor with implementation of ESMP sub-plans. ▪ Monitoring of ESMP performance ▪ Ensuring compliance to all Project social commitments, including implementation of the social management plans ▪ Report environmental performance of the Project directly to PMU. ▪ Prepare environmental reports summarizing Project activities, as required, ▪ Representing the Project at community meetings ▪ Ensuring effective community liaison and fulfilling commitments to facilitate public consultation throughout the Project cycle. ▪ Establish dialogue with the affected communities and ensure that the environmental and social concerns and suggestions are incorporated and implemented in the project;
Contractors	▪ Contractors should ensure that all their personnel or subcontractor's personnel has received proper induction. o and awareness arising as necessary of ESMP, health and safety management practices, and are aware of relevant site rules. ▪ Keep the health and safety records of their subcontractors or partners in a joint venture and keep those records available for IOM inspection at any time. ▪ Contractors will include environmental and social requirements in the procurement and contracting process including bidding documents, for potential civil works. ▪ Relevant requirements are included in contracts and subcontracts consistent with the requirements of Environment and Social Standards (ESSs); codes of conduct are required for contractors, subcontractors, primary suppliers, and their workers. ▪ Contractor will prepare a detailed construction-ESMP (C-ESMP) that is costed, with sufficient budget to mitigate E&S risks ▪ Contractor's commitment and compliance will be monitored in accordance to ESSs ▪ Contractor will be trained by IOM on grievance redress mechanisms and their subcontractors are expected to do the same to the affected communities and other stakeholders. ▪ The contractor will develop a grievance mechanism to handle concerns of their employees. ▪ Conducting weekly HSSE Inspection and submitting the reports to IOM Site Engineer ▪ Contractors will provide Monthly and quarterly details on contractor's oversight on environmental, social, health and safety (ESHS) performance. ▪ Contractor shall have a Labor Management Plan (LMP), which conforms to the requirements of the LMP and Environmental Social Standards 2. ESS2
IOM Field Engineer	▪ Supervision of contractor performance of implementation of the Construction ▪ Reporting any incidents or non-compliance with the ESMP to the CI HSSE

INSTITUTION	ROLES AND RESPONSIBILITIES
	Team ▪ Conducting weekly HSSE inspection at the sites and Submitting reports to CI HSSE Team ▪ Making recommendations to the CI HSSE Team regarding ESMP performance as part of an overall commitment to continuous improvement
World Bank	▪ Overall supervision and provision of technical support and guidance. ▪ Recommend additional measures for strengthening the management framework and implementation performance. ▪ Review and clear the application and recommendations of sub- project ESMPs. ▪ Process and release funds requested by MoFP/PMU for timely execution of the project
General Public	▪ Identify environmental and social issues that could derail the project and support project impacts and mitigation measures. ▪ Assist in awareness campaigns

11.1. ESMP Implementing schedule.

The implementation of the ESMP will be done throughout the project Life Cycle.

Table 11. ESMP Implementing schedule.

S/N	ACTIVITY	RESPONSIBILITY	SUB PROJECT IMPLEMENTATION		
Environment and Social Management			M1	M2	M3
	Formal Disclosure of ESMP	PMU &IOM			
	Develop Environmental/Social Requirements in Bid Documents for contractors	PMU & IOM			
	Training of engineers and Contractors on the ESMP	IOM			
	Implementation of Environmental and Social Mitigation Measures	IOM			
	Supervision of works	IOM & PMU			
	Supervision of ESMP Implementation	IOM & PMU			
	Environmental and Social Monitoring and Auditing	IOM & PMU			
	Reporting on ESMP Implementation	IOM & PMU			

11.2. Proposed budget for ESMP implementation

The total cost for implementing this ESMP is estimated to be USD 70,000.

The table below breaks down the budget estimate and the responsibility for implementation of the ESMP.

Table 12. Proposed budget for ESMP implementation

S/N	ITEM	RESPONSIBILITY	COST ESTIMATE (USD)
1	Implementation of Mitigation measures	IOM, Contractor, and PMU	30,000.00
2	Audits & Inspections and compliance Monitoring	IOM & PMU	20,000.00
3	Capacity Building, training and awareness raising	IOM & PMU	20,000.00
Total			**70,000.00**

Reporting

Reports shall be produced through the course of implementation of monitoring programs, collecting incident/grievances forms, consulting with local communities and auditing performance of existing programs/mitigation measures within the ESMP.

Table 13.Types of reports required.

RESPONSIBILITY	TYPE OF REPORT	PURPOSE/DETAILS OF REPORTING	FREQUENCY OF SUBMISSION	SUBMIT TO:
Contractor	Accidents/Incident Report	Filing/notification of accidents or unplanned events	Within 24 hours of the incident	IOM Safeguards Assistant/IOM safeguards officer
	Weekly Site	Report of	Weekly	IOM Safeguards

RESPONSIBILITY	TYPE OF REPORT	PURPOSE/DETAILS OF REPORTING	FREQUENCY OF SUBMISSION	SUBMIT TO:
	Inspection Report	compliance and noncompliance issues / measures		Assistant/IOM safeguards officer
IOM Site Engineer	Accidents/Incident Report	Filing/notification of accidents or unplanned events	Within 24 hours of the incident	IOM Safeguards Assistant/IOM safeguards officer
	Site Inspection Report	Report of compliance and noncompliance issues / measures	Weekly	IOM Safeguards Assistant/IOM safeguards officer
IOM Safeguarding Team	Incident Investigation/ Review report	Detail the cause, nature and effect of any environmental and/or social incident	Not more than 5 days form occurrence	PMU
IOM Safeguarding Team	Monthly Compliance Report	Monthly report of compliance before the 5th of every new month	Monthly	PMU
PMU	Quarterly Compliance Report	Quarterly report of compliance to ESMP	Quarterly	World Bank

11.3. ESMP Disclosure

The ESMP shall be disclosed by the MoFP/PMU on its website and by IOM at the project site following the review and clearance by the World Bank.

Table 14. ESMP Disclosure

ACTIVITY	RESPONSIBILITY
Disclosure of the ESMP at the National Level on the Public notice boards	PMU will liaise with IO M and the relevant government authorities
Disclosure of the ESMP at the State level on the public notice boards	PMU will liaise with IOM and the relevant government authorities
Disclosure of the ESMP at the County and Payam level on the public notice boards	PMU will liaise with IOM and the relevant government authorities
Disclosure of the ESMP at the project community	PMU will liaise with IOM and the relevant government authorities

XII. CHAPTER 12

SUMMARY CONCLUSION AND RECOMMENDATION

12.1. Conclusion

This Environmental and Social Management Plan provided in provides the path for sustainable project implementation and management of environmental and social risks. The plan provides strategies and activities that need to be implemented to mitigate the negative impacts and enhance the positive impacts. Implementation timelines, responsibilities and cost estimates are also provided. The successful implementation of this ESMP is dependent on the diligence of all the stakeholders in the implementation of the provisions of this ESMP and associated systems and documents.

The major impacts that have been identified include employment creation, occupational health and safety risks, spread of infectious diseases, public health and safety risks, environmental (air, water and land) pollution, waste management issues, disturbance of flora and fauna habitats and disruption of ecosystem services. Most of the impacts will be temporary and short-lived except for the unavoidable release of GHGs from the fuel combustion. The hierarchy of mitigation informed mitigation measures that have been proposed in this ESMP.

At all stages of the sub-projects' implementation, the hierarchy of controls should be used to ensure a safe working environment and the sound management of occupational hazards and risks. As discussed in this ESMP, this will include taking steps to eliminate risks and when this is impossible, other measures will be used. For instance, engineering controls will be used in situations when the hazard cannot be eliminated, and this can be coupled with the use of administrative controls. In worst case scenarios, the provision of adequate PPE will be opted for to ensure employees are protected from the hazard.

All the identified stakeholders were in support of the proposed sub-projects. The raised issues, which included the need to ensure compliance with legal requirements in terms of national laws. Comments were also submitted stating that the sub-projects will contribute to key infrastructure and are needed to improve the livelihoods of communities in targeted areas. The identified socioeconomic benefits exceed costs of the anticipated negative impacts such that the affected communities are predicted to become economically and socially better off with the proposed sub-projects than without. The project should ensure the involvement of local communities in all decisions and implementation of plans for management of floods in Twic East County.

12.2. Recommendation

It is recommended that contractors and all the stakeholders mentioned in the ESMP implement the recommendations in the environmental and social management plan with all due diligence. This is to ensure that the identified environmental and social risks are well managed and that accidents are prevented during sub-projects implementation. The Proponent is expected to comply with the relevant national legal and policy requirements regarding project implementation. During the operation of the flood protection facilities, environmental and social regulations must be strictly adhered to. The performance of the sub-projects will also be monitored against the recommended mitigation measures to ensure sustainability.

XIII. ANNEXES

ANNEX 1: ENVIRONMENTAL AND SOCIAL REQUIREMENTS FOR CONTRACTOR/S

General Conditions

The Contractor shall Implement all activities under this contract in compliance with the requirements of the World Bank Environmental & Social Framework and the applicable laws of South Sudan in line with the ECRP II Environmental and Social Management Framework (ESMF) together with associated specific Environmental and Social (ES) risk management tools that may have been developed by IOM. All Contractors engaged on the project operate in a manner consistent with the requirements of the environmental and social standards (ESSs), including the specific requirements set out in the Environmental and Social Commitment Plan (ESCP). To achieve this, the Contractor shall:

a) Incorporate the requirements of ESMF and all other relevant E&S instruments in the bid document.
b) Adopt the sub-projects ESMPs and where necessary develop Dike Construction Environmental and Social Management Plans (C-ESMPs) to help manage dike construction risks.
c) Make sure that the C-ESMP should get approval from IOM before commencing the project.
d) Implement, and review site specific Contractor - Environmental and Social Management Plans (C-ESMPs) as required by the ESMF and specifically the Labor Management Procedures (LMP) including, OHS plans, labor recruitment plans, code of conduct (CoC) for employees, waste management plan, emergency plan, protection of biodiversity, land clearing and erosion control, traffic management, noise and dust control, and labor influx, communicable diseases and others.
e) Submit a recruitment plan containing the number of staff required, intended working conditions, Intended locations of staff, and Job specifications in terms of qualification and experience to PMU/IOM for review and approval.
f) Publishes the job invitation in the appropriate media (local press or direct invitation for contracted worker, or word of mouth through local leaders for community workers) to ensure all potential candidates have access to the information, including women and persons with disabilities.
g) Employ qualified E&S personnel to oversee E&S performance, and that Contractor staffing, and resources are commensurate with the magnitude and timing of work and potential E&S risks.
h) Ensure all workers have signed a Code of Conduct (see annex 3 of ESMF).
i) Prepare E&S training programs for workers and for communities if necessary.
j) Ensure the employee are aware of E&S commitments and their responsibilities, which include key Job Specifications, terms and Conditions of Employment, special Codes of Conduct, disciplinary Procedures, workers' Grievance Mechanism, freedom to join and participate fully in workers association activities, key E&S aspects of the ECRP-II ESMF and other E&S instruments, and emergency Preparedness before work commencement.
k) Adopt and implement the national, regional, and international best practices on Safety, Health, Environment, and Social risk management.
l) Ensure the provision of Safety, Health, Environment, and Social risk information to employees, communities, and all relevant stakeholders.
m) Focus on compliance with all applicable safety, health, environmental and Social Multilateral Agreements, policies, national laws, regulations, and Codes of practice applicable to the activities being implemented.

Ensure that substantial resources are allocated for the prevention of accidents, injuries, and fatalities in all areas of operation including the provision of a safe working environment for all.

o) Promote sustainable consumption and utilization of naural resources focusing on the prevention of environmental pollution, and environmental degradation. n) report E&S performance timely (on at least a monthly basis throughout the dike construction phase, including mobilization, construction, and demobilization), including investigating and resolve all complaints, issues, incidents, accidents, and non-conformities. o) Participate regular weekly meeting with IOM to evaluate E&S performance-monitoring results and to improve its performance.

p) Establish, maintain, and update relevant environmental and social risk management registers as required by IOM.
q) Conform to the requirements and provisions of the World Bank Environmental and Social Framework (ESF) as read with the applicable Environmental, Health and Safety Guidelines (EHSG).
r) Monitor and keep records on E&S performance following the E&S management plans. This may include monitoring of E&S matters, scheduled and unscheduled inspections to work locations, observations made during routine activities, desk reviews, drills, and any other monitoring protocols implemented by the Contractor to ensure E&S compliance.

Failure to comply with the Environmental and Social Safeguarding requirements shall constitute a violation of contractual provisions and may lead to the cancelation of the contract. IOM may recover any unanticipated costs from any funds withheld in terms of the contract to remedy any environmental and social residual risks that shall be attributed to the Contractor's activities. Generally, the Contractor s shall take corrective action(s) for major noncompliance, including to the LMP implementation. The following are some of the major noncompliance that Contractor s need to take note of:

- Failure to submit mandatory quarterly progress report.
- Failure to avail for inspection specified documentation pertaining to the implementation of the ESMP, C- ESMP and LMP.
- Failure to timely notify and submit incident and accident investigation report.
- Failure to appoint or replace a competent and experienced EHS officer.
- Failing to enforce C-ESMPs including provision of adequate appropriate PPE.
- Recruitment of nontechnical staff from outside the local community.

1. Specific Conditions

2.1 Application National Policies and Laws

The policy, legal and administrative framework provides guidance and provisions for the protection and conservation of the environment, employees and the communities. Contractor s must comply with the Transitional Constitution of South Sudan (2011), the Environment Policy of South Sudan (2015-2025), The Draft Land Policy (2016), Forestry Policy (2019), the Land Act (2009), and the National Labour Act.

2.2 The World Bank Environmental and Social Framework (ESF) and relevant Environmental and Social Standards (ESSs).

2.2.1 ESS 1: Assessment and Management of Environmental and Social Risks and Impact

In line with the management of environmental and social risks, the Contractor shall:

a) identify, evaluate, and manage the environment and social risks and impacts of the sub-projects in a manner consistent with the requirements of the World Bank ESF and relevant legislation of South Sudan.
b) adopt a mitigation hierarchy approach to: (a) Anticipate and avoid risks and impacts; (b) Where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels; (c) Once risks and impacts have been minimized or reduced, mitigate; and (d) Where significant residual impacts remain, compensate for or offset them, where technically and financially feasible.
c) adopt differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities resulting from the sub-projects.
d) Utilize national environmental and social institutions, systems, laws, regulations, and procedures in the assessment, development, and implementation of projects, whenever appropriate.

The Contractor is required to take a risk-based approach when undertaking any activities under this contract. They are required to assess, manage, and monitor environmental and social risks and impacts associated with each stage of the sub-projects implementation to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs) set out in the WB ESF and the relevant national legislation of South Sudan. The Contractor is obliged to maintain documented information and records as evidence of maintaining a robust system for the management of ES risks. Such documents shall include but may not be limited to:

- *ECRP/ESS-P003 Contractor Management Plan (CMP)*
- *ECRP/ESS-P004 Waste Management Plan*
- *ECRP/ESS-P005 Site emergency and response plan*
- *ECRP/ESS-P006 Emergency phone numbers*
- *ECRP/ESS-RPT03 Daily Safety Talks*
- *ECRP/ESS-PR01 Accident & Incident Reporting procedure*
- *ECRP/ESS-PR02 Accident & Incident Investigation procedure*

2.2.2 ESS 2: Labor and Working Conditions

For all works to be undertaken by the Contractor and/or their sub-contractor s including any other third parties, the following labour and working conditions shall apply:

a) Promotion of safe and healthy working environment at all ECRP II sub-projects Contractor managed sites including all Contractor work stations and offices.
b) Promotion of fair treatment, non-discrimination, and equal opportunity for all workers.
c) Protection of workers, including vulnerable workers such as women, persons with disabilities, children (of working age, following the requirements of IOM, World Bank and the Government of South Sudan[3]) and migrant workers, contracted workers, community workers, and primary supply workers, as appropriate.
d) Prevention of the use of all forms of forced labor and child labor.
e) Supporting the principles of freedom of association and collective bargaining of workers in a manner consistent with the Laws of South Sudan.

[3] The more stringent requirement shall apply.

a) Provide workers with accessible means to raise workplace concerns, issues, and grievances and fully aware of and be ready to implement the Workers' Grievance Redress Mechanism.

Furthermore, for managing the OHS issues, the Contractor shall:

1. Develop and maintain an OHS management system that is consistent with the scope of work, duration of contract and IFC General Environmental Health and Safety Guidelines (EHSGs) on Occupational Health and Safety.
2. Appoint an appropriately qualified and experienced OHS/Environmental Officer whose responsibilities are to advise the employer on an OHS related issues.
3. Prepare task specific risk assessment (TRA) and safe working procedures (SWP) for executing works.
4. Provide preventive and protective measures, including modification, substitution or elimination of hazardous conditions or substances informed by TRA and SWP.
5. Provides for appropriate training/induction of project workers and maintenance of training records on occupational health and safety subjects including TRA and SWP.
6. Documents and reports on occupational accidents, diseases and incidents.
7. Provides emergency prevention and preparedness and response arrangements to emergency situations including and not limited to: workplace accidents; workplace illnesses; flooding; fire outbreak; disease outbreak; labor unrest and security.
8. Comply with all requirements of applicable occupational Health and Safety legislation and Environmental legislation including WB EHS guidelines.
9. Maintain all such records for activities related to the safety health and environmental management for inspection by the PMU or the World Bank.
10. Verification of the soundness of the Contractor 's implementation of the requirements of the LMP by IOM.
11. Provide a fully equipped first aid kit.
12. Mainstream HIV issues in the workplace by providing HIV prevention training during induction and continuously during employment through health and safety talks.

The Contractor should recognize the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. They should promote sound worker-management relationships and enhance the development benefits of a sub project by treating workers in the project fairly and providing safe and healthy working conditions. The Contractor is obliged to maintain documented information and records as evidence of maintaining a sound OHS system:

- *ECRP/ESS-R003 HSSE Training and Induction register*
- *ECRP/ESS-R004 GRM Register*
- *ECRP/ESS-R006 Accident, Incident, near misses Register.*
- *ECRP/ESS-R007 Meeting Attendance Register*
- *ECRP/ESS-R011 Emergency drill and simulation register*
- *ECRP/ESS-F001 Accident, Incident, Near misses Report Form*
- *ECRP/ESS-F002 Pre-Task Risk Assessment Form*
- *ECRP/ESS-PTW001 Working at Heights permit.*
- *ECRP/ESS-PTW002 Working in cornified spaces permit.*
- *ECRP/ESS-PTW003 Excavation permit*
- *ECRP/ESS-PTW004 Lifting permit.*
- *ECRP/ESS-PTW005 Hot works permit*
- *ECRP/ESS-G004 Occupational Safety and Health Guidelines*

2.2.3 ESS3: Resource Efficiency and Pollution Prevention and Management

The Contractor shall:

a) promote the sustainable use of resources, including energy, water, and raw materials.
b) avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from sub-projects activities.
c) avoid or minimize sub-projects-related emissions of short and long-lived climate pollutants.
d) avoid or minimize generation of hazardous and non-hazardous waste.
e) minimize and manage the risk and impacts associated with pesticide use.

The Contractor should recognize that sub-projects activities often generate pollution of air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment. Thus, they are required to address resource efficiency and pollution prevention and management throughout the sub-projects life cycle. The Contractor is obliged to maintain a system and keep documented information and records as evidence. Such records shall include:

- *ECRP/ESS-R001 Licenses, Permits and Authorizations Register*
- *ECRP/ESS-P006 Site Plans (these shall include areas for the abstraction of pits and, river sand, quarry sites and any materials that shall be required for the implementation of sub-projects sites)*
- *ECRP/ESS-R014 Materials abstraction register*

2.2.4 ESS 4: Community Health and Safety

The Contractor shall:

a) anticipate and avoid adverse impacts on the health and safety of sub-projects-affected communities during the project life cycle from both routine and non-routine circumstances.
b) avoid or minimize community exposure to sub-projects-related traffic and road safety risks, diseases, and hazardous materials.
c) have in place effective measures to address emergency events.
d) ensure that the safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities.
e) Contractor shall ensure that all non-technical work is reserved for locals (identifiable with the host community and witnessed by host community leadership).
f) Beneficiary selection and employment recruitment should verify the authenticity of the localness of potential employees.
g) g) Contractor liaises with local leadership on enrolment for community workers while at the same time ensuring that no grievances derive from nepotism via utmost transparency in the selection process, announcing hiring campaigns early enough in community consultations and/or other outreach activities.
h) Where there are camp establishments, Contractor shall ensure camp management and community relations are good. If labor camps are required, special management plans need to be developed, or if smaller establishment, camp management reflected in the ESMP.
    - Security within camp
    - Social relations with community members should be cordial and consistent with GBV and SEA
    - Waste management
    - Water and sanitation

- Proper camp demobilization

i) Establish code of conduct for contract workers interaction with the host community. This may include:
   - Access to camp by children, non-employed girls and women
   - Appropriate language
   - Time restrictions where required
   - GBV/SEA

j) Good conduct if small numbers of workers are accommodated in communities rather than camps (requirements on when to establish a camp shall be included in the POM)

k) Contractor shall ensure that local supply shall not negatively impact the availability of resources for the local communities and sourcing of local wildlife shall be prohibited.

