ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

FOR THE PROPOSED RESPONSE TO THE SUDAN REFUGEE CRISIS IN SOUTH SUDAN PROJECT (SRCSSP) IN AWEIL, NORTHERN BAHR EL GHAZAL STATE, SOUTH SUDAN

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IMPLEMENTING ORGANIZATION	CONSULTANT	FUNDING AGENCY
UNITED NATIONS HIGH COMMISSIONER FOR REFUGEES (UNHCR)	SETAC ENGINEERING COMPANY LTD	THE AFRICAN DEVELOPMENT BANK GROUP (AfDB)

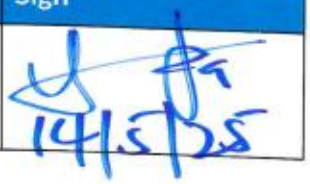
May 2025

CERTIFICATION

The proponent commissioned SETAC Engineering Company Limited to undertake an Environmental and Social Impact Assessment (ESIA) for the proposed **Response to the Sudan Refugee Crisis in South Sudan Project (SRCSSP)**. The report has been prepared in accordance with the existing legislations of South Sudan and African Development Bank the African Development Bank (AfDB) Environmental and Social Safeguards.

All information in this ESIA report is accurate to the best of our knowledge.

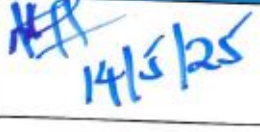
Proponent: United Nations High Commissioner for Refugees (UNHCR)

Name of Contact point	Designation	Sign
Amias Aryampa Ampurire	Associate Livelihoods and Economic Inclusion Officer amiasary@unhcr.org	

Reviewer: The African Development Bank Group

Name of Contact point	Designation
Mchome Beatrice Solomon	Environmental Safeguards Officer: b.mchome@afdb.org

Consultancy firm: SETAC Engineering Consultancy
Address: Hail Light, Industrial Area, Riverside Konyo Konyo – Juba (South Sudan)
Contact: +211923530800| business@setac.so, info@setac.so

Name of Contact point	Designation	Sign
Nicholas Serser	Project Manager serser.nicholas@setac.so	

Name of consultants	Designation
Joanes Ooko Odero	Lead Environment and Social Expert
Tonny Agutu	Associate Environment Expert
Samuel Kaman	Civil Engineer & WASH expert
Brenda Juru	Sociologist

EXECUTIVE SUMMARY

Overview of the Project

Response to the Sudan Refugee Crisis on South Sudan Project (SRCSSP) is a two-year (24-month) project implemented by the United Nations High Commissioner for Refugees (UNHCR) together with the Ministry of Interior (Commission for Refugee Affairs (CRA) under the oversight of the Ministry of Finance and Planning. The project's overall development objective is to build peace, inclusiveness, and resilience in the South Sudanese communities affected by the current conflict in Sudan.

Specifically, the project aims at

a. Supporting the inclusive and peaceful integration of refugees and returnees into the communities,
b. Social cohesion strengthening amongst refugees and host communities, and
c. Enhancing the socio-economic well-being of the affected communities.

Components

The project has four (4) components, namely,

- Component 1: Enhancing Jobs and livelihoods amongst the refugees and host communities;
- Component 2: Restoration and improvement of basic social services in the refugee and host communities;
- Component 3: Restoration of the environment in the refugee and host communities; and
- Component 4: Project management and capacity building.

Project outcomes

Project outcomes are;

- Outcome 1: Improved self-reliance and economic well-being,
- Outcome 2: Displaced and host populations supported to access basic services (health, education, water, sanitation, and shelter) and markets,
- Outcome 3: Strengthened climate resilience of refugees' host communities and other displaced persons, and
- Outcome 4: Institutional capacity of government strengthened, and project managed and delivered effectively.

Output

Output 1: The crisis affected communities of refugees and their hosts supported with skills development and climate-smart agricultural production practices; and increased income-generation opportunities for the most vulnerable to empower them to create new sustainable and climate-responsive livelihood opportunities.

Output 2: The essential service delivery systems (health, education, WASH, camp infrastructure, etc.) are supported through rehabilitation and expansion of the systems and improving access and quality of services; in effect, enhancing the well-being of the crisis-affected communities.

Output 3: Enhanced resilience and adaptive capacity of displaced people (refugees) and host communities to climate-related and other environmental risks will be enhanced through well-

established and environmentally sustainable early warning systems and preparedness measures; and

Output 4: Local institutions supported with capacity building and key equipment to facilitate their daily operations so that the leadership and capacity of these institutions can be more sustainable to advance peaceful coexistence efforts, resulting in improved coping capacities and strengthened peaceful coexistence and social cohesion among refugees and other host communities.

Project Site

The proposed SCRSSP project components will be implemented in Aweil, specifically within the Wedweil Refugee Settlement. The settlement is located in Aweil West to the south of Nyamlel, the headquarters of Aweil West County, along the main road connecting Nyamlel to Aweil town. The region experiences a tropical savanna climate with distinct wet and dry seasons, and it's prone to flooding due to its flat terrain and proximity to rivers, which can impact refugee settlement. The Wedweil Refugee Settlement is a fast-growing settlement housing refugees, returnees, and existing residents, primarily from Sudan. The Refugee population in Aweil (Wedweil Refugee Settlement) as of January 2025 was estimated to be 20,773.

Without intervention, the high influx of forcibly displaced people into South Sudan is constraining the capacity of the Government to provide basic services and has the potential to increase intra and inter-communal friction and security risks and deterioration of the well-being of refugees and communities that are hosting them. The competition for scarce sources of livelihood (e.g., food, shelter, medicines, water) will exacerbate frictions in the host communities.

With the intervention, there will be an extension and strengthening of basic social services through infrastructure and technical development, provision of basic services for those arriving, promotion of livelihoods opportunities, increasing food production and availability of goods that no longer come from Sudan because of the closure of the borders; promotion of peaceful co-existence and social cohesion between refugees and with host communities and insurance of safety and well-being of refugees and host communities in a complex operating environment.

Institutional and Legal Framework

There is no operational legal system for ESIA in South Sudan. However, several legal and policy frameworks apply to the proposed SCRSSP project components such as the Comprehensive Peace Agreement (CPA), The Revitalized Agreement for Resolution of Conflict in South Sudan (R-ARCSS), The Transitional Constitution of the Republic of South Sudan of 2011 amended 2015, The National strategy for climate change Adaptation and Mitigation 2021 and Environment Bill 2023 (draft) among others.

Draft National Environmental Bill 2023 (approval still pending) of South Sudan provides for the establishment of an autonomous South Sudan Environmental Management Authority (EMA) to act as the watchdog on all public institutions, private companies, and individuals defaulting against the stipulated environmental laws and regulations. Until the Authority is fully established, the duties and functions of the Authority are delegated to the Ministry responsible for the environment and forests. Other relevant institutions include the Ministry of Agriculture and Food Security (MAFS), the Ministry of Water Resources and Irrigation, the Ministry of Health, the Ministry of Education, and the Commission for Refugee Affairs (CRA).

Project Impacts

Positive Impacts

Livelihood improvement and skills development - The project activities target priority sectors such as improvement in agriculture, trade, seed multiplication, and post-harvest management for crisis-affected communities of refugees and their hosts. The expected skills development and promotion of climate-smart agricultural production practices will result in increased income opportunities for the most vulnerable and empower them to create new, sustainable, and climate-responsive livelihood opportunities.

Improvement in infrastructure for health, education, sanitation: The proposed SCRSSP will improve infrastructure for essential service delivery systems (health, education, WASH, settlement infrastructure, etc.). Specifically, rehabilitation and expansion of the systems and improving access and quality of services will be a significant milestone in improving the living conditions of crisis-affected communities.

Enhanced climate resilience and adaptation to climate change: Establishment of environmentally sustainable early warning systems and preparedness measures will greatly lead to enhanced resilience and adaptive capacity of displaced people (refugees) and host communities to climate-related and other environmental risks. In addition, introduction of sustainable energy solutions will reduce reliance on energy sources such as wood and charcoal.

Institutional strengthening and capacity development: The project will lead to capacity building of key institutions like CRA to facilitate their daily operations to advance peaceful coexistence efforts, resulting in improved coping capacities and strengthened peaceful coexistence and social cohesion among refugees and other host communities.

Creation of Employment opportunities -The project will directly create employment for a large group of people, both directly and indirectly; this will be in the construction, occupation, and decommissioning phases. The project shall provide temporary employment opportunities to the locals as unskilled workers during the construction phase and further professional workers. The resultant effect on the employment of a significant number of people will be improved lifestyles and living conditions, and that of their dependents. Benefit is also bound to trickle down to service providers and producers (of raw materials and construction products).

Negative effects

The proposed development may produce some negligible negative environmental and social impacts that may necessitate appropriate mitigation measures. These include but are not confined to;

Noise and Vibration: Relatively low noise levels are expected in all projects involving civil works. Noise control measures should be implemented in the construction area if the noise levels exceed 90dB (A) for a continuous 8-hour exposure. In addition, protection against the effects of noise exposure among the workers should be monitored. Noise pollution is not foreseen during the operation phase.

Soil Erosion: The project sites are generally dry, and there is an increased risk of erosion and increased dust during excavation and movement of the machinery in the proposed sites. Soil movement is also common during the laying of foundations (earthworks) for the projects and site clearing. The contractors should adopt comprehensive soil erosion measures that include the following;

Increased Water Demand: The increase in demand for water will occur for all the project components that entail civil works, e.g, proposed construction and rehabilitation of the various facilities under the SCRSSP. Water will be sourced from existing water yards and boreholes in the project sites. The consultant will also be advised to undertake rainwater harvesting during the rainy season to supplement the water supply from the common sources, namely, boreholes and water yards.

Air Quality (dust pollution): The civil works on the proposed sites will result in increased dust and gas emissions. Dust particles caused by vibrations of machines and vehicle movement are suspended in the air mostly during the dry season.

Fire: Wildfires are common occurrences in areas adjacent to the proposed project sites in Aweil. Some of the wildfires are started by human activities or natural causes due to the extreme heat. In addition, fire may be caused by the machinery used during civil works or operations of the installations.

Solid waste: Huge quantities of solid waste are normally generated from construction activities. Such wastes include stones, wood, broken glass, containers, rods of metal, pieces of iron sheets, etc. There is a need for proper management (proper disposal) of the solid waste expected from the site during the construction phase.

Ecological impacts: The sites in Aweil have no vegetation of conservation value, hence the project will have no impact on ecology. It is, however, prudent to consider introduction of vegetation on site as part of an environmental conservation initiative during the operation phase.

Occupational Health and Safety (OHS): During civil works, there will be increased dust, air, and noise pollution. These are considered negative impacts as they significantly lower the quality of the environment.

Security: The security condition in the proposed project sites is generally volatile. Therefore, it is imperative for the relevant stakeholders, comprising UNHCR, GoSS, and the contractor, to reinforce security measures to avoid any losses or destruction of materials and facilities. This

involves employing a guard to control movement within the site, especially for intruders. During Occupation/completion of the project, security of the premises occupants is also paramount.

Public Consultations

Stakeholder consultation was conducted from March 19th, 2025, to March 21st, 2025. A combination of KII and FGDs was utilized, targeting various stakeholders, namely UNHCR, GoSS (Ministry of Education, RCC), refugee and host communities. The details of the stakeholder engagement sessions are summarized in the table below.

Organization	Name of stakeholder	Discussion points
	Dr. Joice Domnic Public Health Officer Mr Mathew Musumba Shelter and Site Planning Officer	• The objective of the meeting was to introduce and discuss the methodology, site, and stakeholder identification. • The UNHCR team explained that the specific sites for implementation of the projects, e.g, schools or communities, are yet to be identified. The site identification was likely to commence on the week starting Monday, March 25, 2025, and will include a joint team from the GoSS, UNHCR, CRA, and line ministries. • Land ownership – UNHCR is collaborating with the CRA to secure the land from the host community • Socioeconomic activities - The refugees mainly cultivate groundnuts, onions, and okra, however, UNHCR has set demonstration farms for other crop varieties, including vegetables. • Access to water - The main source of water in the refugee settlement is bore holes with hand pumps; others are solarised. The water committees are responsible for management of the water sources. • Sanitation – mainly pit latrines. • Conflict - the interventions by the UNHCR benefit both the host community, refugee and host community. Therefore, there are no conflicts foreseen. • Solid waste – open burning of waste is practiced, as there is no formal service. • Flooding – quite common every rainy season, construct a dyke and water retention pond after the last rainy reason to control flooding, the proposed project will be an extension.
State Ministry of General Education and Instruction	Mr Valentino Anei (D/G for Education) Mr Mark Makuel (Director for Budgeting and Planning)	• The director confirmed that all schools in South Sudan were closed due to the heat wave. • The Barnyui area in Aweil Central County has the highest number of returnees but lacks adequate schools to support the population. • There are three vocational centres in Aweil, but only one is operational – Akuem TVET • Enrolment is declining, especially among the boys in primary school, due to several reasons mainly linked to

	Mr Gabriel Ater (Director for Quality Assurance)	cultural practices – boys are involved in income-generating activities from an early age, and herding. Other factors include migration due to extreme weather patterns, e.g, during drought. • School attendance is also affected by a lack of clean water; some schools open only during the rainy seasons, but again, there is the risk of flooding. • There is a high refugee influx in the border counties like Aweil East and Aweil North. Areas like Mayen Wulem, Ariath, Gok Machar, etc • Should participate in sub-national education cluster forums to receive timely updates on the education sector in Aweil.
Relief and Rehabilitation Commission	Hon Benson Lual Awach	• Existing issues in Aweil include population increase due to refugees and returnee populations that stretch the existing infrastructure and resources, e.g, health, education, etc. • There is no school in the Barnyui area, despite having close to 8000 people /2000 household's majority of whom are returnees. Besides, there is only one hand pump in the settlement. • Currently, there is a cholera outbreak, and the refugees, host communities, and returnees are vulnerable due to poor sanitation and insufficient infrastructure for health and disease prevention. • Priority areas for intervention should be Aweil North, Aweil East, Aweil West, and the host communities. • Other challenges experienced in Aweil include tracking returnees. • Environmental challenges comprise deforestation due to increasing population, flooding mainly due to destruction and encroachment of wetlands, and destruction of vegetation. • The government interventions include tree planting initiatives, but these are not sufficient. • Should establish a joint assessment team with the GoSS departments to identify priority areas for interventions.
Payam (Local Government)	Peter Aguer	• The estimated population of the host community is approximately 100,000 people • The office, built by the UNHCR and equipped with solar, it's adjacent to the WedWeil refugee settlement. Responsible for the general administration of both the settlement and host community. • Poverty level is high, and a lot of projects are focused on the refugee instead of the host community. • Open defecation is rampant in the host community; interventions needed covering awareness creation on WASH, establishment of latrines, and prevention of common illnesses due to poor sanitation.

		• No proper waste management systems in the host community and refugee settlements, and open burning of waste is practiced. • Project is likely to benefit the host community through improvement of infrastructure for education, health; Wedweil health center is the only facility in the area. • Project is well aligned with programs, e.g, by NRC, which is supporting agriculture by giving farmers incentives and undertaking construction of a school. • Payam suggested that the projects should also have components on awareness creation on GBV and the inclusion of women in project management. • Ongoing initiatives to promote peace • Payam created a Wedweil market for refugees and host communities to promote integration. • There is a Peace Committee under Payam that is responsible for training on peaceful co-existence and conflict resolution • Football games between the host and refugee communities are mainly held at the Wedweil Football Freedom Square. • Other challenges – Access to clean and safe water, as there are about 20-30 boreholes and 2 water yards in the host community, one for the returnees and one for the host community. However, these are not sufficient. • Socio-cultural differences between the host community, returnees, and refugees.
Youths	Refugees, host community, and returnees	• Challenges faced by the youths - Lack of adequate education facilities and high illiteracy level, no vocational or skills training programs, high poverty levels, TVET scholarships, and employment opportunities. • Most refugees and returnees are considering going back to Sudan or radicalization due to a lack of opportunities. • Youths have a farmland (currently growing okra, tomatoes, vegetables) but lack resources; looking to expand opportunities in agro-entrepreneurship. • Most interventions do not directly involve youths in planning and implementation; it is important to incorporate their views and ensure participation at all levels. • No safe places for the girls, especially on issues relating to menstrual hygiene and related facilities. • The relationship between host community and refugees is not good, and sometimes, they are attacked and their crops are destroyed. • Access to water is low, and they face hostility, especially in shared water yards or boreholes. The host community does not have adequate water points, so there are conflicts in accessing the few water points in the settlement.

		• Drainage in the settlement is bad, and the families are adversely affected during the rainy season. • Awareness and training on peace mechanisms between the host and refugees,
Traders	(refugees, returnees, and host community)	• There is a market committee responsible for registration of members, solving conflicts, maintaining peace, and integration. • The market is not demarcated; currently, in the host community, refugees want a market inside the refugee settlement. • The market is made up of makeshift structures that are susceptible to risks such as fire. • No lighting system, close shops in the evening. • No regular supply of fresh and clean water in the market, and the few water sources are congested. • Conflict between community and refugees on January 17, 2025, led to damage and loss of properties (most were burned down). • Require credit lines to establish and expand the business. • No sanitation facilities in the markets, open defecation by traders and people who go to the market. • The market community is voluntarily doing the collection and burning of waste.
Community leaders	(host and refugee leaders)	• There are 13 blocks for the refugees, surrounded by host communities, displaced communities, and returnees. • Leaders are responsible for the general coordination between organizations, host communities, and refugees in design and implementation of the projects – this is currently affected by language barriers and a lack of inclusivity. Conflict is also influenced by an inequitable share of the resources. • Leaders promote joint cultural celebrations, sports, and competitions to ensure peaceful co-existence. • There's a good relationship between the host and refugee leaders, apart from the conflict in January 17, 2025 conflict that led to significant losses. The refugees feel that host communities will not allow them to do cultivation or engage in other income-generating activities. Should be supported to initiate other business activities. • Children of refugees go to surrounding schools in the host communities, namely Good Shepherd, Salvation, and Wedweil school, with full scholarship by World Vision. However, most parents are afraid to let their children return to school after the conflict in January. Schools should be near the blocs, and teachers should be mixed (host and refugee communities). • Priority areas for intervention should comprise security-creating new police stations and equipping them to

		respond to emergencies, improving infrastructure for health, education (including ECD) and sanitation services. • Water access – some blocks do not have access to water, and members trek long distances, at least 30 minutes one way, and they are congested • Water is not safe for consumption (block 15), and no treatment is available. The project should aim to provide or improve water treatment. • Refugees have experience in undertaking farming activities and welcome any proposal to scale up production - okra, sorghum, sim sim, groundnuts. • There is a Refugee Agriculture Society comprising 150 persons
Nyamlel Hospital	James Lual Deng Luka Lual Lual Johnson	• The hospital was built in 1956 and elevated to a county hospital in 2013. • Departments include inpatient section, expanded program for immunization (EPI) unit, laboratory, outpatient department, two wards (male and female) with 18 bed capacity (combined), stabilization centre for malnourished children, paediatric unit, pharmacy • 23 staff • Hospital compound surveyed and demarcated in 2024. • Medical and other hazardous waste are burned as the two (2) incinerators are damaged. • There's a Placenta pit in the maternity wing, but not well managed. • Expired drugs are returned to GoSS for disposal • The hospital has no electricity or lighting system, including in the wards or delivery rooms. • There are two (2) boreholes, and hand pumps were temporarily fixed • Handwashing facilities – made of small buckets • Needs a blood bank and theatre, biochemistry lab Proposed projects EPI – sites for the projects have been identified, and these will be valuable additions. No adverse environmental impact is foreseen as the sites are not occupied.

