

# ENVIRONMENTAL & SOCIAL SAFEGUARDS SYSTEM

## GENERIC ENVIRONMENTAL & SOCIAL MANAGEMENT PLAN (ESMP) TERMS OF REFERENCE

### 1. Context and Background

#### Background

**The South Sudan Enhancing Community Resilience and Local Governance Project Phase II (ECRP-II) aims 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 is Managed by the Ministry of Finance & Planning with Local Government Board on behalf of the Government of South Sudan (GoSS) and implemented by the International Organization for Migration (IOM), the project contributes to advancing the humanitarian-development-peace nexus by filling a critical gap between emergency response and resilient recovery. It does so by addressing immediate service needs in vulnerable areas while strengthening institutions to help make communities more resilient. ECRP-II can address immediate development needs while laying the foundation for longer-term solutions to conflict onset and recurrence, DRM, and poverty reduction. This project provides short-term services in vulnerable areas with a surge in demand due to the presence of refugees, IDPs, and returnees while building resilience by strengthening local institutions to manage social tensions and resources more sustainably. ECRP-II will also help the national government oversee and manage local governments better. Furthermore, ECRP-II aims to promote a longer-term objective of strengthening the capacity of public institutions to facilitate the shift from humanitarian aid to a government-led development approach.

**ECRP-II aims to enhance flood resilience through (i) physical investments in flood risk reduction (Component 1), and (ii) institutional strengthening and capacity building for flood and disaster risk management (Component 2).** Under Component 1, it will finance physical infrastructure for flood risk reduction and related technical assessments including feasibility studies, detailed engineering designs, and safeguards assessments. Investments will be identified in consultation with vulnerable communities in the target counties. The appropriate solutions, exact locations and physical investments for flood risk reduction will be determined based on further hydraulic/hydrological and technical analyses on flood hazard, exposure of people and assets, as well the vulnerabilities of at-risk communities in the target counties. Eligible investments include flood protection infrastructure such as levees, dikes, polders, or stormwater drainage; combined flood/drought reduction measures such as small water reservoirs or haffirs; and infrastructure for river and flow monitoring, such as gauging stations. Large-scale investments in flood risk reduction and water management infrastructure (such as dams or river diversion channels), river dredging, or investments entailing large-scale land acquisition will not be financed. Five target counties have been identified for Component 1 in consultation with the Government: (i) Fangak (Jonglei), (ii) Twic East (Jonglei), (iii) Pibor (Pibor AA), (iv) Fashoda (Upper Nile), and (v) Rubkona (Unity). Under Component 2, ECRP-II includes activities for DRM capacity building and institutional strengthening at the community, county, and national/state level. In alignment with the priorities set out in South Sudan's National Disaster Risk Management Policy<sup>1</sup>, the activities aim to strengthen DRM governance structures and enhance coordination across levels of government and policy domains in four key domains: (i) emergency preparedness and response (EP&R); (ii) operation and maintenance (O&M) of physical investments in flood risk reduction; (iii) climate and disaster risk assessment; and (iv) flood early warning (FEW). The capacity building activities will be aligned with the investments in flood risk reduction under Component 1, to support (i) communities in the target locations (Payams), (ii) the five county governments, (iii) the corresponding state governments in Jonglei, Upper Nile, and Unity, and (iii) the national government, specifically the Ministry of Humanitarian Affairs and Disaster Management (MHADM) and Ministry of Water Resources and Irrigation.

The Environmental and Social Management Plan (ESMP) to be done for screened subprojects as set out in these Terms of References is based on the World Bank Environmental and Social Framework requirements and the relevant national legislation of South Sudan.

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<sup>1</sup> Republic of South Sudan. 2021. *National Disaster Risk Management Policy*.

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### 2. General overview of the assignment

The ESMP will be developed for the proposed subprojects under ECRP II and shall contain a detailed identification of the environmental and social base-line situation, expected impacts of the proposed subproject, and provide an Environmental and Social Management Plan (ESMP). The ESMP shall include both a Mitigation and Monitoring Plan. The ESMP will build on results from the environmental and social screening findings, but the level of detail shall be higher.