Sub-projectsare implemented within communities and Contractor s should address the health, safety, and security risks and impacts on project-affected communities. Focus should be put on avoiding or minimizing such risks and impacts, with particular attention to people who, because of their circumstances, may be vulnerable. The Contractor shall maintain clear records of stakeholder engagement and shall erect safety signage and/or barricades to alert communities of perceived risks. *ECRP/ESS-R002 Stakeholder engagement minutes shall be kept at site offices as a record of engagement of communities regarding community safety and health.*

2.2.5 ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

The Contractor shall:

a) avoid an activity that may lead to involuntary resettlement.
b) shall ensure that the sub-projects implemented has land donation forms and land has been voluntarily given for the purposes of the sub-projects.

The Contractor is obliged to maintain a system that documents information and records all land issues as evidence: The following documents shall be kept:

- *ECRP/ESS-F005 Land donation forms*
- *ECRP/ESS-R002 Stakeholder engagement minutes*

2.2.6 ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources

Protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development. Thus, the Contractor should strive to recognize the importance of maintaining core ecological functions of habitat within their area of operation. They should also ensure sustainable management of primary production and harvesting of living natural resources and recognizes the need to consider the livelihood of project-affected parties, including Indigenous Peoples, whose access to, or use of, biodiversity or living natural resources may be affected by a sub-projects. The Contractor is obliged to establish and maintain documented information and records as evidence as follows:

- *ECRP/ESS-R001 Licenses, Permits and Authorizations Register*
- *ECRP/ESS-P006 Site Plans (these shall include areas for the abstraction of pits and, river sand, quarry sites and any materials that shall be required for the implementation of sub-projects sites)*
- *ECRP/ESS-R014 Materials abstraction register (The register should capture the quantity of materials used for each sub-projects site and this includes Pit sand, River sand and Water)*
- *Preservation of nationally protected and/or globally threatened species*

2.2.7 ESS 7 - Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities.

This ESS applies to distinct social and cultural groups.

a) To ensure that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communities.
b) To avoid adverse impacts of projects on Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communities, or when avoidance is not possible, to minimize, mitigate and/or compensate for such impacts.
c) To promote sustainable development benefits and opportunities for Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities in a manner that is accessible, culturally appropriate and inclusive.
d) Enhance opportunities for Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities to participate in, and benefit from, the development process in ways that do not threaten their unique cultural identities and well-being. The Contractor is obliged to keep the following records:

- *ECRP/ESS-P002 Stakeholder Engagement Plan (SEP)*
- *ECRP/ESS-PR05 Grievance Redress Mechanism (GRM) Procedure*

2.2.8 ESS 8: Cultural Heritage

The Contractor shall:

a) protect cultural heritage from the adverse impacts of sub-projects activities and support its preservation.
b) address cultural heritage as an integral aspect of sustainable development.
c) promote meaningful consultation with all relevant stakeholders regarding cultural heritage.

Cultural heritage provides continuity in tangible and intangible forms between the past, present, and future. The Contractor should adopt measures designed to protect cultural heritage throughout the sub-projects activities. The Contractor is obliged to keep the following records:

- *ECRP/ESS-R002 Stakeholder engagement minutes*
- *ECRP/ESS-PR04 Chance finds Procedure*
- *ECRP/ESS-PR05 Grievance Redress Mechanism (GRM) Procedure*

2.2.9 ESS 10: Stakeholder Engagement and Information Disclosure

The Contractor shall:

a) Establish a systematic approach to stakeholder engagement that will identify stakeholders and build and maintain a constructive relationship with them.
b) Assess the level of stakeholder interest and support for the sub-projects and enable stakeholders' views to be considered in sub-projects design and environmental and social performance.
c) Promote and provide means for effective and inclusive engagement with sub-projects-affected parties throughout the sub-projects life cycle on issues that could potentially affect them.

d) Ensure that appropriate sub-projects information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format.
e) Provide sub-projects-affected parties with accessible and inclusive means to raise issues and grievances and allow IOM to respond to and manage such grievances.

The Contractor should ensure open and transparent engagement of project stakeholders. Effective stakeholder engagement is envisaged as a tool to improve the environmental and social sustainability of sub-projectss, enhance sub-projects acceptance, and make a significant contribution to successful sub-projects design and implementation. The Contractor is obliged keep the following records:

- *ECRP/ESS-R002 Stakeholder engagement minutes*
- *ECRP/ESS-P002 Stakeholder Engagement Plan (SEP)*

ANNEX 2: PHOTO GALLERY

Annex 2. 1. One of the Institution that shall be protected by the execution of the works/IOM/2024.

Annex 2. 2.Stream bank where proposed network shall pass/IOM/2024

Annex 2. 3. Assessment team checking previous flood level mark on the tree/IOM/2024

Annex 2. 4.Government offices close to the riverbank/IOM/2024.

ANNEX 3: POLICY, LEGAL, ADMINISTRATIVE AND REGULATORY FRAMEWORK REVIEW

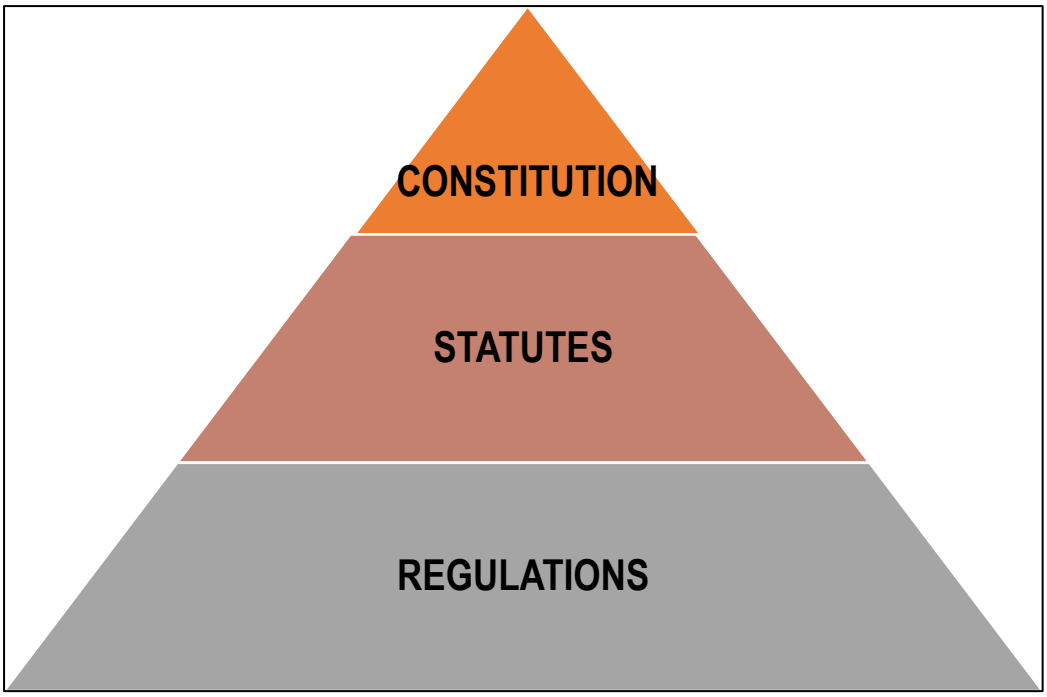
POLICY, LEGAL, ADMINISTRATIVE AND REGULATORY FRAMEWORK REVIEW

The GoSS is committed to the sound management of its environmental resources focusing on the sustainable utilization of natural resources, prevention of pollution and land degradation. The government has promulgated several instruments in view of providing principles, guidance, and stipulations to guarantee the protection of the country's environment, social and cultural values.

The development of ESMPs is done to proactively identify potential impacts on environmental and social resources prior to the implementation of targeted projects. The focus of the ESMP development process is to ensure that identified positive impacts are enhanced while the mitigation of negative impacts is place at the core of the process and is supported through the adoption of sustainable approaches to avoid, reduce, mitigate, and/or offset negative impacts.

The project seeks to abide by all the existing legal provisions to ensure the protection of the environment and adherence to environmental and social standards as stipulated in the laws of South Sudan. Since attaining Independence in July 2011, the GoSS has adopted a new constitution which is operationalized through various legal instruments including policies, statutes, regulations, and guidelines. The development of environmental and social laws in South Sudan is ongoing and the country has several legal instruments that are being drafted with the aim of enhancing sustainable socio-economic development. The policies and laws provide procedures to be followed in the planning and implementation of activities to ensure adherence to environmental and social standards.

This section provides an overview of the relevant environmental and social international, regional and national legal, policy and Institutional Framework that apply to ECRP II. Internationally and regionally, a review of Multilateral Environmental and Social agreements is presented while at national level, the hierarchy of laws presented in **Error! Reference source not found.** was used to guide the legal review. The World Bank Environmental and Social framework as read with the provisions of applicable Environmental, Health and Safety Guidelines were also reviewed and presented in this section highlighting the critical Environmental and Social Standards that Apply to ECRP II.



Annex 3. 1.Hierarchy of Laws

The following sections provide an overview of some of the relevant legal instruments that guide the maintenance of environmental and social standards in South Sudan.

Constitution of South Sudan

The Transitional Constitution of the Republic of South Sudan of 2011 includes numerous provisions that have a bearing on the environment. Under Article 41 (1), the constitution stipulates environmental rights and provides that the people of South Sudan shall have a right to a clean and healthy environment and (2) that every person shall be obliged to protect the environment and (3) that future generations shall have the right to inherit an environment protected for the benefit of present and future generations. Furthermore, Article 166 (6) expects local governments to involve communities in decision-making in the promotion of a safe and healthy environment. The constitution stipulates that:

"Women shall be accorded full and equal dignity of the person with men. Women shall have the right to equal pay for equal work and other related benefits with men. Women shall have the right to participate equally with men in public life. All levels of government shall: (a) promote women participation in public life and their representation in the legislative and executive organs by at least twenty-five per cent as an affirmative action to redress imbalances created by history, customs, and traditions; (b) enact laws to combat harmful customs and traditions which undermine the dignity and status of women; and (c) provide maternity and child care and medical care for pregnant and lactating women. Women shall have the right to own property and share in the estates of their deceased husbands together with any surviving legal heir of the deceased."

The rights of children are provided in the constitution which defines any person under the age of eighteen years as a child. The constitution seeks to protect children from unfair and unjust practices.

In executing the project, IOM and the Contractor s will need to adopt policies and systems that fully address the stipulated human rights in terms of the Constitution.

Policies

South Sudan Vision 2040

The major government document that is guiding the future development of South Sudan is the entitled "Towards Freedom, Equality, Justice, Peace and Prosperity for All". The document spells out the national goals of the Vision 2040 that are meant to create a vibrant, competitive, and diversified economy that is largely driven by various industrial sectors which include agriculture, mining, tourism, and services in view of attracting investors. The commitment of the GoSS to sustainable environmental management and prevention of environmental pollution that emanates from developmental programs is also explicitly highlighted. Vision emphasizes the need to minimize greenhouse gas emissions as a measure to combat climate change. Furthermore, the medium-term development plan (Revised National Development Strategy for South Sudan - 2021-2024) includes; Establish and/or strengthen institutions for transparent, accountable and inclusive governance in a bid to foster macroeconomic stability and lay foundations for the diversification of the economy. The government is focusing on building critical infrastructure for sustainable development, which includes roads, public buildings, and broadband capability. Moreover, the government is also focusing on mainstream gender in all development policies and programs and empower women and youth as drivers of growth and nation-building.

The ECRP II project is aligned to government focus as it is focusing on the dike construction of community infrastructure. Furthermore, the project has mainstreamed the involvement of the youth and women including vulnerable groups. IOM and the Contractor s should continue to uphold the principles of the project that are aligned to the South Sudan Vision 2040.

South Sudan National Environment Policy 2015 to 2025

The South Sudan Environmental Policy of 2015 provides the basis and framework for the sound management of environmental resources and paves the way for the mainstreaming of sustainable development agenda in the development agenda in the country. The policy has been developed in response to the challenges posed by existing environmental challenges, such as pollution and depletion of natural resources. The policy recognizes the essential links between sustainable development and sound environmental management. The policy provides strategies that seek to guide key actors in the public, private, and community domains in relation to the management of environmental resources. The policy focuses on making provisions for the protection and subsequent improvement in the way environmental resources are managed in a bid to improve the quality of life of both present and future generations. The nexus between environmental protection and occupational safety and health is presented and the policy seeks to guide sustainable economic growth.

The proposed project has the potential to cause environmental pollution during the dike construction and operation phases and these issues are addressed in the ESMP document. Also, by undertaking the ESMP, the project has observed the requirements of the national environmental policy and will continue to observe the requirements of the policy during the whole life cycle of the project.

The South Sudan Forest Policy (2019)

The Forest Policy of South Sudan was launched in 2019. The Policy is broadly intended to protect the roles forests play in stabilizing the global systems including the hydrological

balance, the carbon balance, atmospheric systems. The policy seeks to promote ecological stability of riverine systems, the lakes, swamps, agricultural production, and other natural ecological systems. The guiding principles of the Forest Policy include:

(i) sustainable management of all forests and tree resources of South Sudan to ensure continuous accrual of benefits to the present and future generations.
(ii) Establishment and management of permanent forest estates (PFE) to ensure conservation of biodiversity and steady flow of benefits.
(iii) forests and tree resources will be managed in accordance with set criteria and indicators for sustainable management.
(iv) regular development of appropriate policies, legislation, institutional reforms that will be implemented to support growth and sustainability of the forest sector.
(v) establishment of industrial and other plantations for sustainable supply of forest resources to meet the increasing demands.
(vi) increased community participation in forest management through collaborative management schemes while the community sustainably benefit from forest resources; (vii) development of forest products based industrial development (forest products processing) to promote and support increased economic benefits from forest resources;
(vii) strengthening of forestry management institutions increase productivity, achieve household food security, alleviate poverty and contribute to the macro-economy of South Sudan.
(viii) sustained commitment to forest related regional and international agreements and conventions; and
(ix) human capacity development in the management of forests and tree resources.

While the project shall focus on avoiding the cutting down of trees, in the unlikely event that trees will be cut, the project shall ensure that planting of trees shall be done to compensate the trees that could have been cut down during sub- project implementation.

South Sudan Draft Environment Bill (2023)

The Bill has been crafted in a bid to pave way to the promulgation of the statutes that are focusing on the protection of the South Sudan environment. The bill also seeks to promote sustainable development that is centred on improving the quality of life for both the present and future generations. Explicitly, under section 18 of the Draft Environmental and Protection Bill, requirements for Environmental Impact Assessments are set out. The bill defines the Environmental Impact Assessment (EIA) as a systematic examination conducted to determine whether or not a project will have any adverse impact on the environment and prescribe mitigation measures. The EIA process as enshrined with the bill seeks to ensure that environmental and social risks are proactively identified and managed systematically. The bill under section 32 stipulates provisions relating to Environmental Audits. The focus of the audits is to assess the extent of compliance of developmental projects to the provisions of the Environmental Impact Assessment (EIA) provisions. The audits also provide mechanisms for comprehensible implementation procedures of a project so as to mitigate adverse environmental impacts and provide regulatory bodies with a framework for ensuring compliance with, and the performance of an environmental management plan. Under section 20 the bill provides for Environmental Monitoring. The mandate for environmental monitoring is placed on line ministries and includes monitoring the operations of projects and/or project activities to determining its immediate and long-term effect on the environment.

The Bill has not yet been passed into law and as such it is not enforceable. Thus, the project will voluntarily adopt international best practices that are aligned to the provisions of the bill.

Gender Policy

The Government of South Sudan has committed to gender equality for women, men, girls and boys. It is the spirit of the policy to protect women and girls from harmful social norms. The Government has endorsed pledges to end female genital mutilation (FGM) and child marriage and prevent and respond to gender-based violence (GBV).

IOM and its contractors shall ensure alignment of the Gender Action plan with the provisions of the policy.

South Sudan National Women's Strategy 2016

The South Sudan National Women's Strategy document is a tool that is designed to be used by women and men from different sector, institutions and organizations, which are committed to mainstream gender and provide for gender equality in different sectors of the society. Thorough this document, the women of South Sudan seek to emphasize and shade light on the existing opportunity for women based on the gender competence among the women and women's rights as equal citizens of South Sudan. The objective of this strategy document is to ensure that women participation and contribution in decision making at national level is seen beyond the limitation of the 25% thresh hold of gender quota which is enshrined in the Constitution of Republic of South Sudan (2011) amended 2015.

IOM and its contractors shall ensure that Women are provided with an equal opportunity for employment and the project shall meet the stipulated gender quota.

Statutes

The Land Act of 2009

One of the key objectives of the Land Act is to promote a land management system, which can protect and preserve the environment and ecology for the sustainable development of South Sudan. It also provides for fair and prompt compensation to any person whose right of occupancy, ownership or recognized long-standing occupancy or customary use of land is revoked or otherwise interfered with. The Land Act reinforces the Government's recognition of customary land tenure.

The Land Act requires the Government to consult local communities and consider their views in decisions about community land. The Act also gives pastoralists special protection: No person shall without permission to carry out any activity on the communal grazing land which may prevent or restrict the residents of the traditional communities concerned from exercising their grazing rights.

The proposed project has the potential to affect land holder. Thus, IOM and its contractors will be obliged to comply with the requirements of the Land Act. Though the project has explicitly stated the need to avoid involuntary resettlement due to any project activities. The project should continue to exercise due diligence to ensure that verification of land allocated for sub-projects is voluntarily donated to avoid any compensation issues.

The Public Health (Water and Sanitation) Act (2008)

Emphasizes the prevention of the pollution of air and water and encourages improvement in sanitation. Key provisions include the protection of the sanitation of the environment, and it encompasses the measure to address air and water pollution. The act provides for the prevention of pollution of water for consumption; prevention of pollution of potable water; guides anyone who offers the public water to drink or human food, and which includes frozen food. It stipulates that such individuals should ensure that the water conforms to the portable water regulations. To some extent, it guides the management and disposal of hazardous wastes, and storage of wastes on the premises of waste generators.

The project will implement sub-projects that will provide the public with portable drinking water. Such water facilities shall be subjected to drinking water quality testing to ensure that the regulations and provisions of this act are fully met.

The Labor Act (Act No. 64 of 2017)

The Labor Act provides the minimum conditions of employment, labor relations, labor institutions, dispute resolution and provisions for health and safety in the workplace. It further reinforces the right to equal remuneration for work of equal value as guaranteed by the constitution. Section 6(1) of the Labor Act provides that 'No person shall discriminate, directly or indirectly, against an employee or job applicant in any work policy or practice'. Section 6(2) also forbids discrimination by any Trade Union, Employers Association or Federation. Section 6(3) defines discrimination as 'any distinction, exclusion or preference with the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation' based on a series of grounds including sex and pregnancy or childbirth. The Labor Act provides protections for children, however, there is a legal gap when it comes to clarity on prohibitions on the worst forms of child labor.

IOM and its contractor should comply with the provisions of the labor laws in the implementation of the sub projects. The contractor should comply with the provisions of the ECRP II Labor management procedures. The LMP seeks to:

(a) Identify the different types of project workers that are likely to be involved in the project.
(b) Identify, analyze and evaluate the labor related risks and impacts for ECRP II.
(c) Set out procedures to meet the requirements of ESS2, ESS4 and applicable national legislation.

As such, the LMP will be very relevant to ensure that the requirements of the labor laws are fulfilled and should be applied with due consideration to the requirements of national laws, the interrelatedness of ESS2 and ESS4.

The Child Act (Act No. 10 of 2008):

The Child Act regulates the prohibition on child labor, the protection of children and young persons and hazardous child labor.

IOM and its contractors shall put in place measures to ensure that NO child labor cases will be recorded under the ECRP II.

Multilateral Environmental and Social Agreements (MESAs)

United Nations Framework Convention on Climate Change

The primary purpose of the Convention is to establish methods to minimize global warming and in particular the emission of greenhouse gases. The Convention was adopted for signature in 1992 and came into force in 1994.

IOM and the Contractor should ensure that at Sub-projects level, designs and relevant plans are developed and implemented to minimise the release of GHG emissions.