Environmental & Social Management Plan (ESMP)

Construction phase ESMP

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
1. Minimize extraction site impacts and ensure efficient use of raw materials in construction				
High Demand for Raw Material	1. Source building materials from local suppliers who use environmentally friendly processes in their operations.	UNHCR, Project Management Unit, contractor	Throughout construction period	0
	2. Ensure accurate budgeting and estimation of actual construction material requirements to ensure that the least amount of material necessary is ordered.	UNHCR, Project Management Unit, contractor	Throughout construction period	0
	3. Ensure that damage or loss of materials at the construction site is kept minimal through proper storage.	UNHCR, Project Management Unit, contractor	Throughout construction period	0
	4. Use at least 5%-10% recycled, refurbished, or salvaged materials to reduce the use of raw materials and divert material from landfills	UNHCR, Project Management Unit, contractor	Throughout construction period	0
2. Reduce stormwater, runoff, and soil erosion				
Increased stormwater, runoff, and soil erosion	1. Surface runoff and roof water shall be harvested and stored in underground reservoir for reuse.	UNHCR, Project Management Unit, contractor	Throughout construction period	10,000
	2. A storm water management plan that minimizes impervious area infiltration by use of recharge areas and use of detention and/or retention with a graduated outlet control structure will be designed.	The Civil Engineer, Mechanical Engineer, and UNHCR	Throughout construction period	
3. Minimize solid waste generation and ensure efficient solid waste management during construction				

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
Increased solid waste generation	1. Use of an integrated solid waste management system, i.e., through a hierarchy of options: 1. Source reduction 2. Recycling 3. Composting and reuse 4. Combustion 5. Safe disposal in designated sites	UNHCR, Project Management Unit, contractor	Throughout construction period	10,000
	2. Accurate estimation of the sizes and quantities of materials required, order materials in the sizes and quantities they will be needed, rather than cutting them to size, or having large quantities of residual materials.	UNHCR, Project Management Unit, contractor	Throughout construction period	0
	3. Ensure that construction materials left over at the end of construction will be used in other projects rather than being disposed of.	UNHCR, Project Management Unit, contractor	Throughout construction period	0
	4. Ensure that damaged or wasted construction materials, including doors, plumbing and lighting fixtures, and glass, will be recovered for refurbishing and use in other projects	UNHCR, Project Management Unit, contractor	Throughout construction period	4,000
	5. Donate recyclable/reusable or residual materials to local community groups, institutions, and individual residents or homeowners (within the refugee settlement and host communities)	UNHCR, Project Management Unit, contractor	Project completion	0
	6. Use of durable, long-lasting materials that will not need to be replaced as often, thereby reducing the amount of construction waste generated over time	UNHCR, Project Management Unit, contractor	Throughout construction period	0
	7. Provide facilities for proper handling and storage of construction materials to reduce the amount of waste caused by damage or exposure to the elements	UNHCR, Project Management Unit, contractor	Throughout construction period	7,000
	8. Use building materials that have minimal or no packaging to avoid the generation of excessive packaging waste	UNHCR, Project Management Unit, contractor	Throughout construction period	0

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
4. Reduce dust emissions				
Dust emission	1. Ensure strict enforcement of on-site speed limit regulations	UNHCR, Project Management Unit, contractor	Throughout construction period	0
	2. Avoid excavation works in extremely dry weather	UNHCR, Project Management Unit, contractor	Throughout construction period	10,000
	3. Sprinkle water on graded access routes when necessary to reduce dust generation by construction vehicles	UNHCR, Project Management Unit, contractor	Throughout construction period	
	4. Personal Protective equipment to be worn	UNHCR, Project Management Unit, contractor	Throughout construction period	
	5. Construction materials on site to be covered to prevent them from being blown off by wind	UNHCR, Project Management Unit, contractor	Throughout construction period	
5. Minimization of exhaust emissions				
Exhaust emission	1. Vehicle idling time shall be minimized	UNHCR, Project Management Unit, contractor	Throughout construction period	0
	2. Alternatively, fueled construction equipment shall be used, where feasible equipment shall be properly tuned and maintained	UNHCR, Project Management Unit, contractor	Throughout construction period	0
	3. Sensitize truck drivers to avoid unnecessary racing of vehicle engines at loading/offloading points and parking areas, and to switch off or keep vehicle engines while at the site	UNHCR, Project Management Unit, contractor	Throughout construction period	0
6. Minimization of Noise and Vibration				

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
Noise and vibration	1. Sensitize construction vehicle drivers and machinery operators to switch off engines of vehicles or machinery not being used.	UNHCR, Project Management Unit, contractor	Throughout construction period	0
	2. Sensitize construction drivers to avoid gunning of vehicle engines or unnecessary honking, especially when passing through sensitive areas, e.g, the refugee settlement, market, and host community	UNHCR, Project Management Unit, contractor	Throughout construction period	0
	3. Ensure that construction machinery is kept in good condition to reduce noise generation	UNHCR, Project Management Unit, contractor	Throughout construction period	7,000
	4. Ensure that all generators and heavy-duty equipment are insulated or placed in enclosures to minimize ambient noise levels.	UNHCR, Project Management Unit, contractor	Throughout construction period	7,000
	5. The noisy construction works will be entirely planned to be during games time when most learning sessions are not on. Also can be done during weekends (these refer to construction and rehabilitation of school infrastructure, classrooms)	UNHCR, Project Management Unit, contractor	Throughout construction period	0
7. Minimization of Energy Consumption				
Increased energy consumption	1. Ensure electrical equipment, appliances, and lights are switched off when not being used	UNHCR, Project Management Unit, contractor	Throughout construction period	0
	2. Install energy-saving fluorescent tubes at all lighting points instead of bulbs, which consume more electric energy	UNHCR, Project Management Unit, contractor	Throughout construction period	5,000
8. Minimize water consumption and ensure more efficient and safe water use				

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
High Water Demand	1. Promptly detect and repair water pipe and tank leaks	UNHCR, Project Management Unit, contractor	Continuous	5,000
	2. Ensure taps are not running when not in use	UNHCR, Project Management Unit, contractor	Continuous	0
	3. Install a discharge meter at water outlets to determine and monitor total water usage	UNHCR, Project Management Unit, contractor	Throughout construction period	4,000
	4. Proper recycling of water from other uses for sprinkling dusty pavements	UNHCR, Project Management Unit, contractor	Throughout construction period	4,000
9. Minimize occupational health and safety risks				
Unavailability and wrong use of Personal Protective Gear (PPG)	▪ Always ensure the general safety and security by providing day and night security guards and adequate lighting within and around the premises.	UNHCR, Project Management Unit, contractor	Throughout construction period	2,000
	▪ Suitable overalls, safety footwear, dust masks, gas masks, respirators, gloves, ear protection equipment, etc, should be made available, and construction personnel must be trained to use the equipment	UNHCR, Project Management Unit, contractor	Throughout construction period	
Accidents resulting from disregard of Health and safety impacts	• Implement all necessary measures to ensure health and safety of workers and the general public during construction	UNHCR, Project Management Unit, contractor	Throughout construction period	3,000

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
Injuries	Well well-stocked first aid box, which is easily available and accessible, should be provided within the premises	UNHCR, Project Management Unit, contractor	Throughout construction period	2,000
	Provision must be made for persons to be trained in first aid, with a certificate issued by a recognized body.	UNHCR, Project Management Unit, contractor	Throughout construction period	2,000
Fire incidents	Firefighting equipment, such as fire extinguishers, should be provided at strategic locations such as stores and construction areas.	UNHCR, Project Management Unit, contractor	Throughout construction period	5,000
	Regular inspection and servicing of the equipment must be undertaken by a reputable service provider, and records of such inspections maintained.	UNHCR, Project Management Unit, contractor	Every 3 months	4,000
	Fire escape routes and assembly points are to be marked	UNHCR, Project Management Unit, contractor	Throughout construction period	4,000
	Signs such as “NO SMOKING” must be prominently displayed within the premises, especially in parts where inflammable materials are stored	UNHCR, Project Management Unit, contractor	Throughout construction period	3,000
GBV, teen pregnancy, forced marriages, HIV/AIDs	Awareness creation on thematic issues, including prevention of GBV, teenage pregnancies, HIV/AIDs Strengthening local leadership structures to respond to emergencies as well as training on effective conflict resolution, both at household level and among the refugees, host communities, and returnees.	UNHCR, Project Management Unit, contractor	Throughout construction period	4,000
Total				102,000

Project operation phase ESMP

The necessary mitigation measures, allocation of costs, and responsibilities for prevention, minimization, and monitoring of significant negative impacts and maximization of positive impacts associated with the operational phase of project components are outlined below.

Operation Phase ESMP

Expected Negative Impact	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD) per annum
1. Fire risks	1. Install fire extinguishers 2. mark fire exit points and the fire assembly area 3. Provide sand buckets at strategic locations 4. Workers should be trained on firefighting skills by a qualified trainer 5. Fire drills should be conducted at least once a year 6. A firefighting team should be established 7. Warning and informational signs should be displayed appropriately 8. Regular testing and servicing of fire-fighting equipment and appliances	UNHCR & Project Management Unit	Operation phase	3,000
2. Solid waste Management (Littering, soil, and surface water pollution).	1. Provision of waste collection bins 2. Segregation of wastes at the source 3. Waste should be disposed of at the designated site 4. Solid waste should be managed according to the waste management regulations. 5. Prepare a waste management plan. 6. Stop deposition of waste in open pits, open burning, or burying of waste 7. designate and construct an appropriate waste collection facility or provide covered refuse skips; 8. Monitor waste volumes;	UNHCR & Project Management Unit	Operation period	5,000

Expected Negative Impact	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD) per annum
3. Waste water management	1. Conduct wastewater monitoring to check compliance	UNHCR & Project Management Unit	Continuous	3,000
4. Workers Welfare (risks such as accidents, disregard of safety, and wellness)	1. Provide workers with PPEs 2. Provide adequate washrooms and changing rooms for workers 3. Training of workers 4. Provision of first aid and other welfare facilities 5. Provision of an Insurance cover 6. Regular medical check-ups 7. Respect for workers' rights	UNHCR & Project management Unit	Operation period	3,000
5.Air pollution	1. Ensure that the machines (at the hospital), diesel generators are maintained to manufactures specifications, records maintained and availed whenever, there is need; 2. Ensure that tank vents are located away from sensitive receptors;	UNHCR & Project management Unit	Continuous	3,000
6. Increased Energy Resource Utilization	1. Switch off electrical equipment, appliances and lights when not being used	UNHCR & Project management Unit	Continuous	0
	2. Install occupation sensing lighting at various locations such as storage areas which are not in use all the time	UNHCR & Project management Unit	Operation phase	0
	3. Install energy saving fluorescent tubes at all lighting points within the flats instead of bulbs which consume higher electrical energy	UNHCR & Project Management Unit	Operation phase	2,000
	4. Monitor energy use during the operation of the project and set targets for efficient energy use	UNHCR & Project management Unit	Operation phase	3,000
	5. Sensitize occupants of the facilities and communities to use energy efficiently	UNHCR & Project management Unit	Operation phase	3,000

Expected Negative Impact	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD) per annum
7. Increased water demand/Water consumption	1. Promptly detect and repair water pipe and tank leaks	UNHCR & Project management Unit	Operation phase	4,000
	2. Ensure taps are not running when not in use	UNHCR & Project management Unit	Operation phase	1,000
	3. Install water conserving taps that turn-off automatically when water is not being used	UNHCR & Project Management Unit	Operation phase	2,000
8. Increased incidences of social vices (GBV, theft, social intolerance, HIV/AIDs)	Awareness creation on the thematic sectors, namely prevention of GBV, HIV/AIDs) Strengthening of local institutions and leadership structures on conflict resolution, emergency response. Promoting coordination between different actors – NGO and civil society, police and GoSS agencies to promote peaceful coexistence, and minimize insecurity.	UNHCR & Project Management Unit	Operation phase	4,000
Total				36,000

Environmental and social impact monitoring scheme

Mitigation Measure	Monitoring Objective	Indicator/Parameters to be monitored	Method/ Measurement	Frequency
All the construction contractor's HSE, labor welfare, and social requirements	Compliance	Existence and quality, depending on the measure	Visual inspection, reports	Daily/ weekly
Ecological Protection	To determine area and ecological functioning (quality) of terrestrial and aquatic ecology	Area in good condition	Visual inspection	Monthly
Waste management	To monitor impacts on the biophysical environment	To determine proper waste disposal and treatment operations to minimize any adverse environmental impacts To determine the effectiveness of the recycling, composting, and disposal operations	Visual inspection/weighing	Monthly
Social protection	To check on the status of vulnerable Households, GBV, refugees, etc.	Economic status of at-risk households	FGD/KII	Yearly
Health protection	To determine the effectiveness of the mitigation measures and to obtain early warning of changes in health risks.	Illness cases	Visual evidence, changes in baseline health indicators,	Annually
All the operators conform to HSE, labor welfare, and social requirements	Compliance	Existence and quality, depending on the measure	Visual inspection, reports	Quarterly

Grievance Redress Mechanisms (GRM)

The GRM in the proposed project will be adapted under the guidance provided in the Bank's ISS through its ESIA Guidelines Notes. The first step is to determine the primary goal of the GRM, which would generally be to resolve specific grievances in a manner that meets both project management and community needs, but with important local variations. The scope of the grievances that may legitimately be brought forward by the communities and/or individuals affected shall be defined in advance. That scope will generally cover most, if not all, of the issues raised in a typical Environmental and Social Assessment: natural resources, pollution, cultural property, land acquisition, the welfare of vulnerable groups, etc.

A summary of the Grievance Redress Mechanism is shown below

Step	Process	Description	Time frame	Other information
1	Identification of grievance	Face to face; phone; letter, e-mail; recorded during public/community interaction; others	1 Day	Email address, hotline number, Responsible: community leader (host, returnees, refugees)
2	Grievance assessed and logged.	Significance assessed and grievance recorded or logged (i.e., in a log book)	4-7 Days	Significance criteria Level 1 –one off event; Level 2–complaint is widespread or repeated; Level 3- any complaint (one off or repeated) that indicates breach of law or policy or these ESIA provisions.
3	Grievance is Acknowledged	Acknowledgement of grievance through the appropriate medium	7-14 Days	Responsible: staff, CRA, and contractor
4	Development of response	-Grievance assigned to the appropriate party for resolution; -Response development with input from management/ relevant stakeholders	4-7 Days 10-14 Days	UNHCR, CRA, Payam
5	Response signed off	-Redress action approved at the appropriate Levels	4-7 Days	
6	Implementation and communication of response	-Redress action implemented, and update of progress on resolution communicated to Complainant	10-14 Days	

7	Complaints Response	-Redress action recorded in grievance log book -Confirm with complainant that grievance can be closed or determine what follow-up is necessary	4-7 Days	Payam, peace, committee, UNHCR, CRA
8	Close Grievance	Record final sign-off of grievance -If grievance cannot be closed, return to step 2 or refer to sector minister, or recommend third-party arbitration, or resort to court of law	5 days	Payam, UNHCR, CRA

Estimated Budget for the ESMP

The overall ESMP cost is estimated at USD 169,000, comprising USD 102,000 for construction phase, USD 36,000 per year during the project operation phase, and decommissioning 31,000.

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ABBREVIATIONS

AfDB	African Development Bank
AoI	Area of Influence
CPA	Comprehensive Peace Agreement
CRA	Commission for Refugee Affairs
CSS	Climate Safeguards System
EAC	East African Community
EPI	Expanded Programme for Immunization
ESIA	Environmental and Social Impact Assessment
ESMP	Environment and Social Management Plan
FGD	Focus Group Discussions
GoSS	Government of South Sudan
IDPs	Internally Displaced Persons
IGAD	Intergovernmental Authority on Development
KII	Key Informant Interview
NGOs	Non-Governmental Organizations
PAPs	Project Affected Persons
PPE	Personal Protective Equipment
PWDs	Persons With Disabilities
R-ARCSS	Revitalized Agreement on the Resolution of the Conflict in the Republic of South Sudan
RRC	Relief and Rehabilitation Commission
SEP	Stakeholder Engagement Plan
SRCSSP	Sudan Refugee Crisis in South Sudan Project
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
WASH	Water, Sanitation & Health

CHAPTER ONE: INTRODUCTION

1.1. Project Background

The ongoing conflict in Sudan, characterized by brutal and violent clashes, hostilities and human rights violations as the primary driver of the cross-border displacement to South Sudan.

As of February 2025, the total refugee and asylum-seeker population in South Sudan increased to **548,036** refugees, including **3,038** asylum-seekers. Sudan remains the main country of origin for refugees, constituting **95% (516,959)** of the total refugee population. This is followed by the Democratic Republic of the Congo 3% (14,166), Ethiopia (1%), the Central African Republic (0.6%), and Burundi (0.1%)[1].

In January 2025, **15,070** new refugee arrivals were registered across South Sudan. Additionally, **1,150** newborns were registered within existing cases. A total of **45,756** new arrivals were recorded in February 2025, including **25,044** Sudanese, **20,605** South Sudanese returnees from Sudan, and 107 third-country nationals. This is an increase of **18%** compared to January 2025[2]. The majority of the refugees are hosted in rural areas in camps that have been established for over a decade, as well as in Wedweil Settlement in Aweil, which was established in 2023.

The influx of refugees has greatly increased pressure on the limited natural resources. The high influx of forcibly displaced people into South Sudan is constraining the capacity of the State to provide basic services and it has the potential to increase intra and inter-communal friction and security risks. The competition for scarce sources of livelihood e.g food, shelter, medicines is exacerbating frictions in host communities, especially in the context of the reduced fiscal space, the already overstretched WASH services and the high levels of malnutrition.

Given the complex political and conflict nature of the refugee displacement and the need to scale up the response, UNHCR, together with the Commission for Refugee Affairs (CRA), under the oversight of the Ministry of Finance and Planning, will implement the Response to the Sudan Refugee Crisis in South Sudan Project (SRCSSP).

The ongoing political instability in Sudan suggests that refugees are unlikely to return to their country anytime soon. Their presence is expected to create environmental and social risks, which are intensified by the ongoing efforts of humanitarian organizations and other support groups involved in the Response to the Sudan Refugee Crisis in South Sudan Project.

[1] UNHCR-IOM (link)
[2] UNHCR-IOM (link)

According to the African Development Bank Integrated Safeguard System Environmental and Social Risk classification, the project has been categorized as Category 2, indicating moderate risks. Therefore, an environmental and social impact assessment (ESIA) was conducted in project location in Aweil, leading to the development of the Environmental and Social Management Plan (ESMP) proportionate to the level and complexity of the project components.

CHAPTER TWO: SCOPE OF WORK

2.1. Response to the Sudan Refugee Crisis on South Sudan Project (SRCSSP)

The proposed **Response to the Sudan Refugee Crisis on South Sudan Project (SRCSSP)**, is a two years (24 month) project implemented by the United Nations High Commissioner for Refugees (UNHCR) together with Ministry of Interior (Commission for Refugee Affairs (CRA)) under the oversight of the Ministry of Finance and Planning.

The project's overall development objective is to build peace, inclusiveness, and resilience in the South Sudanese communities affected by the current conflict in Sudan.

Specifically, the project aims at

a. Supporting the inclusive and peaceful integration of refugees and returnees into the communities,
b. Social cohesion strengthening amongst refugees and host communities, and
c. Enhancing the socio-economic well-being of the affected communities.

2.1.1. Components

The project has four (4) components, which encompass urgent, quick, and impactful activities over 2 years (24 months). The project components include;

Component 1: Enhancing Jobs and livelihoods amongst the refugees and host communities;

The objective under this component is to increase sustainable food production and food security, enhance skills of youth and women for self-reliance and wage employment, develop infrastructure for agriculture and peace, and support micro, small, and medium enterprise development for economic inclusion. This component will include skills profiling leveraging human capital of skilled refugees/returnees through job matching schemes (in education, health, and engineering fields) for the public and private sectors, and also enhancing skills in business and entrepreneurship development. It includes settling-in grants. Additionally, entrepreneurship development involves microcredit grants for refugee and host community entrepreneurs, market infrastructure improvements, and supporting the development of multipurpose centers for business incubation and digital learning. The component will also support agricultural production and self-reliance through seed multiplication, value chain development, and skills training with a focus on certified seed production. The component will support increased agricultural production through the use of productivity mechanized equipment, training extension officers, and establishing seed production blocks. Value chain development will involve medium-sized mills and post-harvest handling equipment. For market connectivity and agricultural production, emergency livelihood support farm tool kits will be provided, and climate-smart multi-cropping systems and demarcation of farmlands. A total of 6,440 households will be supported under this component.

Sub-component 1.1: Skills profiling and job matching (Juba). This subcomponent aims to develop a system that supports refugees in gaining employment through skills profiling and job placement. The activities include organizing mobilization workshops, updating the socioeconomic progress data for profiling socioeconomic data, organizing registration campaigns, and facilitating government liaison for job matching opportunities. The target beneficiaries are refugees who will benefit from Integration activities targeting both highly skilled and junior professionals. English language courses to overcome communication barriers and aid integration will be supported, and a job space platform will be developed that allows collaboration with various government and private sectors to match employment. Additionally, the project aims to provide a settling-in grant and essential information on public services to aid in workplace integration to at least 400 refugees who are successfully placed in government and private sector jobs. Advocacy efforts with government agencies will be strengthened, aiming to foster a supportive environment for refugee employment and societal integration within the government system. This holistic approach not only assists refugees in finding work but also ensures they have the necessary tools and support for successful workplace integration, and also benefits the hosting country with specialized expertise.

Sub-component 1.2: Micro-Credit and Business Support for Enterprise Development (Aweil, Jamjang, and Maban). The primary goal of this subcomponent is to empower refugees by enhancing their economic prospects through targeted micro-credit support to agricultural enterprises. This support aims to unlock the potential of these enterprises, fostering sustainable income generation and economic resilience. The activities include providing access to tailored revolving finance as working capital, for agro investment, to 600 agro entrepreneurs. Technical assistance will also be offered, focusing on enterprise selection and management. The project provides affordable revolving business development capitalisation grants to businesses showing potential for expansion. 280 individual businesses will be targeted and provided with business advice to create investment plans for scaling up operations, diversification, and value addition to enhance income levels and promote economic integration. This comprehensive approach aims to build sustainable income generation ventures and productive assets for refugees, contributing to their long-term well-being and creating thriving communities. Existing community sectoral structures will be engaged to promote awareness and engagement between the host community and refugees to support the above activities as part of community engagement strategy of the project.

Sub-component 1.3: Strengthen capacity of Community-Based Enterprise Groups for Resilience (Aweil, Jamjang, and Maban). This subcomponent will foster resilient communities through the establishment of 47 enterprise groups at the village or Boma level, targeting vulnerable populations. These groups will work to enhance local collaboration and knowledge sharing, focusing on addressing agricultural challenges, income generation, and overall community well-being. The groups will receive basic

training in climate-smart multi-cropping systems, optimizing land use, crop rotation, water management, and Pama gardening, which is designed to grow diverse crops efficiently in limited spaces, ensuring water conservation and increased yields. Furthermore, the project will introduce on-farm mechanization to improve productivity and expand the area under crop production by procuring 12 tractors with essential equipment for ploughing, coupled with training refugees in the safe and efficient operation to ensure the sustainability of the equipment. Three 3 water wells will be drilled to provide farmers whose farming areas are 15 - 20 kilometres away from the settlement in Jamjang.

Target beneficiaries are primarily vulnerable community members and refugee farmers, who will be empowered for the development of improved seed systems and crop productivity. The project will collaborate with local seed multipliers to provide climate-adapted foundation seed kits to 4200 farmers and encourage climate-smart agricultural practices such as crop rotation, intercropping, and agroforestry to improve soil health, conserve water, and bolster resilience against climate variability, ultimately promoting sustainable agriculture within refugee hosting areas. To promote healthy handling and marketing of meat products the project will construct one improved abattoir in Maban to enhance development in the livestock sector. Over 360 members of the host community will be supported through a livestock restocking programmes. The project will construct a foot bridge to create commercial opportunities through improving access to farmland, markets for goods and commodity trading. Existing community sectoral structures will be engaged to promote awareness and engagements between host community and refugees to support the above activities as part of community engagement strategy of the project.

Sub-component 1.4: Strengthening Private Sector Seed Multiplication for Certified Seed Production and post-harvest handling (Aweil, Jamjang and Maban). To boost certified seed production within the refugee hosting locations, the project will leverage private sector engagement to enhance agricultural productivity and food security across the target locations. The project will also construct four (4) post-harvest handling storage facilities to serve as a seed storage, showroom, and also offer market services for crop produce. The storage facilities will be strategically located near seed production blocks in the respective locations to offer proper storage facilities. The facilities will serve to ensuring timely availability of crop seed for refugees during planting seasons and reduce post-harvest losses. 100 seed inspectors will be trained to enhance their capacity to monitor seed multiplication activities, ensuring adherence to standards to ensure the produced seeds meet the certification criteria, and receive official certification to boosting their market value and reliability.

The project will identify suitable areas within refugee settlements and host communities to establish 18 seed production blocks across the project locations which will serve as dedicated spaces for growing high-quality seeds. Working with private companies, the local community/refugees will select resilient crop varieties that are well-adapted to local

conditions. 400 out grower farmers will be chosen for their expertise and commitment for seed multiplication using foundation seeds and will receive specialized training about seed selection, planting techniques, disease management, proper seed handling and production within the production blocks. To optimize farmland preparation and productivity the project will map and demarcate agriculture farmlands allocated to refugees in the respective project locations. Existing community sectoral structures will be engaged to promote awareness and engagements between host community and refugees to support the above activities as part of community engagement strategy of the project

Component 2: Restoration and improvement of basic social services in the refugee and host communities; *Aweil, Jamjang and Maban).*

This component aims to enhance the quality and accessibility of basic social services and infrastructure in areas impacted by forced displacement. The activities encompass a broad range of initiatives aimed at educational, health, nutrition, sanitation, and safety improvements. Specifically, the component will focus on the expansion and equipping of primary and secondary school facilities, and the offering of vocational training. In the health sector, the component aims to strengthen the capacity of health facilities to provide comprehensive services addressing the multifaceted health and nutrition issues arising from displacement, including maternal and child healthcare, mental health, and malnutrition support. Sanitation and hygiene are also a priority, with plans to increase clean water access through boreholes and water networks, and to promote hygiene practices by provision of sanitary kits. Lastly, the component seeks to bolster safety and security measures by enhancing community structures, installing solar lighting, and fostering community safety initiatives. The target beneficiaries are primarily refugees and individuals from host communities who are directly affected by displacement, with a focus on ensuring they receive the necessary support to improve their living conditions and integrate successfully into the community.