#### 2.1. ESMP STRUCTURE

The basic sections of the proposed ESMP report and the minimum expected content is presented in the table below:

SECTION		EXPECTED DOCUMENT CONTENT
1.	Executive Summary	<ol style="list-style-type: none"> <li>1. This is a non-technical summary containing at least a brief description of the sub-project and the environment, an account of the main mitigation measures to be undertaken by the developer, and a description of any remaining or residual impacts.</li> <li>2. The summary avoids technical terms, lists of data and detailed explanations of scientific reasoning.</li> <li>3. The summary presents the main findings of the assessment and covers all the main issues raised in the document.</li> <li>4. The summary includes a brief explanation of the overall approach to the assessment (methodology to study).</li> <li>5. The summary indicates the confidence which can be placed in the results.</li> </ol>
2.	Introduction	<ol style="list-style-type: none"> <li>1. Identify the type of sub-project proposed (e.g., a school, PHCC), its location (or site alternatives). The sub-project proponent must be clearly identified and also outline the background to the sub-project and the reasons or necessity for it.</li> <li>2. There must be a justification for the sub-project and its location.</li> </ol>
3.	Sub-project description	<ol style="list-style-type: none"> <li>1. This is an outline of the sub-project's life cycle e.g., prefeasibility, feasibility, detailed engineering and design, implementation, decommissioning. Check which stages a sub-project is in within the sub-project life cycle.</li> <li>2. Check that the description of the sub-project and its <b>alternative sites</b>, photographs of the area, GPS coordinates, designs and implementation strategies are provided.</li> <li>3. Check whether the sub-project engineering design is sufficiently detailed to enable the understanding of the planning and the design options of the sub-project.</li> <li>4. Inputs (raw materials), outputs (products), processes and major types of equipment should be noted. Size of work force at any stage of the sub-project implementation should also be noted.</li> <li>5. Check for adequacy of maps, flow diagrams and photographs</li> <li>6. A summary of technical, economic and environmental features essential to understanding the sub-project should be provided.</li> <li>7. Check that the possible sub-project options available within the existing economic, technical and environmental constraints are discussed and compared. These could be options in terms of size, site, technology, layout, raw materials, energy sources and even products.</li> <li>8. Describes any additional services (water, electricity, emergency services etc.) and developments required as a consequence of the sub-project.</li> <li>9. Describes the sub-project's potential for accidents, hazards and emergencies.</li> </ol>

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SECTION		EXPECTED DOCUMENT CONTENT
		<ol style="list-style-type: none"> <li>10. Estimates the types and quantities of waste matter, energy (which is noise, vibration, light, heat, radiation etc.) and residual materials generated during construction in the operation of the sub-project and rate at which these will be produced.</li> <li>11. It should indicate how these waste and residual wastes are expected to be handled/ treated prior to release.</li> <li>12. Indicate the methods by which the quantities of residuals and wastes were estimated.</li> </ol>
4.	Analysis of Alternatives	<ol style="list-style-type: none"> <li>1. Compare feasible alternatives. The comparative analysis should address (and quantify where possible): the environmental and social impacts; the feasibility of impact mitigation; capital and recurrent costs; the suitability of options under local conditions; related institutional, training and monitoring requirements. State the basis for selecting the proposed design, including the minimization of risk.</li> </ol>
3.	Environmental Planning and Design	<ol style="list-style-type: none"> <li>1. Check whether key issues have been taken into consideration in order to avoid or minimize impacts, enhance benefits, compensate residual impacts.</li> <li>2. Check if the environmental design and management plan that the proponent has committed to are highlighted</li> <li>3. Define the land area taken by the development site and any associated arrangement, auxiliary facilities and landscaping areas and by the construction sites and shows their location clearly on the site (s)</li> <li>4. Considers that no action alternative, alternative processes, scales, layouts, designs and operating conditions were available at the early stage of sub-project planning and investigates their main environmental advantages and disadvantages.</li> <li>5. Gives the reasons for selecting the proposed sub-project and the part environmental factors played in the selection</li> </ol>
4.	Stakeholder Consultation	<ol style="list-style-type: none"> <li>1. Check whether stakeholder identification and analysis has been done.</li> <li>2. Check that public consultation has been done and documented. Check that relevant stakeholders have been included.</li> <li>3. Check for evidence of disclosure. Advert cuttings should be attached to the report.</li> <li>4. Check which methods have been used in the consultation process. <b>Methods may include but not limited to:</b> <ul style="list-style-type: none"> <li>▶ Press conference, information notices and brochures</li> <li>▶ Interviews</li> <li>▶ Questionnaires and Polls</li> <li>▶ Open houses</li> <li>▶ Community meetings</li> <li>▶ Internet sites</li> <li>▶ Public hearings</li> <li>▶ Advisory committees</li> <li>▶ Focus group discussions</li> </ul> </li> <li>5. Check for analysis of consultation data</li> <li>6. Check for adequate personal data of people consulted, e.g.: ID number, contact details, date stamp, etc.</li> </ol>

