



**The World Bank**

South Sudan Resilient Livestock Sector Project (P500553)

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# Project Information Document (PID)

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Appraisal Stage | Date Prepared/Updated: 03-Mar-2025 | Report No: PIDIA00504



## BASIC INFORMATION

### A. Basic Project Data

Project Beneficiary(ies) South Sudan	Region EASTERN AND SOUTHERN AFRICA	Operation ID P500553	Operation Name South Sudan Resilient Livestock Sector Project
Financing Instrument Investment Project Financing (IPF)	Estimated Appraisal Date 29-Jan-2025	Estimated Approval Date 08-Apr-2025	Practice Area (Lead) Agriculture and Food
Borrower(s) Ministry of Finance and Planning	Implementing Agency Ministry of Livestock and Fisheries		

#### Proposed Development Objective(s)

To enhance animal health, improve rangeland management, and strengthen resilience of livestock production in selected project areas.

#### Components

Strengthening animal health and welfare systems

Sustainable and integrated development and management of natural resources for livestock systems, with focus on rangelands and water management

Technical assistance, institutional strengthening and project management and coordination

## PROJECT FINANCING DATA (US\$, Millions)

### Maximizing Finance for Development

**Is this an MFD-Enabling Project (MFD-EP)?** No

**Is this project Private Capital Enabling (PCE)?** No

### SUMMARY

Total Operation Cost	40.00
Total Financing	40.00
of which IBRD/IDA	40.00
Financing Gap	0.00

**DETAILS****World Bank Group Financing**

International Development Association (IDA)	40.00
IDA Grant	40.00

## Environmental And Social Risk Classification

High

## Decision

The review did authorize the team to appraise and negotiate

**B. Introduction and Context****Country Context**

1. South Sudan's journey to statehood and its economic development have been marred by protracted conflict, at both state and subnational levels. Since gaining independence in 2011, South Sudan has faced a severe economic downturn and widespread poverty. Two years after gaining independence, South Sudan entered a civil war in 2013, resulting in an estimated 400,000 deaths and over 4 million displaced in nearly five years. The country remains a very fragile post conflict country where violence continues to hinder development efforts in much of the country. Over the 2011-2022 period, South Sudan's economic output has declined by 7.2 percent annually (on a per capita basis), while household living standards have sharply deteriorated. Localized conflicts and the war in Sudan hinder economic growth by affecting oil production, trade, and causing internal displacement, worsening humanitarian conditions. These conflicts have reversed previous development gains in South Sudan. Sustained conflict is compounded by natural disasters, and macroeconomic shocks linked to the overwhelming dependence on oil revenues have depleted the coping capacity and incomes of the population<sup>1</sup>.

2. The latest poverty estimates indicate that in 2022, poverty was endemic with nearly eight South Sudanese in ten were living in poverty<sup>2</sup>, and 7 in 10 were living in extreme poverty<sup>3</sup>. Multidimensional poverty<sup>4</sup> is quasi-universal, with 93 percent of the population experiencing deprivation in education, access to services, asset ownership, and

<sup>1</sup> Poverty, estimated as the share of the population living below the national poverty line, expanded by nearly 7 percentage points from 74 percent in 2016 to 81 percent in 2022. The poverty and inequality dynamic analyses use the 2022 HBS and the 2016–17 wave data of the High Frequency Survey (HFS). The poverty trend analyses are based on data on the seven shared states and are not nationally representative. For more information, see South Sudan Poverty Assessment (World Bank, 2024).

<sup>2</sup> In 2022, 75.9 percent of the population live below the national poverty line amounts to SSP358,724 per person per year in 2022 prices, which corresponds to approximately US\$1.5 per adult per day using the average official exchange rate for 2022.

<sup>3</sup> In 2022, 67.3 percent of the population is living on less than SSP298,478 a year, the national food poverty line.

<sup>4</sup> The multidimensional poverty index consists of a composite index constructed by weighing several poverty indicators characterizing a range of deprivation in four dimensions, namely, monetary poverty, health, education, and living conditions.



quality housing. Vulnerability to poverty is widespread, with 99.7 percent of South Sudanese either poor or likely to be poor in the event of any adverse shock. Overcoming fragility will need sustained development across various sectors.

**3. South Sudan ranks as the second most vulnerable country to natural hazards and the impact of climate change globally**, according to the 2024 INFORM Risk Index. Climate shocks lead to unpredictable precipitation and heat waves, disrupting rangeland ecosystems and affecting livelihoods through fluctuating forage and water supplies, crop losses, and displacing humans and livestock. Increasing extreme weather events like floods and droughts cause conflicts and livestock losses. Enhancing household and community adaptive capacity and building resilience in livestock production is essential for protecting herders' livelihoods and assets.