Vienna Convention on the Protection of the Ozone Layer

The Vienna Convention was an intergovernmental negotiation for an international agreement to phase out ozone depleting substances in March 1985. It ended in the adoption of the Vienna Convention for the Protection of the Ozone Layer. The Convention encourages intergovernmental cooperation on research, systematic observation of the ozone layer, monitoring of CFC production, and the exchange of information.

IOM and the Contractor should ensure that at Sub-projects level there is compliance with the national regulations on the prohibition and Control of Ozone Depleting Substances, and Greenhouse Gases.

Ramsar Convention for the Conservation and Sustainable Utilization of Wetlands

The Convention is an international treaty for the conservation and sustainable utilization of wetlands, recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific and recreational value. South Sudan is a party to the convention since 10 October 2013. The country has 1 Ramsar site which covers an area of about 5.700.000 hectares.

The proposed Sub-projects will avoid ecologically sensitive areas such as wetlands. IOM and the Contractor will be operating in the area with wetlands e.g. rivers. As such, both IOM and the Contractor should ensure that the wetlands are protected, and Sub-projects activities should not alter or interfere with the wetlands.

Convention on the Rights of the Child

The Convention on the Rights of the Child from 1989 is the most comprehensive compilation of international legal standards for the protection of the human rights of children. It acknowledges children as individuals with rights and responsibilities according to their age and development, as well as members of a family or community. This includes non-discrimination, the best interest of the child, the right to life, survival and development and the right to participation.

IOM and the Contractor should ensure that the rights of children are protected.

Eight Fundamental Conventions of the International Labour Organization

The eight “fundamental” Conventions cover subjects that are considered to be fundamental principles and rights at work. The freedom of association and the effective recognition of the right to collective bargaining; the elimination of all forms of forced or compulsory labour; the effective abolition of child labour; and the elimination of discrimination in respect of employment and occupation.

IOM and the Contractor should ensure that the rights of employees are protected and issues of occupational, health and safety are fully addressed. This includes the provision of a safe working environment and management of workplace hazards.

Convention on the Elimination of all forms of Discrimination against Women.

CEDAW places explicit obligations on states to protect women and girls from sexual exploitation and abuse.

IOM and the Contractor should ensure that at Sub-projects level, the protection of women and girls from sexual exploitation and abuse is upheld.

Basel Convention

The Basel Convention (BC) on the Trans-boundary movement of hazardous Waste and other wastes is one of the MEAs that addresses the issues of hazardous waste management. The BC was adopted in 1989, in response to a public outcry following the discovery, in the 1980s, in Africa and other parts of the developing world of deposits of toxic wastes imported from abroad. The thrust of the convention has been to combat the "toxic trade", as it was termed. The convention restricts the movement of hazardous waste and sets out a procedure that needs to be followed when hazardous waste is to be transported.

IOM and the Contractor should ensure that at Sub-projects level, if any hazardous waste is generated, it should be managed in an environmentally sound manner.

Bamako Convention

The Bamako Convention controls the trans-boundary movement of hazardous wastes to and within Africa. The convention seeks to complement the BC through the protection of African states from the environmentally toxic effects of hazardous waste, e-waste included by imposing a ban on the ban of the import of toxic waste into Africa.

IOM and the Contractor should ensure that at the Sub-projects level, if any hazardous waste is generated, it should be managed in an environmentally sound manner.

Stockholm Convention on Persistent Organic Pollutants (POPs)

The Stockholm Convention on Persistent Organic Pollutants (POPs) was signed on the 22nd of May 2001. POPs pose major and increasing threats to human health and the environment. Among the POPs that are earmarked for phasing out include Poly Chlorinated Biphenyls (PCBs) which are still widely used in old transformer oils.

The Contractor has the obligation to ensure compliance to the requirements of the Stockholm Convention during the dike construction phase to uphold the same compliance level at implementation. Focus should be put on ensuring that POPs are managed in an environmentally sound manner.

Minamata Convention

The Minamata Convention (named after the Japan City of Japan) on Mercury was adopted and signed on 10th October 2012 at a Diplomatic Conference in Kumamoto Japan. The Minamata Convention is an international treaty designed to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. The convention includes provisions that relate to the entire life cycle of mercury, including controls and reduction across a range of products, processes, and industries where mercury is used, released or mitted.

The Contractor has the obligation to ensure compliance with the provisions of the convention in ensuring that the designs take into account measures to control and reduce the releases of mercury into the environment.

Kyoto Protocol, 2005

The Kyoto Protocol was adopted on 11 December 1997 and entered into force on 16th February 2005. The Kyoto Protocol operationalises the United Nations Framework Convention on Climate Change by committing industrialised countries to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets. The Protocol requests countries to adopt policies and measures on mitigation to report periodically. It binds developed countries and places a heavier burden on them under the principle of 'common but differentiated responsibility and respective capabilities. Annex B of the Protocol sets binding emission reduction targets for 36 industrialised countries and the European Union, these targets add up to an average of 5 per cent emission reduction compared to 1990 levels over a five-year period 2008 – 2012 which is the first commitment period.

IOM and the Contractor should ensure that at Sub-projects level, designs and relevant plans are developed and implemented to minimise the release of GHG emissions.

Montreal Protocol, adopted 15th September 1987

Montreal Protocol on Substances that Deplete the Ozone Layer is a multilateral environmental agreement that regulates the production and consumption of over man-made chemicals referred to as Ozone Depleting Substances (ODS), over 100 of them. When released to the atmosphere, those chemicals damage the stratospheric ozone layer, Earth's protective shield that protects humans and the environment from harmful levels of ultraviolet radiation from the sun. The Montreal Protocol phases down the consumption and production of the different ODS in a stepwise manner, with different timetables for developed and developing countries. Under the Protocol, all parties have specific responsibilities related to:

- The phase out of the different Ozone Depleting Substances.
- Control of ODS trade.
- Annual reporting of data.
- National licensing systems to control ODS imports and exports.

Although both developing and developed countries have equal but differentiated responsibilities, all countries have binding, time-targeted and measurable commitments.

The Protocol includes provisions related to Control Measures, Calculation of control levels, Control of trade with non, Special situation of developing countries, Reporting of data, Non-compliance, Technical assistance. The substances controlled by the treaty are CFCs, halons, other fully halogenated CFCs, carbon tetrachloride, methyl chloroform, HCFCs, methyl bromide and HFCs.

IOM and the Contractor should ensure that at Sub-projects level, designs and relevant plans are developed and implemented to minimise the release of ODS emissions at all stages of the Sub-projects

World Bank (WB) Environmental and Social Framework (ESF)

The WB Environmental and Social Framework (ESF) became effective on October 1, 2018, and is applicable to the ECRP II. The ESF covers areas such as labor, non-discrimination, climate change mitigation and adaptation, biodiversity, community health and safety, and stakeholder engagement – including expanding the role of public participation and grievance mechanisms. Through the ESF, the World Bank's enhances commitment to sustainable development through adoption of a set of ten Environmental and Social Standards (ESS). The ESF is built upon the risk-based approach that promotes increased responsiveness to changes in Sub-projects circumstances through adaptive risk management and stakeholder engagement.

ESS 1: Assessment and Management of Environmental and Social Risks and Impact

The ESS1 provides the guiding principles for the effective environmental and social assessment of Sub-projectss, conduction of stakeholders' engagement, legal agreement between the Borrower and the Bank. The focus is to ensure the effective implementation and management of the environmental and social risks through a legal Environmental and Social Commitment Plan (ESCP) and conduction of monitoring as well as regular reporting of environmental and social performance against the ESSs.

The proposed sub-Sub-projectswill adopt the provisions of ESS 1 by addressing the environmental and social risks and impacts, which shall arise as result of implementation of the proposed sub-Sub-projectsactivities. IOM and its Contractor s are obliged to adopt the mitigation hierarchy in addressing significant ES risks at all stages of the Sub-projects.

ESS 2: Labour and Working Conditions

The provisions of ESS 2 are applicable to this Sub-project. This objective of this standard is to promote health and safety in the workplace; protect Sub-projects workers, particularly vulnerable workers such as women, persons with disabilities, migrant and community workers etc.; prevent child labour and forced labour; support principles of collective bargaining and freedom of association; and provide Sub-projects workers means to raise workplace concerns.

The proposed sub-Sub-projects will involve a Contractor and thus the ESS 2 will be very relevant to the Sub-projects. The Contractor should ensure that the key risks related to OHS are addressed following the hierarchy of controls. Employees must be provided with adequate PPE, training and capacity building on OHS issues. A workers GRM platform should be established and there should not be any discrimination at the workplace. The Contractor should ensure that a safe working environment is always maintained and OHS risks are communicated. Information on OHS should be made available to employees. Aligned to the provisions of ESS2, the LMP that were developed under ECRP II should be adhered to aid in fulfilling the requirements of ESS2 by the Contractor.

ESS 3: Resource Efficiency and Pollution Prevention and Management

The ESS 3 takes into account the necessary aspects of resource consumption for conduction of developmental activities, and as a result generate waste, resulting in air, water, soil and noise pollution, which may threaten the wellbeing of humans, ecosystem services and the environment.

As such, adoption of more efficient and effective resource consumption measures, pollution control and prevention mechanisms and GHG emission avoidance, and mitigation technologies and practices will provide a more sustainable approach for Sub-projects implementation.

The ESS is applicable to the Sub-projects since the activities include resources consumption and the subsequent generation of waste. As such, IOM and the Contractor should ensure that plans and measures are put in place to ensure the sustainable extraction of natural resources, prevention of pollution and land degradation. At the design stage, the constructor should focus on measures to avoid the unnecessary abstraction of resources. The provisions of the ESS3 have already been taken into consideration during planning through the design considerations, adoption of SoPs, adoption of pollution abatement technology. IOM should ensure that the Contractor adheres to the design specification during construction.

ESS 4: Community Health and Safety

The ESS4 generally lays down ESF principles for the health, safety, and security risks and impacts of Sub-projects-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable.

The proposed Sub-projects will be implemented at a hospital that interacts with a surrounding community which includes schools, churches and other facilities. As such, to ensure community safety, IOM and the Contractor should ensure that hazard and risk communication signs are installed at various critical points. Engagement of community to ensure that they are aware of the anticipated risks and hazards to ensure community preparedness should be done prior to Sub-projects implementation. Mitigation measures following the mitigation hierarchy should be adopted.

ESS 6: Biodiversity Conservation

The ESS 6 emphasizes the importance of protecting and conserving biodiversity along with the core ecological functions of habitats and thus, sustainably managing primary production and harvesting of living natural resources.

Measures to ensure that Biodiversity impacts are minimised should be adopted.

ESS 8: Cultural Heritage

The ESS seeks to address the effects of Sub-projects activities on tangible, intangible as well as movable and immovable cultural, archaeological, religious, and paleontological assets.

The ESS is relevant, and IOM and the Contractor should work closely with the traditional leaders in the area to ensure that the culture, values and norms of the people of South Sudan is respected and upheld during all stages of the Sub-projects.

ESS 10: Stakeholder Engagement and Information Disclosure

The ESS10 recognizes the importance of transparent and meaningful consultation throughout the Sub-projects cycle as an essential element of international good practice. Meaningful stakeholder engagement can improve the environmental and social sustainability of Sub-projects, enhance Sub-projects acceptance and contribute to successful Sub-projects design and implementation.

The Sub-projects has established a structured approach to stakeholder engagement and public outreach that is based upon meaningful consultation and disclosure of appropriate information, considering the specific challenges associated with combating COVID-19.

The ESS is relevant and IOM together with the Contractor should ensure the Stakeholder Engagement Plan is developed and followed and the ECRP II Grievance Redress Mechanism should be implemented.

WB Guidelines: Environmental, Health and Safety Guidelines General EHS Guidelines.

The Environment, Health and Safety (EHS) Guidelines contain performance levels and measures for development of industrial Sub-projects that are achievable in new facilities at reasonable costs by existing technology. Under these guidelines, the World Bank has several guidelines many of which are applicable to various components of the proposed Sub-projects namely:

a) EHS Guidelines-Air Emissions and Ambient Air Quality

b) EHS Guidelines-Waste Management.

c) EHS Guidelines-Health Care Facilities.

d) EHS Guidelines-Hazardous Materials Management

e) EHS Guidelines-Dike construction and Decommissioning.

OM and the Contractor are required to comply with the provisions of the WBG, Environmental, Health and Safety Guidelines General EHS Guidelines at all stages of the Sub-projects.

EHS Guidelines: Air Emissions and Ambient Air Quality

The guidelines mainly focus on preventing the generation and release of air emissions in this case through selection of fuel type, the optimal operation of the incinerator, the avoidance of burning all waste and proper healthcare waste handling skills among other initiatives. These guidelines are meant for all types of Sub-projects with “significant” emissions, sources of air emissions, and potential for significant impacts to ambient air quality to prevent or minimize impacts by ensuring that Sub-projects activities do not result in the release of pollutant concentrations that reach or exceed relevant ambient quality guidelines and standards. The Sub-projects should avoid, minimize, and control adverse impacts to human health, safety, and the environment from emissions to air. Where this is not possible, the

generation and release of emissions of any type should be managed through a combination of:

• Energy use efficiency

• Process modification

• Selection of fuels or other materials, the processing of which may result in less polluting emissions

• Application of emissions control techniques

Moreover, the EHS guidelines require the application of national legislated standards, or in their absence, the current WHO Air Quality Guidelines, or other internationally recognized standards.

Sub-projects that generate fugitive air emissions, especially during dike construction and operation. Furthermore, during the implementation of the Sub-projects there will be release of air pollutants from mobile sources. Thus, these guidelines are applicable as they give control and monitoring measures. IOM and Contractor s should ensure that adoption of measures to manage the release of air emissions are taken into account at all stages of the project.

WB EHS Guidelines: Waste Management

The guidelines apply to the management of non-hazardous and hazardous waste. This Sub-project will result in the generation of both hazardous and non-hazardous waste at various stages of the Sub-projects. These guidelines provide categories of various wastes and a summary of treatment and disposal options. These guidelines provide good guidance on waste on-site handling, collection, treatment and disposal for both the proponent and the Contractor s during dike construction and operation phases respectively.

These guidelines are applicable to the Sub-projects. As such, both IOM and the Contractor should ensure that all stages of the Sub-projects are in compliance with the requirements of the guidelines to ensure the sound management of both waste and hazardous waste including healthcare waste. The waste management plans should be aligned to the provision of these guidelines.

WB EHS Guidelines: Noise

This section addresses impacts of noise beyond the property boundary of the facilities. These guidelines are applicable during the construction phase whereby dike construction equipment and activities are expected to emit noise.

These guidelines are applicable to this Sub-project so both IOM and the Contractor should ensure that throughout all stages of the Sub-projects the provisions of the guideline are complied with. The noise levels should not exceed the levels presented in Table 1.7.1 of the guidelines or result in a maximum increase in background levels of 3 dB at the nearest receptor location off-site.

WB EHS Guidelines: Occupational Safety and Health

These guidelines guide employers and supervisors in fulfilling their obligation to implement all reasonable precautions to protect the health and safety of workers. The guidelines provide guidance and examples of reasonable precautions to implement in managing principal risks to occupational health and safety. Although the focus is placed on the operational phase of Sub-projects, much of the guidance also applies to dike construction and decommissioning activities. The guidelines also describe how facility operation workplace design should be undertaken to prevent occupational health and safety risks and hazards. The guidelines also give examples of internationally published exposure guidelines which may be used to measure occupational health and safety performance. Such examples include the threshold limit Values, Occupational exposure guidelines and biological exposure indices published by the American Conference of Governmental Industrial Hygienists. Permissible exposure limits published by the Occupational Safety and Health administration of the United States, and Indicative occupational exposure limit values. The guidelines also provide guidelines on handling chemical hazards of asbestos containing materials. The guidelines state that emphasis must be put on:

(a) Eliminating the hazard by removing the activity from the work process;

(b) Controlling the hazard at its source through use of engineering controls;

(c) Minimizing the hazard through design of safe work systems and administrative or institutional control measures and

(d) Providing appropriate personal protective equipment (PPE) in conjunction with training, use, and maintenance of the PPE.

These guidelines are applicable to the Sub-projects and as such, both IOM and the Contractor should ensure that all stages of the Sub-projects the provisions of the guideline are complied with. Occupational Safety and Health standards should be adhered to, and the Contractor should ensure employees are made aware of the hazards that they are likely to face. Measures to eliminate or reduce exposure of employees should be adopted guided by the application of the hierarchy of controls. Provision of PPE, training and capacity building should be prioritized at all stages of the Sub-projects.

WB EHS Guidelines: Dike construction and Decommissioning

These provide additional and specific guidance on prevention and control of community health and safety impacts that may occur during new Sub-projects development, at the end of the Sub-project life cycle, or due to expansion or modification of existing Sub-projects facilities. On road design · the guidelines stipulate that there is need to limiting access road gradients to reduce runoff induced erosion and there is need to ensure provision of adequate road drainage based on road width, surface material, compaction, and maintenance.

These guidelines are applicable to the Sub-projects as such, both IOM and the Contractor should ensure that all stages of the Sub-project designs, plans and activities are aligned to comply with the provision of the guideline

Table 15.Summary of requirements & obligations for WB ESF and Guidelines

REF.	WB ES INSTRUMENT	RELEVANCE	COMPLIANCE LEADING INDICATORS	COMPLIANCE LAGGING INDICATORS
1.	WB ESF: ESS1: Assessment and Management of Environmental and Social Risks and Impact	Integrates Environmental and Social Assessment; includes requirements related to non-discrimination and social inclusion; proportionality and adaptive management; use of the ESCP	ESCP ESMP GRM ES procedures implemented. Permits, and Licenses obtained	Grievances Fines and penalties from regulators Near misses, incidents, and accidents at workstations
2.	WB ESF ESS2: ESS 2: Labour and Working Conditions	Prohibits child labour and forced labour, heightened focus on OHS, grievance mechanisms	OHS Policies, Procedures and Protocols Number of staff trained. PPE issued	High staff turnover. Grievances Fines and penalties from regulators Near misses, incidents and accidents at workstations
3.	WB ESF ESS 3: Resource Efficiency and Pollution Prevention and Management	Promotes efficient management of energy, water, and other resources and materials; hazardous materials management; pesticides; GHG assessment mandate	ES Policies, Procedures and Protocols Permits, and Licenses Education, Awareness raising and Capacity building.	Grievances Fines and penalties from regulators Land degradation. Environmental pollution
4.	WB ESF ESS 4: Community Health and Safety	Assess risks and impacts on communities; Design of safe and resilient infrastructure, equipment operation, products,	ES Policies, Procedures and Protocols Education, Awareness raising and Capacity building.	Grievances Fines and penalties from regulators

REF.	WB ES INSTRUMENT	RELEVANCE	COMPLIANCE LEADING INDICATORS	COMPLIANCE LAGGING INDICATORS
		services, road safety, hazardous materials; emergency preparedness		Near misses, incidents and accidents at workstations
5.	WB ESF ESS 8: Cultural Heritage	Enhanced consultation with affected communities, intangible heritage	SEP implemented. Number of engagement meetings held. Stakeholder feedback incorporated	Grievances Fines and penalties from regulators
6.	WB ESF ESS 10: Stakeholder Engagement and Information Disclosure	Meaningful consultation, access to information and grievance redress through the life of Sub-projects	SEP implemented. Number of engagement meetings held. Stakeholder feedback incorporated. Grievances recorded, investigated, and closed. Sub-projects information disclosed	Number of grievances recorded. Fines and penalties from regulators
7.	WB Guidelines: Environmental, Health and Safety Guidelines General EHS Guidelines.	The EHS Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP)	WB compliant ESMP developed and implemented. ES tools developed and implemented. Safety talks records Disclosure of OSH information	Number of grievances recorded. Fines and penalties from regulators Near misses, incidents and accidents recorded. Environmental pollution

REF.	WB ES INSTRUMENT	RELEVANCE	COMPLIANCE LEADING INDICATORS	COMPLIANCE LAGGING INDICATORS
			Number of trained personnel on Osh issues Awareness raising initiatives recorded. Signage, Hazard and risk communication strategy	
8.	EHS Guidelines: Air Emissions and Ambient Air Quality	Applies to facilities or Sub-projects that generate emissions to air at any stage of the Sub-projects life cycle	ESMP developed and implemented. Designs that incorporate technologies for the reduction of emissions Monitoring of air emissions and ambient air quality Training, capacity building and awareness raining initiatives Number of stakeholders trained	Air pollution Fines penalties and tickets from regulators Elevated pollutant levels
9.	WB EHS Guidelines: Waste Management	Applies to facilities or Sub-projects dedicated to the management of municipal solid waste and industrial waste, including waste collection and transport; waste receipt, unloading, processing, and storage; landfill disposal; physico-chemical and biological treatment; and incineration Sub-projectss.	ESMP developed and implemented. Waste management hierarchy implemented. Use of adequate PPE during waste management Training, capacity building and awareness raining initiatives	Environmental pollution Fines penalties and tickets from regulators Elevated pollutant levels Outbreak of diseases Number of grievances