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5.	Legal Framework	<ol style="list-style-type: none"> <li>1. Check whether legal instruments of importance have been identified and linked to sub-project implementation. Check how it affects their operations and what is expected of them to completely comply with the requirements of such statutes.</li> </ol>
6.	Environmental & Social Baseline of the Sub-project	<ol style="list-style-type: none"> <li>1. Check whether sub-project boundaries have been defined.</li> <li>2. Check that existing environmental conditions within the area are clearly described</li> <li>3. Surface Water and Ground Water</li> <li>4. Check whether detailed information on the location, distribution, quantity, and quality of all water resources that could be affected by a sub-project and its alternatives is provided.</li> <li>5. Verify that baseline studies on water quality have included the local and regional uses of water (domestic, industrial, urban, agricultural, recreational, others)</li> <li>6. Assess water quality as part of the ecosystem in relation to the life of plant and animal communities.</li> <li>7. Should indicate the area expected to be significantly affected by the various aspects of the sub-project with the aid of suitable maps. Explain the time over which these impacts are likely to occur.</li> <li>8. The methods used to investigate the affected environment.</li> <li>9. Review local, regional and national plans and policies and other data collected as necessary to predict future environmental conditions.</li> </ol>
7.	Hydrogeology	<p>Check the following areas:</p> <ol style="list-style-type: none"> <li>1. Hydrology: Description and location of the physical, chemical, biological, and hydrological characteristics of all surface water resources in the sub-project area and in the area of influence (including seasonal variations, maps, location and characterization of river basins, lakes, and streams. Identification of existing water pollution sources; location, volume flows, minimum flows.)</li> <li>2. Identification of wetland areas, flood zones, minimum flow rates, wind speed and direction.</li> <li>3. Applicable water quality standards.</li> <li>4. Common water quality parameters: Physical, chemical: pH, turbidity, suspended solids, temperature, Dissolved Oxygen (DO), Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Dissolved Solids, salinity, conductivity. Common contaminants of concern include ammonia, arsenic, cadmium, copper, chromium, cyanide, iron, lead, manganese, mercury, molybdenum, nickel, nitrate/nitrite, sulfate, thallium, uranium, vanadium, and zinc.</li> <li>5. Check that surface water quality data is supported by methodological and analytical data.</li> <li>6. Check whether a clear description of water sampling methods, and the number and exact location of sampling points. These should be representative of the area of influence of a sub-project and of all the surface water resources that would be affected by a sub-project have been discussed.</li> <li>7. Verify whether obtained results of surface water quality data have been analyzed and compared to existing water quality standards.</li> <li>8. Verify that the ESMP document includes the following basic information about groundwater resources: <ul style="list-style-type: none"> <li>➤ Depth to groundwater under different seasonal conditions</li> <li>➤ Geology and locations of aquifers, thicknesses, and their hydraulic conductivity ranges</li> <li>➤ Groundwater flow directions</li> <li>➤ Locations/flows of springs and seeps</li> <li>➤ Groundwater discharge locations in streams</li> </ul> </li> </ol>