Sub-component 2.1: Rehabilitation and Upgrade of school infrastructure (Aweil, Jamjang and Maban). This subcomponent will improve educational outcomes for refugees and the host community by upgrading educational infrastructure and providing training programs. The activities include constructing additional two (2) blocks of 4 classrooms each for secondary schools and three (3) blocks of 4 classrooms each for primary schools within refugee hosting areas, which will allow for more students to be enrolled leading to a more effective learning environment. In Aweil 2 early childhood development centres in Aweil will be constructed to create a conducive environment for early education. In Maban 5 school classrooms will be upgraded from semipermanent to permanent classrooms while in Jamjang 3 classrooms, in Aweil 2 classrooms the selected schools will be upgraded.

Furthermore, the Albunj secondary school Complex block will be renovated to serve as a digital center, offering computer training to equip students with vital skills and rehabilitate facilities at the school for vocational training to provide vocational skilling for both

refugees and host community members. Rehabilitate/setup the skills incubation centre in Aweil and Jamjang and Maban where youth can access skills training. To ensure human capacity development vocational skills training skilling will be provided, targeting 380 beneficiaries from the refugee population and the host community, with a focus on enabling them to acquire employable skill development. Existing community sectoral structures will be engaged to promote awareness and engagements between host community and refugees to support the above activities as part of community engagement strategy of the project.

Sub-component 2.2: Improvement of WASH facilities for sustainable water services (Aweil, Jamjang and Maban). This subcomponent will improve water access for refugees and the host community through a multi-faceted approach to accommodate the influx of new arrivals. This will involve the rehabilitation/maintenance of existing boreholes and construction and solarization of 7 new boreholes, water network infrastructure to include solar technology to enhance the efficiency of water distribution within the settlement. Distribute sanitary kits through cash or in-kind to targeted 1500 women in Awiel, Maban and Jamjang to promote personal hygiene practices for women and girls. In Jamjang drilling of 5 water wells to provide water to individuals whose farming areas are 15 - 20 kilometres away from the settlement. Existing community sectoral structures will be engaged to promote awareness and engagements between host community and refugees to support the above activities as part of community engagement strategy of the project.

Sub-component 2.3: Community empowerment and psychosocial (Mental health) support. (Aweil, Jamjang and Maban). This subcomponent will support to refugees and local community members to strengthen capacity to respond to gender-based violence, sports and cultural events by organizing celebrations, including commemoration of 16 Days of Activism and International Women's Day, sports events to allow refugees to connect with their cultural heritage and promote to promote refugee-host community social integration and foster connections. While the establishment of safe houses across the project locations will offer a haven for those at heightened GBV risk and offer psychosocial support targeting 200 individuals. The construction of sports facilities will be constructed within the project locations will reinforce the community's sports activities contributing to a more inclusive society and strengthened social bonds and shared understanding and respect of human rights. community centre will be established in Maban and Jamjang for the host community to strength youth and women empowerment activities and for social cohesion and enable communities participate in peacebuilding activities within the host community. Existing community sectoral structures will be engaged to promote awareness and engagements between host community and refugees to support the above activities as part of community engagement strategy of the project.

Sub-component 2.4: Facilitate access to integrated health and nutrition services. (Aweil, Jamjang and Maban). The project subcomponent will provide multipurpose cash assistance

to 5646 vulnerable refugees and members of the host community households to support the nutritional health and food security ensuring they have the means to purchase essential food items. It aims to alleviate immediate nutritional challenges and contribute to the long-term resilience and stability and integration of the new arrivals. Existing community sectoral structures will be engaged to promote awareness and engagements between host community and refugees to support the above activities as part of community engagement strategy of the project.

Sub-component 2.5: provide sustainable lighting energy solutions for improved settlement security. (Aweil, Jamjang and Maban). This sub-component aims to improve the quality of life for refugees and the host community sustainable lighting solutions will be provided. These will include the installation of 804 solar lighting in critical areas within the settlement, such as streets and water points or community safe structures, to ensure safe access during nighttime and enhance security. Furthermore, solar lamps will be distributed to 5200 vulnerable households to help in personal safety and daily living activities. The project also aims to empower community safety committees through financial and material support, fostering a sense of resilience and self-reliance within the community and addresses immediate safety concerns. Existing community sectoral structures will be engaged to promote awareness and engagements between host community and refugees to support the above activities as part of community engagement strategy of the project.

Component 3: Restoration of the environment in the refugee and host communities; *(Aweil, Jamjang and Maban).*

Under this component, the project will support the rehabilitation of degraded areas due to deforestation for firewood and construction because of the high influx of displaced as well as by host communities. The degraded forest and land resources will be restored, losses to farm crops will be reduced and effects of flooding on farmlands will also be reduced; while providing access to energy and energy efficiency. In line with the Government's pledge on climate action under the Nationally Determined Contributions (NDC), this component will include tree planting (adoption of household and institutional tree planting approaches), construction of water reservoirs (Haffirs/water pans) for water source management and climate smart agriculture. It will also promote access to clean cooking solutions to prevent environmental degradation. About 5,210 households will be supported under this component.

Sub-component 3.1: Community preparedness for Disaster Risk Reduction and Early Warning Systems (Aweil, Jamjang and Maban). This project subcomponent aims to bolster the resilience of communities in climate-vulnerable refugee hosting areas by equipping them with the tools and knowledge to effectively respond to climate-related disasters. The activities include establishing and facilitating 13 community committees in Maban, Jamjang and Aweil responsible for setting up and supervising community led disaster risk reduction projects and local early warning systems. These committees will play a pivotal

role in fostering a proactive approach to disaster preparedness. Additionally, the activities aim to empower refugee farmers and livestock keepers by providing them with up-to-date climate information, thereby enabling them to make well-informed decisions that enhance their adaptability to environmental changes and secure their livelihoods against erratic weather patterns. To combat the threat of flooding, the project will support the construction of flood protection structures including 6 valley dams (Haffirs) and a drainage line of up to 6 km which are essential in strengthening community communities from floods. To respond to the impacts of perennial flooding to strengthen resilience of at least 1000 individuals. The project will provide cash for labour intensive public work targeting 800 individuals to promote community led flood mitigation and preparedness actions for improvement of drainage in market places, public facilities at the risk of floods to respond to flooding impacts, this will empower individuals to take swift and effective measures in adapting to flood risks ensuring they have the means to protect and sustain their way of life in the face of such challenges. Existing community sectoral structures will be engaged to promote awareness and engagements between host community and refugees to support the above activities as part of community engagement strategy of the project.

Sub-component 3.2: Enhancing access clean cooking options and training on clean cooking access. (Aweil, Jamjang and Maban). This component will foster the adoption of clean cooking technologies among refugee and host communities, aligning with sustainable cooking practices. The component will encourage producing alternative cooking fuels, such as briquettes, and to construct improved cook stoves. These activities aim to empower 3960 new arrivals by, giving them voucher assistance for cooking energy, briquette fuel to improve access to cooking fuel and reduce environmental impact through efficient use of biomass cooking fuel the Cash and Voucher assistance is intended to ensure access to cooking energy, thereby supporting daily life while encouraging a shift towards cleaner energy sources. Additionally, the project will support women stove producers to produce fuel efficient stoves and distribute among 450 refugee other vulnerable refugees to improve cooking fuel efficiency at the household level. At the institutional level, the project will support the construction of improved institutional cook stoves in 10 primary schools. Through these efforts, the project aspires to create a model of sustainability and self-sufficiency. Existing community sectoral structures will be engaged to promote awareness and engagements between host community and refugees to support the above activities as part of community engagement strategy of the project.

Sub-component 3.3: Build community capacity to promote Environment protection agroforestry and community tree planting. (Jamjang and Maban). The subcomponent will strengthen the capacity of communities in refugee hosting areas for environmental preservation and rehabilitation. This initiative will engage community members in activities designed to reduce protection risks, foster peaceful coexistence, and improve environmental conservation. The core activities include the establishment and rehabilitation of tree nurseries for a diverse range of tree species, ensuring a continuous

supply of seedlings for reforestation projects. A significant effort will be the distribution of over 200,000 fruit and shade tree seedlings among refugees and host communities, for household tree planting and establishment of a woodlot which aims to encourage widespread tree planting and ultimately enhance the local ecosystem. Existing community sectoral structures will be engaged to promote awareness raising through community outreach engagements between host community and refugees to promote environmental protection and as part of community engagement strategy of the project.

Component 4: Project management and capacity building.

The objective under this component is to ensure smooth and effective implementation and management of the project. This component will support the Project Steering Committee (involving relevant stakeholders dealing with refugee affairs at the central and local levels) to oversee the execution of the project and strengthen institutional capacity of Commission for Refugee Affairs through provision of equipment, rehabilitation of infrastructure and mission/capacity building visits. This component will also support refugee and host community led peaceful co-existence including building capacity of the peace committees.

Sub-component 4.1: Local/county government capacity building and infrastructure improvement (Aweil, Jamjang and Maban). This subcomponent will promote peaceful coexistence and development among refugee and host communities (340 individuals) through targeted interventions aimed at enhancing the capacity for dialogue, cooperation, and local governance. Activities will include providing the peace committees in the project locations with incentive cash support for Peacebuilding community activities, procurement of motorcycles for Police and renovate the police office in Aweil, bicycles for Peaceful committees and uniforms to facilitate their work, rehabilitating Maban county offices with solar power for better administrative functions.

Sub-component 4.2: CRA institutional capacity building (Aweil, Jamjang, Juba and Maban). This subcomponent will provide capacity building to CRA, through which it will support the implementation of project activities. Capacity building support will also enhance inter-government coordination between the CRA and UNHCR, as well as strengthen the operational capacity of the Commission for Refugee Affairs through provision of equipment activities conducting a livelihood study, mobilisation, field missions among others. The project also involves equipping the Commission with laptop computers for institutional capacity development.

Sub-component 4.3: Programme management and learning (Aweil, Jamjang, Juba and Maban). This subcomponent will facilitate project location stakeholder inception workshops, day-to-day project management, monitoring, coordination, and information sharing. It will support the overall project management by the implementing agency, project management unit (PMU) to be established, monitoring and evaluation processes,

and knowledge sharing. Additionally, it will assist in onboarding necessary human resources and technical assistance for implementing planned activities. The project will continue using the approved UNHCR monitoring and evaluation framework under the country multiyear strategy and adapting it as needed. This will include a PMU oversight annual supervisory mission to ensure timely monitoring, tracking progress, and address implementation challenges promptly. A learning agenda which will also capture lessons learned and knowledge to inform the scale-up of the integration and resilience interventions.

2.1.2. Project Outcomes

Project outcomes are;

- **Outcome 1:** Improved self-reliance and economic well-being,
- **Outcome 2:** Displaced and host population supported to access basic services (health, education, water, sanitation and shelter) and markets,
- **Outcome 3:** Strengthened climate resilience of refugees' host communities and other displaced persons, and
- **Outcome 4:** Institutional capacity of government strengthened, and project managed and delivered effectively.

2.1.3. Project Outputs

Output 1: The crisis affected communities of refugees and their hosts supported with skills development and climate smart agricultural production practices; and increased income-generation opportunities for the most vulnerable so as to empower them to create new sustainable and climate responsive livelihood opportunities;

Output 2: The essential service delivery systems (health, education, WASH, settlement infrastructure, etc.) supported through rehabilitation and expansion of the systems and improving access and quality of services; in effect enhancing the wellbeing of the crisis-affected communities;

Output 3: Enhanced resilience and adaptive capacity of displaced people (refugees) and host communities to climate-related and other environmental risks will be enhanced through well-established and environmentally sustainable early warning systems and preparedness measures; and

Output 4: Local institutions supported with capacity building and key equipment to facilitate their daily operations so that the leadership and capacity of these institutions can be more sustainable to advance peaceful coexistence efforts, resulting in improved coping capacities and strengthened peaceful coexistence and social cohesion among refugees and other host communities.

2.2. Project Location

Aweil is located in the Northern Bar el Ghazal state in the Northwestern part of South Sudan, near the border with the Republic of Sudan and the Abyei Administrative Area. Aweil covers an area of 21,092.3 km², estimated total population is 213,914, comprising males 105,081 (49.1%) and women 108,833 (50.9%)[3]. The estimated population in Aweil West (Wedweil area) is about 100,000 people (according to the Payam). Aweil is a cultural and economic hub for the Dinka people and other communities in the region. It has a history shaped by conflicts, including the Sudan Civil War, which has influenced its demographics and infrastructure development.

The topography is flat and is prone to flooding. Aweil falls under the western flood plains sorghum and cattle livelihood zone, with grassland, swampy areas with papyrus reed, and pockets of forest being found in this area.[4]. The average elevation of Aweil is about 425 meters (1,394 ft) above sea level.

The Wedweil Refugee Settlement in Aweil hosts several Sudanese refugees who have fled the ongoing conflict in Sudan. The settlement has grown significantly with the continued influx of refugees and returnees from Sudan. The settlement's environment features a tropical savanna climate with distinct wet and dry seasons.

The location of Aweil is shown in the figure 1.

[3] City facts (link)
[4] Conflict Sensitivity Resource Facility South Sudan (link)

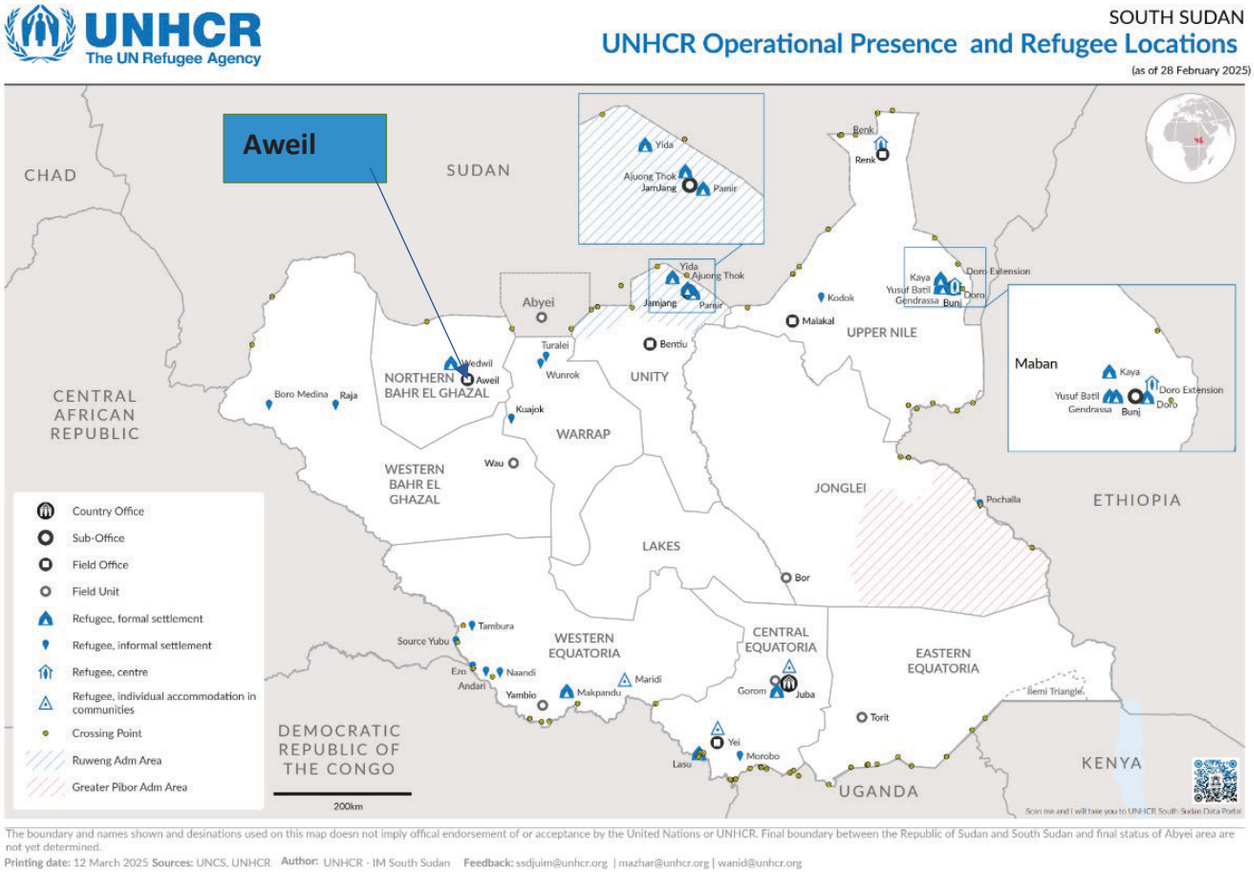


Figure 1: Administrative units (South Sudan)[5]

2.3. General Layout, size, and capacity

The proposed SCRSSP project components are classified into goods, services, and civil works. The details are provided in the **Table 1**.

Table 1: Proposed project activities in Aweil

SCRSSP Project Component – Aweil	No. Of units	Category
Component 1: Enhancing jobs and livelihoods amongst the refugees and host communities		
Sub-component 1.2: Micro credit and business support for enterprise development		
Provide micro-credit support to agro enterprises along the agriculture value chain.		Goods
Provide business development credit for enterprise capitalization.		Goods
Support for sectoral community structures		services
Sub-component 1.3: Strengthen the capacity of community-based enterprise groups		
Establish enterprise groups at the village/boma for capacity development on climate-smart cropping systems		Goods

[5] Dau, S. A. L. (2022). Embedding Federalism in the South Sudan's Permanent Constitution: Achieving Unity in Diversity Policy. *Journal of Contemporary Governance and Public Policy*, *3*(2), 117-134.

SCRSSP Project Component – Aweil	No. Of units	Category
Procure and distribute climate-adapted seed kits for farming for refugees and the host community.		Goods
Livestock restocking programme for the host		Goods
Support for sectoral community structures		services
Sub-component 1.4: Strengthening private sector seed multiplication for certified		
Engage the private sector for seed multiplication using foundation seeds targeting outgrowers' farmers.		Services
Establish seed production blocks'		Civil works
Construction of post-harvest handling storage (seeds storage, showroom, mills/farm market)		Civil works
Demarcation of agricultural farmland		Civil works
Support to sectoral community structures		Services
COMPONENT 2: Restoration and improvement of basic social services in the refugee		
Sub-component 2.1: Rehabilitation and upgrade of school infrastructure		
Construction of new classroom blocks (pre-school) in existing schools		Civil works
Rehabilitation of the vocational center		Civil works
Renovation of classrooms in existing schools		Civil works
Providing vocational skills training to refugees and host community members		Services
Support for sectoral community structures		Services
Sub-component 2.2: Improvement of WASH facilities for sustainable water services		
Distribution of hygiene kits (in kind or cash)	375	Goods
Rehabilitation and upgrading of water network infrastructure (repair and maintenance of solarization)	1	Civil works
Support for sectoral community structures		Services
Sub-component 2.3: Community empowerment and psychosocial (Mental Health Support)		
Upgrade the sports, art, and craft facility	1	Civil works
Construction of a safe house to accommodate the GBV survivors with heightened risks	1	Civil works
Organize sports events and celebrations of the 16 Days of Activism and International Women's Day to connect with their cultural heritage and promote inclusivity	2	Goods
Support for sector to community structures		Services
Sub-component 2.4: Facilitate access to integrated health and nutrition services		

SCRSSP Project Component – Aweil	No. Of units	Category
Construct 1 block for the laboratory, drug store, and EPI in Nyamlel Hospital	1	Civil works
Provide cash assistance and livelihood support for nutritional support to vulnerable households	1302	Goods
Support for sectoral community structures		
Sub-component 2.5: Provide sustainable lighting energy solutions for improved settlement security		
Installing solar lighting in a settlement (water collection points and community safe structures	184	Goods
Provide solar lamps to vulnerable households	1206	Goods
Support for sectoral community structures	1	Services
COMPONENT 3: Restoration of the environment in the refugee and host		
Sub-component 3.1: Community preparedness for disaster risk reduction and early warning systems		
Set up community committees for disaster risk reduction and set up early warning systems or community networks	4	Goods
Construct flood protection infrastructure (Hafirs/drainage)	1	Civil works
Cash for labor-intensive public works for flood mitigation and preparedness	184	Goods
Support for sectoral community structures	1	Services
Sub-component 3.2: Enhancing access to clean cooking options and training on clean cooking access		
Support women to produce fuel-efficient stoves and distribute them among refugee women	225	Goods
Support for sectoral community structures	1	Services
COMPONENT 4: Project management and capacity building		
Sub-component 4.2: CRA institutional capacity building		
Procurement of goods (bicycles, motorcycles) including country logistics	4	Goods
Provide incentive cash support for peace-building community activities.	75	Services

2.4. Area of influence of the project

The proposed SCRSSP project components will be implemented in Aweil, specifically around the Wedweil Refugee Settlement. The settlement is located in Aweil West, southeast of Nyamlel, the headquarters of Aweil West County, along the main road connecting Nyamlel to Aweil town. The region experiences a tropical savanna climate with distinct wet and dry seasons. The area is prone to flooding due to its flat terrain and proximity to rivers, which can impact refugee settlement.

The Wedweil Refugee Settlement is a fast-growing settlement housing refugees, returnees, and existing residents, primarily from Sudan. The Refugee population in Aweil (Wedweil Refugee Settlement) as of January 2025 was estimated to be 20,773[6]. However, this is likely to increase with the ongoing war in Sudan. Wedweil Refugee Settlement is shown in the **Error! Reference source not found.**.