REF.	WB ES INSTRUMENT	RELEVANCE	COMPLIANCE LEADING INDICATORS	COMPLIANCE LAGGING INDICATORS
			Number of stakeholders trained	
10.	WB EHS Guidelines: Noise	Addresses impacts of noise beyond the property boundary of the facilities. Worker exposure to noise is covered	ESMP developed and implemented. Ambient noise monitoring plan implemented. Proactive selection of Noise standards compliant equipment implemented	Environmental pollution Fines penalties and tickets from regulators Elevated ambient noise levels Number of grievances
11.	WB EHS Guidelines: Dike construction and Decommissioning	provides additional, specific guidance on prevention and control of community health and safety impacts that may occur during new Sub-projects development, at the end of the Sub-projects life cycle, or due to expansion or modification of existing Sub-projects facilities	ESMP developed and implemented. Waste management/disposal licensees/permits acquired. Waste management hierarchy applied. Training, capacity building and awareness raising on waste management. Number of stakeholders trained	Environmental pollution (Air, Land and Water) Fines penalties and tickets from regulators Elevated ambient noise levels Number of grievances
12.	WB EHS Guidelines: Occupational Safety and Health	Focuses on provision of a safe working environment. Guides the management of hazards and risk through the application of the hierarchy of controls.	ESMP developed and implemented. Legal register developed and updated. Near misses, incidents, accidents recorded, investigated, and closed.	Fines penalties and tickets from regulators Number of grievances Number of near misses, incidents and accidents recorded

REF.	WB ES INSTRUMENT	RELEVANCE	COMPLIANCE LEADING INDICATORS	COMPLIANCE LAGGING INDICATORS
			Adequate PPE provided. Training, education, capacity building and awareness raising conducted. Hierarchy of controls Implemented in management of OHS Hazards and Risks Pre and Post Medical examinations conducted. Hazard and risk communication	

Jonglei State Ministry of Local Government

Enhancing Community Resilience and Local Governance Project Phase II (ECRP II)

ECRP II
ECRP/ESS-F005

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

STAKEHOLDER CONSULTATION FORM

SECTION A: INFOIRMATION AND INSTRUCTIONS TO RESPONDENTS

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SECTION B: PROPOSED SUB PROJECT INFORMATION

Twic East

1) Expansion of Panyagor Dyke (TEP1 = 8KM, TEP2 = 12K) expansion of the existing community made dyke.
2) Construction of Pawel (Kongor) Dyke (3 Km ring dyke around Pawel town.
3) Construction of Wangulei Dyke – 3km ring dyke around Wangulei
4) Upgrading of Panyagor Airstrip – 1200m by 30m expansion and layering of the runway with murram

Duk County

1) Construction of a dyke on Eastern Side of the Canal – 12km
2) Construction of a dyke on western Side of the Canal – 8km
3) Upgrading of Poktap Airstrip - 1200m by 30m expansion and layering of the runway with murram
4) access improvement using culvert work at school gets for fixing location affected by gully erosion

SECTION C: STAKEHOLDER FEEDBACK

THEMATIC AREA 1: Need for the subproject *(In your opinion, is there need for the proposed sub-project in the targeted area?)*

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

Stakeholder feedback on Thematic Area 1:

(Yes)/No

Comments: The Flood prevention is key priority

THEMATIC AREA 2: Planned Activities; *(In your own opinion, does the proposed subproject align with institutional/County/Payam/Boma planned activities?)*

Stakeholder feedback on Thematic Area 2:

(Yes)/No

Comments: These two Counties Suffers from flooding the Most

THEMATIC AREA 3: Environmental and Social (ES) Management, ES risk assessment and management; *(In your own opinion, what are the main ES management aspects and impacts of the proposed subproject within the context of the proposed area?)*

Stakeholder feedback on Thematic Area 3:

Positive Aspects/Impacts
- Claim more land for cultivation & livestock
- Reduce congestion
- Encourage return of displaced persons

Negative Aspects/Impacts
- May make rain water stagnant
- Animals may find it difficult to climb

Proposed mitigation/Enhancement measures
- Provide water pumps
- Create animals crossing points

THEMATIC AREA 4: Health and Safety and Hazards/Risks *(In your own Opinion what are the occupational hazards and risks that need to be considered in relations to the proposed subproject and how can they be mitigated)*

Risks Associated:
- Some places are deep for hand work
- Snail shells may injure people
- Snake are common in flooded areas

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

Proposed Mitigation measures:

- Protective equipments
- Ensure all safety measures
- provide first aid Kits to the site

THEMATIC AREA 5: General Remarks *(In your own opinion do you recommend the implementation of the subprojects and what other issues you may want IOM to consider during implementation?)*

I fully recommend the implementation of these proposed projects in the two Counties

SECTION D: SIGNATORIES		
Name	Chop Gatluak Respondent Name and Surname	Date Stamp for Institutions
Signature	for Respondent Signature	
Date	07/03/2025	

SECTION E: IOM SIGNATORIES

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

Administered by	Safale Lonsd		Reviewed *(ES Safeguards Specialist)*	***Brian Gada***
Signature			Signature	
Date	07/03/2025		Date	

Jonglei State Ministry of Physical Infrastructure

ECRP II
ECRP/ESS-F005

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

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SECTION C: STAKEHOLDER FEEDBACK

THEMATIC AREA 1: Need for the subproject *(In your opinion, is there need for the proposed sub-project in the targeted area?)*

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

Stakeholder feedback on Thematic Area 1:

(Yes)/No To prevent Flood Water from inundating residential areas, agricultural Land and critical infrastructure and provide access to the aircraft Landing

Comments:

THEMATIC AREA 2: Planned Activities; *(In your own opinion, does the proposed subproject align with institutional/County/Payam/Boma planned activities?)*

Stakeholder feedback on Thematic Area 2:

(Yes)/No upgrading of community dykes, Airstrip, Culverts Opening of drainages, Monitoring of dykes, formation and training of community based DRM committees

Comments:

THEMATIC AREA 3: Environmental and Social (ES) Management, ES risk assessment and management; *(In your own opinion, what are the main ES management aspects and impacts of the proposed subproject within the context of the proposed area?)*

Stakeholder feedback on Thematic Area 3:

Positive Aspects/Impacts

- Create Flood barriers, improve drainage systems and infrastructure protection
- Protect farm Lands and improve livelihood
- Create Job and infrastructure development

Negative Aspects/Impacts

- Potential disruption of local ecosystems, including habitats for animals and plants
- Potential health risks and safety concerns for local residents
- Increased Community Participation in Projects

Proposed mitigation/Enhancement measures

- Implement erosion control measures
- use environmental Friendly construction materials and Methods
- Restore and Preserve natural habitats

THEMATIC AREA 4: Health and Safety and Hazards/Risks *(In your own Opinion what are the occupational hazards and risks that need to be considered in relations to the proposed subproject and how can they be mitigated)*

Risks Associated:

High noise levels from equipment or Machinery can lead to hearing Loss

- injuries from moving parts can happen
- Accidents if no Fire extinguishers, alarms or Mergency exi

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

Proposed Mitigation measures:
- conduct through risk assessment before project initiation.
- Provide Safety training and Personal Protective equipment to Works
- Implement safety protocols and emergency response plans
- Regularly inspect equipment and workshites for hazards
- Promote a safety culture and encourage reporting of unsafe conditio

THEMATIC AREA 5: General Remarks *(In your own opinion do you recommend the implementation of the subprojects and what other issues you may want IOM to consider during implementation?)*

yes. I strongly recommend this project to be implemented to protect the flood prove areas, improve agricultural production, adopt climate resilience infrastructure development, Dyke monitoring, increase Disaster Risk Reduction

SECTION D: SIGNATORIES

Name	Billy Peter Wal	Date Stamp for Institutions
Signature	Respondent Signature	
Date	07/03/2025	

MINISTRY OF HOUSING, LAND & PUBLIC UTILITIES
07 MAR 2025
DIRECTOR GENERAL'S OFFICE
JONGLEI STATE BOR

SECTION E: IOM SIGNATORIES

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

Administered by	Natale Leal		Reviewed *(ES Safeguards Specialist)*	***Brian Gada***
Signature			Signature	
Date	03/03/2025		Date	

County Commissioner Office
Twic East County

ECRP II
ECRP/ESS-F005

Enhancing Community Resilience and Local Governance Project Phase II (ECRP II)

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

STAKEHOLDER CONSULTATION FORM

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SECTION C: STAKEHOLDER FEEDBACK

THEMATIC AREA 1: Need for the subproject *(In your opinion, is there need for the proposed sub-project in the targeted area?)*

Stakeholder feedback on Thematic Area 1:

Yes/No

Comments: because Twic has been in flooding for years

THEMATIC AREA 2: Planned Activities; *(In your own opinion, does the proposed subproject align with institutional/County/Payam/Boma planned activities?)*

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

Stakeholder feedback on Thematic Area 2:

Yes/No ✓

Comments: The County HQs, payam & Bomas are flooded.

THEMATIC AREA 3: Environmental and Social (ES) Management, ES risk assessment and management; *(In your own opinion, what are the main ES management aspects and impacts of the proposed subproject within the context of the proposed area?)*

Stakeholder feedback on Thematic Area 3:

Positive Aspects/Impacts ✓

- Prevention of flooding in the area.
- Resumption of cultivation once the dyke is constructed.
- Opening of roads when no more flooding.

Negative Aspects/Impacts

- The ring dyke may pass through some homes which may be enclosed in the ring dyke.
- Accident on Livestock cross-ing may occur

Proposed mitigation/Enhancement measures

- engaging of home owners where these dykes may pass through.
- Making animals pass waysin all corners.

THEMATIC AREA 4: Health and Safety and Hazards/Risks *(In your own Opinion what are the occupational hazards and risks that need to be considered in relations to the proposed subproject and how can they be mitigated)*

Risks Associated:

- Snake bites
- Stagnation between the two dykes, Secondary & Extended dykes this stagnant can be contaminated & may cause water born Diseases Bilharzia diseases

Proposed Mitigation measures:

- Health Institutions Should Provide Malaria Controll Medicines for stagnant water.

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

THEMATIC AREA 5: General Remarks *(In your own opinion do you recommend the implementation of the subprojects and what other issues you may want IOM to consider during implementation?)*

- IOM should cooperate with the hosting communities & work as a team with chiefs while implementing these sub projects
- I also recommends that IOM should make cattle pass-ways on the three proposed ring dykes around Panyagoor, Pawel & Hangulei

SECTION D: SIGNATORIES

Name	*Hon. Juach Arok Juach, Commissioner, Twic East County, Jonglei State*	TWIC EAST COUNTY
Signature		12 MAR 2025 Date Stamp for Institutions
Date	13/3/2025	COMMISSIONER S OFFICE JONGLEI STATE SOUTH SUDAN

SECTION E: IOM SIGNATORIES

Administered by	Natale Lual	Reviewed *(ES Safeguards Specialist)*	***Brian Gada***
Signature		Signature	
Date	13/03/2025	Date	

RRC Office, Twic East

Enhancing Community Resilience and Local Governance Project Phase II (ECRP II)

ECRP II
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ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

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SECTION C: STAKEHOLDER FEEDBACK

THEMATIC AREA 1: Need for the subproject *(In your opinion, is there need for the proposed sub-project in the targeted area?)*

Stakeholder feedback on Thematic Area 1:

~~Yes~~/No

Comments: because There is flooding in the area

THEMATIC AREA 2: Planned Activities; *(In your own opinion, does the proposed subproject align with institutional/County/Payam/Boma planned activities?)*

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

Stakeholder feedback on Thematic Area 2:

Yes/No

Comments: All parlams, Bomas as well as the County HQ are flooded.

THEMATIC AREA 3: Environmental and Social (ES) Management, ES risk assessment and management; *(In your own opinion, what are the main ES management aspects and impacts of the proposed subproject within the context of the proposed area?)*

Stakeholder feedback on Thematic Area 3:

Positive Aspects/Impacts

- the prevention of flooding
- Will enhance cultivation once there is space for planting
- cattle keeping will increase

Negative Aspects/Impacts

- Pylle may pass through somebody's home
- Water born diseases eg Malaria, Bilharzia
- Snake bites will be there.

Proposed mitigation/Enhancement measures

- provision of protective clothes.
- Gum boot
- Canoes

THEMATIC AREA 4: Health and Safety and Hazards/Risks *(In your own Opinion what are the occupational hazards and risks that need to be considered in relations to the proposed subproject and how can they be mitigated)*

Risks Associated:

- Snake bites
- Water born diseases e.g bilharzia
- Malaria because of stagnant water

Proposed Mitigation measures:

- provision of gum boot
- protective clothes.
- prophylaxis Medicine to prevent spread of water born disease

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

THEMATIC AREA 5: General Remarks *(In your own opinion do you recommend the implementation of the subprojects and what other issues you may want IOM to consider during implementation?)*

I want IOM to extend capacity building to other Institution within the County rather than focusing on flooding alone.

These sectors that require capacity building are:
- Agriculture both cultivation & Livestock keeping.
- Development of Women skills in disciplines such as Tailoring, beading and establishment of Bakery for baking bread and making cakes to start life.

SECTION D: SIGNATORIES

Name	Ruben Maker Ajoic
Signature	
Date	13/3/2025

RRC TWIC EAST COUNTY JONGLEI STATE

SECTION E: IOM SIGNATORIES

Administered by	Natale Lual	Reviewed *(ES Safeguards Specialist)*	***Brian Gada***
Signature		Signature	
Date	13/03/2025	Date	

Kongor Payam - Office

Enhancing Community Resilience and Local Governance Project Phase II (ECRP II)

ECRP II
ECRP/ESS-F005

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SECTION C: STAKEHOLDER FEEDBACK

THEMATIC AREA 1: Need for the subproject *(In your opinion, is there need for the proposed sub-project in the targeted area?)*

Stakeholder feedback on Thematic Area 1:

Yes/No

Comments: .....

THEMATIC AREA 2: Planned Activities; *(In your own opinion, does the proposed subproject align with institutional/County/Payam/Boma planned activities?)*

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

Stakeholder feedback on Thematic Area 2:

Yes/No

Comments: They were on top priority list of Institution above

THEMATIC AREA 3: Environmental and Social (ES) Management, ES risk assessment and management; *(In your own opinion, what are the main ES management aspects and impacts of the proposed subproject within the context of the proposed area?)*

Stakeholder feedback on Thematic Area 3:

Positive Aspects/Impacts

It will save live of human being, Plants and animal living in the ring dyke.

Negative Aspects/Impacts

- Homes fall in Planned dyke will be destroyed
- It will suspens airstrip activities for some Period of time.

Proposed mitigation/Enhancement measures

There is need to Prioritise road from Canal to Panyagor to ease transport Materials.

THEMATIC AREA 4: Health and Safety and Hazards/Risks *(In your own Opinion what are the occupational hazards and risks that need to be considered in relations to the proposed subproject and how can they be mitigated)*

Risks Associated:

- water born diseases eg cholera
- Dangerous aquatic animals eg crodile
- Heavy rain fall
- Agression from the Owners of the Plots

Proposed Mitigation measures:

- Provision of cholera Vaccins
- Provision of security guard
- Provision of rain coat

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

THEMATIC AREA 5: General Remarks *(In your own opinion do you recommend the implementation of the subprojects and what other issues you may want IOM to consider during implementation?)*

Yes I do recommend you to speed up with those Sub Projects as you know the people suffered for (5) five years experiencing flood impact, animal Plants and farming activities are no longer existing in the area.

I also wanted you ~~not~~ to Consider some Positions for the local in every Sub Projects

SECTION D: SIGNATORIES

Name	Deng Diing Aruai
Signature	
Date	14/3/2025

PAYAM ADMINISTRATOR OFFICE
14 MAR 2025
JONGLEI STATE
TWIC EAST COUNTY

SECTION E: IOM SIGNATORIES

Administered by	Natale Lual		Reviewed *(ES Safeguards Specialist)*	***Brian Gada***
Signature			Signature	
Date	13/03/2025		Date	

Head Chief – Kongor Payam

Enhancing Community Resilience and Local Governance Project Phase II (ECRP III)

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ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

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SECTION C: STAKEHOLDER FEEDBACK

THEMATIC AREA 1: Need for the subproject *(In your opinion, is there need for the proposed sub-project in the targeted area?)*

Stakeholder feedback on Thematic Area 1:

Yes/No Yes

Comments: Dyke is the first priority, Airstrip

THEMATIC AREA 2: Planned Activities; *(In your own opinion, does the proposed subproject align with institutional/County/Payam/Boma planned activities?)*

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

Stakeholder feedback on Thematic Area 2:

Yes/No Yes

Comments: These are part of our plans, there are other needs.

THEMATIC AREA 3: Environmental and Social (ES) Management, ES risk assessment and management; *(In your own opinion, what are the main ES management aspects and impacts of the proposed subproject within the context of the proposed area?)*

Stakeholder feedback on Thematic Area 3:

Positive Aspects/Impacts

- When enough land is protected, people will do farming and livestock will graze freely.
- More people who are displaced will return home.

Negative Aspects/Impacts

N/A

Proposed mitigation/Enhancement measures

N/A

THEMATIC AREA 4: Health and Safety and Hazards/Risks *(In your own Opinion what are the occupational hazards and risks that need to be considered in relations to the proposed subproject and how can they be mitigated)*

Risks Associated:

- Snail shells and thorns can cause injuries
- Others hazards include metalic materials in abandoned homes
- Snake bites

Proposed Mitigation measures:

- Wear protective equipment

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

THEMATIC AREA 5: General Remarks *(In your own opinion do you recommend the implementation of the subprojects and what other issues you may want IOM to consider during implementation?)*

- I recommend the implementation of these subprojects.
- police station need to be added
- School & health centres need to provided too
- Water facilities

SECTION D: SIGNATORIES

Name	Awuol Deng Awuol
Signature	
Date	13/03/2025

KONGOR PAYAM COURT
13 MAR 2025
TWICE EAST COUNTY

SECTION E: IOM SIGNATORIES

Administered by	Natale Lual		Reviewed *(ES Safeguards Specialist)*	***Brian Gada***
Signature			Signature	
Date	13/03/2025		Date	

Head Chief - Nyuak Payam

Enhancing Community Resilience and Local Governance Project Phase II (ECRP II)

ECRP II
ECRP/ESS-F005

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

STAKEHOLDER CONSULTATION FORM

SECTION A: INFOIRMATION AND INSTRUCTIONS TO RESPONDENTS

1) The stakeholder consultation is being undertaken in terms of the Laws of South Sudan, World Bank Environmental and Social Framework (ESF) and the ECRP II Environmental and Social Management Framework (ESMF) requirements.
2) You have been identified as an important stakeholder in relation to the proposed subproject. As such, your views, comments, and feedback will be key in the design, planning, implementation, and closure of the project.
3) Your views, concerns, comments, and feedback will be used for the purposes of assessing the Environmental and Social footprint of the proposed subproject in a bid to inform the sustainable development and implementation of subproject activities.
4) All the information provided shall be treated with confidentiality and shall only be used for the sole purpose of this Environmental and Social risk assessment study.
5) Should you need any guidance, please as the expert/enumerator who administered this tool to assist you. However, please ensure that your views and comments reflect your thoughts and are not influenced by the expert/enumerator.
6) We value your feedback, and should you have any concerns about the conduct, approach, or any kind of feedback, please do not hesitate to engage us via the various Grievance Redress Mechanism (GRM) Platforms of the project which include suggestions boxes, help desks, and walk into our offices.