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		<ul style="list-style-type: none"> <li>➤ Groundwater uses</li> </ul>
8.	Characterization of wildlife	<ol style="list-style-type: none"> <li>1. Verify whether baseline information about wildlife includes a list of wildlife species within the sub-project area and interactions between species.</li> <li>2. Check whether the ESMP includes a description of the region, species maps, relationships, population densities, and species distribution. All endemic flora and fauna in the sub-project area that have a special conservation status - for example, listed by the International Union for Conservation of Nature (IUCN) or by national legislation as a threatened or endangered species - should be surveyed for their distribution and abundance in the sub-project area.</li> <li>3. Verify that migration routes, breeding grounds, nesting sites, wildlife corridors, and uniqueness of fauna habitat have been discussed.</li> </ol>
9.	Characterization of air quality	<ol style="list-style-type: none"> <li>1. Verify that the following baseline air quality data has been included: <ul style="list-style-type: none"> <li>➤ Identified air basin</li> <li>➤ Described local climate and topography</li> <li>➤ Identified national and local air quality standards</li> <li>➤ Described historical air quality trends</li> <li>➤ Described air quality of the proposed sub-project area and/or air basin</li> <li>➤ Identified sensitive receptors (e.g., hospitals, schools, farmland)</li> </ul> </li> <li>2. Described the exact location of air monitoring and/or sampling stations</li> <li>3. Verify that baseline air quality analyses include measurements of these common parameters: <ul style="list-style-type: none"> <li>➤ Particulate matter (PM10 and PM2.5)</li> <li>➤ Carbon monoxide (CO)</li> <li>➤ Nitrogen oxides (NOx)</li> <li>➤ Lead (Pb), cadmium (Cd), arsenic (As), mercury (Hg)</li> <li>➤ Sulfur dioxide (SO<sub>2</sub>)</li> </ul> </li> <li>4. Verify that baseline air quality information is supported by methodological and analytical data.</li> <li>5. Check that the ESMP document includes a clear description of the air sampling methods, and number and exact location of sampling points. These should be representative of the sub-project's area of influence.</li> </ol>
10.	Characterization of existing soils	<ol style="list-style-type: none"> <li>1. Check whether soil baseline studies are based on these sources of information: <ul style="list-style-type: none"> <li>➤ desk study, fieldwork, and laboratory analysis.</li> <li>➤ Maps should be accompanied by explanatory information, with information on local geology, vegetation, and land use.</li> </ul> </li> <li>2. Verify whether sampling points are representative of the sub-project concession area.</li> <li>3. Check whether samples have included each horizon encountered in soil profiles. The maximum depth to which a soil profile is dug is usually sixty centimeters to one hundred centimeters.</li> <li>4. Verify whether samples were taken systematically using a sampling grid, but random sampling or sampling particular areas of interest may be appropriate. The layout and number of samples required can vary, but the number of samples should be representative of the sub-project area.</li> <li>5. Check whether laboratory analysis provides information about soil composition, soil strength</li> </ol>