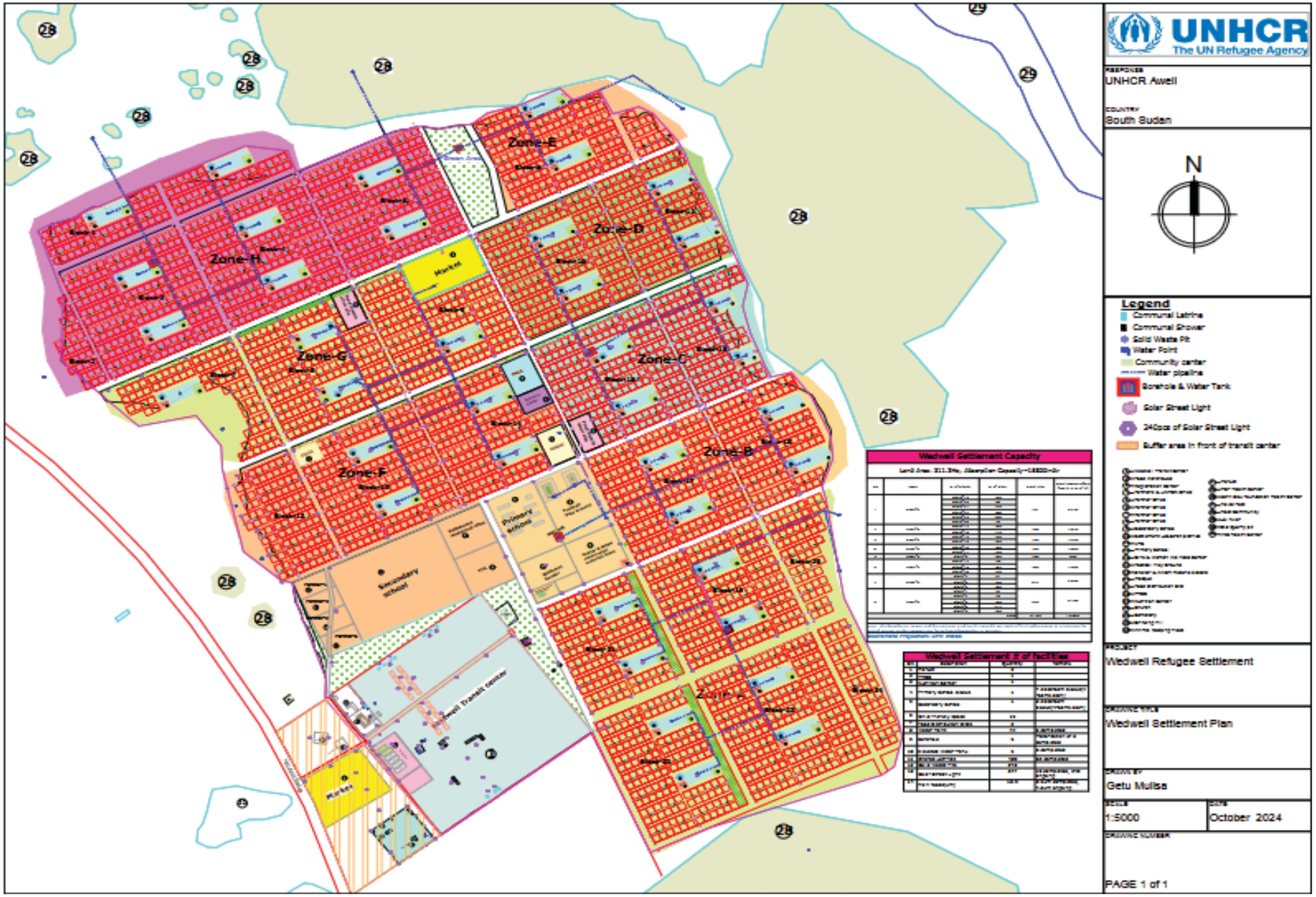
Administrative space

The administrative spaces at the refugees' settlement include the UNHCR, CRA and partners offices as well as police post and police outpost strategically located within the settlements. Other NGO offices are located in the south and central portions of the settlement. These NGOs provide different humanitarian support. The settlement is managed by NGOs and Civil Society Actors.

Wedweil Refugee settlement comprises 24 blocks, as shown in Figure 2. The houses in the refugee settlement are decent, most made from mud bricks and iron sheets as roofing materials. The key water sources in the settlement comprise boreholes (with hand pumps) per block and water yards. Each household has a pit latrine and compost pit (though this is used for disposal of mixed waste).

Figure 2: Wedweil Refugee Settlement

[6] UNHCR data 2025


Zone-E
Zone-D
Zone-H
Zone-G
Zone-C
Zone-F
Zone-B
Zone-A
Market
Secondary school
Primary schools
Awell Transit center
Market
Wedwell Settlement Capacity
Wedwell Settlement # of Facilities
UNHCR
The UN Refugee Agency
RESPONSE
UNHCR Awell
COUNTRY
South Sudan
N
Legend
Communal Latrine
Communal Shower
Solid Waste Pit
Water Point
Community center
Water pipeline
Borehole & Water Tank
Solar Street Light
240pcs of Solar Street Light
Buffer area in front of transit center
PROJECT
Wedwell Refugee Settlement
DRAWING TITLE
Wedwell Settlement Plan
DRAWN BY
Getu Mulisa
SCALE
1:5000
DATE
October 2024
DRAWING NUMBER
PAGE 1 of 1

2.5. Pre-construction

SRCSSP project components including the provision of goods and services, as well as civil works (construction, rehabilitation of facilities and establishment of the farmlands) will be undertaken in different sites within Aweil. Various activities will be undertaken during the pre-construction phase jointly between the UNHCR and the project management unit. These are broadly classified into project mobilization and civil works.

The first phase will entail confirmation of data and accuracy of topographical survey; Mobilization of the Labor force, equipment, and plant for construction works; Transportation of equipment, workers, materials, and storage.

The second phase will entail securing/hoarding off the project sites and installing a construction board indicating the kind of project, work, and professionals and organizations involved, including UNHCR, CRA, and GoSS. The site facilities will be temporary (for the duration of the construction phase) and will include site offices and other temporary facility for the contractor. The contractor will have to comply with ESIA requirements, including environmental and social management plan (ESMP) for prevention, minimizing, and mitigating likely impacts, including gender-based violence. During the site preparation, both skilled and unskilled temporary employment opportunities will be created, of which, priority will be given to the local people and youths (returnees, host community, and refugees, where applicable)

In the third phase. UNHCR, jointly with the project partners, namely CRA and GoSS, will identify suppliers of required goods. The main construction material, including construction blocks (hard red stone and burned bricks), steel, cement, and sand will be sourced from accredited suppliers and installed by certified technicians. In Aweil, for example, the local community, including youths should be subcontracted to provide burned bricks for the construction of schools, and a Laboratory among other civil works.

Other materials and equipment, such as sanitary kits and other WASH equipment, will be sourced from reliable suppliers selected by UNHCR and approved by project partners.

Great emphasis will be laid on procurement of material from the local area or within South Sudan which will make both economic and environmental sense as it will reduce negative impacts of long-distance transportation of materials to the project site, saving a lot of money and boosting economy of the Republic of South Sudan.

The selected sites have sufficient space left, hence storage of bulk building materials such as sand, stones, ballast, bricks, Tanks will not be a challenge. The contractors will install separate storage facilities for other materials such as Sanitary kits and photovoltaic equipment.

To avoid pilling large quantity of materials on site, the project implementing agency is advised to order bulky materials in bits and on demand. Materials such as cement, sand,

paint among others will be purchased when required and stored in a temporary storage structure within the sites.

2.6. Construction activities and other project activities

The project components that will involve construction include;

Strengthening private sector seed multiplication for certified seed

- Establish seed production blocks'
- Construction of post-harvest handling storage (seeds storage, showroom, mills/farm market)
- Demarcation of agricultural farmland

Rehabilitation and upgrade of school infrastructure

- Construction of new classroom blocks (pre-school) in existing schools
- Rehabilitation of vocational center
- Renovation of classrooms in existing schools

Improvement of WASH facilities for sustainable water services

- Rehabilitation and upgrading of water network infrastructure (repair and maintenance of solarization)

Community empowerment and psychosocial (mental health support)

- Upgrade the sport, art and craft facility
- Construction of a safe house to accommodate the GBV survivors with heightened risks

Facilitate access to integrated health and nutrition services

- Construct 1 block for laboratory, drug store and EPI in Nyamlel Hospital

Restoration of environment in the refugee and host

- Construct flood protection infrastructure (Hafirs/drainage)

Construction works

Earthworks

Construction works will involve excavation of the topsoil to prepare the site for construction of foundation. This will involve the use bulldozers and human labor. However, care and architectural specifications should be followed strictly at this stage. Approved anti-termite will be applied before work commenced and approved dump proof

course (D.P.C.) will be provided under the walling. The excavated materials will be carted away from the site to approved local dump site. Some of the carted material shall be selected for re-use and general filling of the site where required.

Masonry, concrete works and related activities.

Once earthwork is complete, the contractor will commence construction of concrete foundations for establishing respective facilities. General masonry and related activities will include stone shaping, concrete mixing, plastering, slab construction, construction of foundation. These activities are known to be labour intensive hence will be supplemented by machinery such as concrete mixers, vibrators where necessary.

Plumbing

Pipe work will be done to connect drainage of storm water from the roof top into the roof harvesting system. Plumbing will include metals and plastic cutting, the use of adhesives, metal grinding and wall drilling among others.

Electrical Works

Electrical works will be installation of lighting, electrical conduits, distribution boards, and undertaking wiring of the facility.

Landscaping

To improve the aesthetic value and visual quality of the site once construction is complete, open places will be landscaped by the contractor. This will include removal of waste from the site, ground leveling and establishing flowers gardens and lush grass lawns so as to replenish the top soil and improve the visual quality of the site. Locally available indigenous species will be given priority in landscaping unless where it unavoidably calls for exotic species.

Processes, Equipment, Materials, Output and Expected Waste

Short-term impacts to the environment such as dust pollution, and noise that will result from the construction are predictable and manageable with appropriate mitigation measures proposed. No negative impacts on destruction of critical ecosystems, and sites of cultural importance are foreseen in the project sites.

The full implementation of the ESMP will be essential in minimizing adverse environmental and social impacts of the project. Although the sub-projects will have minimal negative impacts, these will be carefully monitored and mitigated throughout implementation, with regular and consistent monitoring, and timely interventions to mitigate and prevent the potential negative impacts. and CRA will be expected to ensure full compliance with the proposed Environmental and Social Management Plan (ESMP).

Utilities

Water: The following are some of the sources of water that the project may consider:

Ground water sources: Borehole with handpumps and water yards are the main sources of water in the project sites. The water resources e.g water yards are available for use during the construction phase. The water management committee will also support the construction team by allocating water for other uses.

Rainwater Harvesting: The use of rainwater is recommended to reduce the volume of water extracted from the borehole during times of rainfall, thus conserving the underground aquifer supply. Harvested rainwater may be used for potable uses or for irrigation of soft landscape areas

Electricity: The proposed project sites are not connected to the national grid. Renewable Electricity Supply Options as alternative sources of on-site energy generation (e.g. photovoltaic) should be in the project if sufficient supporting funding can be sourced

Sewerage: There is no existing trunk sewer line in Aweil. The sewerage discharge from the development will be taken offsite, on site retention or on-site sewerage treatment.

Flood/ Storm Water Drainage: The topography of project area of Influence is generally flat and it may be assumed that the entire development site will be impermeable, whether through building development or hard landscape areas and roads.

2.7. Schedule of project activities

All the project components will be implemented over 24 months starting 2025 in the various sites in Aweil. The project activities will be implemented concurrently by UNHCR and NGO and Civil Society Organization actors based on agreed schedule. However, the ESIA recommends that all activities that involve civil works should be undertaken during the wet seasons to minimize dust, erosion and water abstraction from the already stretched ground and surface water sources in Aweil.

2.8. Staffing and Support

The project will be implemented by the UNHCR field office in Aweil jointly with partners including the CRA, and NGO and civil society actors. The overall supervision will be undertaken by the UNHCR country office based in Juba, South Sudan in collaboration with the African Development Bank office. The key contact persons in the field office will include the Shelter and Planning officer and the livelihood officer who will monitor progress and update the UNHCR office in Juba.

Besides, there is an existing leadership structure by the refugees that will also play a role in implementation of the various project activities. The leadership of the settlement comprise the following

- Block leaders and deputy leaders
- Women's Committee
- Youth Committee
- WASH Committee
- Community Watch Team
- Older persons' Committee
- Conflict Resolution Committee
- Child Protection Committee
- Project Management Committee
- Health Committee
- Shelter Committee
- Environment Committee
- Religious Leaders Committee
- Art and Cultural Committee

2.9. Facilities and services

Payams office

The local government office located in Aweil, about 3 km from the Wedweil Refugee Settlement. UNHCR supported the construction of the office block and fencing of the facility. The Payam has established a Peace Committee that is responsible for the general administration of both the settlement and host community. However, the capacity is limited to respond to security and other social issues within the project area.

Market

The Wedweil market comprise simple semi-permanent structures and it is located a few metres from the refugee settlement. The market was closed after the conflict between the refugees and host communities on January 17, 2025, and temporary site has been identified insider the Wedweil Refugee Settlement. However, it would be important to build the stalls at the former market and encourage the traders to resume their activities because it is one way of promoting integration and peaceful coexistence. In addition, the market should be equipped with water, sanitation facilities (latrines) and solid waste management collection equipment to minimize littering.

Learning Facilities

All the learning facilities are located within the host community. The main primary schools include Good Shepherd, Salvation Primary School, Wedweil Primary School and Wedweil Secondary School. The schools were constructed or renovated through support by UNHCR, UNICEF and KfW to the GoSS. The classrooms are permanent structures with walls made from burned bricks, iron sheets. However, some lessons are conducted under

trees due to lack of adequate classrooms. In addition, modern classrooms should be provided with insulation material to protect learners from the heat. It is also important to improve infrastructure for water supply, for example, drill boreholes in every school or expand network for water supply and create water points within the school compounds.

Health facilities

There are heath facilities within the settlement that provide basic services including nutritional support and treatment for common illnesses like headache. However, the main public health facility is Nyamlel County Hospital which is situated about 30 KM from the Wedweil Refugee settlement.

Nyamlel Hospital shown in Figure 3 was built in 1956 and elevated to county hospital in 2023. Departments include in patient section, expanded program for immunization (EPI) unit, laboratory, outpatient department, two wards (male and female) with 18 bed capacity (combined), stabilization centre for malnourished children, paediatric unit, pharmacy. It has 23 staff. Medical and other hazardous waste are burned as the two (2) incinerators are damaged. There's a Placenta pit in maternity wing but not well managed. Hospital has no electricity or lighting system including in the wards or delivery rooms. There are two (2) boreholes, hand pumps were temporarily fixed. Needs blood bank and theatre, biochemistry lab.

UNHCR, through support from EU funding, is currently upgrading Wedweil Primary Health Care Unit PHCU to Primary Health Care Centre PHCC. It is envisioned that with this upgrade, the facility wll be able to respond to the health needs of the refugees, returnees and the host community.

Figure 3: Nyamlel Hospital site

2.10. Operation and maintenance activities

Currently, existing facilities inside and around the Wedweil Refugee settlement such as road, stormwater drainage systems, healthcare and sanitation facilities are managed by UNHCR and NGO actors. The refugee community are represented in key planning and decision-making process regarding the operation and maintenance of the existing facilities though the leadership structures that include block leaders, zone leaders, and representatives from the various committees.

The Nyamlel Hospital is managed by the GoSS through the line Ministry of Health with the support from other humanitarian partners like UNHCR, UNICEF, UNDP etc. However, GoSS disbursements are not adequate and occasioned by delays which affect provision of key services.

The proposed project will also create additional facilities that will require establishment of a holistic structure for operation and maintenance of;

- Hospital infrastructure (Nyamlel Hospital)
- School infrastructure (pre-school, primary and vocational center)
- Seed production blocks and post-harvest storage facilities
- Water network infrastructure
- Sport facility
- Safe house for the GBV victims

2.11. Lifespan (Description of projects decommissioning activities)

The proposed SRCSSP is a long-term humanitarian intervention to safeguard and improve living conditions of the refugees, host communities and returnees in Aweil. It is envisioned that the proposed project components (specifically, the infrastructure components) will be in existence beyond the two years implementation phase. However, in the event that the projects components become obsolete or need decommissioning, UNHCR and relevant stakeholders shall plan, engineer and implement the decommissioning, demolition and clean-up of the sites and other associated structures. UNHCR in collaboration with the CRA will develop decommissioning designs so that hazardous materials are safely removed, and salvageable equipment and structures are protected before the remaining facilities are safely dismantled. The designs shall carefully consider re-use goals for the site and materials. It should, however, be noted that at the time of decommissioning of the project, a separate ESIA for decommissioning shall be necessary.

i) Existing Condition Evaluation

The first step will entail evaluating the existing conditions and planning for the appropriate handling of all site conditions, materials, or structures. The following will be taken into account:

- ✓ Developing an inventory of hazardous and solid wastes to ensure proper handling

- ✓ Identification of electric utilities and communication systems to ensure that active site operations continue uninterrupted
- ✓ Assessment of historic structures and materials, which can be reclaimed to comply with preservation requirements (if applicable) and to maximize cost recovery

ii) Demolition of Facilities

The development of demolition plans shall consider the structural stability of the structures being taken down, clearance of adjacent structures, and rigging requirements. will engineer the dismantling of buildings, tanks, piping, and storage facilities.

iii) Preparation for the sites

Future site use is a key consideration because costs can be reduced by understanding which components of the site have to be removed versus built over or around. Topography and backfilling needs will be efficiently addressed relative to future construction and stormwater management

iv) Materials Recycling and Reuse

Materials that can be recycled, reused, or salvaged shall be identified and removal planned accordingly to capture financial benefits

v) Integrated Safety Design and Review

Safety for workers and the community is of great importance, and includes physical hazards, protection of water ways, and control of potential airborne hazards

CHAPTER THREE: BASELINE INFORMATION

3.1. Physical environment

Topography and Hydrology of the project site

The proposed project site has flat plain topography with an insignificant slope gradient to drain out water from rainfall. The project site has an elevation of about 425 metres above sea level. The region is prone to flooding due to the flat terrain and proximity to rivers such as Lol and Pongo Rivers.

Geology and soils

The major soils found in the project area are black vertisol which occupies most of the area; others are alluvial deposits and brownish soil observed along the roads within the project area. The area near Wedweil comprise thick lacustrine shales and claystones, and floodplain, lacustrine, fluvial and alluvial sandstone. However, the area has below average land productivity compared to the rest of South Sudan due to factors such as extreme weather patterns (drought and flooding).

Rainfall

Aweil experiences a tropical savanna climate with distinct wet and dry seasons. The wet season occurs from May to October, while the dry season occurs from November to April. Annual rainfall in the Aweil area is estimated to be in the range of 600mm to 750mm. Evapotranspiration is more than threefold in the area.

Water resources

Groundwater is the major source of water supply to the people. There is no water quality analysis lab and hence no baseline water quality data is available. South Sudan has abundant groundwater resources, with the Umm Ruwaba unconsolidated geological formation being a major source. However, specific information on groundwater in Aweil is limited.

UNHCR has made significant investments in the form of boreholes to improve access to clean water in the community and Wedweil Refugee Settlements. However, there are challenges related to number of boreholes, access, seasonal migration and flooding.

3.2. Biological environment

Flora and Fauna

The main vegetation types in the project area include grassland, shrub land and scattered trees. The project sites are characterized by grasslands which are typical of the western flood plains. These areas support both agriculture and livestock grazing. The proposed project components will occupy only a small portion of the land and therefore, no major

impact is foreseen in terms of destruction or clearing of the grasslands. Besides, there is no nationally protected area in the proposed project areas.

The fauna in the proposed project area is dominated by rich bird population mainly, Northern Carmine Bee-eater, Abyssinian Roller, and Black-headed Gonolek. Livestock namely cattle and goats are also common in the area.

Conservation challenges remain significant due to habitat loss as a result of drought, wild fires on the vast grassland during dry season.

The project development is expected to have no impact on these any animal species, instead, the provision of alternative livelihood sources and restoration of the environment will safeguard both humans and animals from frequent incidences of floods and risks of environmental degradation.

3.3. Socio-cultural environment

Administration Population and Settlement pattern

Aweil which is the capital of Northern Bahr el Ghazal State is administered by a municipal council while the larger state is headed by a governor (Uber Mawut). The estimated population as of 2022 was 204,245 people[7].

Economic Activities and use of the natural resource

According to a report from FAO and WFP, 75% of households engage in farming. Gross cereal yields in the county were put at 1.10 tonnes per hectare in 2021, increasing to 1.3 tonnes per hectare in 2022. Crop production (principally ground nuts, okra, simsim, sorghum) is an important economic activity in Aweil. In addition to smallholder farming, some young men make the seasonal journey north to Sudan to work as manual labourers on large commercial agricultural holdings**.** Northern towns such as Aweil have traditionally relied heavily on Sudan for imports of staple foods such as flour, millet and sorghum. Trade was reportedly dampened by the official closure of the border with Sudan in May, however illegal trade persisted throughout the recent civil war in South Sudan.

The economy of Aweil has undergone a major transformation towards markets and commercialisation of labour. Decades of conflict and insecurity within South Sudan and across the border in Darfur/Kordofan have accelerated pre-existing patterns of migration through forced displacement from Aweil to Sudan and elsewhere. The rapid repopulation of the area since the early 2000s placed the local markets and ecology under such pressure that cash, wages and markets became an increasingly vital means for survival. This structural economic transformation partly explains why food insecurity has continued to be a challenge for Northern Bahr el-Ghazal State despite its relative stability. Aweil was classified as being at Emergency (IPC Phase 4) levels of food insecurity in November 2022,

[7] Conflict Sensitivity Resource Facility – South Sudan (link)

and is projected to improve to Crisis (IPC Phase 3) levels considering the drought and influx of refugees to the Sudan conflict.

Flooding is a regular concern for both agriculturalists and pastoralists in Aweil. In 2020, Aweil West experienced significant flooding in the third quarter, with an estimated 2,422 households across 118 villages along the River Lol impacted by the flooding and many of them fleeing to higher ground to escape rising waters[8].

There are no foreseen impacts as result of implementation of the proposed project. On the other hand, the intercommunal conflicts and flood incidents could potentially affect the sustainability of some project components such as farmlands and access roads.

3.4. Public service and infrastructure

Transport Services

Aweil town is better developed in terms of transport infrastructure that include the Aweil airstrip and road network. The proposed site in Wedweil is about 38 km from the town, and can be accessed using the (Aweil-Nyamlel-Gok Machar Road). A primary road runs from Aweil town to Gorong via Nyamlel. The road is designated "passable with difficulties" during both the rainy and dry seasons. A secondary road runs west from Goron to Raja town (Western Bahr-el Ghazal State). This road was deemed "passable with difficulties" during both the rainy and dry seasons of 2022 and 2023 (respectively) by the Logistics Cluster, up until Gossinga in Raja County, where the road becomes impassable. Logistics Cluster maps indicate that a bypass road from Gossinga to Raja town is passable with difficulty. A primary road branches from Wedweil and runs towards the east of Ameeth to Malualkon in Aweil East County. A primary road runs north of Nyamlel to Gok Machar (Aweil North County) and on to the border with Sudan.[9] The condition of the road is unknown. However, the overall conditions of the roads are poor, as there is no regular maintance by the relevant GoSS departments.

Water Supply and Sanitation

Current water supply and sanitation condition are very poor in the project area. Some of the villages in the project area and its environs also obtain water from hand dug wells. Children and women travel long distances to fetch water from these sources.

Health Service and Problems

The main health problems as described by the health officials include malaria, cholera and meningitis. During the interviews and consultations, it became clear that malaria and water related diseases are the major health problem of the community. Contamination of water sources due to the recurrent occurrence of flooding is considered the main cause

[8] Conflict Sensitivity Resource Facility – South Sudan (link)
[9] Conflict Sensitivity Resource Facility – South Sudan (link)

for the outbreak of waterborne diseases. The government is the major provider of health service, although establishment of private health facilities is increasing especially in towns and urban areas. People in the project area visit available health care centers and units in their surroundings. During the time of the assessment there were several public health centers and a hospital located in Aweil town.