**4. Political and economic instability are impeding growth.** A peace agreement in September 2018 led to a transitional government in February 2020, originally aiming for elections in December 2024. The first national election since South Sudan's independence in 2011 was delayed to February 2027 after extending the transition period. Potential risks include a breakdown of political power-sharing and increased violence during the extended transition, which could severely impact economic activities.

**5. The South Sudanese economy faces several challenges.** Consecutive years of flooding have impacted oil production and strained fiscal accounts. Additionally, the spillovers from global geopolitical and the effects of COVID-19 have added to the economic difficulties. The conflict in Sudan that began in April 2023 further aggravated South Sudan's economic situation by severely disrupting the flow of goods and services, including oil, and causing a significant influx of refugees and returnees. The South Sudanese economy contracted for the fourth consecutive year in FY24, with an estimated decrease of -8.2 percent, primarily due to the rupture of the oil pipeline during fighting in Sudan. This pipeline transported approximately 70 percent of South Sudan's oil exports, which represent 90 percent of foreign exchange earnings<sup>5</sup>

**6. Improved outcomes in the agricultural sector mitigated a sharper economic decline.** Enhanced security conditions, combined with less extensive flooding in 2023, resulted in a 6.2 percent increase in the area harvested and an 8.3 percent rise in crop production in FY24 compared to FY23, which is 20.3 percent above the five-year average. However, the agricultural sector still faces a substantial output gap, primarily due to conflict, recurrent flooding, high input costs (including seeds and hand tools), and disruptions in input distribution.

**7. Almost half of the population of South Sudan face acute hunger, with women and girls disproportionately affected.** According to the 2024 Integrated Food Security Phase Classification (IPC)<sup>6</sup>, between September and November 2024, an estimated 6.3 million people (47 percent of the population analyzed) are classified in IPC Phase 3 or above (Crisis or worse). Between 2021-2023, the prevalence of severe food insecurity reached 63.2 percent, whereas moderate and severe food insecurity affected 87.3 percent of the population. In 2021 alone, there were 10 million people (92.8 percent) who could not afford a healthy diet, highlighting the chronic nature of the food insecurity crisis<sup>7</sup>. Women and girls are the hardest hit by food insecurity, facing increased risk of malnutrition, violence, and displacement as a consequence of food scarcity. In 2019, the overall prevalence of anemia amongst women in South Sudan reached 35.6 percent, with the prevalence of anemia among pregnant women and non-pregnant women were 40 and 35.2 percent, respectively<sup>8</sup>.

**8. The sustained high food insecurity and malnutrition are driven by a confluence of factors, including climate change and conflict.** Frequent climate shocks like floods and droughts that affect agriculture and livestock,

<sup>5</sup> <https://www.reuters.com/world/africa/south-sudan-official-says-resume-pumping-oil-through-sudan-few-days-2024-10-24/>

<sup>6</sup> IPC Acute Food Insecurity and Malnutrition Analysis: September 2024 – July 2025, Published on November 18, 2025

<sup>7</sup> <https://www.fao.org/faostat/en/#data/FS/visualize>

<sup>8</sup> <https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/south-sudan/>



economic crises such as currency depreciation and high food prices, and conflicts (including spillover from Sudan) disrupt trade and livelihoods, causing displacement. Additionally, low agricultural production<sup>9</sup> due to limited investment, weak capacity, poor farming methods, inadequate extension services, and severe rainfall deficits in South Sudan have led to high humanitarian needs and reduced assistance.

## B. Sectoral and Institutional Context

**9. Livestock plays an essential role in the food system and rural livelihood of South Sudan, serving as a significant social and economic asset.** It contributes to food security and provides resources such as meat, milk, cash income, clothing, employment, and capital stock, and it also represents social status. Land cultivation and livestock rearing are the primary livelihood activities for many households, with approximately 81 percent cultivating land and 74 percent owning livestock. The country's livestock is valued at around 2.2 billion dollars<sup>10</sup> with the livestock population at roughly 38.4 million animals, including 11.8 million cattle, 14 million goats, and 12.6 million sheep<sup>11</sup>. Livestock Production predominantly occurs in arid- and semi-arid zones like Eastern Equatoria and the greater Barh el Ghazal regions. Animals are important assets for agro-pastoral communities, often sold for cash or bartered for goods despite slow growth of cross border trade in livestock being hampered by the current civil war in Sudan.

**10. Despite its magnitude and significance, the South Sudanese livestock sector does not meet its potential on food security, nutrition, and livelihoods.** The sector has immense potential to increase food security and reduce malnutrition, employ a large segment of the population and foster income and national GDP growth. However, due to the long neglect and low investment in the livestock sector<sup>12</sup>, sectoral development gaps are huge. Prevalence of livestock diseases and related animal health challenges and the severe erosion of rangelands and water resources preclude the sector from reaching a productivity level to enhance commercial opportunities around livestock value chains.