SECTION B: PROPOSED SUB PROJECT INFORMATION

Twic East

1) Expansion of Panyagor Dyke (TEP1 = 8KM, TEP2 = 12K) expansion of the existing community made dyke.
2) Construction of Pawel (Kongor) Dyke (3 Km ring dyke around Pawel town.
3) Construction of Wangulei Dyke – 3km ring dyke around Wangulei
4) Upgrading of Panyagor Airstrip – 1200m by 30m expansion and layering of the runway with murram

SECTION C: STAKEHOLDER FEEDBACK

THEMATIC AREA 1: Need for the subproject *(In your opinion, is there need for the proposed sub-project in the targeted area?)*

Stakeholder feedback on Thematic Area 1:

Yes/No Yes

Comments: The dyke is the first priority in Wangulei

THEMATIC AREA 2: Planned Activities; *(In your own opinion, does the proposed subproject align with institutional/County/Payam/Boma planned activities?)*

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

Stakeholder feedback on Thematic Area 2:

Yes/No Yes

Comments: Dyke is among the top priorities

THEMATIC AREA 3: Environmental and Social (ES) Management, ES risk assessment and management; *(In your own opinion, what are the main ES management aspects and impacts of the proposed subproject within the context of the proposed area?)*

Stakeholder feedback on Thematic Area 3:

Positive Aspects/Impacts

- livestock will be kept freely
- Human beings will have good life

Negative Aspects/Impacts

N/A

Proposed mitigation/Enhancement measures

N/A

THEMATIC AREA 4: Health and Safety and Hazards/Risks *(In your own Opinion what are the occupational hazards and risks that need to be considered in relations to the proposed subproject and how can they be mitigated)*

Risks Associated:

No ~~risks~~ reported

Proposed Mitigation measures:

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

THEMATIC AREA 5: General Remarks *(In your own opinion do you recommend the implementation of the subprojects and what other issues you may want IOM to consider during implementation?)*
- I Recommed the implementation of the projects - Water facilities need rehab. - Schools and PHCC - Court houses

SECTION D: SIGNATORIES		
Name	Machuor Ayiik Duot	
Signature		
Date	13/03/2025	

SECTION E: IOM SIGNATORIES			
Administered by	Natale Lual	Reviewed *(ES Safeguards Specialist)*	***Brian Gada***
Signature		Signature	
Date	13/03/2025	Date	

Women Rep - Twic East

Enhancing Community Resilience and Local Governance Project Phase II (ECRP II)

ECRP II
ECRP/ESS-F005

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

STAKEHOLDER CONSULTATION FORM

SECTION A: INFOIRMATION AND INSTRUCTIONS TO RESPONDENTS

1) The stakeholder consultation is being undertaken in terms of the Laws of South Sudan, World Bank Environmental and Social Framework (ESF) and the ECRP II Environmental and Social Management Framework (ESMF) requirements.
2) You have been identified as an important stakeholder in relation to the proposed subproject. As such, your views, comments, and feedback will be key in the design, planning, implementation, and closure of the project.
3) Your views, concerns, comments, and feedback will be used for the purposes of assessing the Environmental and Social footprint of the proposed subproject in a bid to inform the sustainable development and implementation of subproject activities.
4) All the information provided shall be treated with confidentiality and shall only be used for the sole purpose of this Environmental and Social risk assessment study.
5) Should you need any guidance, please as the expert/enumerator who administered this tool to assist you. However, please ensure that your views and comments reflect your thoughts and are not influenced by the expert/enumerator.
6) We value your feedback, and should you have any concerns about the conduct, approach, or any kind of feedback, please do not hesitate to engage us via the various Grievance Redress Mechanism (GRM) Platforms of the project which include suggestions boxes, help desks, and walk into our offices.

SECTION B: PROPOSED SUB PROJECT INFORMATION

Twic East

1) Expansion of Panyagor Dyke (TEP1 = 8KM, TEP2 = 12K) expansion of the existing community made dyke.
2) Construction of Pawel (Kongor) Dyke (3 Km ring dyke around Pawel town.
3) Construction of Wangulei Dyke – 3km ring dyke around Wangulei
4) Upgrading of Panyagor Airstrip – 1200m by 30m expansion and layering of the runway with murram

SECTION C: STAKEHOLDER FEEDBACK

THEMATIC AREA 1: Need for the subproject *(In your opinion, is there need for the proposed sub-project in the targeted area?)*

Stakeholder feedback on Thematic Area 1:

Yes/No Yes

Comments: .....

THEMATIC AREA 2: Planned Activities; *(In your own opinion, does the proposed subproject align with institutional/County/Payam/Boma planned activities?)*

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

Stakeholder feedback on Thematic Area 2:

Yes/No Yes

Comments: .....

THEMATIC AREA 3: Environmental and Social (ES) Management, ES risk assessment and management; *(In your own opinion, what are the main ES management aspects and impacts of the proposed subproject within the context of the proposed area?)*

Stakeholder feedback on Thematic Area 3:

Positive Aspects/Impacts

- There will be no water entering the settlements
- The airstrip will help with supplies of food stuff as well as medical supplies

Negative Aspects/Impacts

N/A

Proposed mitigation/Enhancement measures

N/A

THEMATIC AREA 4: Health and Safety and Hazards/Risks *(In your own Opinion what are the occupational hazards and risks that need to be considered in relations to the proposed subproject and how can they be mitigated)*

Risks Associated:

- Shells, snakes, metals etc.

Proposed Mitigation measures:

Put on protective wear.

ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

THEMATIC AREA 5: General Remarks *(In your own opinion do you recommend the implementation of the subprojects and what other issues you may want IOM to consider during implementation?)*
I Recommend these Subprojects for implementation I also request addition of Schools, PHCC, Road,

SECTION D: SIGNATORIES		
Name	Aluet Bul Khoch	
Signature	AB	
Date	13/03/2025	

SECTION E: IOM SIGNATORIES				
Administered by			Reviewed *(ES Safeguards Specialist)*	***Brian Gada***
Signature			Signature	
Date			Date	

Enhancing Community Resilience and Local Governance Project

IOM ECRP II ATTENDANCE SHEET

Date: 24/1/2025

Location: Twic east County

Activity: Stakeholders Consultation Workshop with County goverment Community Stakeholders

	Full Name	Sex (M/F)	Age group A: 18-24. B: 25-59; C: 60+	Title/Occupation	Day 1	Day 2	Day 3	Day 4	Day 5
1	Hon. Jotach ~~Arok~~ Juach	(M) F	A (B) C						
2	~~Bol~~ Deng Kur Akuei: FX	(M) F	A (B) C	Head chief					
3	Mayen Manyok Arok TC	(M) F	A (B) C	Planing officer					
4	Francis Mayen Deng - CED	(M) F	A B (C)	County ~~Executive~~ Director					
5	Abraham Chol Lek - CHO	(M) F	A (B) C	CHO Director					
6	Majok Chol Malou - Agric	(M) F	A (B) C						
7	Lem Dau Deng - Gender. S.	(M) F	A (B) C	GCSW					
8	Simon Bol Dau - V	(M) F	A (B) C						
9	Deng Awuol Malou - wash	(M) F	A (B) C						
10	Ruben Maker ~~Ajok~~ - RCC	(M) F	A B (C)						
11	Deng Arok Konger	(M) F	A (B) C	Director for culture tour & sport					

Enhancing Community Resilience and Local Governance Project

	Full Name	Sex (M/F)	Age group A: 18-24. B: 25-59; C: 60+	Title/Occupation	Day 1	Day 2	Day 3	Day 4	Day 5
12	Thon Diing Duot - C chief	M F	A B C						
13	Deng Atem Giet. YR	M F	A B C	TETA - Youth leader					
14	Betty Tom Arok WR	M F	A B C						
15	Kot Deng Mayen - BC	M F	A B C						
16.	Diing Deng Koch - Offic	M F	A B C	Executive Secretary					
17	Rebecca Akuach Arok	M F	A B C						
18	Juppa John Ajook - F&P	M F	A B C	Controller/Accts					
19	Deng Nyaon Kuir - DT	M F	A B C	Town Adm					
20	Thon Diing Duot - C chief	M F	A B C						
21	David Kakarang Wach	M F	A B C	Poster					
22	Michael Yak Deng	M F	A B C	COA					
23	Ayuel Atem Akoi Kuany	M F	A B C	COA					
24	Duot Mapior Duot Mayiing	M F	A B C	COA					

Enhancing Community Resilience and Local Governance Project

	Full Name	Sex (M/F)	Age group A: 18-24. B: 25-59; C: 60+	Title/Occupation	Day 1	Day 2	Day 3	Day 4	Day 5
25	Sem Baw odol	M F	A B C						
26	Deng James Manyok	M F	A B C	M&E Program Ass.					
27	Nyadier Michael Hayak	M F	A B C	Hydrogeologist					
28	Khot peter Atem	M F	A B C	CAO					
29		M F	A B C						
30		M F	A B C						
31		M F	A B C						
32		M F	A B C						

Male 18
female 2
total 20 pax.

Full Name and Signature - ECRP Staff

Ayuel Atem Akoi Kuany

Enhancing Community Resilience and Local Governance Project (ECRP)

Enhancing Community Resilience and Local Governance Project

IOM ECRP II ATTENDANCE SHEET

Date: 25th/01/2025

Location: Panyagor T.H.C

Activity: Stakeholder Consultation workshop with ~~County~~ Longar Community Stakeholders, Longar Panyam T.H.C.

	Full Name	Sex (M/F)	Age group A: 18-24. B: 25-59; C: 60+	Title/Occupation	Day 1	Day 2	Day 3	Day 4	Day 5
1	Ajang Bhel	M F	A B C	Ex. chief					
2	Ariik Bol Ariik	M F	A B C	" "					
3	Kuer Deng Thiong	M F	A B C						
4	Deng Bior Reech	M F	A B C						
5	Akoi Arok Kerbuor	M F	A B C						
6	Dau Barach Arwai	M F	A B C						
7	Deng But Chol	M F	A B C						
8	Chol Deng Anyang	M F	A B C						
9	Michael Chol Mabior	M F	A B C						
10	John Thuol Dau	M F	A B C						
11	Aleet Bul Kooch	M F	A B C						

Enhancing Community Resilience and Local Governance Project

	Full Name	Sex (M/F)	Age group A: 18-24. B: 25-59; C: 60+	Title/Occupation	Day 1	Day 2	Day 3	Day 4	Day 5
12	Nyakelei Garang Kuai	M (F)	A (B) C						
13	Akuach Arok Dawuor	M (F)	A B (C)						
14	Nyuon Bior Bul	M (F)	A (B) C						
15	Ajak Bul Bul	M (F)	A (B) C						
16	Akuach Dau Mahual	M (F)	A (B) C						
17	Apayok Kuir Bul	M (F)	A (B) C						
18	Agau Ajang Kuer	M (F)	A (B) C						
19	Deng Bulng Aruai	M F	A (B) C						
20	Sam Kuer aduy	M F	A (B) C	NCEG					
21	Ayuel Atem Akoi Kuang	M F	A (B) C	COA					
22	Michael Yak Deng	M F	A (B) C	COA					
23	Deng James Manyok	(M) F	A (B) C	P.A					
24	Duot Mapior Duot	M F	A (B) C	COA					

Enhancing Community Resilience and Local Governance Project (ECRP)

Enhancing Community Resilience and Local Governance Project

	Full Name	Sex (M/F)	Age group A: 18-24. B: 25-59; C: 60+	Title/Occupation	Day 1	Day 2	Day 3	Day 4	Day 5
25	Nyidier Michael Majak	M F	A B C	Hydrogeologist					
26	Khot peter Atem	M F	A B C	CAO					
27		M F	A B C						
28		M F	A B C						
29		M F	A B C						
30		M F	A B C						
31		M F	A B C						
32		M F	A B C						

male 12
female = 8
total = 20 pax.

Full Name and Signature - ECRP Staff

Ayuel Atem Akoi Kuany

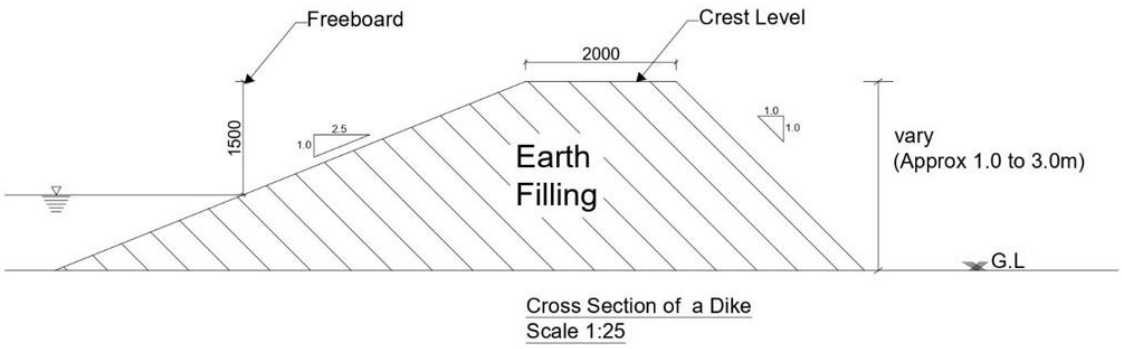
Enhancing Community Resilience and Local Governance Project, Phase II (ECRP II)

ATTENDANCE SHEET

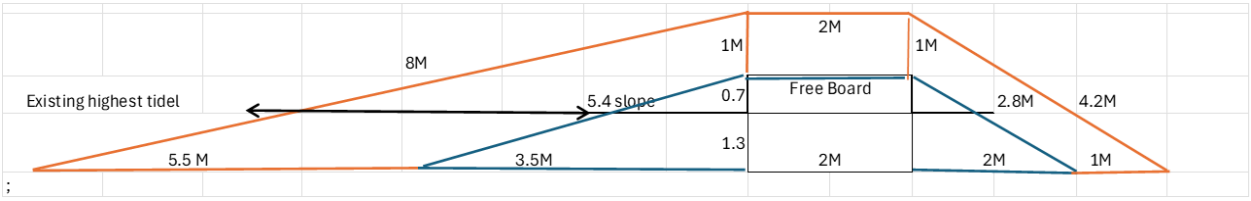
Date: 3/12/2024	Activity: STAKEHOLDER FEEDBACK MEETING ECRP II C1.2
Location: IOM JUBA OFFICE	

	Full Name	Sex (M/F)	Age group A: 18-24. B: 25-59; C: 60+	Title/Occupation	Signature
1	Pamba Emmanuel	(M) F	A (B) C	CR officer - IOM	
2	Natale Lual	(M) F	A (B) C	National Ops officer - IOM	
3	BRIAN GADA	(M) F	A (B) C	SAFEGUARDING OFFICER	
4	Juach Tuok Juach	(M) F	A (B) C	payainvestment@gmail.com	
5	Desta Y. Wodebo	M F	A (B) C	dwodebo@iom.int (DRM)	
6		M F	A B C		
7		M F	A B C		
8		M F	A B C		
9		M F	A B C		
10		M F	A B C		
11		M F	A B C		

ANNEX 5: ENGINEERING DRAWING



Cross Section of a Dike
Scale 1:25



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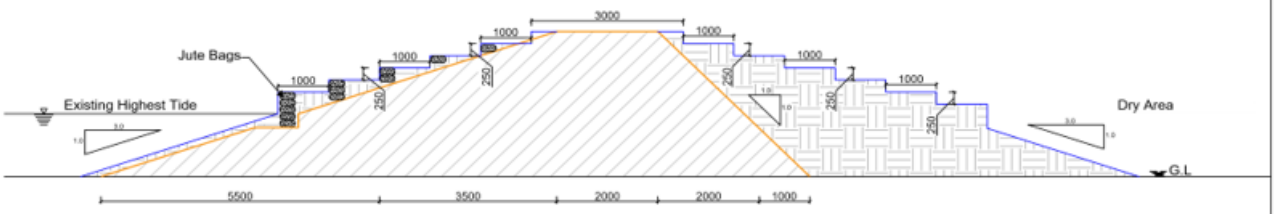
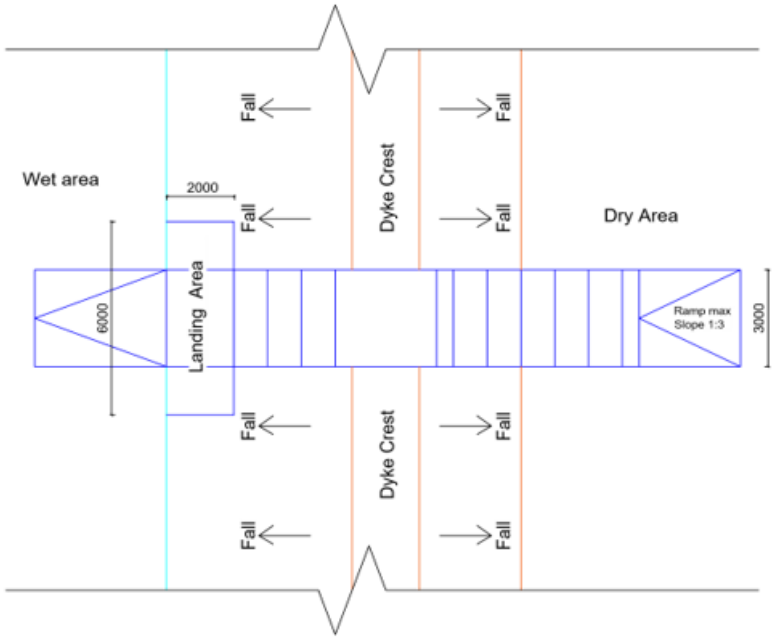


Cross Section of Dyke Crossing Point
Scale 1:40



Plan View of Dyke Crossing Point
Scale 1:60

GENERAL NOTES:

N

1. All dimensions are in millimeters unless otherwise stated.
2. All dimensions are to checked and confirmed on site before commencement of any work.
3. Depth of pad foundation 1200mm.
4. Depth of strip foundation 750mm.
5. Any discrepancy or changes is to be reported to IOM site Engineer/Project manager before proceeding

Rev:	Date	Description:	Approved
----	---/---/----	----	----
----	---/---/----	----	----
----	---/---/----	----	----
----	---/---/----	----	----

Program

Enhancing Community Resilience and Local Governance Project

Client:

GOVERNMENT OF SOUTH SUDAN

Implemented By:

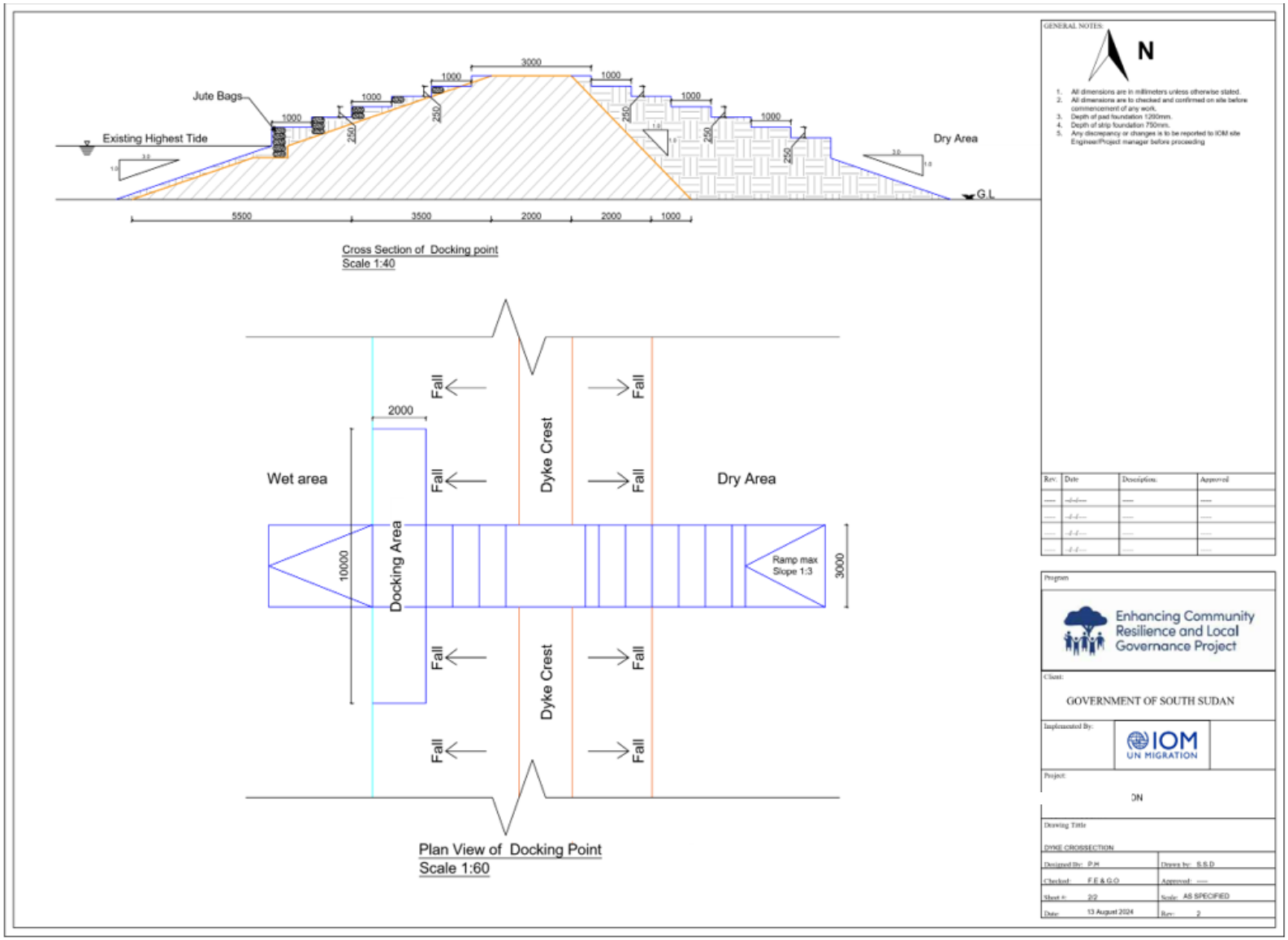
IOM UN MIGRATION

DYKE CONSTRUCTION

Drawing Title

DYKE CROSSECTION

Designed By: P.H	Drawn by: S.S.D
Checked: F.E & G.O	Approved: ----
Sheet #: 2/2	Scale: AS SPECIFIED
Date: 13 August 2024	Rev: 2


Jute Bags
Existing Highest Tide
Dry Area
G.L
3000
1000
250
5500
3500
2000
2000
1000
Cross Section of Docking point
Scale 1:40
Fall
Dyke Crest
2000
Wet area
Dry Area
Docking Area
10000
Ramp max
Slope 1:3
3000
Plan View of Docking Point
Scale 1:60
GENERAL NOTES:
N
1. All dimensions are in millimeters unless otherwise stated.
2. All dimensions are to checked and confirmed on site before commencement of any work.
3. Depth of pad foundation 1200mm.
4. Depth of strip foundation 750mm.
5. Any discrepancy or changes is to be reported to IOM site Engineer/Project manager before proceeding
Rev:
Date
Description:
Approved
Program
Enhancing Community Resilience and Local Governance Project
Client:
GOVERNMENT OF SOUTH SUDAN
Implemented By:
IOM
UN MIGRATION
Project:
DN
Drawing Title
DYKE CROSSECTION
Designed By: P.H
Drawn by: S.S.D
Checked: F.E & G.O
Approved:
Sheet #: 2/2
Scale: AS SPECIFIED
Date: 13 August 2024
Rev: 2

ANNEX 6: CHANCE FINDS PROCEDURE

This procedure was developed in accordance with the mandate of the Ministry of Youth, Culture and Sports (Directorate of Archives and Antiquities) of protecting and preserving both tangible and intangible cultural heritage records of South Sudan and the requirements of the World Bank's ESS 8 (To protect cultural heritage from the impacts of project activities and support its preservation, to address cultural heritage as an integral aspect of sustainable development, to promote meaningful consultation with stakeholders regarding cultural heritage and to promote the equitable sharing of benefits from the cultural heritage).