CHAPTER FOUR: LEGISLATIVE, POLICIES, ADMINISTRATION FRAMEWORK

4.1. Legislative and policy framework

There is no operational legal system for ESIA in South Sudan. The Draft National Environmental Bill 2023 (approval still pending) of South Sudan provides for the establishment of an autonomous South Sudan Environmental Management Authority (EMA) to act as the watchdog on all public institutions, private companies and individuals defaulting against the stipulated environmental laws and regulations. Until the Authority is fully established, the duties and functions of the Authority are delegated to the Ministry responsible for the environment and forests[10].

The ESIA entailed a review and description of the pertinent regulations and standards governing the environmental quality, health and safety, protection of sensitive areas, land use control at the International, national and local levels.; a summary of the legal statutes shown in Table 2 were reviewed.

Table 2: Policy and Legislative Framework

Policy/Legislation	Description
The Comprehensive Peace Agreement (CPA)	Signing of the CPA in January of 2005 brought peace to Southern Sudan by enabling Southern Sudan to acquire the mandate to legislate laws for internal governance ranging from State to Local Authority level. It also paved the way for secession of South Sudan through a referendum in 2011. Under Schedule B of the CPA, GoSS is mandated to coordinate service provision within its territories. GoSS is also under obligation to set standards for environmental management which essentially requires that all development projects consider precautionary principles, which underscores the importance of undertaking an ESIA to determine the potential positive impacts, negative impacts and mitigation measures.
The R-ACRSS	The Revitalized Agreement for Resolution of Conflict in South Sudan (R-ARCSS) in Articles 1.10.3.7, 4.6.1.3, 4.9.1 and 4.9.2 set foundation for; Establishment of the national Ministry of Environment and Forestry under the Economic Cluster; and creation of the **Environmental Management Authority (EMA)** upon commencement of the transitional period to oversee policy implementation and compliance. The Ministry of Environment and Forestry is the governing body of all natural resources in the South Sudan. In addition, the creation of the EMA would imply that all development projects and/ or feasibility study of any project must include an environmental impact certificate from the Ministry of Environment and Forestry

[10] Netherlands Commission for Environmental Assessment (link)

The Transitional Constitution of the Republic of South Sudan of 2011 amended 2015	Section 44 of the Constitution stipulated the right of every person and community to clean and health environment; It also emphasize the importance of safeguarding the environment for the benefit of present and future generations, through reasonable legislative action and other measures that: a. prevent pollution and ecological degradation; b. promote conservation; and c. secure ecologically sustainable development and use of natural resources while promoting rational economic and social development so as to protect genetic stability and bio-diversity of Southern Sudan. The ESIA is widely considered as a planning tool for any development project specifically aimed at ensuring early identification of all adverse impacts such as destruction of natural ecosystem, pollution sources and recommendation of practical mitigation measures to safeguard the environment. It is on this basis that the ESIA for the proposed SRCSSP was undertaken to ensure compliance and safeguard the quality of life of the citizens and the environment.
REFUGEE ACT, 2012	The Refugee Act of 2012 in South Sudan is designed to implement international refugee protection standards within the country. It provides a framework for the reception of asylum seekers, the application and recognition of refugee status, and outlines the rights and obligations of refugees. It provides for the establishment of the Commission of Refugees Affairs (CRA) to oversee refugee matters, sets up a Refugee Eligibility Committee to assess applications for refugee status and includes a Refugee Appeals Board for appeals against decisions The refugees must be recognized and entitled to legal protection, identity documents, and Convention Travel Documents. They also have the right to seek employment and access basic health services and primary education similar to South Sudanese nationals. Refugees must obey all laws of South Sudan. The proposed SRCSSP has components relating to the protection of refugees and offering opportunities for self-reliance through job opportunities. Therefore, the Refugee Act 2012, is vital in the design and implementation of the proposed project by enabling equal treatment and consideration in the existing opportunities arising from its implementation.
South Sudan Vision 2040: Towards Freedom, Equality, Justice, Peace and Prosperity for All.	The vision emphasizes creation of a diversified economy, driven by sectors like agriculture, industry, mining, manufacturing, tourism, and services. However, these should be utilized in a manner that does not affect their long-term sustainability.

	The 2040 vision underscores the significance of precautionary principles in development and utilization of natural resources for economic growth. The ESIA is a planning tool that enables early identification of potential risks resulting from implementation of a project as well as recommendation of practical mitigation measures.
South Sudan National Environment Policy 2015 – 2025	The objectives of the GoSS Draft Environmental Policy are to:- 1) Enhance equitably the livelihoods of Southern Sudanese citizens; 2) Conserve and recuperate ecosystem processes and biological diversity; 3) Integrate environmental considerations into public-sector development policies, plans, programs, and projects at all levels of government; 4) Promote effective, widespread, public participation in the consideration and incorporation of environmental considerations into development activities. The strategic goal of the policy is to ensure the protection, conservation and sustainable use of the natural resources of South Sudan without compromising the tenets of inter-generational equity. This policy introduces a national environmental response framework and strategies to be implemented by all key actors in the public, private, and community domains. The foundation of the National Environmental Policy is to protect and improve the environment in a manner which contributes to the quality of life of both present and future generations. The objectives of this policy are integral in impact identification and formulation of ESMP.
National Land Policy 2023 (draft)	The **purpose of this Bill** is to provide for establishment of a legal and institutional framework for addressing land governance challenges and promoting sustainable management of the environment. This Bill is drafted in accordance with the provisions of Article 4.6.1.3, 4.9 of the **R-ARCSS and 41 of the Transitional Constitution, 2011**, which grants the Government of South Sudan concurrent authority over protection and management of the environment. Specifically, it establishes a framework for sustainable framework for allocating and protecting collective and individual land rights for all South Sudanese. The bill describes category of land ownership namely public land – all land owned, held or otherwise acquired by any level of government (including land owned by Bomas, Counties, States and federal government or administration and all land that is not otherwise designated as community or private). This means that all land that is not claimed automatically belongs to the government

	community land – all land traditionally and historically held or used by local communities or their members (including grazing lands for animals, hunting grounds, or locations of traditional sacrifices and worship) private land including registered land held by a person under leasehold tenure, investment land acquired under lease from the government, and other land designated as private land in accordance with the law. This means that all investment land is acquired from the government through the leasehold tenure. It is on this basis that all matters pertaining to acquisition and transfer of ownership for project implementation is handled by the CRA in collaboration with other GoSS departments.
The National strategy for climate change Adaptation and Mitigation 2021	South Sudan's climate change strategy emphasizes building resilience, promoting sustainable development, and addressing the impacts of climate change through comprehensive adaptation and mitigation measures The policy outlines the measures for i. the development of a national strategy for climate change adaptation and mitigation; ii. the formulation of the climate change policy; and iii. increasing the country's efforts to reduce communities' vulnerability to climate variability and change. The project prioritizes Adaptation actions through agricultural improvement, improved water infrastructure and sustainable energy, as well as protection of the communities from adverse impacts such as flooding and extreme hunger.
Health Policy 2016-2025	The National Health Policy 2016-2025 aims to improve health services by aligning health service delivery, health financing, strategic information, leadership and governance, human resources for health, and access to essential medicines. The project aligns with the guiding principles including: i. health and health services as a human right; ii. primary health care approach; iii. decentralization; iv. partnerships; v. international conventions and guidance; vi. gender mainstreaming; vii. community participation; viii. efficiency and effectiveness; ix. respect for values and cultures.
South Sudan Forest Policy (2019)	The policy broadly aims to achieve ecological stability of river systems, the lakes, swamps, agricultural production and other natural ecological systems. It is also meant to ensure that there are optimal benefits from forestry and agro-forestry activities for food security and poverty alleviation among our

	rural communities through provision of woody and non-wood forest products. The policy integrates forest sector actions with rural development efforts to ensure that the rural population of South Sudan has access to basic needs which include sustainable household food security, shelter, wood fuel, safe clean water, as well as sanitation and health facilities.
Government of Southern Sudan Water Policy (2007)	Water policy provides a guiding framework for all water sector activities and an important point of reference for future development of more detailed implementation strategies: water is an important natural resource that is commonly owned by all riparian people. The Government of South Sudan must ensure effective development and use of water resources for the benefit of all, including poor and vulnerable groups. Access to sufficient water of acceptable quality to satisfy basic needs is considered a human right and shall be given the highest priority in the development of water resources. The proposed SRCSSP takes into consideration the optimal allocation of available resources based on social equity, economic efficiency, system reliability, and environmental sustainability.
Environment Bill 2023 (draft)	The purpose is to protect the environment and to promote ecologically sustainable development that improves the quality of life for both the present and future generations. Section 18 of the South Sudan Draft Environmental and Protection Bill introduces the requirement for Environmental Impact Assessments. An Environmental Impact Assessment (EIA) is defined as a systematic examination conducted to determine whether or not a project will have any adverse impact on the environment and prescribe mitigation measures. In addition, Section 32, Cap 5, proposes the requirement for Environmental Audits which is defined as the systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing in conserving the environment and its resources. Section 20, Cap 5, intends to introduce the requirement for Environmental Monitoring. Which is defined as the continuous determination of actual and potential effects of any activity or phenomenon on the environment, whether short or long term. The bill mandates the line ministries to: Monitor environmental phenomena with a view to assessing possible changes in the environment and their possible impacts.
The Land Act, 2009	Land Act promotes a land management system, which can protect and preserve the environment and ecology for the sustainable development of South Sudan.

	The Land Act reinforces the Government's recognition of customary land tenure: 'Customary land rights including those held in common shall have equal force and effect in law with freehold or leasehold rights.' Community land can be allocated to investors as long as investment activity 'reflects an important interest for the community' and 'contributes economically and socially to the development of the local community'. It also requires that state authorities approve land acquisitions above 250 feddans (105 hectares) and create a regulated ceiling on land allocations. 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 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'. Project proponents must also conduct environmental and social impact assessments (ESIAs) before undertaking any activity that might affect people or the environment.
The Public Health (Water and Sanitation) Act (2008)	It encompasses the measure to address the pollution of water with focus on water for consumption. The act stipulates that provider of water for consumption, including frozen food should ensure that the water conforms to the portability regulations; Management and disposal of hazardous wastes; and storage of wastes on the premises of waste generators. The Public Health Act (2008) also emphasizes enforcement of regulations and measures necessary to combat all elements of pollution and protect the natural level of the environment and public health. The provisions of the Act have been taken into account in the formulation of the ESMP to safeguard water resources from potential contamination that could result from the proposed SRCSSP
The Labour Act (Act No. 64 of 2017)	The Act establishes a legal framework for 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 Labour 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 legislation is important in the implementation of the proposed SRCSSP specifically enabling equal employment opportunities for the qualified individuals comprising host communities, returnees and

	refugees during the construction, operation and decommissioning of the project.
Child Act (Act No. 10 of 2008):	The Child Act regulates the prohibition on child Labor. The project will put measure to ensure that the law is adhered to during the preconstruction, construction and operation phase of the project. Only persons who have attained the required legal age should be employed or engaged in the project activities from the construction, operation and decommissioning phases.
South Sudan Durable Solutions Strategy and Plan of Action for Refugees, Internally Displaced Persons, Returnees and Host Communities, 2024	This is a framework designed to provide sustainable solutions for refugees, internally displaced persons (IDPs), returnees, and host communities. It aims to create conditions for safe, dignified, and voluntary returns, local integration, and recovery. The strategy is guided by the Revitalized Agreement on the Resolution of the Conflict in South Sudan (R-ARCSS) and involves a government-led process with participation from various stakeholders. It is anchored on the R-ARCSS and aligns with international frameworks like the UN Secretary-General's Action Agenda on Internal Displacement. The proposed SRCSSP comprise the key objectives and priority actions for ensuring safety and wellbeing of the refugees, and returnees. These are illustrated as follows. **Objectives include** • To establish a framework supporting durable solutions for displaced populations. • To guide government and partners in coordinating efforts for safe returns and integration. **Priority Actions:** • **Secure Environment:** Create a secure and safe environment for achieving durable solutions. • **Basic Services:** Provide basic services to support and sustain durable solutions. • **Integration and Livelihoods:** Support integration of refugees, IDPs, returnees, and host communities, and improve their livelihoods. • **Institutional Strengthening:** Strengthen government capacities and relations at all levels.
Government of South Sudan Pledges Global Refugee Forum 2023	The Government of South Sudan made significant commitments at the 2023 Global Refugee Forum (GRF), building on its previous pledges from 2019. These pledges are part of the country's broader strategy to enhance services for refugees, internally displaced persons (IDPs), returnees, and host communities. These pledges are aligned with the Revitalized Agreement on the Resolution of Conflict in South Sudan (R-ARCSS) and the Revised National Development Strategy (R-NDS) 2021-2024. The National

	Technical Committee on Durable Solutions (NTC) plays a crucial role in coordinating these efforts, supported by UNHCR and IGAD The proposed SRCSSP is aligned to the **key pledges and commitments namely** **Education and Livelihoods:** The government pledged to increase access to quality education for refugees and host communities. Expand economic opportunities to ensure equitable economic development in refugee-hosting areas. **Environmental Sustainability:** Commitment to provide sustainable and green energy solutions for refugees and host communities. **Statelessness:** Address statelessness by acceding to the 1954 and 1961 Conventions and adopting a National Action Plan to eradicate statelessness. **New Initiatives:** South Sudan committed to six new initiatives aimed at enhancing services for refugees and host communities, aligning with the Global Compact on Refugees and the country's national development strategies.

GoSS of South Sudan is also a signatory to other international agreements. A review of policies and frameworks are shown in the Table 3

Table 3: Policy Framework (International)

Framework	Description
African Convention on the Conservation of Nature and Natural Resources 1969	The African Convention of Nature and Natural Resources emphasizes the need for conservation, utilization and development of natural resources in Africa in accordance with the scientific principles and with due regard to the best interest of the people. It requires parties to establish land use plans based on scientific investigations when implementing agricultural practices and agrarian reforms. Projects in MAFS should utilize agricultural scientific knowledge and interventions in the conservation, utilization and development of natural resources.
United Nations Convention to Combat Desertification (UNCCD) 1996	Main goal is to combat desertification and mitigate the effects of drought in in countries seriously affected by droughts, especially in Africa, Latin America, the Caribbean, Asia, and Northern Mediterranean. The Convention seeks to achieve this objective through integrated approaches to development, supported by international cooperation and partnership arrangements, in the affected countries. It lays emphasis on long-term strategies that focus on improved productivity of land and the rehabilitation, conservation and sustainable management of land and water resources, leading to improved living conditions, in particular at the community level

Framework	Description
United Nations Framework convention on Climate Change (1992)	The Convention seeks to regulate levels of greenhouse gases (GHGs) concentration in the atmosphere, so as to avoid the occurrence of climate change at levels that would harm economic development, or that would impede food production. The Convention is founded on the principle that contracting parties should take action, in respect of their economic and social activities, and with regard to the Convention's specific requirements, that will protect the global climate to ensure sustainable development
The Nile Treaties	The riparian countries are under obligations under general international law to permit the lower riparian States an equitable share of the water, but the exact modalities are subject to negotiations. The Nile Basin Initiative is currently addressing the issue of equitable utilization of the common Nile Basin water resources. The Nile Basin Initiative seeks to harness the tremendous potential of the Nile for the benefit of the people of the Basin, both for now and for generations to come. This becomes a major challenge because as economic development accelerates, population increases and demand for water grows. NBI's Shared Vision is to advance the concept of sustainable economic development from the use of the River Nile waters for the benefit of all people of the Nile basin
The World Heritage Convention	The Convention sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them. By signing the Convention, each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage. The Convention stipulates the obligation of States Parties to report regularly to the World Heritage Committee on the state of conservation of their World Heritage properties.
The United Nations Framework Convention on Climate Change (UNFCCC)	The UNFCCC's goal is to prevent "dangerous" human interference with the climate system. The ultimate objective of the Convention is to stabilize greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system." It states that "such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner.
Basel Convention	The overarching objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes. Its scope of application covers a wide range of wastes defined as "hazardous wastes" based on their origin and/or composition and their characteristics, as well as two types of wastes defined as "other wastes" - household waste and incinerator ash. The provisions of the Convention Centre around the following principal aims: This is considered in the pest management in agricultural production
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

Framework	Description
	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. South Sudan has been party to the Convention since 23 January 2015.This is to ensure that child labour will not be practiced in the project Activities
ILO 182 Worst Forms of Child Labor Convention (1999)	The convention calls for immediate action to prohibit and eliminate the worst forms of child labor. The predefined forms of child labor include all forms of slavery, trafficking of children, debt bondage or any other form of bonded labor, forced or compulsory labor, and commercial sexual exploitation of children, prostitution and the production of pornography, as well as work that is likely to harm the health, safety or morals of children. South Sudan ratified the convention in 2012.
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, among other issues. South Sudan ratified the CEDAW in 2014. The accession to CEDAW enabled the country to address issues of customary law involving women's right to inherit and own productive assets, as well as their lack of voice and decision making in family and community matters and the denial of their right of choice to found a family especially in rural settings.
ILO Convention 111 on Discrimination	The convention calls upon states to enable legislation prohibiting all forms of discrimination and exclusion on any basis, including race, sex, religion, etc. South Sudan ratified the convention in 2012.
The African Development Bank (AfDB) Environmental and Social Safeguards	The integrated Safeguards System (ISS) promotes growth that is socially inclusive and environmentally sustainable through the implementation of the 5 Operational Safeguards. The aim is to identify environmental and social risks and impacts, reducing development costs, and improving project sustainability. Therefore, benefiting project targeted beneficiaries and ensure environmental conservation. This ESIA report has an embedded ESMP which has been prepared to forestall environmental and social impacts that will arise during the development and operational implementation of this project and has suggested mitigation measures to address those impacts.

The project was also reviewed taking into account AfDB operational safeguards shown in the Table 4.

Table 4: AfDB Operational Safeguards

Operational safeguard	Triggered	Policy objectives	Trigger for the policy
OS1- Environmental Assessments	**YES**	To identify and assess the environmental and social impacts (including gender) and climate change vulnerability issues of Bank lending and grant-financed operations in their area of influence To avoid or if not possible minimize, mitigate and compensate for adverse impacts on the environment and on affected communities; To ensure that affected communities have timely access to information in suitable forms about Bank operations and are consulted meaningfully about issues that may affect them	This OS is triggered and the reason for the Environmental and Social Screening Process.
OS2 Involuntary Resettlement: Land Acquisition, Population Displacement & Compensation	**NO**	To avoid involuntary resettlement where feasible, or minimize resettlement impacts where involuntary resettlement is unavoidable through project design; To ensure that displaced people receive significant resettlement assistance, preferably under the project, so that their standards of living,	This OS is NOT triggered as the projects does not require the involuntary acquisition of land, involuntary acquisition of other assets or restrictions on land use and on access to local natural resources which result in: Relocation or loss of shelter by the people in the project area; Loss of assets or restriction of access to assets including national parks, protected areas or natural resources; or

Operational safeguard	Triggered	Policy objectives	Trigger for the policy
		income earning capacity, production levels, and overall means of livelihood are improved beyond pre-project levels; To set up a mechanism for monitoring the performance of involuntary resettlement programs in Bank operations and remedying problems as they arise to safeguard against ill-prepared and poorly implemented resettlement plans	Loss of income sources or means of livelihood due to the project, whether or not the PAPs are required to move.
OS3 Biodiversity and Ecosystem Services	**NO**	To preserve biological diversity by avoiding, or if not possible, reducing and minimizing impacts on biodiversity; In cases where some impacts are unavoidable, to endeavor to reinstate or restore biodiversity including, where required, the implementation of biodiversity offsets to achieve "not net loss but net gain" of biodiversity; To protect natural, modified and critical habitats; To sustain the availability and productivity of priority	This OS is NOT triggered as the project is to be located in a habitat with limited potential biodiversity impacts and the area does not provide ecosystem services upon which potentially affected stakeholders are dependent for survival, sustenance, livelihood, or primary income, or which are used for sustaining the project. There is limited extensive interference with the ecosystem.

Operational safeguard	Triggered	Policy objectives	Trigger for the policy
		ecosystem services to maintain benefits to the affected communities and to sustain project performance. To inhibit introduction of new organisms into a local environment	
OS 4: Pollution Prevention and Control, Greenhouse Gases, Hazardous Materials	**YES**	To manage and reduce pollutants likely to be caused by a project so that they shall not pose harmful risks to human health and the environment, including hazardous, non-hazardous waste and GHG emissions. To set a framework for efficiently utilizing all a project's raw materials and natural resources especially focusing on energy and water.	This OS is triggered as the project is likely to cause adverse environmental or social impacts owing to the emission of pollutants, waste or hazardous materials pests management
OS 5 Labour Conditions, Health and Safety	**YES**	To protect the workers' rights and to establish, maintain, and improve the employee-employer relationship; -To promote compliance with national legal requirements and provide due diligence in case national laws are silent or inconsistent with the OS; -To provide broad consistency with the	This OS is triggered as the project involves the establishment of a temporary and/or permanent workforce.

Operational safeguard	Triggered	Policy objectives	Trigger for the policy
		relevant International Labour Organization (ILO) Conventions, ILO Core Labour Standards and the UNICEF Convention on the Rights of the Child in cases where national laws do not provide equivalent protection; -To protect the workforce from inequality, social exclusion, child labour and forced labour; and	

4.2. Institutional Framework for ESIA Implementation

Ministry of Environment and Forestry

The Ministry of Environment and Forestry is the competent government Authority in South Sudan regarding environmental matters. It is, therefore, the responsible ministry in the ESIA process. It ensures that the proponent complies with the requirements of the ESIA process; maintains the operations and consultations between the different sectorial agencies throughout the ESIA process and maintains a close relationship with the proponent as well as providing guidance on the process. The Ministry evaluates and takes decisions on the documents that arise from the EIA process, including site visit, monitoring and auditing of environmental performance of the project (periodic and independent re-assessment of the undertaking).

Ministry of Agriculture and Food Security (MAFS)

The Ministry of Agriculture and Food Security (MAFS) is responsible for promoting agricultural development and improving livelihood of the populations. Based on the stakeholder consultations, the Ministry is planning to transform agricultural practices from subsistence to modern, market-oriented sector that involves mechanization and use of improved seeds that are drought resistant. The proposals align with the proposed SRCSSP project components including support for smallholder and large-scale farming to increase food production, investment in agroforestry, seed multiplication and storage.

Ministry of Water Resources and Irrigation

The proposed SRCSSP prioritizes investments in drilling boreholes, establishing infrastructure for distribution of water and flood control infrastructure. These initiatives are primarily domiciled at the Ministry of Water Resources and Irrigation (MWRI) in South Sudan, which is responsible for managing the country's water resources to support sustainable development, agriculture, and livelihoods. The ministry is responsible for developing and implementing policies, guidelines, master plans, and regulations for water resources development, conservation, and management and oversees the design, construction, and management of dams and other surface storage infrastructure for irrigation, human consumption. Therefore, it would be important to collaborate with the ministry and adhere to the safety standards regarding the establishment, supply and utilization of water resources in the project sites.