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	<p>(resistance to crushing), soil type, soil porosity, soil erodibility, mineral content, and pH.</p> <ol style="list-style-type: none"> <li>6. Some measure of water content, organic content, soil texture, particle size, and bulk density should also be included. Soil chemistry is important, particularly in mining sub-projects because problems with naturally occurring toxic elements are a real possibility.</li> <li>7. Verify that baseline soil quality analyses include measurements of these common parameters and any other parameters that may be necessary depending on the nature of the sub-project:               <ul style="list-style-type: none"> <li>➤ pH</li> <li>➤ Cation exchange capacity (the total number of cations absorbed on soil colloids gives some indication of potential fertility)</li> <li>➤ Soil nutrient status: potassium, calcium, magnesium, nitrogen, and phosphorus</li> <li>➤ Heavy metals: lead, copper, zinc, cadmium, mercury, and chromium</li> </ul> </li> </ol>
11.	<p>Characterization of terrestrial species</p> <ol style="list-style-type: none"> <li>1. Verify whether there is an inventory of plant species including information about: composition, density, distribution, status, vegetative cover, and dominant, protected, foreign, threatened, and vulnerable species, as well as noticeable effects of human presence in the ecosystem. Some areas have endemic and rare plant species that are of special interest.</li> <li>2. Inventories of fauna species should include diversity, distribution, and density, including information about the presence of endemic, protected, threatened, and endangered species.</li> <li>3. Verify that the ESMP discusses biomes, indicator species, and relevant interrelations between communities of species.</li> </ol>
12.	<p>Characterization of aquatic species</p> <ol style="list-style-type: none"> <li>1. Check whether information on aquatic species includes details on the abundance and distribution of endemic, protected, and endangered species; detailed data on the abundance and distribution of fisheries of commercial importance or relied on for sustenance; and impact on migratory aquatic species (such as fish) and breeding grounds.</li> </ol>
13.	<p>Local socio-economic baseline</p> <ol style="list-style-type: none"> <li>1. Check whether this section of the ESMP includes the socio-economic baseline data that explains how the scope of the analysis was defined and how the study area was delineated.</li> <li>2. Check that the section includes information about:               <ul style="list-style-type: none"> <li>➤ Location of the local population in relation to the proposed sub-project area</li> <li>➤ Population size, age composition, growth</li> <li>➤ Economic activities, employment, income (inventory of present economic environment without the sub-project)</li> <li>➤ Quality of life</li> <li>➤ Housing quality and quantity (this is particularly important if people are to be relocated)</li> <li>➤ Community organizations, representative institutions, neighborhood cohesion (usually measured with surveys and interviews)</li> <li>➤ Public safety (police, fire)</li> <li>➤ Education (average level, access, public and/or private)</li> <li>➤ Health services</li> <li>➤ Recreation (public, private)</li> </ul> </li> </ol>

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SECTION		EXPECTED DOCUMENT CONTENT
		<ul style="list-style-type: none"> <li>➤ Existence of local development or well-being plans</li> <li>➤ Access to public services and sanitation</li> <li>➤ Maps with location and quantity of farmlands</li> <li>➤ Maps with existing land-use patterns</li> <li>➤ Attitudes towards the sub-project</li> <li>➤ Archeological assessments</li> </ul> <ol style="list-style-type: none"> <li>3. Check whether the document has included epidemiological data</li> <li>4. Check whether the document discusses the issues of HIV and Gender related issues</li> </ol>
14.	Geology	<ol style="list-style-type: none"> <li>1. Major landforms</li> <li>2. Geological structures</li> <li>3. Type of rock</li> <li>4. Topography</li> </ol>
15.	Climate	<ol style="list-style-type: none"> <li>1. Average rainfall</li> <li>2. Rainfall patterns</li> <li>3. Prevailing temperatures</li> <li>4. Prevailing winds</li> </ol>
16.	Identification and assessment of environmental impacts	<ol style="list-style-type: none"> <li>1. Check whether a description of the beneficial and adverse impacts, both direct and indirect, which are expected to occur, for each feature of the environment has been included.</li> <li>2. Check the methods used for identifying environmental effects and impacts for appropriateness and suitability. Some of the most common are: <ul style="list-style-type: none"> <li>➤ Checklists</li> <li>➤ Matrices</li> <li>➤ Flow diagrams</li> <li>➤ Overlays</li> <li>➤ Professional judgement</li> </ul> </li> <li>3. The ESMP should discuss these methods in impact identification and analysis as opposed to the general characterization of impacts without justification.</li> <li>4. Check whether impacts have been characterized. (Nature of the impact, Impact magnitude, Spatial extent, Timing, <i>lag time</i>, Duration, Reversibility, significance)</li> <li>5. Verify that in each case, the report; <ul style="list-style-type: none"> <li>➤ Identifies impacts likely to be caused by sub-projects during all phases of development</li> <li>➤ Has an analysis based upon a comparison of future environmental conditions with and without the sub-project.</li> <li>➤ assesses significance of the impact</li> <li>➤ Provides possible measures for avoiding or mitigating significant impacts</li> </ul> </li> <li>6. Investigates the above types of impacts in so far as they affect: human beings, flora, fauna, soil, water, air, climate, landscape, interactions between the above, material assets, cultural heritage</li> </ol>
17.	Environmental & Social Management Plan	<ol style="list-style-type: none"> <li>1. Check whether mitigation measures for all significant identified impacts are feasible. The mitigation measures suggested should be feasible under the circumstances.</li> <li>2. Mitigation measures considered include modification of sub-project design, construction and operation, and the creation of new resources</li> <li>3. Describes the reason for choosing the mitigation measure, and the other options available.</li> </ol>