This procedure is included as a standard provision in the implementation of ECRP II Public Works contracts to ensure the protection of cultural heritage (Archaeological and Historical Sites). All Implementing Partners as well as sub-contractors and implementers will be required to observe this procedure as documented hereafter.

Excavation in sites of known archaeological interest will be avoided, including sites were ESS& would require FPIC due to impacts on cultural heritage. Where this is unavoidable, prior discussions must be held with the concerned officers from the Ministry of Youth, Culture & Sports in order to undertake pre-dike construction excavation or assign an archaeologist to log discoveries as dike construction proceeds. Where historical remains, antiquity or any other object of cultural or archaeological importance are unexpectedly discovered during dike construction in an area not previously known for its archaeological interest, the following procedures should be applied:

Stop dike construction activities.

- Delineate the discovered site area;
- Secure the site to prevent any damage or loss of removable objects. In case of removable antiquities or sensitive remains, a full-time guard should be present until the responsible authority takes over;
- Notify the responsible foreman/archaeologist, who in turn should notify the responsible authorities, the concerned officers from the Directorate of Archives and Antiquities and local authorities (within less than 24 hours);
- Responsible authorities are in charge of protecting and preserving the site before deciding on the proper procedures to be carried out;
- An evaluation of the finding will be performed by the concerned officers from the Ministry of Youth, Culture & Sports in the Directorate of Archives and Antiquities. The significance and importance of the findings will be assessed according to various criteria relevant to cultural heritage including aesthetic, historic, scientific or research, social and economic values;
- Decision on how to handle the finding will be reached based on the above assessment and could include changes in the project layout (in case of finding an irrevocable remain of cultural or archaeological importance), conservation, preservation, restoration or salvage;
- Implementation of the authority decision concerning the management of the finding;
- Dike construction work can resume only when permission is given from the concerned officers from the Ministry of Youth, Culture & Sports after the decision concerning the safeguard of the heritage is fully executed;

- In case of delay incurred in direct relation to archaeological findings not stipulated in the contract (and affecting the overall schedule of works), the contractor may apply for an extension of time. However, the contractor will not be entitled for any kind of compensation or claim other than what is directly related to the execution of the archaeological findings works and protections.

ANNEX 7: SCREENING REPORT

ES screening for Flood Risk Mitigation Subprojects

SECTION A: GENERAL INFORMATION

	Environmental and Social Screening Report - ECRP II
Subprojects are screened for their inherent social and environmental risks regardless of planned mitigation and management measures. It is necessary to identify potential inherent risks in the event that mitigation measures are not implemented or fail. This means that risks should be identified as if no mitigation or management measures were to be put in place.	
SECTION A: General Information	
Date of screening	3 December 2024
Subproject title	Upgrading of existing community rehabilitated dikes and construction of a drainage network in Panyagor Town, Twic East)
Subproject component	1
Implementing Agency	IOM
Proposed subproject budget	
Proposed subproject duration	3 Months
ES Screening Team Leader and Contact Details	GADA Brian – Environmental and Social Specialist
ES Screening Team Members	CLAUDIO Lilian: - Gender GBV Specialist LUAL Natale: National Project Officer DAMATA Augustino: Senior Field Engineer PAMBA Emmanuel: - National Community Engagement Officer

Program/Site/Subproject location	Twic East 7°09'55.85" N - 31°24'27.42" E
Subproject Description. Describe subproject activities in detail showing activities that interact directly with the host biophysical, social, cultural environments. Attach drawings, maps and pictures where available (planning, construction, operation and decommissioning where necessary). ***NB: Should be at most 2 pages***	**Upgrading of existing community rehabilitated dikes and construction of a drainage network in Panyagor Town, Twic East)** The International Organization for Migration (IOM) South Sudan in the framework of ECRP (Enhancing Community Resilience and Local Government Program) is currently implementing a World bank funded projects across 12 counties including: Renk, Maban, Fashoda, Baliet, Wau, Pibor, Pariang, Rubkona, Twic East, Duk and Leer in South Sudan. Twic East is one of the most affected counties in South Sudan by flood and is one of the selected locations for DRM intervention due to the flood impact on civil population, livelihood and infrastructure, therefore. During the community engagement workshop held on 3 August 2024 and follow-up meetings held in November 2024 and the final consultation with the county commissioner that took place on 3 December 2024, the community members and local government official prioritized the Upgrading of the community rehabilitated of an existing dikes measuring about 8.5 KM surrounding the Panyagor Payam to protect the community and community infrastructures including: health facility, education institutions, market and Water facilities from being flooded. Panyagor Payam which is at the same time happens to be the county HQ becomes the only safe heaven serving like a buffer zone for communities from different neighboring areas and from both the IDPs, returnees and the host community.

	Panyagor is seen to be densely populated though there was no clear population figure registered during the assessment. 90% of the existing water facilities in Panyagor are submerged and at a very high risk of being contaminated. Hance' all the 23 water facilities need to be disinfected using chlorine. The community representatives, opinion leaders and local governance is here by requesting IOM through ECRP II/Project Management Unit, with the funding from the World Bank, to modify the community rehabilitated the existing 8.5 KM dike, and construct a drainage network in Panyagor town, Twic East.

	The team guided the participant on identification of feasible immediate DRM infrastructures to protect community, infrastructure and livelihoods ahead of the anticipated floods considering impact, value for money and environmental social safeguard concerns. The following criteria were shared to the authorities to guide the selection/proposal of potential infrastructures /measures. 1. Project location, identifying whether it falls within IOM's area of operations, 2. Would the mitigation measures protect community and existing infrastructure from the expected flood hazard? 3. Would they mitigate adverse socio-economic impacts? 4. Value for money, 5. Viability of project implementation within available resources, 6. Can the projects be assessed, designed, and implemented within a short timeline? 7. Are projects located where no other organizations are engaged? Based on the above-mentioned criteria, the participants identified Upgrading of the community rehabilitated and partial construction of Dikes and drainage networks as key priorities. (a) Rehabilitation of 8.5 km dike, enclosing Panyagor town starting from north to East connecting South to West. (b) A Drainage channel of 1 KM to direct rainwater to a collection pond. Under ECRP II, IOM will use a contractor-based approach to implement the above projects by following all the standard construction procurement processes.

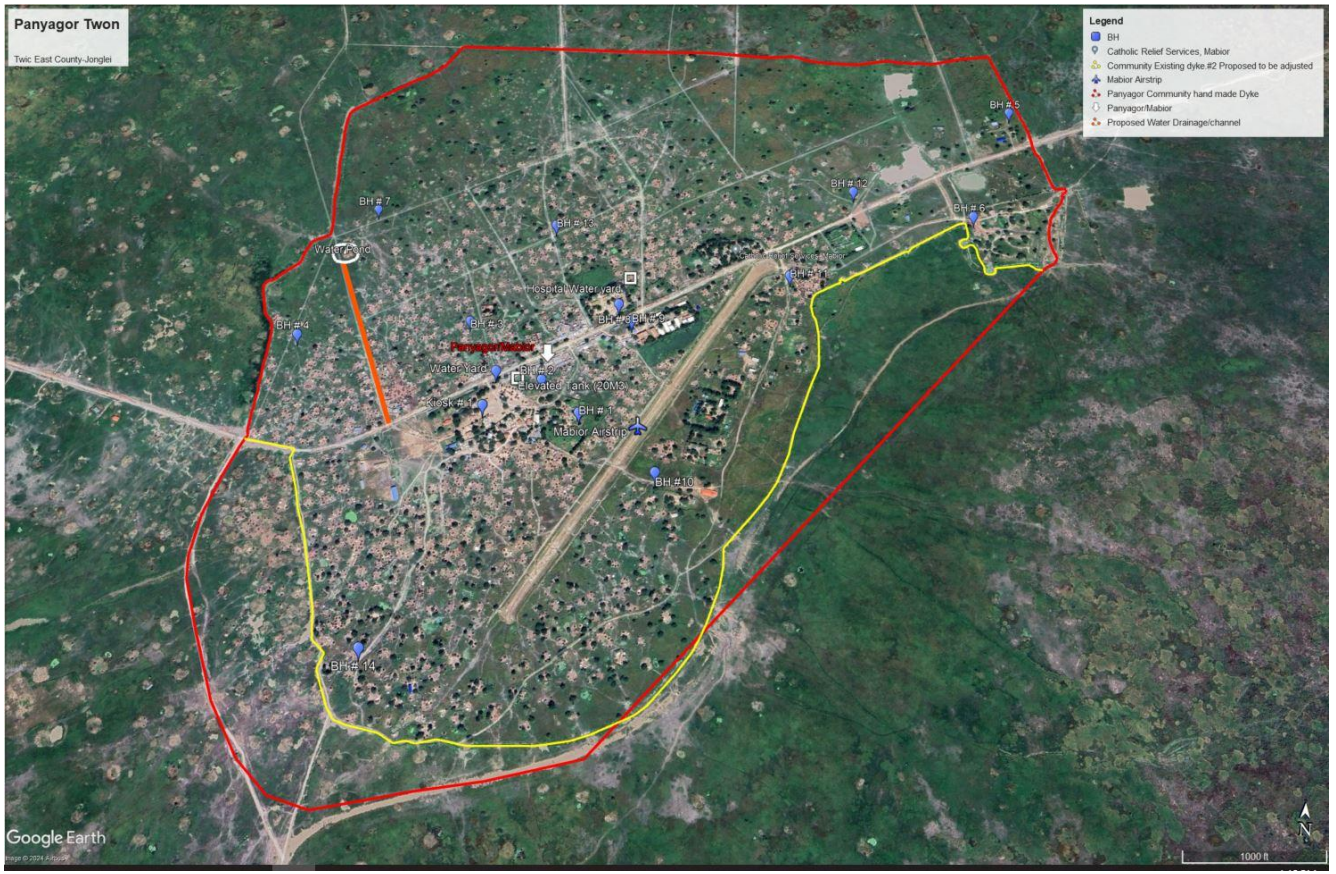


Figure 29. Panyagor Dike.

Categorize subproject Activities into List A, List B , List C or List D. Refer to subproject Description and Project Categories under section C of this screening format.	**List B the project has moderate environmental or social risks and/or impacts. IOM will put up appropriate management and mitigation measures for all the identified risks or impacts.**

Potential Environmental/Social Risks Impacts of Subprojects					
Risk Category *(Please check each line appropriately. At this stage, questions are answered without considering magnitude of impact – only yes, no or I don't know are applicable answers)*	Yes	No	Don't know	If these risks ('yes') are present, refer to:	Comment
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts					
Is an Environmental and/or Social Assessment required?	☒	☐	☐	ESMF	All subprojects under ECRP II are subjected to ES screening to allow IOM to identify possible Environmental and Social risk determining which environmental and social management tool to develop to ensure

					sustainable project implementation.
Is there a risk of subproject beneficiaries not getting the subproject benefits?	☐	☒	☐	Stakeholder Engagement Plan (SEP), Grievance Redress Mechanisms (GRM)	The proposed dyke section shall enclose the entire population and their infrastructures within the premises.
Is there a risk of lack of monitoring of the subproject activities due to remoteness of location and insecurity?	☐	☒	☐	Security Management Plan (SMP)	IOM shall deploy an engineer on ground for the supervision of the work. There will also be community supervisors to ensure there is always supervision.
Is there a risk that the subproject benefits may not reach truly vulnerable populations?	☐	☒	☐	Stakeholder Engagement Plan (SEP)	
Is there a risk that activities may be influenced by other groups?	☒	☐	☐	Stakeholder Engagement Plan (SEP)	An elite group form the targeted area has significant interest in the project. There is a risk of elite capture

Is there a risk that the selection of any location/beneficiaries in the activity will lead to a conflict?	☐	☒	☐	Security Management Plan (SMP) Grievance Redress Mechanisms (GRM)	
Does the activity pose a security risk for local staff?	☐	☒	☐	Security Management Plan (SMP)	
Is there a risk that the subproject activity will further facilitate disputed authority structures or will cause an increase in local disputes?	☐	☒	☐	Stakeholder Engagement Plan (SEP)	
Is there any risk of the subproject activity to natural habitat, Nile Basin, or SUDD Wetland?	☒	☐	☐	ESMF	The infrastructure network is close to the riverbank and is located within the SUDD wetland therefore it may affect some natural habitat for aquatic animals.
ESS 2: Labour and Working Conditions					
Does any subproject activity include any of the known labor rights /ESS 2 non-compliance risks in South Sudan risk of child and forced labor use?	☐	☒	☐	Labor Management Procedures (LMP) Occupational Health and Safety Plan (OHS)	The community leaders are aware of child labor restrictions under the project. . The project will further implement a Labor management plan with

					safeguards to prevent child labor issues.
Does the subproject include a construction component?	☒	☐	☐	Labor Management Procedures (LMP) Following documents yet to be prepared: C-ESMP Occupational Health and Safety Plan (OHS)	The scope of work will include: • Dike and drainage construction • Sitting • Excavation
Does the subproject include labor-intensive activities?	☐	☒	☐	Labor Management Procedures (LMP)	The activity is executed with earth moving equipment (Excavator)
Does the subproject include or influence primary agricultural activities?	☐	☒	☐	Labor Management Procedures (LMP) Occupational Health and Safety Plan (OHS)	
Will the subproject require a larger contractor workforce?	☐	☒	☐	Labor Management Procedures (LMP) Occupational Health and Safety Plan	The project is a small-scale project.

				(OHS), C-ESMP	
Is there a security risk for subproject Workers?	☒	☐	☐	Security Management Plan (SMP)	All subproject workers shall receive training on safety and security prior to deployment. Conduct and regularly update staff on security situations

Is there a risk that the subproject facilities cause OHS issues?	☒	☐	☐	Occupational Health and Safety (OHS) management Plan	The sub project activities will include the following key aspects: • Excavation of trench with moving machine. • Dust by moving vehicles transporting materials. • Noise during machine operation.

					• Chemicals during servicing of hydraulic machines. • Lifting during machine repair.
Is there a risk of labour induced in migration?	☐	☒	☐	Labor Management Procedures (LMP)	
Is there a risk of lacking OHS for workers at the construction site?	☒	☐	☐	Occupational Health and Safety management Plan (OHS) Pest Management Plan (PMP) (yet to be prepared)	Contractors may not follow OHS Plan
Is there a risk of delayed payment of workers?	☒	☐	☐	Labor Management Procedures (LMP	Contractors may not pay workers on time due to delay of payment by client

Is there a risk that workers are underpaid?	☒	☐	☐	Labor Management Procedures (LMP)	Contractors may not follow LMP Plan
Is there a risk that women will not be employed?	☒	☐	☐	Labor Management Procedures (LMP) GBV Action Plan	Women and men will be encouraged to equally participating in community activities.
Is there a risk that provision of contracts causes conflicts?	☒	☐	☐	Security Management Plan (SMP) Grievance Redress Mechanisms (GRM) Labour Management Procedures	If contracts awards criteria are not brought to the understanding of stakeholders. The project shall seek to employ locals from the community
ESS 3: Resource Efficiency and Pollution Prevention Management					
Will the subproject result in the production of solid waste? (Directly by the subproject or by workforce)	☒	☐	☐	Waste Management Plan, based on *WBG Environmental, Health, and Safety General Guidelines in ESMP* Site Specific ESMP	Small amounts will be produced by the operators from their daily consumption of food and materials.
Will the subproject result in the production of toxic or hazardous waste? (e.g., used oils, inflammable products, pesticides, solvents,	☒	☐	☐		Waste from used oil

pharmaceutics, industrial chemicals, ozone depleting substances)					
Will the subproject result in the generation of dust and noise?	☒	☐	☐	Following documents yet to be prepared: C-ESMP	Noise from operation of earth moving equipment. Dust produced from material mixing, demolition works and movement of trucks bringing material to site
Will the subproject result in soil erosion?	☐	☒	☐	Following documents yet to be prepared: C-ESMP and Site Specific ESMP	
Will the subproject produce effluent (wastewater)?	☒	☐	☐	Following documents yet to be prepared: C-ESMP, Waste Management Plan and site specific ESMP	Wastewater will be produced from cleaning of tools on site.
Will the subproject result in increased levels of vibration from construction machinery?	☒	☐	☐	Following documents yet to be prepared: C-ESMP	use of heavy-duty construction machinery will be used

Will the subproject produce air pollution? (e.g. significant greenhouse gas emissions, dust emissions and other sources)	☒	☐	☐	Following documents yet to be prepared: C-ESMP and Site Specific ESMP	Air pollutants will be released from various sub project activities which include dust from vehicle movement.
Will the subproject disturb any fauna and flora?	☒	☐	☐	Following documents yet to be prepared: C-ESMP and Site Specific ESMP	Because of unusual noise from the excavators some wild animals may migrate.
Will the subproject result in polluted irrigation water?	☐	☒	☐	Following documents yet to be prepared: C-ESMP, Site Specific ESMP Waste Management Plan	
Will the subproject affect the surface or groundwater in quantity or quality? (e.g., discharges, leaking, leaching, boreholes, etc.)	☐	☒	☐		
Will the subproject require use of chemicals? (e.g. fertiliser, pesticides, paints, etc.)	☐	☒	☐		

Is there any risk of accidental spill or leakage of material?	☒	☐	☐		Fuel that may be stored on site for small equipment may be accidentally spilled.
Will the subproject require (during execution or after completion) significant amounts of water, energy, materials, or other natural resources?	☒	☐	☐	ESMF	Soil for dike construction
ESS 4: Community Health and Safety					
Is there any risk of increased GBV/SEA cases due to labor influx?	☒	☐	☐	GBV/SEA Action Plan Labor Management Procedures (LMP	Since men and women are going to work together there are risks of GBV case and there should be awareness on GBV among the community and contractors involved.
Is there any risk of spread of communal diseases due to labor influx?	☐	☒	☐	Labor Management Procedures (LMP); C-ESMP	
Is there a security risk to the community triggered by subproject activities?	☐	☒	☐	Security Management Plan (SMP)	
Does the subproject have the potential to upset community social dynamics?	☒	☐	☐	Stakeholder Engagement Plan (SEP)	Female workers may delay at construction that might

				Grievance Redress Mechanisms (GRM)	cause GBV against her by the husband
Will the subproject include payments or cash transfers among the community/workers?	☒	☐	☐	Stakeholder Engagement Plan (SEP) Grievance Redress Mechanisms (GRM)	During payment of local staffs and procurement of local materials for construction
Will the subproject expose community members to physical hazards on the subproject site?	☒	☐	☐	Following documents yet to be prepared:	Excavations pose safety risks to the community as injuries of both. Community members, such as children and people with disability maybe exposed to danger of falling outside the dykes while attempting to cross of fetch water
				C-ESMP	people and livestock can occur. Fall protection barriers, Hazard tapes and informing the community about the excavations must be done in a timely manner.