Ministry Of Education

The proposed project has components on improvement of infrastructure for education. Ministry of Education is responsible for primary and secondary education, aims to provide equitable access to quality lifelong learning opportunities for all, including developing policies, managing the education system, and ensuring teacher training and deployment

Ministry Of Health

The proposed project has component that focusses on establishing a block at the Nyamlel Hospital. The hospital was elevated to the county hospital level and the ministry is responsible for ensuring equitable, accessible, and quality healthcare for all citizens, focusing on improving health outcomes and strengthening the health system through policy development, service delivery, and capacity building

Commission for Refugee Affairs (CRA)

The Commission for Refugee Affairs (CRA) is the national agency responsible for managing all issues related to refugees, including regulating their presence and legal status, and coordinating with other government bodies and international organizations

CHAPTER FIVE: STAKEHOLDER INVOLVEMENT

5.1. Introduction

The stakeholder's consultation is enshrined in the South Sudan constitution, and is part of the decision-making process, which allows integration of diverse views and perceptions of the project by stakeholders, creating conditions suitable for implementing the project and its integration at community and national levels. Consultation with the public and stakeholders is considered as an important activity of the environmental assessment study for the project. It provides valuable input to bring about sustainable and acceptable project design as well as ease of implementation and operation to user community. Consultation with the public in the project area were made at the project site and through key informant interview and focused group discussions.

Public consultation in this project was done with the following aims:

- To inform stakeholders namely host communities, refugees, government agencies and humanitarian agencies about the proposed project and its objectives.
- To seek views, concerns and opinions of local residents and other people around the proposed project sites
- To establish if the stakeholders foresee any positive or negative environmental effects from the proposed project activities and if so, how they would wish the perceived impacts to be addressed.

Objectives of Public participation

The specific aims of the consultation process during the EIA study stage were:

- To inform the local people, entities and other stakeholders about the proposed project;
- Obtain the main concerns and perceptions of the population and their representatives regarding the project.
- Obtain opinions and suggestions directly from the affected communities on their preferred mitigation measures;
- To find out if there are issues or places of cultural/or religious importance to the local communities that could be negatively impacted upon by the project and infrastructure; and
- To improve project design and, thereby, minimize conflicts and delays in implementation;

5.2. Stakeholder Identification

Prior to detailed design and implementation, extensive consultations were held with stakeholders to gather information about the selected project site and to get the

consensus and involvement of the various players, including identifying and coming up with the mitigation measures to address social and environmental concerns.

During the stakeholders' consultations and engagements with local authorities, the overview of the proposed project and objective of the ESIA was presented. Furthermore, the challenges that could impede the implementation of the project and the support needed from all stakeholders to ensure smooth implementation were also discussed.

Stakeholder engagement methodology

The following methods were used to gather information from the stakeholders:

- Key informant interviews (KII)
- Observations; and
- Public participation was mainly achieved Focus Group Discussions (FGDs) and interviews

5.3. Stakeholder engagement plan

Stakeholder consultation was conducted from March 19th 2025 – 21st March 2025. A combination of KII and FGDs were utilized targeting various stakeholders namely UNHCR, GoSS (Ministry of Education, RCC), refugee and host communities.

The Table 5 shows the stakeholder consultation plan in Aweil and the dates.

Table 4: Public consultation Aweil

Local Government and local administration units		**March 19**
UNHCR Aweil Field Office	FGD	Morning hours
Ministry of Education,	FGD	Afternoon
South Sudan Relief and Rehabilitation Commission	KII	Evening
Refugee communities		**March 20**
Wedweil Refugee Settlement, refugee leaders	Baseline data collection	Mid-morning
Pa-yam	FGD	Mid-morning
Refugee leaders	FGD	Afternoon
Women group, youth group and farmers (separate meetings)	FGD	Afternoon
Host community		**March 21**
Nyamlel Hospital and transect walk	FGD	Morning

Figure 4: Stakeholder Consultation in Pictures (Aweil)

FGD with refugee leaders – March 20

FGD with youths on March 20

Findings of the stakeholder consultation forums are summarized Table 6

Table 5: Stakeholder consultation summary findings

Organization	Name of stakeholder	Discussion points
	Dr. Joice Domnic Public Health Associate Mr Mathew Musumba Shelter and Site Planning officer	• The objective of the meeting was introduction and discussion of the methodology, site and stakeholder identification. • The UNHCR team explained that the specific sites for implementation of the projects e.g schools or communities are yet to be identified. The site identification was likely to commence on the week starting Monday March 25, 2025 and will include a joint team from the GoSS, UNHCR , CRA and line ministries. • **Land ownership** – UNHCR is collaborating with CRA to secure the land from the host community • **Socioeconomic activities** - The refugees mainly cultivate groundnuts, onion and okra, however, UNHCR has set demonstration farms for other crop variety including vegetables. • **Access to water** - The main source of water in the refugee settlement are bore holes with hand pumps, others are solarised. The water committees are responsible for management of the water sources. • **Sanitation** – mainly pit latrines. • **Conflict** - the interventions by the UNHCR benefit both the host community, refugee and host community. Therefore, there are no conflicts foreseen. • **Solid waste** – open burning of waste is practiced, as there is no formal service. • Flooding – quite common every rainy season, construct a dyke and water retention pond after the last rainy reason to control flooding, the proposed project will be an extension.
State Ministry of General Education and Instruction	Mr Valentino Anei (D/G for Education) Mr Mark Makuel	• The director confirmed that all schools in South Sudan were closed due to the heat wave. • The Barnyui area in Aweil Central County has the highest number of returnees but lacks adequate schools to support the population.

	(Director for Budgeting and Planning) Mr Gabriel Ater (Director for Quality Assurance)	• There are three vocational centres in Aweil, but only one is operational – Akuem TVET • Enrolment is declining especially among the boys in primary school due to a number of reasons mainly linked to cultural practices – boys are involved in income generating activities from an early age, and herding. Other factors include migration due extreme weather patterns e.g during drought. • School attendance is also affected by lack of clean water; some schools open only during the rainy seasons, but again, there is the risk of flooding. • There is a high refugee influx in the border counties like Aweil East and Aweil North counties. Areas like Mayen Wulem, Ariath, Gok Machar etc • should participate in sub-national education cluster forums to receive timely updates on education sector in Aweil.
Relief and Rehabilitation Commission	Hon Benson Lual Awach	• Existing issues in Aweil include population increase due to refugees and returnee populations that stretch the existing infrastructure and resources e.g health, education etc. • There is no school in the Barnyui area, despite having close to 8000 people /2000 household's majority of them are returnees. Besides, there is only one hand pump in the settlement. • Currently, there is a cholera outbreak and the refugees, host communities and returnees are vulnerable due to poor sanitation and insufficient infrastructure for health and disease prevention. • Priority areas for intervention should be Aweil North, Aweil East, Aweil West and the host communities. • Other challenges experienced in Aweil include tracking returnees. • Environmental challenges comprise deforestation due to increasing population, flooding mainly due to destruction and

		encroachment of wetlands and destruction of vegetation. • The government interventions include tree planting initiatives, but these are not sufficient. • should establish a joint assessment team with the GoSS departments to identify priority areas for interventions.
Payam (Local Government)	Peter Aguer	• Estimated population of the host community is approximately 100,000 people • Office built by the UNHCR and equipped with solar, its adjacent to the WedWeil refugee settlement. Responsible for the general administration of both the settlement and host community. • Poverty level is high and a lot of projects are focused on the refugee instead of host community. • Open defecation is rampant in the host community, interventions needed covering awareness creation on WASH, establishment of latrines, and prevention of common illnesses due to poor sanitation. • No proper waste management systems in the host community and refugee settlements, open burning of waste is practiced. • Project is likely to benefit the host community through improvement of infrastructure for education, health; Wedweil health center is the only facility in the area. • Project is well aligned with programs e.g by NRC which is supporting agriculture by giving farmers incentives and undertaking construction of a school. • The Payam suggested that the projects should also have components on awareness creation on GBV and inclusion of women in project management. • Ongoing initiatives to promote peace • Payam created a Wedweil market for refugees and host communities to promote integration. • There is a peace Committee under Payam that is responsible for trainings on peaceful co-existence, and conflict resolution

		• Football games between the host and refugee communities mainly held at the Wedweil Football Freedom Square) • Other challenges – Access to clean and safe water as there are about (20-30) boreholes and 2 water yards in the host community, one for the returnees and one for host community. However, these are not sufficient. • Socio-cultural differences between the host community, returnees and refugees.
Youths	Refugees, host community and returnees	• Challenges face by the youths - Lack of adequate education facilities and high illiteracy level, no vocational or skills training programs, high poverty levels, TVET scholarships, employment opportunities. • Most refugee and returnees are considering going back to Sudan or radicalization due to lack of opportunities. • Youths have a farmland (currently growing okra, tomatoes, vegetables) but lack resources; looking to expand opportunities in agro-entrepreneurship. • Most interventions do not directly involve youths in planning, and implementation, it is important to incorporate their views and ensure participation in all levels. • No safe places for the girls especially on issues relating to menstrual hygiene and related facilities. • The relationship between host community and refugees is not good, and sometimes, they are attacked and crops destroyed. • Access to water is low and they face hostility especially in shared water yards, or boreholes. The host community do not have adequate water points, so there are conflicts in accessing the few in the settlement. • Drainage in the settlement is bad, and the families are adversely affected during rainy season. • Awareness and training on peace mechanisms between the host and refugees,

Traders	(refugees, returnees and host community)	• There is a market committee responsible for registration of members, solving conflicts, peace and integration. • Market is not demarcated, currently in the host community, refugees want a market inside the refugee settlement. • Market made up of makeshift structures that are susceptible to risks such as fire. • No lighting system, close shops in the evening. • No regular supply of fresh and clean water in the market, the few water sources are congested. • Conflict between community and refugees on January 17, 2025, led to damage and loss of properties (most were burned down). • Require credit lines to establish and expand the business. • No sanitation facilities in the markets, open defecation by traders and people who go to the market. • Market community voluntarily doing collection and burning of waste.
Community leaders	(host and refugee leaders)	• There are 13 blocks for the refugees, surrounded by host communities, displaced community and returnees. • Leaders are responsible for the general coordination between organizations, host communities and refugees in design and implementation of the projects – this is currently affected by language barriers and lack of inclusivity. Conflict is also influenced by inequitable share of the resources. • Leaders promote joint cultural celebrations, sports and competitions to ensure peaceful co-existence. • There's good relationship between the host and refugee leaders, apart from the conflict in January 17, 2025 conflict that led to significant losses. The refugees feel that host communities will not allow them to do cultivation or engage in other income generating activities. Should be supported to initiate other business activities.

		• Children of refugees go to surrounding schools in the host communities namely Good Shepherd, Salvation, Wedweil school, full scholarship by World Vision. However, most parents are afraid to let their children return to school after the conflict in January. Schools should be near the blocs and teachers should be mixed (host and refugee communities). • Priority areas for intervention should comprise security- creating new police stations and equipping them to respond to emergencies, improving infrastructure for health, education (including ECD) and sanitation services. • Water access – some blocks do not have access to water and members trek long distance, at least 30 minutes one way, and they are congested • Water not safe for consumption (block 15), and no treatment available. Project should aim to provide or improve water treatment. • Refugees have experience in undertaking farming activities and welcome any proposal to scale up production - okra, sorghum, sim sim, groundnuts. • There is a Refugee agriculture society comprising 150 persons
Nyamlel Hospital	James Lual Deng Luka Lual Lual Johnson	• The hospital was built in 1956 and elevated to county hospital in 2013. • Departments include in patient section, expanded program for immunization (EPI) unit, laboratory, outpatient department, two wards (male and female) with 18 bed capacity (combined), stabilization centre for malnourished children, paediatric unit, pharmacy • 23 staff • Hospital compound surveyed and demarcated in 2024. • Medical and other hazardous waste are burned as the two (2) incinerators are damaged. • There's a Placenta pit in maternity wing but not well managed.

		• Expired drugs are returned to GoSS for disposal • Hospital has no electricity or lighting system including in the wards or delivery rooms. • There are two (2) boreholes, hand pumps were temporarily fixed • Handwashing facilities – made of small buckets • Needs blood bank and theatre, biochemistry lab Proposed projects EPI – site for the projects have been identified, and these will be valuable additions. No adverse environmental impact is foreseen as the sites are not occupied.

CHAPTER SIX: ANALYSIS OF PROJECT ALTERNATIVES TO THE PROPOSED PROJECT

6.1. Introduction

This section analyses the project alternatives in terms of technology scale and waste management. Alternatives to a proposal can be generated or refined, either directly or by reference to the key issues identified. A comparison of alternatives will help to determine the best method of achieving project objectives while minimizing environmental impacts or, more creatively, indicate the most environmentally friendly or best practicable environmental option.

Based on an environmental standpoint, not carrying out the development ("No Project Alternative") may be the best option, as the sites would remain a relatively undisturbed. However, it is also clear that the sites will continue to be impacted by influx of refugees, returnees and host communities.

Besides, from a socio-economic perspective the "no action" alternative may not be the best alternative as the numerous benefits to be gained from the development both locally and nationally would not be realized and the resources in the area would continue to be underutilized and/ or degraded. In addition, incidences of conflicts between refugees, returnees and host communities over access and control of the existing resources would be rampant. Poverty levels will increase and access to basic services such as decent shelter, health, food and water will not be achieved.

The consultant team assessed several alternatives to the proposed project and associated activities to seek different ways of minimizing impacts on the environment and at the same time achieve its objectives. This not only justifies the course of action (base case) but also enables the risk management to follow a hierarchy of:

- Avoidance: Temporal and spatial;
- Elimination and minimization: non-structural *ex-ante* mitigation
- Elimination and minimization: structural *ex-ante* mitigation
- Elimination and Response: structural *ex-post* mitigation
- Elimination, Recovery and Development: non-structural *ex-post* mitigation

The Alternatives were reviewed considering the following aspects: spatial and temporal aspects, design and technology to be employed, inputs, existence and the base case with mitigation. The stakeholder consultation and site visits during the ESIA provided basis for identifying and qualifying the alternatives.

6.2. Alternative sites

This option involves pursuing the project and the project activities but on a different site to prevent environmental and social impacts that are relevant to the proposed sites. The avoidance of any potential impacts was identified as the main benefit, but this will require the identification of a different site away from the current sites. In the context of the of

the proposed SCRSSP, identification, demarcation and allocation of land/sites for installation of facilities for the refugees, and returnees is a lengthy process that is coordinated by the GoSS through the CRA. The land transfer of ownership of these sites were already completed, while some are underway.

Therefore, alternative sites are also not readily available since availability of land is limited and the proposed sites have pre-existing infrastructure for the refugees, returnees and host communities. The selected sites are within or adjacent to the refugee settlements, and completion of the projects would greatly improve wellbeing, peaceful co-existence and integration of the host and refugees. There are no foreseen relocation or destruction of vital ecosystem systems.

In addition, UNHCR and CRA would spend long period of time on design and approvals of the plans by the relevant government departments and host communities. This will increase the cost and require time extension. On the other hand, the war in Sudan is ravaging resulting into influx of refugees and returnees to South Sudan. These people require an urgent assistance and infrastructure to safeguard their rights, the environment and the society where they settle.

6.3. Alternative schedule

This option entails carrying out the proposal at a later time thereby offsetting its impacts to that time. Only benefit is if there are improvements in baseline conditions and technologies that may be involved with the proposal. However, in this case, there are no guarantee and it may only lead delays in development, therefore carrying out the proposed project with mitigation would be a preferred option due to this uncertainty. In addition, carrying out the proposed project at later time may lead to more operational and logistic costs due to increasing inflation and standards of living.

6.4. Alternative design

This option entails undertaking the project but with different infrastructural designs that encompass buildings layouts and location of supporting infrastructure. The presented project design was however achieved by considering the options available that would ensure achieving the humanitarian objectives and avoid or reduce environmental and social impacts as much as possible. in collaboration with CRA settled on the proposed design after thorough consultation with different within the humanitarian context.

6.5. Resource alternative

The materials used to construct the project structures are coarse aggregates of different size, fine aggregates, cement, water, angle iron, sand and selective materials. These materials are sourced from the project surrounding areas. To prevent the occurrence of impacts on the natural environment excessive retrieval of construction materials from one source should be avoided.

The goods and services will be provided by suppliers pre-qualified and contracted by UNHCR. The prequalification is based on strict measures that include adherence to the environmental and social safeguards of the GoSS and AfDB.

The alternatives are analyzed based on the technical feasibility; economic viability and environmental acceptability conditions. They are also compared and analyzed in terms of site location, design type, time schedule, raw materials (resources) availability, climate smart technologies. Finally, the "No Action" alternative has been rejected and the project implementation option is accepted by examining the project benefits to the local community and due to low negative impacts of the project on the environment and the community.

6.6. The no Project Alternative

The No Project Alternative option in respect to the proposed project implies that no humanitarian intervention relating to the SCRSSP will be achieved. This option is a suitable alternative from an extreme environmental and social impact perspective as it ensures returning the site to its previous natural condition. Under the No Project Alternative, the proposed project would not be constructed and services will be foregone and the anticipated impacts however minimal resulting from provision of goods and services, and civil works will not occur. This option however involves several losses not only to the project but also to the GoSS, the refugees, host communities and returnees.

The socio-economic impacts resulting from the site activities will not be realized, and the vision for a peaceful coexistence, economic stability and safe integration of the returnees will be foregone. The economic benefits especially during provision of services and goods aimed to alleviate suffering as well as provision of jobs for skilled and non-skilled workers, vocational training and expansion of the agricultural sector will not be realized.

The anticipated country's response to humanitarian need and refugee crisis may not be realized. On the other hand, the anticipated insignificant environmental impacts resulting from construction, and operation activities would not occur. From the above analysis it becomes apparent that the No *Project Alternative* is the least favorable to the UNHCR, GoSS, local population, returnees and refugees in general. This option is best adopted more so if the project sites are ecologically fragile. However, based on site investigations and stakeholder consultations, the sites are not fragile and have been carefully selected in collaboration with the host communities and the CRA.

The advantages of 'No Action Alternative' include:

- Minimum environmental and social disturbance

Disadvantage of 'No Action Alternative' include:

- The humanitarian gains as a result of implementation of the proposed SCRSSP project in Aweil are foregone

- The refugees who are arriving from Sudan as well as returnees and host communities in South Sudan continue to live in deplorable environment, overstretched facilities such as health, education and sanitation facilities.
- Prevalence of conflicts between the host communities and refugees, for example, a serious conflict that happened on January 17th, 2025 leading to destruction of properties.

6.7. The proposed development

This option means that the ESIA report for the proposed SCRSSP will be presented to the AfDB and the ESMP will be implemented during the entire project cycle to prevent any adverse social and environmental impacts. The implementation to ensure that all environmental measures are complied with during provision of goods and services, and civil works. The alternative consists of the 's and CRA's final proposal with the inclusion of the AfDB and GoSS guidelines and regulations and procedures.

This Environmental Assessment report addressed both environmental and socio-economic issues concerned with its development and operation. Environmental issues have been given due consideration during project design, making the benefits of the project to be maximized, while reducing the environmental and social cost of the development.

Considering environmental and social-economic concerns, the project sites were determined to be more suitable due to availability of land, the land use system, accessibility, potential use and acceptability by all the stakeholders.

6.8. Analysis of alternative construction materials and technology

There is a wide range of construction and furnishing materials which can be sourced locally most of which shall be low maintenance and environmentally sound. The proposed project components that entail civil works will be constructed using concrete, natural stones for the foundation, cement for plaster works, structural steel, metal scaffolds (height access) and formwork. The concrete foundation will be built using locally sourced sand, cement, metal bars and fittings that meet the GoSS standards.

The metal scaffolds will be advantageous than timber because it will reduce the wasting of precious trees, has a longer lifetime, provides a steady and firm standing, easily assembled and dismantled and it increases the work efficiency.

The goods and services will be provided by prequalified suppliers, selected by UNHCR through a vigorous and competitive process.

6.9. Domestic wastewater management alternatives

Two most suitable technologies are discussed below: -

Alternative one: Connection to sewer system

Connection to a main sewer line will solve the waste water management issue at a very minimal cost and in an environmental efficient manner. Currently this option is not possible since the sewer is not available. The recommended course of action for this site would be to consider connection to soak pits

Alternative two: Use of Soak pits/Pit latrine

This involves digging of a pit and filling with gravel/stones of different sizes in order to absorb waste water. In the absence of a sewer line, this remains the most appropriate option for the developer.

Solid waste management alternatives

An integrated solid waste management system is recommendable. First, the proponent will give priority to Reduction at Source of the materials. This option will demand a solid waste management awareness programme in the management and the residents. Secondly, Recycling, Reuse and compositing of the waste will be the second alternative in priority. This will call for a source separation programme to be put in place. The recyclables will be sold to waste buyers within the surrounding areas. Finally, disposal in dumpsites will be the last option for the proponent to consider.

CHAPTER SEVEN: IDENTIFICATION, ANALYSIS AND ASSESSMENT OF POTENTIAL IMPACTS

7.1. Introduction

This part includes impacts during implementation, operation phase and decommissioning phases on the following issues: soil degradation; air quality; noise; water resources; solid and liquid waste management; drainage, terrestrial ecology, visual and landscape; public comfort; occupational health and safety. Most of these key issues were identified during the scoping exercise and are clearly elaborated according to the specific project components.

7.2. Impact Identification

Sources of Impacts

The impacts associated with the proposed project components in Aweil, will emanate mainly from *project inputs*, *activities and outputs.*

These will be related to the following activities

- Sourcing and extracting materials
- Transportation of materials to the site
- Construction activities
- Handling of construction wastes
- Decommissioning activities

Receptors of Impact

i. Social Environment

The components of human environment that will be affected by the proposed activities are:

- Settlements within project vicinity (mainly comprising host communities and returnees)
- General public occupying and visiting the area
- Public health concern during construction and operation stages

ii). Physical environment

- Soil, water and air are potential of the negative impact.

iii) Biological environment

- These are primarily the vegetation of the area

7.3. Expected Impacts

The expected impacts of the project vary based on the specific activity e.g goods and services, or civil works. Table 7 is a a summary of all the project components, estimated risk level and impacts.