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		<ol style="list-style-type: none"> <li>4. Explain the extent to which the mitigation methods will be effective.</li> <li>5. Check whether lessons drawn from a sub-project of a similar nature elsewhere have been included.</li> <li>6. Verify whether technological solutions have been included to eliminate pollution.</li> <li>7. Verify that the EMP contains a monitoring plan for all significant identified impacts.</li> <li>8. Verify that the EMP includes a decommissioning and closure plan.</li> <li>9. Gives details of how the mitigation measures will be implemented and function over the time span for which they are necessary.</li> <li>10. Proposes monitoring arrangements for all significant impacts, especially where uncertainty exists, to check the environmental impact resulting from the implementation of the sub-project and its conformity with the predictions made.</li> </ol>
18.	Summary and Recommendations	<ol style="list-style-type: none"> <li>1. Check that an appropriate conclusion has been drawn for each section of the ESMP report.</li> <li>2. Check for relevance.</li> </ol>
19.	Appendices	<ol style="list-style-type: none"> <li>1. Verify that appendices contain information not directly useful in the text of the report but needed for reference or detailed review by technical experts. These include: <ul style="list-style-type: none"> <li>➤ The terms of reference for the study</li> <li>➤ Sources of data and information. All individuals and agencies consulted for specialist information or knowledge used in the report are referred to in the text and documented here. Written opinions received from outside specialists are also appended. Field data collection programmes completed during the ESMP study are also described here.</li> <li>➤ A complete record of all parties consulted</li> <li>➤ Names, qualifications and roles and signatures of team members who carried out the study</li> <li>➤ 1:50 000 colour maps with details and coordinates</li> <li>➤ Proof of public consultation – for Government departments on respective letterheads</li> <li>➤ Newspaper cutting of public opinion advert on selected sub-projects</li> </ul> </li> <li>2. Proof of consultation should include evidence of consultations with affected groups, local communities, Government and non-governmental organizations. The following should be included: (i) date(s) of consultation(s); (ii) location of consultation(s); (iii) names and addresses of attendees (as appropriate); (iv) meeting program/schedule; (v) what is to be presented and by whom; (vi) summary Meeting Minutes (Comments, questions and responses by presenters);</li> </ol>

### 3. IOM ESMP team composition.

Senior specialist for IOM will lead the development of the ESMPs for all ECRP II Sub projects. The team shall include the following:

- (a) Environment and Social Specialist [Designated ESMP Team Leader]
- (b) Structural Engineers
- (c) Social Scientist/CE Specialist



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- (d) GIS/Geo-Spatial Analyst
- (e) Ecologist
- (f) Occupational Health and Safety specialist
- (g) Conflict analyst
- (h) Internal Reviewers

### **4. Deliverables**

The following deliverables must be submitted by the consultants and received to the satisfaction of IOM:

- (a) Complete Environmental and Social Management Plan report. The report should also include the public consultation and disclosure processes and any other associated specialist reports deemed necessary by IOM and the PMU.

All reports must be submitted to PMU

### **5. Approval of reports**

Reports will be reviewed and approved by the PMU and the World Bank. The period for approval of reports will be within 7-14 days.