Will the subproject pose traffic and road safety hazards to the people?	☒	☐	☐	Following documents yet to be prepared: C-ESMP	There will be increased movement at the site
Is there a possibility that the subproject activities contaminate drinking water sources i.e. open wells?	☐	☒	☐	Following documents yet to be prepared: Waste Management Plan; C-ESMP	
Is there a possibility that the subproject activities cause spread of pathogens and other pollutants (e.g. latrines)	☐	☒	☐	Following documents yet to be prepared: Waste Management Plan; C-ESMP	
Will the subproject contribute to the spread of disease (eg health facilities)?	☐	☒	☐	Following documents yet to be prepared: Waste Management Plan	
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement					
Will the subproject lead to physical displacement (relocation, loss of residential land, or loss of shelter)	☐	☒	☐	Stakeholder Engagement Plan (SEP)	The project will avoid relocation, loss of land or shelter
Is the subproject located in a conflict area, or has the potential of social problems which may cause social conflicts, for instance, land tenure	☐	☒	☐	Stakeholder Engagement Plan (SEP)	

and access to resources issues (e.g. a new road providing unequal access to a disputed land)?				Grievance Redress Mechanisms (GRM)	
Would the subproject potentially discriminate women and girls based on their gender vulnerability, especially their participation in subproject implementation and/or access to the opportunities and benefits of subproject?	☒	☐	☐	Stakeholder Engagement Plan (SEP) Grievance Redress Mechanisms (GRM)	Women and girls may not receive equal access to employment as the works shall entail construction using machines
Is there a risk that the associated subproject activities lead to economic displacement (loss of land, assets, or access to assets leading to loss of income sources or other means of livelihood) to any of the stakeholder?	☒	☐	☐	See negative list Stakeholder Engagement Plan (SEP)	Some residents with homestead closed to the dyke maybe displaced, or farmlands may be affected in areas where the dykes and drainage network pass through
Will the subproject lead to disputes over land ownership?	☐	☒	☐	ESMF	The land belongs to the community
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources					
Will the subproject affect sensitive areas such as habitats, wetland area?	☒	☐	☐	ESMF	The sub-project will be implemented in an area closed to the SUDD Wetlands, hence natural

					habitat such as wildlife may be affected
Is there a risk that the subproject causes ecological disturbances?	☒	☐	☐	ESMF	The sub-project will be implemented in an area closed to the SUDD Wetlands, hence natural habitat such as wildlife may be affected. Wildlife crossing and grazing area maybe affected by dykes enclosing the sub-project locations
Is there a risk that the subproject causes changes in land form and habitat, habitat fragmentation, blockage or migration routes, water consumption and contamination?	☒	☐	☐	ESMF	Wild life migration route during the dry season may be affected by the dyke enclosing Panyagoor town
Is there a risk that the subproject causes loss of precious ecological assets?	☐	☒	☐	ESMF	
Does the subproject involve harvesting or depletion of natural resources (e.g. forest, fisheries, etc)?	☒	☐	☐	ESMF	By enclosing the town of Panyagoor with a dyke, community access to fish harvest as a result of flooding may be affected
Can the subproject cause disruption of wild life migratory routes?	☒	☐	☐	ESMF	Wild life migration route during the dry season may

					be affected by the dyke enclosing Panyagoor town
Can the subproject introduce alien species or GMOs?	☐	☒	☐	ESMF	
Can the subproject impact ecosystems upon which communities rely for food, water, fibers or other basic needs, including cultural and spiritual needs?	☒	☐	☐	ESMF	Wild life and fish are common source of food among the locals during the rainy season (flooding) and dry season. Once the area is enclosed with a dyke, wildlife passage in Panyagoor town as well as fish harvest may be affected or limited
Is the subproject likely to cause soil erosion, siltation or degradation?	☒	☐	☐	ESMF	When it rains before backfilling excavated foundation and poor management of debris.
Is the subproject located directly on river embankments?	☒	☐	☐	ESMF	Construction shall be done along riverbank to mitigate spilling of floods from main river .
	☒	☐	☐	ESMF	

Will construction, operation or decommissioning of the subproject involve physical changes, such as topography or land use (e.g. construction camps, housing, etc.)?					Demolition of infrastructures or agricultural farmlands in the proposed network shall happen for the benefit of rescue of population assets.
ESS 8: Cultural Heritage					
Will the subproject be located in or close to a site of cultural value, any archaeological or naturally important site?	☒	☐	☐	Chance Find Procedures (ESMF)	The proposed sub-projects area is not known for cultural or natural remains.
Is the subproject site known to have the potential for the presence of cultural and natural heritage remains?	☐	☒	☐		
Will the subproject adversely impact the intangible cultural heritage. This includes practices, representations, expressions, knowledge, and skills including, objects, artifacts, and cultural spaces?	☐	☒	☐		
Is there a risk that the subproject will have negative impacts on movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have	☐	☒	☐		

archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance?					
ESS 10: Stakeholder Engagement and Information Disclosure					
Is there a risk that the subproject fails to incorporate measures to allow meaningful, effective and informed consultation of stakeholders, such as community engagement activities?	☐	☒	☐	Stakeholder Engagement Plan (SEP)	Series of stakeholder engagement have been carried out and frequent consultation will continue
Is there a historical exclusion of disabled persons in the area?	☐	☒	☐	Stakeholder Engagement Plan (SEP)	
Are women likely to participate in decision-making processes in regard to the subproject?	☒	☐	☐	Stakeholder Engagement Plan (SEP)	Women are part of BDCs. The BDCs form part of the key decision- making administrative structures in the area in terms of the Local Governance Act.
Is there a risk that exclusion of beneficiaries leads to grievances?	☒	☐	☐	Stakeholder Engagement Plan (SEP) Grievance Redress Mechanisms (GRM) – see ESMF	There is GRM box selected with the BDCs where Stakeholders and communities can channel their complaints/ grievances.

Is there a risk that the subproject component will have poor access to beneficiaries?	☐	☒	☐	Stakeholder Engagement Plan (SEP) Grievance Redress Mechanisms (GRM) – see ESMF	
Will the Covid-19 outbreak hamper proper stakeholder engagement and information disclosure?	☐	☒	☐	WB and FGS guidance and regulations on Covid-19	
Is there a risk that the subproject activities will not provide affected parties with accessible and inclusive means to raise issues and grievances, including provision to respond and to manage such grievances?	☐	☒	☐	Stakeholder Engagement Plan (SEP) Grievance redress Mechanism (GRM)	
Is there a risk that appropriate project information on environmental and social risks and impacts will not be disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format?	☐	☒	☐	Stakeholder Engagement Plan (SEP) Grievance redress Mechanism (GRM)	

SECTION B: SUMMARY OF THE SCREENING PROCESS

E&S SCREENING	RESULTS AND RECOMMENDATION			
Screening Results: Summary of Critical Risks and Impacts Identified	Risk/Impact	Individual Risk	Impact Rating	Mitigation
	Occupational Health and safety	medium	medium	IOM to have an occupational, health and safety management system in place. Dust protection masks for contractor teams and all necessary appropriate PPE shall be provided for working teams. Development and implementation of an HIV/AIDS, Gender/GBV, PSEA/H awareness programmes for workforce and community. Ensure provision of potable water and ablution facilities for workers
	Gender mainstreaming	Medium	High	Gender mainstreaming during recruitment and allocation of work packages
	Uncovered borrow pit areas	Medium	High	The borrow pit shall be fenced and labelled. Systematic abstraction of soil shall be done according to an agreed plan. Backfilling shall be done prior to decommissioning the borrow pits.
	Recurrent natural disasters	Medium	Medium	Design and construction of robust and resilient dike structures which can withstand anticipated floods.

	Social Conflict	medium	high	Inclusive planning of labour-based works with specific gender inclusion strategies. Stakeholder engagement in planning.
	Dust Pollution	Low	Low	Provision of appropriate safety clothing for workforce including dust masks, a watering down schedule will also be provided
	Solid Waste	Medium	Medium	Availing bins for refuse segregation and collection
	Sustainability	Medium	Medium	Involve the beneficiaries and community leadership in all project related work. Support capacity building on dike infrastructure management. Establish and train the PDRMCs, & CDRMCs
E&S SCREENING	RESULTS AND RECOMMENDATION			
	Screening Result (see Table 7: Sub-projects Risk Level for further details)			**Summary of Screening Result Justification**
	No further ES Assessment required.			
	No further ES Assessment required but requires simple ESMP.			
	Detailed ESMP and/or RAP or VLD. Done internally.			ES Screening results revealed that most of the impacts are moderate but require mitigation measures to ensure that the potential impacts are minimised. A detailed ESMP will be drafted and implementation of the ESMP should be

		done religiously for compliance to the applicable project standards, national laws and regulations.
	Detailed ESMP and/or RAP. Contracted to Consultancy.	
	ESIA and/ or RAP required. Contracted to consultancy.	
Is Additional Assessment Necessary?	Yes	No

ES Screening Conducted by

ES Screening Team Leader and Contact Details	GADA Brian – Environmental and Social Specialist
ES Screening Team Members	YONGO Henry: - Senior Field Engineer MOJWOK Sabrin: - Community Outreach Assistant CLAUDIO Lilian: - Gender GBV Specialist

Recommended by Project Manager: BARTOLONI Alexander

Project Manager

Approved by PMU: MANYOK Sammuel,

Senior Social Safeguards Specialist/Acting Project Manager

ANNEX 8: REPORT FORMAT

Summary of Key E&S Aspects during the Reporting Period

Project Status, E&S Incidents, E&S Changes, E&S Initiatives

Project Status

- Provide a brief description of any new developments in relation to operations and facilities over the reporting period.

E&S Incidents

- Please provide a summary of all the notifiable E&S incidents.

Please expand or collapse the table where needed.

Date	Incident description	Class	Reports sent to lenders	Corrective action / remedial plan	Status of Corrective Action

E&S Changes

- Please provide a summary of all the notifiable E&S changes.

- Please expand or collapse the table where needed.

Date	Change description	Reports sent to lenders	Implementation status

Improvements/initiatives regarding E&S performance

- Briefly describe improvements/initiatives implemented during the reporting period on the management of E&S aspects (e.g. energy/water savings, sustainability reports, waste minimization, etc.)

ESS1: Assessment and Management of Environmental and Social Risks and Impacts

E&S Impact / Risk Assessment

- Have any supplemental environmental, social, health and safety impact/risk studies been conducted during the reporting period? (Please provide copies).

E&S Regulatory Reporting, Permits and Supervision

- Please list any environmental reports submitted to the South Sudan authorities.

☐ Copies attached with this report ☐ Copies available upon request

- Please summarize South Sudan authority monitoring and inspections.

Management of contractor (IOM and others)

- Please illustrate with a chart or table on contractor's organizational structure to manage environment, health and safety, labor and social aspects during the reporting period. Please name the individuals in contractor who hold responsibility for environmental, social, health and safety, human resources, security performance and give their contact information.

Compliance with Environmental and Social Management Plans

- The status of the ESMP implementation should be described and any issues that remain outstanding should be detailed.

ESS2. Labor and Working Conditions

Human Resources Management

- Have IOM and other contractors changed/updated their Human Resource (HR) policy and procedures, HR manual, and Health & Safety (H&S) procedures, during the reporting period?

☐ Yes ☐ No

If yes, please provide details.

- Provide the following information regarding the workforce:

Previous year					
Reporting year					

- List the worker-related court cases and describe their status.

Occupational Health and Safety

- Describe the main changes implemented in terms of Occupational Health and Safety (OHS) during the reporting period, e.g. revision of the OHS management procedures, action plans for technical improvements, leading/lagging indicators used/introduced, identification of hazards, new controls, etc.

- Please attach Health & Safety audit reports available for the reporting period.

☐ Copies attached with this report ☐ Copies available upon request ☐ Not Available

Accident Statistics Monitoring

Report total numbers for each parameter	This reporting period			Last reporting period (not cumulative		
	Community workers	Direct workers	Contracted workers	Community workers	Direct workers	Contracted workers
Total number of workers						
Total manhours worked annual						
Total number of lost time occupational injuries						
Total number of lost workdays due to injuries						
Lost time injury frequency						
Vehicle collisions						

- Provide details for the non-fatal lost time injuries during this reporting period.

- Provide details for fatal accidents during this reporting period, if any, (and provide copies of accident investigation and respective corrective plan).

OHS Training

- Describe Health and Safety training programs carried out in the reporting period.

Workplace Monitoring

- Please provide copy of any Workplace Monitoring reports developed for the reporting period.

ESS3. Resource Efficiency and Pollution Prevention

Environmental Monitoring

- Provide copy of environmental monitoring data reports for this reporting period, collected consistent with the ESMPs for the subprojects.

- Briefly describe environmental mitigation measures implemented during the reporting period to comply with E&S requirements.

Resources Efficiency: Energy and Water

- Provide data on energy and water consumption during the reporting period. If the data requested are available in another format, they can be submitted instead.

- Describe the concessionaires' resources efficiency measures/efforts being implemented to minimize fuel, energy, and water consumption.

Hazardous and non-Hazardous Waste

-Provide detail information of generated amount of hazardous and non-hazardous waste and its disposal system.

- Erosion Control, Slope Stability and Reinstatement.

- Please describe status and actions implemented in terms of erosion control, slope stability, and

reinstatement within the project's footprint and area of influence.

ESS4 Community Health, Safety and Security

Community Health and Safety

- Please list and describe any initiatives implemented in relation to community health and safety during the reporting period.

- Please provide the list and description of the actions, the expected or actual dates of implementation, progress/status, results obtained. You can use a tabular format (as below) or provide the information as an attachment of the report.

- During the reporting period, have any emergency drills been conducted with participation of the local authorities, public emergency organizations or local communities? Are the communities aware of the emergency response plans?

Accident Reporting

- Provide details for the non-fatal casualties, involving third parties, during this reporting period.

- Provide details for fatal accidents during this reporting period (and provide copies of accident investigation and respective corrective plan).

GBV/SEA and Child Protection Action Plan

- Please provide an update on the status and progress of the actions as defined in the GBV/SEA Action Plan.

You may attach relevant monitoring reports.

ESS5 Land Acquisition and Involuntary Resettlement

- Report any activities guided by the Resettlement plan

- Have any specific instruments in regard to land and resettlement been prepared in the reporting period

- Report on the implementation of specific land-related instruments (e.g. RAPs)

- Report any activities that are using voluntary land donations and assess compliance with the protocol

- Provide summary of voluntary land donations

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Biodiversity Management

- Please report on the mitigation measures included in the ESMF and ESMPs.

- As needed, using the table below describe any new activities or expansions that have increased the project footprint into new areas of habitat during the reporting period.

ESS7 IP/SAHUTLUC

- List any information dissemination and consultation events vis-à-vis land donors that have been undertaken to fulfil free, prior and informed consent (FPIC) in land donations.

- List any cultural issues identified in subprojects, corrective actions, and lessons learned for future projects.

ESS8 Cultural Heritage

- Report if chance find procedures have been applied if not, please indicate Not Relevant.

ESS 10 Stakeholder Engagement and Information Disclosure

Stakeholder Engagement, Public Consultation and Disclosure

- List any stakeholder engagement events, including public hearing, consultation and disclosure, liaison with non-governmental organizations, civil society, local communities on E&S.

Date	Participant(s)	Formats of Interaction	Issues Discussed	Contractor response/ Agreement reached (attach minutes if any)	Actions Taken (if any)/ Remarks

Grievance Mechanism and Court Cases

- Report the number and type of requests and/or grievances received from project affected people / local communities / local organizations.

- How many have been resolved and how many are pending? (Please attach a log of the grievance redress registry.

Report the number and type of court cases on E&S grounds, if any (Please attach a log of all court cases and their status)

ANNEX 9: ESS CONTRACTUAL OBLIGATIONS FOR CONTRACTORS

1. General Conditions of Contract

The contractor shall Implement all activities under this contract in compliance with the requirements of the

World Bank Environmental & Social Framework and the applicable laws of South Sudan in line with the ECRP II Environmental and Social Management Framework (ESMF) together with associated specific Environmental and Social (ES) risk management tools that may have been developed by IOM. All contractors engaged in the project operate in a manner consistent with the requirements of the environmental and social standards (ESSs), including the specific requirements set out in the Environmental and Social Commitment Plan (ESCP). To achieve this, the contractor shall:

Incorporate the requirements of ESMF and all other relevant E&S instruments in the bid document.

Adopt the sub-projects ESMPs and where necessary develop Construction Environmental and Social Management Plans (C-ESMPs) to help manage construction risks.

Make sure that the C-ESMP should get approval from IOM prior to commencing the project.

Implement, and review site specific contractor- Environmental and Social Management Plans (CESMPs) as required by the ESMF and specifically the Labor Management Procedures (LMP) including, OHS plans, labor recruitment plans, code of conducts (CoCs) for employees, waste management plan, emergency plan, protection of biodiversity, land clearing and erosion control, traffic management, noise and dust control, and labor influx, communicable diseases and others.

Submit a recruitment plan containing number of staff required, intended working condition, Intended locations of staff and Job specifications in terms of qualification and experience to PMU/IOM for review and approval.

Publishes the job invitation in the appropriate media (local press or direct invitation for contracted worker, or word of mouth through local leaders for community workers) to ensure all potential candidates have access to the information, including women and persons with disabilities,

Employ qualified E&S personnel to oversee E&S performance, and that contractor staffing, and resources are commensurate with the magnitude and timing of work and potential E&S risks.

Ensure all workers have signed a Code of Conduct (see annex 3 of ESMF).

Prepare E&S training programs for workers and for communities if necessary.

Ensure the employee are aware of E&S commitments and their responsibilities, which including key Job Specifications, terms and Conditions of Employment, special Codes of Conduct, disciplinary procedures, workers' Grievance Mechanism, freedom to join and participate fully in workers association activities, key E&S aspects of the ECRP-II ESMF and other E&S instruments, and emergency Preparedness before work commencement.

Adopt and implement the national, regional, and international best practices on Safety, Health, Environment and Social risk management.

Ensure the provision of Safety, Health, Environment and Social risk information to employees, communities, and all relevant stakeholders.

Focus on compliance with all applicable safety, health, environmental and Social Multilateral Agreements, policies, national laws, regulations, and Codes of practice applicable to the activities being implemented.

Ensure that substantial resources are allocated for the prevention of accidents, injuries, and fatalities in all areas of operation including the provision of a safe working environment for all.

Promote of sustainable consumption and utilization of natural resources focusing on the prevention of environmental pollution, and environmental degradation. n) report E&S performance timely (on at least a monthly basis throughout the construction phase, including mobilization, construction, and demobilization), including investigate and resolve all complaints, issues, incidents, accidents, and nonconformities. o) Participate regular weekly meeting with IOM to evaluate E&S performance-monitoring results and to improve its performance.

Establish, maintain, and update relevant environmental and social risk management registers as required by IOM.

Conform to the requirements and provisions of the World Bank Environmental and Social

Framework (ESF) as read with the applicable Environmental, Health and Safety Guidelines (EHSG).

Monitor and keep records on E&S performance in accordance with the E&S management plans. This may include monitoring of E&S matters, scheduled and unscheduled inspections to work locations, observations made during routine activities, desk reviews, drills, and any other monitoring protocols implemented by the contractor to ensure E&S compliance.

Failure to comply with the Environmental and Social Safeguarding requirements shall constitute a violation of contractual provisions and may lead to the cancelation of the contract. IOM may recover any unanticipated costs from any funds withheld in terms of the contract to remedy any environmental and social residual risks that shall be attributed to the contractor's activities. Generally, the contractors shall take corrective action(s) for major noncompliance, including to the LMP implementation. The following are some of the major noncompliance that contractors need to take note of:

● Failure to submit mandatory quarterly progress report.

Failure to avail for inspection specified documentation pertaining to the implementation of the ESMP, C- ESMP and LMP.

Failure to timely notify and submit incident and accident investigation report.

Failure to appoint or replace a competent and experienced EHS officer.

Failing to enforce C-ESMPs including provision of adequate appropriate PPE.

Recruitment of nontechnical staff from outside the local community.

2. SPECIFIC CONDITIONS OF CONTRACT

2.1 Application National Policies and Laws

The policy, legal and administrative framework provides guidance and provisions for the protection and conservation of the environment, employees and the communities. Contractors must comply with the Transitional Constitution of South Sudan (2011), the Environment Policy of South Sudan (2015-2025), The Draft Land Policy (2016), Forestry Policy (2019), the Land Act (2009), and the National Labour Act.