Table 6: Project components and potential risks

SCRSSP Project Component – Aweil	No. Of units	Category	Risk rating	Impacts
Component 1: Enhancing jobs and livelihood amongst the refugees and host				
Sub-component 1.2: Micro credit and business support for enterprise development				
Provide micro-credit support to agro enterprise along the agriculture value chain		Goods	Low	**Positive** – Capacity improvement of the agro-enterprises, improved security, income and living standards, food security, peaceful coexistence, **Negative** – Mismanagement of the funds that will in urn affect recovery of the loans
Provide business development credit for enterprise capitalization		Goods	Low	**Positive** – Capacity improvement of the enterprises, increased trade, employment opportunities, peace and security. **Negative** – Mismanagement of the finances that affect ability of beneficiaries to repay the loans.
Support to sectoral community structures		services	Low	**Positive** – Capacity development of local administration to respond to emergencies, security, GBV incidences etc.
Sub-component 1.3: Strengthen capacity community-based enterprise groups				
Establish enterprise groups at village/boma for capacity development on climate smart cropping system		Goods	Low	**Positive** – Resilience to climate change impacts in agriculture and adoption of climate smart technologies in agriculture, improved farm yields, food security, meeting nutritional needs of the households.
Procure and distribute climate adapted seed kits for farming for refugees and host community		Goods	Low	**Positive** - Resilience to climate change, improved farm yields, better crop variety, peaceful coexistence, peace, reduction in GBV incidences
Livestock restocking programme for the host		Goods	Medium	**Positive** – improved livelihood of the communities through diversification, response to climate change and impacts, peaceful coexistence,

SCRSSP Project Component – Aweil	No. Of units	Category	Risk rating	Impacts
				Negative – potential for overgrazing leading to land degradation and soil erosion, conflicts over access to pasture and water especially during the dry season.
Support to sectoral community structures		services	Low	**Positive** - Improved capacity of the community to manage current affairs, conflict resolution, awareness creation on peace, security, HIV/AIDS, teenage pregnancies, GBV, early and forced marriages.
Sub-component 1.4: strengthening private sector seed multiplication for certified				
Engage private sector for seed multiplication using foundation seeds targeting out growers' farmers		Services	Low	**Positive** – Enhanced coordination for seed multiplication, affordability and access to high quality seeds by out grower farmers, improved farm production, food security, reduction of hunger and malnutrition cases.
Establish seed production blocks'		Civil works	Medium	**Positive** – Improved infrastructure for production of quality seeds, access to good quality seeds, increased farm yields, food security, peaceful coexistence, and increased household income and livelihoods. **Negative** – Noise pollution, increased water demand, generation of solid waste
Construction of post-harvest handling storage (seeds strorage, showroom, mills/farm market)		Civil works		
Demarcation of agricultural farmland		Civil works		
Support to sectoral community structures s		Services	Low	Improved sectoral community structures
COPONENT 2: Restoration and improvement of basic social services in the refugee				
Sub-component 2.1: Rehabilitation and upgrade of school infrastructure				

SCRSSP Project Component – Aweil	No. Of units	Category	Risk rating	Impacts
Construction of new classroom blocks (pre-school) in existing schools		Civil works	Medium	Positive – improved infrastructure for education, student safety and wellbeing, enhanced literacy and skills development. Negative – Dust and noise pollution during civil works, increased water demand, health and safety risks,
Rehabilitation of vocational center		Civil works		
Renovation of classrooms in existing schools		Civil works		
Providing vocational skills trainings to refugees and host community members		Services	Low	Enhanced skills development, capacity development of the local people, improved living standards, prevention of social vices such as youth radicalization, crime, prostitution etc
Support to sectoral community structures		Services		
Sub-component 2.2: Improvement of WASH facilities for sustainable water services				
Distribution of hygiene kits (in kind or cash)	375	Goods	Low	Solid waste from packaging materials and used materials
Rehabilitation and upgrading of water network infrastructure (repair and maintenance of solarization)	1	Civil works	Medium	Positive – improved infrastructure for education, student safety and wellbeing, enhanced literacy and skills development. Negative – Dust and noise pollution during civil works, solid waste management, electrical waste generation
Support to sectoral community structures		Services	Low	None
Sub-component 2.3: Community empowerment and psychosocial (Mental Health Support)				

SCRSSP Project Component – Aweil	No. Of units	Category	Risk rating	Impacts
Upgrade the sport, art and craft facility	1	Civil works	medium	Positive – improved infrastructure for education, student safety and wellbeing, enhanced literacy and skills development. Negative – Dust and noise pollution during civil works, solid waste management, electrical waste generation
Construction of a safe house to accommodate the GBV survivors with heightened risks	1	Civil works		
Organize sports events and celebrations of 16 days of Activism and International Women's Day to connect with their cultural heritage and promote inclusivity	2	Goods	Low	None
Support to sector to community structures		Services	Low	None
Sub-component 2.4: Facilitate access to integrated health and nutrition services				
Construct 1 block for laboratory, drug store and EPI in Nyamlel Hospital	1	Civil works	Medium	Positive – Improved infrastructure for healthcare and improved service delivery Negative – increased water demand, energy demand, waste generation (medical waste and other hazardous waste from the new facilities), dust and noise pollution during the civil works
Provide cash assistance and livelihood support for nutritional support to vulnerable households	1302	Goods	Low	

SCRSSP Project Component – Aweil	No. Of units	Category	Risk rating	Impacts
Support to sectoral community structures			Low	Capacity development of the leadership and community structures to provide basic services including conflict resolution, prevention of GBV, and awareness of peaceful coexistence, prevention of early and forced marriages, teenage pregnancies etc.
Sub-component 2.5: provide sustainable lighting energy solutions for improved settlement security				
Installing solar lighting in settlement (water collection points and community safe structures	184	Goods		Positive – alternative (clean) source of energy, improved health due to use of clean energy sources, reduction in risks such as fire, better lighting in the household, improved security and general wellbeing of the households. Negative – waste management challenges especially worn-out parts of the solar lamps
Provide solar lamps to vulnerable households	1206	Goods	Medium	
Support to sectoral community structures	1	Services	Low	Capacity development of the leadership and community structures to provide basic services including conflict resolution, prevention of GBV, and awareness of peaceful coexistence, prevention of early and forced marriages, teenage pregnancies etc.
COMPONENT 3: Restoration of environment in the refugee and host				
Sub-component 3.1: Community preparedness for disaster risk reduction and early warning systems				
Set-up community committees for disaster risk reduction and setup early warning systems or community networks	4	Goods	Low	Awareness on disaster risk reduction, and early warning systems, increased response to disasters, wellbeing of the project beneficiaries,
Construct flood protection infrastructure (Hafirs/drainage)	1	Civil works	Medium	Positive - restoration of degraded land, climate resilience and flood protection

SCRSSP Project Component – Aweil	No. Of units	Category	Risk rating	Impacts
				Negative – accidents as a result of not adhering to occupational safety, health practices, increased water demand, dust pollution, waste generated during excavation, destruction of grassland etc
Cash for labor intensive public works for flood mitigation and preparedness	184	Goods	Low	Positive – improved income and wellbeing, alternative source of income
Support to sectoral community structures	1	Services	low	Capacity development, improved livelihoods and leadership
Sub-component 3.2: Enhancing access to clean cooking options and training on clean cooking access				
Support women to produce fuel efficient stoves and distribute among refugee women	225	Goods	low	Positive – improved health due to clean cooking technology, environmental conservation due to use of fuel-efficient stoves, increased income for the women, prevention of GBV, Negative – increased demand for material for making the stoves which can lead to environmental degradation, risk of child labor
Support to sectoral community structures	1	Services	Low	Capacity development, improved livelihoods and leadership
COMPONENT 4: Project management and capacity building			Low	Capacity development to ensure sustainability of the project components.
Sub-component 4.2: CRA institutional capacity building			Low	Capacity development of the CRA to improve services to the project beneficiaries.
Procurement of goods (bycicles, motocycles) including country logistics	4	Goods	Low	Positive – Improved capacity and ability to provide services to local community and refugees, respond to emergencies, prevent conflicts etc.
Provide incentive cash support for peace building community activities s	75	Services	Low	Capacity development of the local communities to ensure peaceful coexistence, conflict resolution, and prevent GBV, forced marriages, teenage pregnancies

Both the positive and negative impacts of the project components based on assessment and Table 7 above are discussed below.

7.3.1. Positive Impacts

Livelihood improvement and skills development - The project activities target priority sectors such as improvement in agriculture, trade, seed multiplication and post-harvest management for crisis affected communities of refugees and their hosts. The expected skills development and promotion of climate smart agricultural production practices will result to increased income opportunities for the most vulnerable and empower them to create new sustainable and climate responsive livelihood opportunities.

Improvement in infrastructure for health, education, sanitation: The proposed SCRSSP will improve infrastructure for essential service delivery systems (health, education, WASH, settlement infrastructure, etc.). Specifically, rehabilitation and expansion of the systems and improving access and quality of services will be a significant milestone to improving living conditions of crisis-affected communities;

Enhanced climate resilience and adaptation to climate change – Establishment of environmentally sustainable early warning systems and preparedness measures will greatly lead to enhanced resilience and adaptive capacity of displaced people (refugees) and host communities to climate-related and other environmental risks. In addition, introduction of sustainable energy solutions will reduce reliance on energy solutions such as wood and charcoal.

Institutional strengthening and capacity development: The project will lead to capacity building of key institutions like CRA to facilitate their daily operations to advance peaceful coexistence efforts resulting in improved coping capacities and strengthened peaceful coexistence and social cohesion among refugees and other host communities.

Creation of Employment opportunities -The project will directly create employment for a large group of people both directly and indirectly; this will be in the construction, occupation and decommissioning phases. The project shall provide temporary employment opportunities to the locals as unskilled workers during the construction phase and further professional workers. The resultant effect to the employment of a significant number of people will be improved lifestyles and living conditions and that of their dependents. Benefit is also bound to trickle down to service providers and producers (of raw materials and construction products).

7.3.2. Negative effects

The proposed development may produce some negligible negative environmental and social impacts that may necessitate appropriate mitigation measures. These include but are not confined to;

Noise and Vibration

Relatively low noise levels are expected in all projects involving civil works. Noise control measures should be implemented in the construction area if the noise levels exceed 90dB (A) for a continuous 8 hours exposure. In addition, protection against the effect of the noise exposure among the workers should be monitored. Noise pollution is not foreseen during the operation phase.

Soil Erosion

The project sites are generally dry and there is the increased risk of erosion and increased dust during excavation and movement of the machinery in the proposed sites. Soil movement is also common during laying of foundations (earthworks) for the projects and site clearing. The contractors should adopt comprehensive soil erosion measures that include the following;

Increased Water Demand

The increase in demand for water will occur will occur for all the project components that entail civil works e.g proposed construction and rehabilitation of the various facilities under the SCRSSP. Water will be sourced from existing water yards and boreholes in the project sites. The consultant will also be advised to undertake rain water harvesting during the rainy season to supplement the water supply from the common sources namely boreholes and water yards.

Air Quality (dust pollution)

The civil works on the proposed sites will result to increased dust and gas emissions. Dust particles caused by vibrations of machines and vehicle movement suspends in the air mostly during dry spells.

Fire

Wild fires are common occurrences in areas adjacent to the proposed project sites in Aweil. Some of the wildfires are started by human activities or natural causes due to the extreme heat. In addition, fire may be caused by the machineries used during civil works or operations of the installations.

Solid waste

Huge quantities of solid wastes are normally generated from construction activities. Such wastes include stones, wood, broken glasses, containers, rods of metal, pieces of iron sheets etc. There is need for proper management (proper disposal) of the solid wastes expected from the site during construction phase.

Besides, other wastes such as medical waste, menstrual hygiene kits, and other solid waste materials and other sanitation wastes will be generated from provision of goods and

services under the project. The situation is further affected by lack of a functional solid waste management system by the public or private sector. Therefore, it is important to put into place practical measures and infrastructure for waste minimization, material recovery, reuse and safe disposal of all types of wastes in the project sites.

Ecological impacts

The sites in Aweil have no vegetation of conservation value hence the project will have no impact on ecology. It is however prudent to consider introduction of vegetation on site as part of environmental conservation initiative during the operation phase.

Occupational Health and Safety (OHS)

During civil works there will be increased dust, air and noise pollution. These are considered as negative impacts as they significantly lower the quality of the environment.

Security

The security condition in the proposed project sites is generally volatile. Therefore, it is imperative for the relevant stakeholders comprising UNHCR, GoSS, and contractor to reinforce security measures to avoid any losses or destruction of materials and facilities. This involves employing a guard to control movement within the site especially for the intruders. During Occupation/completion of the project, security of the premise occupants is also paramount

CHAPTER EIGHT: MITIGATION MEASURES

The proposed mitigation measures are summarized in Table 8

Table 7: Mitigation measures

Type Of Impact (S) Measures	Proposed Mitigation
Destruction of soil structure and ground profile	• Provision of soil conservation structures on erosion prone areas to control occurrence of soil movement. • Avoid unnecessary movement of soil materials from the site. • Good management of the runoff/storm water to reduce its impact on loose soil especially during the rainy season. • Control construction activities especially during rainy / wet conditions. • Landscaping: Re-surface open areas on completion of the project and introduce appropriate vegetation where applicable. • Provide appropriate drainage systems to manage surface runoff.
Noise and Vibration	• Construction work should be carried out during the specified time i.e. from 0730 hrs to 1700hrs; noise generated during the day is not quite disturbing as compared to it being generated at night hours • Sensitize construction vehicles driver and machinery operators to switch off engines of vehicles when not in use. • Workers should be provided with relevant Personal Protective Equipment (PPE)/ materials such as earmuffs and earplugs; when operating noisy machinery and when in noisy environment. These provide a physical barrier that reduces inner ear noise levels and prevent hearing loss from occurring. • Suppressors or silencers on equipment or noise shields; for instance, corrugated iron sheet structures. • Machineries should be maintained regularly to reduce noise resulting from friction. • Manual labour is recommended in the construction phase, to reduce the noise emitted by construction machinery
Increased Water Demand	• Encourage water reuse mostly during construction phase.

Type Of Impact (S) Measures	Proposed Mitigation
	• Roof catchments of the building structures should be provided with rainwater harvesting systems (gutters, down pipes and water storage facilities) to enhance collection and storage of the run-off. Such water can be used in watering flower gardens, cleaning etc. • Provide notices and information signs i.e. „*keep/leave the tap closed'*, etc. This will awaken the civic consciousness with regard to water usage and management. • Install water-conserving taps that turn-off automatically when water is not in use.
Loss of vegetation Cover	• Designing and implementation of a landscaping programme to help re-vegetate the site after construction activities are completed • Introduction of vegetation (trees, grasses) in open spaces and after completion of construction activities with proper maintenance
Blockage of storm water drains along the road alignment	• Use of reinforced concrete culverts at points of access and exit from the main road alignment • All dug up soil and other loose material on site resulting from site clearance to be promptly removed and appropriately disposed off • Control of construction works during rainy season
Increased surface run-off and soil erosion	• Installation of drainage structures properly and proper management of excavation activities • A storm water management plan that minimizes impervious area infiltration by use of recharge areas and use of detention and/or retention with graduated outlet control structures will be designed. • Surface run-off and roof water to be harvested and stored in underground water reservoirs for use in general site cleaning and in the lavatories.
Land degradation / Piling of loose soil and other debris on site	• Use excavated soils (spoils) to fill up abandoned quarries and neighboring gullies that have been left open (backfilling purposes). • All dug up soil to be removed promptly and disposed of to appropriate areas

Type Of Impact (S) Measures	Proposed Mitigation
	• Construction materials to be supplied on demand and right quantities for use in time to avoid pilling of materials on site
Fire Risk	• Workers to be trained on fire preparedness and response • An elaborate fire risk policy to be adopted by the proponent • Liaise with the County fire department in case of emergency • Contractor to station an Environment, Health and Safety Officer in charge during the project implementation period to supervise and monitor implementation of the ESMP specifically environment, health and Safety Components • In addition to the above, the project management should consider the following:- • Conduct regular fire drills/simulations to sensitize workers during construction phase. Adapt an emergency response plan for the entire project during operational phase. • Ensure that all firefighting equipment are strategically positioned, regularly maintained and serviced. • Provide fire hazard signs such as 'No Smoking' signs, Direction to exit in case of any fire incidence and emergency contact numbers should be provided. • Provisions of marked fire exits and ensure that all fire exits are unobstructed at all times. • UNHCR and CRA should collaborate to provide basic fire training targeting selected members from the refugee, returnee and host community to support emergency responses.
Solid Wastes generation	• Install bins for separate collection of dry and wet waste or different fractions of waste in the respective facilities that are constructed or rehabilitated and within the refugee settlements. • Encourage youths in the refugee settlements, and host communities to embrace waste collection and material recovery as an alternative source of income and where possible train them on value addition, recycling, or repurposing.

Type Of Impact (S) Measures	Proposed Mitigation
	• Use of an integrated solid waste management system i.e. through a hierarchy of options: reduction, sorting, re-use, recycling (where applicable) and proper disposal • Refuse must be placed in designated skips or bins which must be regularly emptied. These should remain within the demarcated areas and should be designed to prevent refuse being wind-blown • Incorporate suitable facilities for collection, segregation and safe disposal of solid wastes. • Temporary toilets to be provided to construction staff and the toilets must not cause pollution to water sources • Ensure a continuous review of waste management procedures with changing technology and regulatory changes. • Use of construction materials that need minimal packaging to reduce packaging wastes on site • Through accurate estimation of the sizes and quantities of materials required, order materials in the sizes and quantities they will be needed, rather than cutting them to size, or having large quantities of residual materials. • Creation of awareness on proper solid waste disposal methods among the construction staff.
Air pollution	• Sprinkling stockpile with water regularly or cover with a membrane to prevent them from being blown away. Sprinkling water on the unpaved surface over which construction vehicles and machinery driven • Workers on site to use nose-muffs during construction works • Covering of all materials/loads leaving or entering the site • Switching off vehicles' engines while refuelling or awaiting to refuel • Regular maintenance of standby generator and run it on good quality fuel; perhaps low sulphur fuel • The Proponent is to install vapour recovery system and train employees on correct filling procedures • Soil compaction

Type Of Impact (S) Measures	Proposed Mitigation
Occupational Health and Safety risks	**<u>During construction</u>** • Appropriate signage and a demarcated construction area must be established around the construction site creating awareness of employees on-site and the public of the potential health and safety risks • All construction employees on-site must be trained in the implementation of effective Health and Safety policies • A First Aid Team must be appointed, trained and equipped with adequate equipment should a health and safety incident occur • All workers and visitors should be provided with appropriate safety/ protective equipment and gear while on site • Contractor to station an Environment, health and Safety Officer in charge during the project implementation period to supervise and monitor implementation of the EMP specifically environment, health and Safety Components • Unattended public access to the construction site to be highly restricted • Ensure that provisions for reporting incidents, accidents and dangerous occurrences during the entire period of construction using prescribed forms obtainable from the Directorate of Occupational Health and Safety Office. **<u>Operation Phase</u>** • Develop and enforce OHS safety procedures, Safety kits and emergency facilities should be provided in case of any accidents and incidents common to projects of such a nature. These should be placed in strategic locations on site • All H&S regulations required in South Sudan must be adhered to • Develop and implement workplace health and safety plan • First aid team should be appointed, trained and equipped • Train the employees on workplace safety

Type Of Impact (S)	Proposed Mitigation Measures
Insecurity	• Regular inspection and servicing of the equipment must be undertaken by a reputable service provider and records of such inspections maintained • Always ensure general safety and security by providing day and night security guards and adequate lighting within and around the project site • Establish liaison with the County Government of Aweil Environment department and other emergency service providers such as Hospitals and the police. • Consider installing solar lighting systems and backup generator to ensure steady supply of power to the facilities. • Provide lighting systems that illuminate the area well. Security alarms should be installed in strategic points all over the site area after completion of the project. • Contractor should provide adequate security during the construction period when there is no work going on at the site. E.g. during the night and weekends. • Station some guards to man the facilities and install steel gate and regulate movement in and out of the site
Decommissioning of the project	• Develop and implement decommissioning and Rehabilitation Management Plan • This report recommends that an elaborate ESIA must be carried out for the decommissioning activities so as to effectively address the negative impacts that may result from the same. • Assisting those who will still be employed on site to search for alternative employment elsewhere • Contracting of qualified persons to carry out the demolition works • Proper collection, sorting and disposal of all types of resultant wastes • Ensuring that materials that can be re-used are well stored and or transported elsewhere. • Ensuring that any hazardous wastes are carefully removed, sorted and properly disposed of if any

Summary of recommendations for the prevention and mitigation of adverse impacts

- Provide signage and construction board in the proposed sites to inform community of the activities taking places.
- Since the project will provide employment opportunities especially during construction phase, the locals should be given priority during recruitment of local labor force. In relation this, the contractor to work closely with the local administrative in recruitment
- Minimize accidents through proper warning signs, establishing proper emergency handling procedures during construction and operation phase, Warning signs should also deliberately target motorist, the general public and the employees
- Ensure that worker's occupational health and safety standards are maintained through capacity building, proper training, and providing protective clothing
- The proponent/contractor should ensure that the proposed Environmental management plan is fully implemented
- All activities concerning construction and maintenance such as, work execution, site inspection, and material testing, shall be strictly monitored by a qualified engineer and/or project manager. This is important to ensure quality of maintenance works. Engineers and/or project manager shall be trained and experienced enough to judge the appropriateness of the work executed in order to carry out the monitoring.
- Construction activities must be undertaken only during the day i.e. between 08:00 hours to 17:00hours. This will minimize disturbance to the general public within the proximity of the project site.
- All solid waste materials and debris resulting from construction activities must be disposed offsite to approve dumpsites. There should be proper waste segregation to allow for recycling. Some excavation waste such as stone materials should be used for backfilling.
- The Contractor should station an environment, Health and Safety officer or equivalent to enforce and supervise the implementation of the ESMP as provided and stipulated in this ESIA report

CHAPTER NINE: ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

9.1. Introduction

The Environmental and Social Management Plan (ESMP) has been developed to assist in prioritizing the key findings of the ESIA, suggesting necessary mitigation actions and allocating responsibilities and the estimated cost of implementation. From ESMP, a schedule for the project implementation could also be drawn that takes into consideration all issues that could develop into serious risks to environment, health and safety during construction and operational phases.

The key aspects of the environmental management plan are based on the following:

- Environmental policy
- Nature and scale of operations,
- Pollution prevention strategies,
- Legal compliance,
- Objectives and targets,
- Employees' involvement

Planning

- Identification of potential impacts and their sources,
- Setting objectives and targets,
- Developing an environmental management programme

Implementation and operations

- Allocate responsibilities and cost involved,
- Undertake training and capacity building,
- Ensure communication at all levels.
- Corrective actions
- Scheduled monitoring and measurements,
- Identification of area not conforming to standards,
- Carry out prevention and corrective measures/actions,
- Carry out environmental audits.

9.2. Construction Phase ESMP

The necessary objectives, activities, mitigation measures, and allocation of costs and responsibilities pertaining to prevention, minimization and monitoring of significant negative impacts and maximization of positive impacts associated with the construction phase as shown in *Table 9*

Table 8: Environmental and social Management Plan for Aweil

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
1. Minimize extraction site impacts and ensure efficient use of raw materials in construction				
High Demand of Raw material	**1.** Source building materials from local suppliers who use environmentally friendly processes in their operations.	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
	2. Ensure accurate budgeting and estimation of actual construction material requirements to ensure that the least amount of material necessary is ordered.	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
	3. Ensure that damage or loss of materials at the construction site is kept minimal through proper storage.	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
	4. Use at least 5%-10% recycled, refurbished or salvaged materials to reduce the use of raw materials and divert material from landfills	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
2. Reduce stormwater, runoff and soil erosion				
Increased storm water, runoff and soil erosion	**1.** Surface runoff and roof water shall be harvested and stored in underground reservoir for reuse.	UNHCR, Project, Management Unit, contractor	Throughout construction period	10,000
	2. A storm water management plan that minimizes impervious area infiltration by use of recharge areas and use of detention and/or retention with graduated outlet control structure will be designed.	The Civil Engineer, Mechanical Engineer and UNHCR	Throughout construction period	

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
3. Minimize solid waste generation and ensure efficient solid waste management during construction				
Increased solid waste generation	**1.** Use of an integrated solid waste management system i.e. through a hierarchy of options: 1. Source reduction 2. Recycling 3. Composting and reuse 4. Combustion 5. Safe disposal in designated sites	UNHCR, Project, Management Unit, contractor	Throughout construction period	10,000
	2. Accurate estimation of the sizes and quantities of materials required, order materials in the sizes and quantities they will be needed, rather than cutting them to size, or having large quantities of residual materials.	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
	3. Ensure that construction materials left over at the end of construction will be used in other projects rather than being disposed off.	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
	4. Ensure that damaged or wasted construction materials including doors, plumbing and lighting fixtures, and glass will be recovered for refurbishing and use in other projects	UNHCR, Project, Management Unit, contractor	Throughout construction period	4,000
	5. Donate recyclable/reusable or residual materials to local community groups, institutions and individual local residents or home owners (within the refugee settlement and host communities)	UNHCR, Project, Management Unit, contractor	Project completion	0
	6. Use of durable, long-lasting materials that will not need to be replaced as often, thereby reducing the amount of construction waste generated over time	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
	7.Provide facilities for proper handling and storage of construction materials to reduce the amount of waste caused by damage or exposure to the elements	UNHCR, Project, Management Unit, contractor	Throughout construction period	7,000

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
	8. Use building materials that have minimal or no packaging to avoid the generation of excessive packaging waste	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
4. Reduce dust emissions				
Dust emission	**1.** Ensure strict enforcement of on-site speed limit regulations	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
	2. Avoid excavation works in extremely dry weather	UNHCR, Project, Management Unit, contractor	Throughout construction period	10,000
	3. Sprinkle water on graded access routes when necessary to reduce dust generation by construction vehicles	UNHCR, Project, Management Unit, contractor	Throughout construction period	
	4. Personal Protective equipment to be worn	UNHCR, Project, Management Unit, contractor	Throughout construction period	
	5.construction materials on site to be covered to prevent to be blown off by wind	UNHCR, Project, Management Unit, contractor	Throughout construction period	
5. Minimization of exhaust emissions				
Exhaust emission	**1.** Vehicle idling time shall be minimized	UNHCR, Project, Management Unit, contractor	Throughout construction period	0

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
	2. Alternatively fueled construction equipment shall be used where feasible equipment shall be properly tuned and maintained	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
	3. Sensitize truck drivers to avoid unnecessary racing of vehicle engines at loading/offloading points and parking areas, and to switch off or keep vehicle engines while at the site	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
6. Minimization of Noise and Vibration				
Noise and vibration	**1.** Sensitize construction vehicle drivers and machinery operators to switch off engines of vehicles or machinery not being used.	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
	2. Sensitize construction drivers to avoid gunning of vehicle engines or unnecessary hooting especially when passing through sensitive areas e.g the refugee settlement, market, host community	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
	3. Ensure that construction machinery are kept in good condition to reduce noise generation	UNHCR, Project, Management Unit, contractor	Throughout construction period	7,000
	4. Ensure that all generators and heavy-duty equipment are insulated or placed in enclosures to minimize ambient noise levels.	UNHCR, Project, Management Unit, contractor	Throughout construction period	7,000
	5. The noisy construction works will entirely be planned to be during games time when most learning sessions are not on. Also can be done during weekends (these refer to construction and rehabilitation of school infrastructure, classrooms)	UNHCR, Project, Management Unit, contractor	Throughout construction period	0

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
7. Minimization of Energy Consumption				
Increased energy consumption	**1.**Ensure electrical equipment, appliances and lights are switched off when not being used	UNHCR, Project, Management Unit, contractor	Throughout construction period	0
	2. Install energy saving fluorescent tubes at all lighting points instead of bulbs which consume higher electric energy	UNHCR, Project, Management Unit, contractor	Throughout construction period	5,000
8. Minimize water consumption and ensure more efficient and safe water use				
High Water Demand	**1.** Promptly detect and repair of water pipe and tank leaks	UNHCR, Project, Management Unit, contractor	Continuous	5,000
	2. Ensure taps are not running when not in use	UNHCR, Project, Management Unit, contractor	Continuous	0
	3. Install a discharge meter at water outlets to determine and monitor total water usage	UNHCR, Project, Management Unit, contractor	Throughout construction period	4,000
	4.proper recycling of water from other uses for sprinkling dusty pavements	UNHCR, Project, Management Unit, contractor	Throughout construction period	4,000
9. Minimize occupational health and safety risks				
Unavailability and wrong use of Personal	▪ Always ensure the general safety and security by providing day and night security guards and adequate lighting within and around the premises.	UNHCR, Project, Management Unit, contractor	Throughout construction period	2,000

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
Protective Gear (PPG)	▪ Suitable overalls, safety footwear, dust masks, gas masks, respirators, gloves, ear protection equipment etc should be made available and construction personnel must be trained to use the equipment	UNHCR, Project, Management Unit, contractor	Throughout construction period	
Accidents resulting from disregard of Health and safety impacts	• Implement all necessary measures to ensure health and safety of workers and the general public during construction	UNHCR, Project, Management Unit, contractor	Throughout construction period	3,000
Injuries	Well stocked first aid box which is easily available and accessible should be provided within the premises	UNHCR, Project, Management Unit, contractor	Throughout construction period	2,000
	Provision must be made for persons to be trained in first aid, with a certificate issued by a recognized body.	UNHCR, Project, Management Unit, contractor	Throughout construction period	2,000
Fire incidents	Firefighting equipment such as fire extinguishers should be provided at strategic locations such as stores and construction areas.	UNHCR, Project, Management Unit, contractor	Throughout construction period	5,000
	Regular inspection and servicing of the equipment must be undertaken by a reputable service provider and records of such inspections maintained	UNHCR, Project, Management Unit, contractor	Every 3 months	4,000
	Fire escape routes and assembly point to be marked	UNHCR, Project, Management Unit, contractor	Throughout construction period	4,000

Expected Negative Impacts	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD)
	Signs such as "NO SMOKING" must be prominently displayed within the premises, especially in parts where inflammable materials are stored	UNHCR, Project, Management Unit, contractor	Throughout construction period	3,000
GBV, teen pregnancy and forced marriages, HIV/AIDs	Awareness creation on thematic issues including prevention of GBV, teenage pregnancies, HIV/AIDs Strengthening local leadership structures to respond to emergencies as well as training on effective conflict resolution both at household level and among the refugees, host communities and returnees.	UNHCR, Project, Management Unit, contractor	Throughout construction period	4,000
Total				102,000

9.3. Project Operation Phase

The necessary objectives, activities, mitigation measures, and allocation of costs and responsibilities pertaining to prevention, minimization and monitoring of significant negative impacts and maximization of positive impacts associated with the operational phase of project components are outlined in Table 10

Table 9: Operation Phase ESMP

Expected Negative impact	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD) per annum
1. Fire risks	1. Install fire extinguishers 2. Clearly mark fire exit points and the fire assembly area 3. Provide sand buckets at strategic locations	UNHCR & Project management Unit	Operation phase	3,000

Expected Negative impact	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD) per annum
	4. Workers should be trained on firefighting skills by a qualified trainer 5. Fire drills should be conducted at least once a year 6. A firefighting team should be established 7. Warning and informational signs be displayed appropriately 8. Regular testing and servicing of fire-fighting equipment and appliances			
2.Solid waste Management (Littering, soil and surface water pollution).	1. Provision of waste collection bins 2. Segregation of wastes at the source 3. Waste should be disposed at the designated site 4. Solid waste should be managed according to the waste management regulations. 5. Prepare a waste management plan; 6. Stop deposition of waste in open pits; open burning or burying of waste 7. Clearly designate and construct an appropriate waste collection facility or provide covered refuse skips; 8. Monitor waste volumes;	UNHCR & Project management Unit	Operation period	5,000

Expected Negative impact	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD) per annum
3.Waste water management	1. Conduct wastewater monitoring to check compliance	UNHCR & Project management Unit	Continuous	3,000
4.Workers Welfare (risks such as accidents, disregard of safety and wellness)	1. Provide workers with PPEs 2. Provide adequate washrooms and changing rooms for workers 3. Training of workers 4. Provision of first aid and other welfare facilities 5. Provision of an Insurance cover 6. Regular medical check-ups 7. Respect for workers' rights	UNHCR & Project management Unit	Operation period	3,000
5.Air pollution	1. Ensure that the machines (at the hospital), diesel generators are maintained to manufactures specifications, records maintained and availed whenever, there is need; 2. Ensure that tank vents are located away from sensitive receptors;	UNHCR & Project management Unit	Continuous	3,000
6. Increased Energy Resource Utilization	1. Switch off electrical equipment, appliances and lights when not being used	UNHCR & Project management Unit	Continuous	0
	2. Install occupation sensing lighting at various locations such as storage areas which are not in use all the time	UNHCR & Project management Unit	Operation phase	0
	3. Install energy saving fluorescent tubes at all lighting points within the flats instead of bulbs which consume higher electrical energy	UNHCR & Project management Unit	Operation phase	2,000

Expected Negative impact	Recommended Mitigation Measures	Responsible Party	Time Frame	Cost (USD) per annum
	4. Monitor energy use during the operation of the project and set targets for efficient energy use	UNHCR & Project management Unit	Operation phase	3,000
	5. Sensitize occupants of the facilities and communities to use energy efficiently	UNHCR & Project management Unit	Operation phase	3,000
7. Increased water demand/Water consumption	1. Promptly detect and repair water pipe and tank leaks	UNHCR & Project management Unit	Operation phase	4,000
	2. Ensure taps are not running when not in use	UNHCR & Project management Unit	Operation phase	1,000
	3. Install water conserving taps that turn-off automatically when water is not being used	UNHCR & Project management Unit	Operation phase	2,000
8. Increased incidences of social vices (GBV, theft, social intolerance, HIV/AIDs)	Awareness creation on the thematic sectors namely prevention of GBV, HIV/AIDs) Strengthening of local institutions and leadership structures on conflict resolution, emergency response. Promoting coordination between different actors – NGO and civil society, police and GoSS agencies to promote peaceful coexistence, and minimize insecurity.	UNHCR & Project management Unit	Operation phase	4,000
Total				36,000

9.4. Project Completion and Decommissioning

Information pertaining to the decommissioning of the project at the end of its life cycle and associated impacts, proposed measures to return the site as far as possible to its suitable state, or rehabilitation measures has been elaborately provided in the Table 11

Table 10: ESMP for Project decommissioning

Parameter	Impacts	Mitigation Measures	Phase	Responsible entity	Estimated cost (USD)
Noise and Dust	Noise and dust pollution	Working during daytime Provide breathing masks to workers	During demolition phase	UNHCR & Project management Unit	5,000
Solid waste	Environmental pollution	Putting in place proper waste management Systems including waste recycling and reuse of debris	During decommissioning phase	UNHCR & Project management Unit	3,000
Workers' Health	Exposure of workers to pollution and accidents during demolition	Workers to be provided with PPEs Training on safe demolition Methods and handling of hand tools.	At the Beginning of decommissioning phase.	UNHCR & Project management Unit	3,000
Rehabilitation	Visual intrusion	Re-contouring by trimming slopes to safe angle All topsoil areas will be vegetated	Decommissioning phase	UNHCR & Project management	5,000

Re-vegetation of site	Visual Intrusion	Re-grassing of open areas must be completed according to land- scaping plans Areas identified as potential subject to erosion must be vegetated with indigenous grass species	Decommissioning phase	UNHCR & Project management	5,000
Removal of all waste building materials and machinery	Land pollution Visual intrusion	Demarcation of rehabilitated site to prevent access to these areas Appropriate disposal of all left- over material likely to be harmful to persons and nature Removal of all materials that will not be used for other purposes to licensed disposal sites	Decommissioning phase	Proponent	10,000
Total					**31,000**

9.5. The Grievance Redress Mechanism

Grievance Redress Mechanism (GRM) as a systematic process for receiving, evaluating and facilitating resolution of affected people's project-related concerns, complaints and grievances about the borrower's/client's social and environmental performance on a project.

The project promoter should be aware of and respond to stakeholders' concerns related to the project in a timely manner. In OS 1, the Bank requires the borrower/client to establish a "credible, independent and empowered local grievance and redress mechanism to receive, facilitate and follow up on the resolution of the affected people's grievances and concerns regarding the environmental and social performance of the project. The local grievance mechanism needs to be sufficiently independent, empowered and accessible to the stakeholders at all times during project cycle and all responses to grievances shall be recorded and included in project supervision formats and reports."

The process by which the GRM is designed should be integrated into the overall approach to project preparation as prescribed in the Bank's ISS. AfDB Guidelines Notes provides guidance on development and Implementation of GRM. It should also be included in the concrete actions required in the Environmental and Social Management Plan (ESMP) for Category 1 projects and, on a case-by-case basis, for Category 2 projects that exhibit specific potential social tensions, in particular risks of the presence of particularly vulnerable groups (refugees, returnees and host communities) in the project's area of influence.

AfDB has also established its own accountability mechanism, the Independent Recourse Mechanism (IRM). The IRM seeks to assess whether a Bank approved project complies with relevant sections of the AfDB's ISS. The IRM makes itself accessible to any group (a minimum of 2 persons living in the project's area of influence) actually or potentially negatively affected by a Bank- funded project. The IRM reports to the Bank's Board of Directors and is thus independent of Bank management. The IRM has been set up by the Bank to achieve more transparency. It is also a costly mechanism to trigger. The establishment of local GRMs can help to alleviate the need for plaintiffs to resort to the IRM, while problem-solving can be more rapidly and cost-effectively done locally. The cultural context in which GRMs operate also helps to defuse complaints and to find appropriate and commensurate solutions.

The grievance redress mechanism will adapt the UNHCR community feedback and referral mechanism while making provision for two tier amicable mediation and settlement. The first tier will involve the grievance redress committee resolving the issue at the community level involving the host community, refugees and returnees. If the issue is not resolved at the local level, then the 2nd tier should involve CRA, UNHCR and the funded partners to constitute an appropriate team including regional/national stakeholders including the Administration head for the area (or his/her representative) to resolve the matter. When these two tiers of amicable mediation arrangement fail, the complainant is free to seek redress at the court of law.

9.5.1. GRM at project level

The GRM in the proposed project will be adapted under the guidance provided in the Bank's ISS through its (ESIA) Guidelines Notes. The first step is to determine the primary goal of the GRM which would generally be to resolve specific grievances in a manner that meets both

project management and community needs, but with important local variations. The scope of the grievances that may legitimately be brought forward by the communities and/or individuals affected shall be defined in advance. That scope will generally cover most, if not all, of the issues raised in a typical Environmental and Social Assessment: natural resources, pollution, cultural property, land acquisition, the welfare of vulnerable groups, etc.

The second step is to design the GRM by:

- Preparing a preliminary design.
- Selecting ways and means to receive, register, assess and respond to grievances.
- Select grievance resolution approaches.
- Design a means to track and monitor grievances.
- Develop the grievance mechanism infrastructure.
- Review and refine the design.

The GRM shall be designed based on the following principles:

1. Involvement of individuals of mixed levels and functions from the entity (, refugees' settlements, Payam, returnees and host community). Staffing the design team from just one function such as community relations or human resources is unwise.
2. The inclusion of a balanced group of representatives from target beneficiaries in Aweil while keeping the team small enough to be responsive.
3. GRM Relying upon clear terms of reference and a work plan that outlines team goals, roles, and responsibilities, level of decision-making authority, reporting lines, tasks, time frame, and products.
4. Making the use of multiple channels (e.g., face to face, phone conversation, mail, text or e- mail, message on a dedicated website), sensitive to cultural customs and traditional methods that may influence or impede the expression of grievances.
5. The existence of a central point of contact that will receive complaints and log them into a central register.
6. Existence and operation of designated complaint resolution staff.
7. Processes for acknowledging the receipt of a grievance and informing the complainant about the time frame in which a response can be expected.

9.5.2. Appointing members of Grievance Redress Committees (GRC)

The project will involve the formulation of Grievance Redress Committees (GRCs) at project level in Aweil. The consultant recommends the use of existing structures such as within the Payam e.g the Peace Committee. Generally, the stakeholders including UNHCR funded partners, CRA and UNHCR will take on grievance handling as a responsibility. The GRM members should be qualified, experienced, and competent personnel who can win respect and confidence of the affected communities. It is also important to maintain a gender balance within the GRMs. Criteria for selecting members of GRMs will include the following

- Knowledge of the project, its objectives, and outcomes
- Technical knowledge and expertise to understand project design and requirements;
- Understanding of the social, economic, and cultural environments and the dynamics of the communities;

- Capacity to absorb the issues dealt with and to contribute actively to decision-making processes;
- Social recognition and standing; and
- Equitable representation of males and females.

The GRC at project level shall constitute among other members, members from the (UNHCR, CRA, returnees, refugees, and host communities). The GRC shall have the right to request the project technical staff to attend the meetings and provide information. A complainant has the right to appear in person, to be accompanied by a community member, and/or to request to be represented by a community elder. GRCs shall be established at the project level to assure accessibility for aggrieved persons.

9.5.3. Procedures, complaints channels and time frame for Grievance Redress Mechanisms

As there is no ideal model or one-size-fits-all approach to grievance resolution, the best solutions to conflicts are generally achieved through localized mechanisms that take account of the specific issues, cultural context, local customs, and project conditions and scale. The process by which a complaint will be accepted or rejected needs shall be carefully designed, and shall maximize interactivity and cultural sensitivity. The acceptance/rejection of a complaint will go through a discussion stage where the plaintiff and the **GRM staff** interact on the grounds and motives of the complaint, after which the plaintiff should clearly and transparently be told whether or not the complaint is eligible and will be processed.

The acceptance/rejection of the complaint shall be based on objective criteria that are posted by the GRM, including a written copy displayed in the public access area of the GRM in an appropriate language.

The processing of the complaint, if accepted should go through various phases:

- Filing of the complaint and labelling with an identification code communicated immediately to the plaintiff.
- Assessment of the complaint (including severity of the risk/impact).
- Formulation of the response.

Selection of the grievance resolution approach is a key. There are four general approaches to choose from:

- The project's management proposes a solution.
- The community and the project's management decide together.
- The project's management and the community defer to a third party to decide.
- The project's management and the community utilize traditional or customary practices to reach a solution.

The Bank ISS recommends the application of a "Decide together" approach that is usually the most accessible, natural and unthreatening ways for communities and a project's management to resolve differences. With the potential to resolve perhaps the majority of all grievances, "decide together" should be the center-piece of any grievance mechanism's resolution options.

The grievance mechanism will comprise of the following primary components:

- ✓ Receive and register a complaint.

- ✓ Screen and validate the complaint (based on the nature and type of a complaint).
- ✓ Formulate a response.
- ✓ Select a resolution approach, based on consultation with affected person/group.
- ✓ Implement the approach.
- ✓ Settle the issues.
- ✓ Track and evaluate results.
- ✓ Learn from the experience and communicate back to all parties involved.

The time for the Grievance Redress Committees to be held shall be agreed and documented, depending on the nature and severity of the complaint. A number of mechanisms will be available to aggrieved parties to access redress. These shall include institutions specific (internal) to a project and set up from its inception or others that might have emerged over time in response to needs identified while the project evolved. Other institutions that are already established within a country's judicial, administrative, and/or political systems and exist outside a project shall also be used. These include the government bureaucracy, judicial institutions, and political institutions such as District Councils, Village Councils, etc. In addition, the Bank itself sometimes shall provide a forum for grievance redress. GRMs shall include avenues for resolving conflicts between aggrieved persons or other stakeholders and can provide information sought by the public on the project.

The channels of presenting complaints could include the presentation of complaints via third parties (e.g., village elites/traditional leaders, community-based organizations, lawyers, non-government organizations [NGOs], etc.); face-to-face meetings; facsimile, telephone, and email communications; written complaints, etc.

If the complainant is not satisfied, the complainant will have to appeal. A summary of the Grievance Redress Mechanism is shown in Table 12

Table 11: Grievance Redress Mechanism

Step	Process	Description	Time frame	Other information
1	Identification of grievance	Face to face; phone; letter, e-mail; recorded during public/community interaction; others	1 Day	Email address; hotline number; Responsible: community leader (host, returnees, refugees)
2	Grievance assessed and logged	Significance assessed and grievance recorded or logged (i.e. in a log book)	4-7 Days	Significance criteria Level 1 –one off event; Level 2–complaint is widespread or repeated; Level 3- any complaint (one off or repeated) that indicates breach of law or policy or this ESIA provisions.
3	Grievance is Acknowledged	Acknowledgement of grievance through appropriate	7-14 Days	Responsible: staff, CRA and contractor

		medium		
4	Development of response	-Grievance assigned to appropriate party for resolution; -Response development with input from management/ relevant stakeholders	4-7 Days 10-14 Days	UNHCR, CRA, Payam
5	Response signed off	-Redress action approved at appropriate Levels	4-7 Days	
6	Implementation and communication of response	-Redress action implemented and update of progress on resolution communicated to Complainant	10-14 Days	
7	Complaints Response	-Redress action recorded in grievance log book -Confirm with complainant that grievance can be closed or determine what follow up is necessary	4-7 Days	Payam, peace, committee, UNHCR, CRA
8	Close Grievance	Record final sign off of grievance -If grievance cannot be closed, return to step 2 or refer to sector minister or recommend third-party arbitration or resort to court of law	5 days	Payam, UNHCR, CRA

CHAPTER TEN: CONCLUSION AND RECOMMENDATIONS

The situation in Aweil reflects a complex interplay of humanitarian, environmental, and socio-economic challenges exacerbated by the influx of refugees and the ongoing crisis in Sudan. The doubling of the refugee population has strained local resources, resulting in significant sanitation, food insecurity, and educational deficits, particularly among children and youths. Land degradation and inadequate waste management systems further threaten both the environment and public health, highlighting the urgent need for comprehensive interventions.

The ESIA findings show that the proposed projects and components are timely and relevant in alleviating the current situations. Efforts by stakeholders such as humanitarian and development actors and local government aim to address these issues, focusing on collaborative resource management and conflict resolution. However, the impact of cultural differences and competition for limited resources continues to sow discord between host communities and refugees. To foster peaceful coexistence, initiatives must prioritize inclusivity and shared benefits in economic and infrastructural development. The baseline assessment, stakeholder consultation as well as the detailed analysis of both the positive and negative impacts of the project components demonstrate viability of the project. The proposed ESMP provide a detailed framework for mitigating the potential adverse impacts.

Therefore, proposed projects, while promising, must incorporate robust mitigation measures outlined in the ESMP to ensure they do not exacerbate existing problems like water scarcity, environmental degradation, and health risks. By addressing these challenges holistically and collaboratively, there is a potential to improve the livelihoods of both refugees and host communities, paving the way for sustainable development and peace in the region.

Regular training sessions should be conducted to equip staff and community members specifically refugee leadership structure including the committees on water and sanitation, education etc as well as local administration like Payam with necessary skills on thematic areas related to project management, conflict resolution, GBV prevention and environmental conservation.