2.2 The World Bank Environmental and Social Framework (ESF) and relevant Environmental and Social Standards (ESSs).

2.2.1 *ESS 1: Assessment and Management of Environmental and Social Risks and Impact*

In line with the management of environmental and social risks, the contractor shall:

identify, evaluate, and manage the environment and social risks and impacts of the subproject in a manner consistent with the requirements of the World Bank ESF and relevant legislation of South Sudan.

adopt a mitigation hierarchy approach to: (a) Anticipate and avoid risks and impacts; (b) Where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels; (c) Once risks and impacts have been minimized or reduced, mitigate; and (d) Where significant residual impacts remain, compensate for or offset them, where technically and financially feasible.

adopt differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities resulting from the subproject.

Utilize national environmental and social institutions, systems, laws, regulations, and procedures in the assessment, development, and implementation of projects, whenever appropriate.

The contractor is required to take a risk-based approach when undertaking any activities under this contract. They are required to assess, manage, and monitor environmental and social risks and impacts associated with each stage of the sub-projects implementation to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs) set out in the WB ESF and the relevant national legislation of South Sudan. The contractor is obliged to maintain documented information and records as evidence of maintaining a robust system for the management of ES risks. Such documents shall include but may not be limited to:

- *ECRP/ESS-P003 Contractor Management Plan (CMP)*
- *ECRP/ESS-P004 Waste Management Plan*
- *ECRP/ESS-P005 Site emergency and response plan*
- *ECRP/ESS-P006 Emergency phone numbers*
- *ECRP/ESS-RPT03 Daily/Weekly Safety Talks*
- *ECRP/ESS-PR01 Accident & Incident Reporting procedure*
- *ECRP/ESS-PR02 Accident & Incident Investigation procedure*

2.2.2 ESS 2: Labor and Working Conditions

For all works to be undertaken by the contractor and/or their sub-contractors including any other third parties, the following labour and working conditions shall apply:

- Promotion of safe and healthy working environment at all ECRP II subproject contractor managed sites including all contractor workstations and offices.
- Promotion of fair treatment, non-discrimination, and equal opportunity for all workers.
- Protection of workers, including vulnerable workers such as women, persons with disabilities, children (of working age, in accordance with the requirements of IOM, World Bank and the Government of South

Sudan[4]) and migrant workers, contracted workers, community workers, and primary supply workers, as appropriate.
- Prevention of the use of all forms of forced labor and child labor.

- Supporting the principles of freedom of association and collective bargaining of workers in a manner consistent with the Laws of South Sudan.
- Provide workers with accessible means to raise workplace concerns, issues, and grievances and fully aware of and be ready to implement the Workers' Grievance Redress Mechanism.

Furthermore, for managing the OHS issues, the contractor shall:

- Develop and maintain an OHS management system that is consistent with the scope of work, duration of contract and IFC General Environmental Health and Safety Guidelines (EHSGs) on Occupational Health and Safety.
- Appoint an appropriately qualified and experienced OHS/Environmental Officer whose responsibilities is to advise the employer on an OHS related issues.
- Prepare task specific risk assessment (TRA) and safe working procedures (SWP) for executing works.
- Provide preventive and protective measures, including modification, substitution or elimination of hazardous conditions or substances informed by TRA and SWP.
- Provides for appropriate training/induction of project workers and maintenance of training records on occupational health and safety subjects including TRA and SWP.
- Documents and reports on occupational accidents, diseases and incidents.
- Provides emergency prevention and preparedness and response arrangements to emergency situations including and not limited to workplace accidents; workplace illnesses; flooding; fire outbreaks; disease outbreaks; labor unrest and security.
- Comply with all requirements of applicable occupational Health and Safety legislation and Environmental legislation including WB EHS guidelines.
- Maintain all such records for activities related to the safety health and environmental management for inspection by the PMU or the World Bank.
- Verification of the soundness of the contractor's implementation of the requirements of the LMP by IOM.
- Provide a fully equipped first aid kit.
- Mainstream HIV issues in the workplace by providing HIV prevention training during induction and continuously during employment through health and safety talks.
- Appoint an appropriately qualified and experienced OHS/ Environmental Officer whose responsibility is to advise the employer on an OHS related issues.

The contractor should recognize the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. They should promote sound worker-management relationships and enhance the development benefits of a sub project by treating workers in the project fairly and providing safe and healthy working conditions. The contractor is obliged to maintain documented information and records as evidence of maintaining a sound OHS system:

- *ECRP/ESS-R003 HSSE Training and Induction register*
- *ECRP/ESS-R004 GRM Register*
- *ECRP/ESS-R006 Accident, Incident, near misses Register.*
- *ECRP/ESS-R007 Meeting Attendance Register*
- *ECRP/ESS-R011 Emergency drill and simulation register*
- *ECRP/ESS-F001 Accident, Incident, Near misses Report Form*
- *ECRP/ESS-F002 Pre-Task Risk Assessment Form*

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[4] The more stringent requirement shall apply.

- *ECRP/ESS-PTW001 Working at Heights permit.*
- *ECRP/ESS-PTW002 Working in cornified spaces permit.*
- *ECRP/ESS-PTW003 Excavation permit*
- *ECRP/ESS-PTW004 Lifting permit.*
- *ECRP/ESS-PTW005 Hot works permit*
- *ECRP/ESS-G004 Occupational Safety and Health Guidelines*

2.2.3 ESS3: Resource Efficiency and Pollution Prevention and Management

The contractor shall:

- promote the sustainable use of resources, including energy, water, and raw materials.
- avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from subproject activities.
- avoid or minimize subproject-related emissions of short and long-lived climate pollutants.
- avoid or minimize generation of hazardous and non-hazardous waste.
- minimize and manage the risk and impacts associated with pesticide use.

The contractor should recognize that sub-projects activities often generate pollution of air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment. Thus, they are required to address resource efficiency and pollution prevention and management throughout the subproject life cycle. The contractor is obliged to maintain a system and keep documented information and records as evidence. Such records shall include:

- *ECRP/ESS-R001 Licenses, Permits and Authorizations Register*
- *ECRP/ESS-P006 Site rehabilitation Plans (these shall include areas for the abstraction of pits and, river sand, quarry sites and any materials that shall be required for the implementation of subproject sites)*
- *ECRP/ESS-R014 Materials abstraction register*

2.2.4 ESS 4: Community Health and Safety

The contractor shall:

anticipate and avoid adverse impacts on the health and safety of subproject-affected communities during the project life cycle from both routine and non-routine circumstances.

avoid or minimize community exposure to subproject-related traffic and road safety risks, diseases, and hazardous materials.

have in place effective measures to address emergency events.

ensure that the safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities.

Contractor shall ensure that all non-technical work is reserved for locals (identifiable with the host community and witnessed by host community leadership).

Beneficiary selection and employment recruitment should verify the authenticity of the localness of potential employees. Contractor liaises with local leadership on enrolment for community workers while at the same time ensuring that no grievances derive from nepotism via utmost transparency in the selection process, announcing hiring campaigns early enough in community consultations and/or other outreach activities.

Where there are camp establishments, contractor shall ensure camp management and community relations are good. If labor camps are required, special management plans need to be developed, or if smaller establishment, camp management reflected in the ESMP.

- Security within camp social relations with community members should be cordial and consistent with GBV and SEA
- Waste management
- Water and sanitation
- Proper camp demobilization
- Establish code of conduct for contract workers interaction with the host community. This may include:
- Access to camp by children, non-employed girls and women
- Appropriate language
- Time restrictions where required
- GBV/SEA

Good conduct if small numbers of workers are accommodated in communities rather than camps (requirements on when to establish a camp shall be included in the POM)

Contractor shall ensure that local supply shall not negatively impact the availability of resources for the local communities and sourcing of local wildlife shall be prohibited.

Sub-projects are implemented within communities and contractors should address the health, safety, and security risks and impacts on project-affected communities. Focus should be put on avoiding or minimizing such risks and impacts, with particular attention to people who, because of their circumstances, may be vulnerable. The contractor shall maintain clear records of stakeholder engagement and shall erect safety signage and/or barricades to alert communities of perceived risks.

- *ECRP/ESS-R002 Stakeholder engagement minutes shall be kept at site offices as a record of engagement of communities regarding community safety and health.*

2.2.5 ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

The contractor shall:

avoid an activity that may lead to involuntary resettlement.

shall ensure that the subproject implemented has land donation forms and land has been voluntarily given for the purposes of the subproject.

The contractor is obliged to maintain a system that documents information and records all land issues as evidence: The following documents shall be kept:

- *ECRP/ESS-F005 Land donation forms*
- *ECRP/ESS-R002 Stakeholder engagement minutes*

2.2.6 ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources

Protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development. Thus, the contractor should strive to recognize the importance of maintaining core ecological functions of habitat within their area of operation. They should also ensure sustainable management of primary production and harvesting of living natural resources and recognizes the need to consider the livelihood of project-affected parties, including Indigenous Peoples, whose access to, or use of, biodiversity or living natural

resources may be affected by a sub-projects. The contractor is obliged to establish and maintain documented information and records as evidence as follows:

- *ECRP/ESS-R001 Licenses, Permits and Authorizations Register*
- *ECRP/ESS-P006 Site rehabilitation Plans (these shall include areas for the abstraction of pits and, river sand, quarry sites and any materials that shall be required for the implementation of subproject sites)*
- *ECRP/ESS-R014 Materials abstraction register (The register should capture the quantity of materials used for each subproject site and this includes Pit sand, River sand and Water)*
- *Preservation of nationally protected and/or globally threatened species*

2.2.7 ESS 7 - Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities.

This ESS applies to distinct social and cultural groups.
To ensure that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communities.

To avoid adverse impacts of projects on Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communities, or when avoidance is not possible, to minimize, mitigate and/or compensate for such impacts.

To promote sustainable development benefits and opportunities for Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities in a manner that is accessible, culturally appropriate and inclusive.

Enhance opportunities for Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities to participate in, and benefit from, the development process in ways that do not threaten their unique cultural identities and well-being. The contractor is obliged to keep the following records:

- *ECRP/ESS-P002 Stakeholder Engagement Plan (SEP)*
- *ECRP/ESS-PR05 Grievance Redress Mechanism (GRM) Procedure*

2.2.8 ESS 8: Cultural Heritage

The contractor shall:

- protect cultural heritage from the adverse impacts of subproject activities and support its preservation.
- address cultural heritage as an integral aspect of sustainable development.
- promote meaningful consultation with all relevant stakeholders regarding cultural heritage.
- Cultural heritage provides continuity in tangible and intangible forms between the past, present, and future. The contractor should adopt measures designed to protect cultural heritage throughout the sub-projects activities. The contractor is obliged to keep the following records:

- *ECRP/ESS-R002 Stakeholder engagement minutes*
- *ECRP/ESS-PR04 Chance finds Procedure*
- *ECRP/ESS-PR05 Grievance Redress Mechanism (GRM) Procedure*

2.2.9 ESS 10: Stakeholder Engagement and Information Disclosure

The contractor shall:

- Establish a systematic approach to stakeholder engagement that will identify stakeholders and build and maintain a constructive relationship with them.
- Assess the level of stakeholder interest and support for the subproject and enable stakeholders' views to be considered in subproject design and environmental and social performance.
- Promote and provide means for effective and inclusive engagement with subproject-affected parties throughout the subproject life cycle on issues that could potentially affect them.
- Ensure that appropriate subproject information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format.
- Provide subproject-affected parties with accessible and inclusive means to raise issues and grievances and allow IOM to respond to and manage such grievances.

The contractor should ensure open and transparent engagement of project stakeholders. Effective stakeholder engagement is envisaged as a tool to improve the environmental and social sustainability of subprojects, enhance sub-projects acceptance, and make a significant contribution to successful sub-projects design and implementation. The contractor is obliged keep the following records:

- *ECRP/ESS-R002 Stakeholder engagement minutes*
- *ECRP/ESS-P002 Stakeholder Engagement Plan (SEP)*

ANNEX 10: GRIEVANCE REPORT FORM

Reference No: _____

Details of Complainant:

Full name: _____

❑ I wish to raise my grievance anonymously

❑ I request not to disclose my identity without my consent Contact

_____

❑ **By Mail:** Please provide mailing address:

_____

Gender of Complainant:

Age of Complainant:

❑ By Telephone: _____

❑ By Email _____

Preferred Communication: ❑, ❑, ❑ English

❑ One time incident/grievance Date ____/_____/

❑ Happened more than once (how many times) _____

❑ On-going (currently experiencing problem)

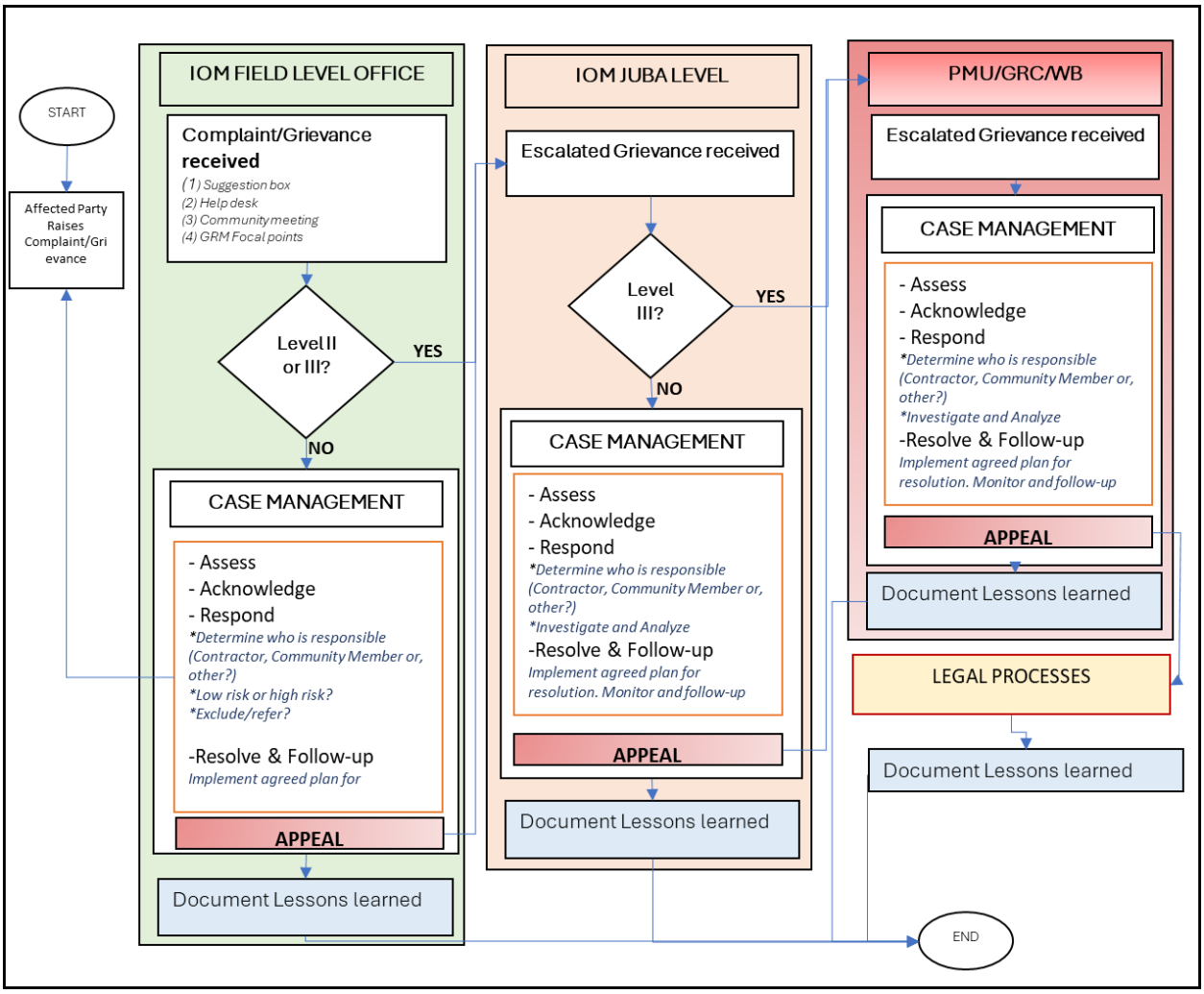
Description of Incident or Grievance:

Location of grievance:

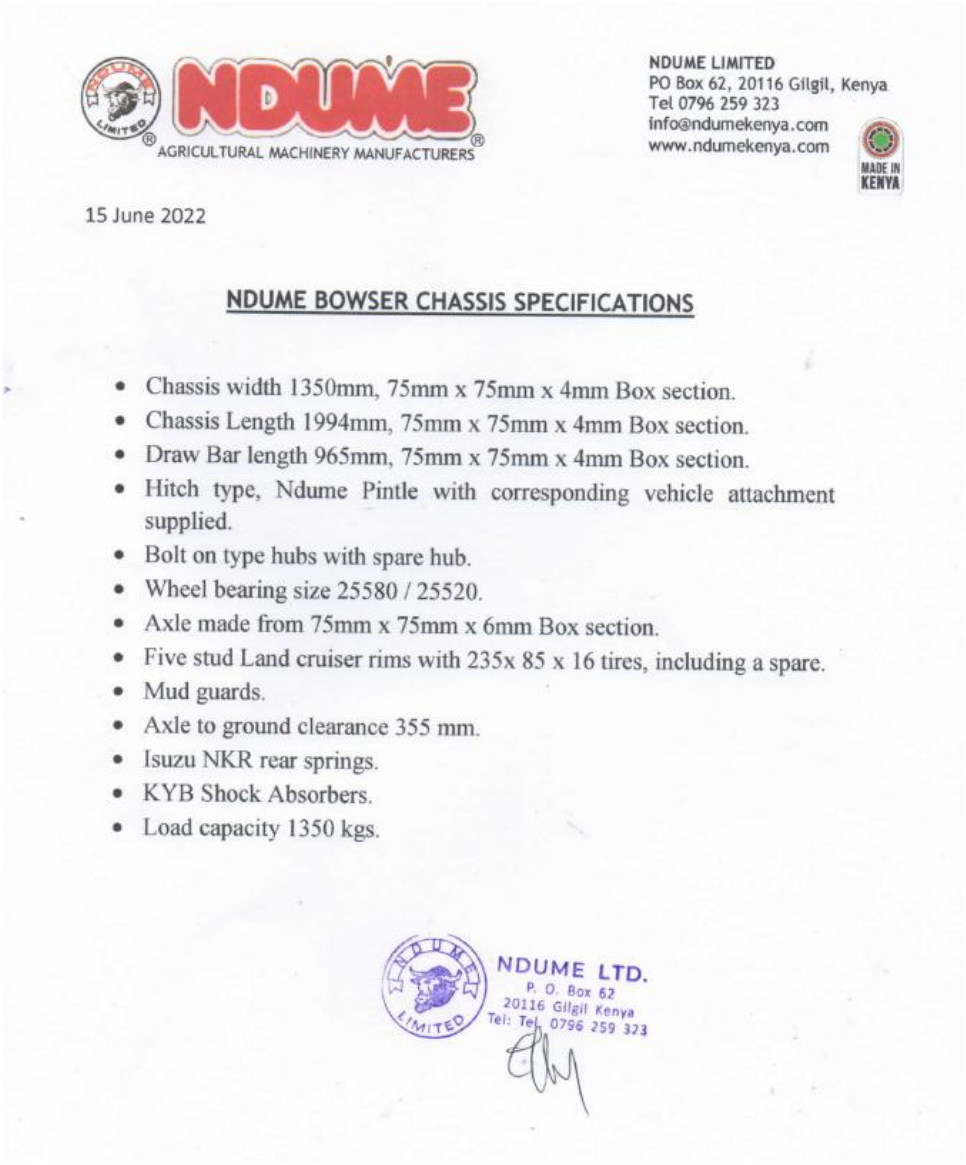
What happened? Where did it happen? Who did it happen to? What is the result of the problem?

What would you like to see happen to resolve the problem?

ANNEX 11: GRIEVANCE CASE MANAGEMENT



ANNEX 12: DIESEL WATER/TRASH PUMP



NDUME
AGRICULTURAL MACHINERY MANUFACTURERS

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MADE IN KENYA

15 June 2022

NDUME BOWSER CHASSIS SPECIFICATIONS

- Chassis width 1350mm, 75mm x 75mm x 4mm Box section.
- Chassis Length 1994mm, 75mm x 75mm x 4mm Box section.
- Draw Bar length 965mm, 75mm x 75mm x 4mm Box section.
- Hitch type, Ndume Pintle with corresponding vehicle attachment supplied.
- Bolt on type hubs with spare hub.
- Wheel bearing size 25580 / 25520.
- Axle made from 75mm x 75mm x 6mm Box section.
- Five stud Land cruiser rims with 235x 85 x 16 tires, including a spare.
- Mud guards.
- Axle to ground clearance 355 mm.
- Isuzu NKR rear springs.
- KYB Shock Absorbers.
- Load capacity 1350 kgs.

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