**11. The development of the livestock sector as a sustained source of food security and decent livelihood is structurally constrained by interlinked challenges.** Main challenges are intrinsic to livestock development: poor animal health and high prevalence of diseases compounded by eroded rangelands lead to minimal productivity. Cross-cutting, foundational issues related to gender inequality, fragility and conflict, and institutional misalignments amplify the sectoral difficulties. Beyond economic growth, investing in agriculture is about resilience; resilience to climate change, resilience to market shocks, and resilience in ensuring that communities have access to nutritious food. Therefore, the sustainable development of the livestock sector hinges on solutions that address the technical issues while mainstreaming cross-cutting issues. This is the foundation of the proposed project, with a view to laying the foundation for long-term solutions:

Challenges to the Livestock sector development in South Sudan	Project value proposition
<b>Challenge #1: Food, health security and livelihoods are severely hampered by animal diseases.</b>	Realizing South Sudan livestock sector's potential hinges on a dynamic and flexible approach to address the nexus issues of human, animal, and environmental interface
South Sudan suffers from chronic food insecurity and high level of malnutrition despite a large livestock population. In South Sudan livestock productivity remains low and animal mortality reaches 20 percent due to	

<sup>9</sup> <https://www.foodsystemsdashboard.org/countries/ssd>

<sup>10</sup> <http://www.ipsnews.net/2014/05/south-sudans-livestock-outnumbering-people-ruining-environment/>

<sup>11</sup> [https://www.fao.org/fileadmin/user\\_upload/emergencies/docs/FAO%20South%20Sudan%20Livestock%20Strategy%20Paper%2030%20March%202015.pdf](https://www.fao.org/fileadmin/user_upload/emergencies/docs/FAO%20South%20Sudan%20Livestock%20Strategy%20Paper%2030%20March%202015.pdf)

<sup>12</sup> For the last 3 years, national budget allocation to the livestock sector has been 0.25 percent, 0.14 percent and 0.79 percent, respectively. South National Budget Allocation FY 2022/23, FY2023/24, and FY2024/25.



<p>animal disease outbreaks, affecting pastoralists throughout the year. These diseases, in turn, are the result of poor access to animal health services and weak public veterinary services and infrastructure. Animal vaccine delivery is extremely challenging as there are limited roads and vaccines must be transported on foot. Human health is severely hampered by other emerging infectious threats, zoonotic diseases, and vector-borne and parasitic diseases. Disruptions in supply chains hinder access to quality veterinary medicinal products (VMPs), particularly in northern states. Together with antimicrobial resistance (AMR), these factors compound the impact of animal and human diseases and hinder their control.<sup>13</sup><sup>14</sup><sup>[OB]</sup>. A lack of a coordinated mechanism between sectoral ministries prevents the implementation of a comprehensive animal health strategy under a One Health approach.</p>	<p>to secure sustainable food and health security and reduce malnutrition.</p>
<p><b>Challenge #2: High vulnerability of the livestock sector to climate change's impact over water and fodder availability</b></p>	<p>Involvement of the state, the local communities, and the South Sudan General Pastoralists Union will better plan for timely spatial information on the availability of fodder and water combined with trends of livestock health and well-being will allow pastoralists and policymakers to learn about more rational crisis mitigation and reduced land degradation risk and conflict</p>
<p><b>Challenge #3: Weak governance and regulatory frameworks hamper progress in addressing the challenges of the livestock sector to unlock its potential for increased food security and nutrition.</b></p>	<p>Enacting pending bills will enhance cooperation for natural resource management, strengthen enforcement, and attract investments in public and private sectors by improving policy, legal, and regulatory frameworks. Improved governance will enhance control over movement of animals, protect rangelands, and ensure the sustainable use of natural resources, thereby supporting the livestock sector's productivity and resilience.</p>
<p><b>Challenge #4: limited participation of women in the livestock sector</b></p>	<p>The proposed project will specifically promote women's engagement and participation in the livestock sector,</p>
<p>Women play a crucial role in livestock activities, being primarily responsible for animal care, including health monitoring and milking, alongside their</p>	

<sup>13</sup> Food and Agriculture of the United Nations. South Sudan Resilience Strategy 2016-2018. Rome: 2016.

<sup>14</sup> United Nations Environment Programme. South Sudan: first state of environment and outlook report 2018.



duties of managing household responsibilities. Despite their significant contributions, they encounter numerous challenges such as restrictive cultural norms, economic difficulties, limited access to information, and the adverse effects of volatile currency on their financial contributions. In addition to tasks like milking cows and selling milk, women are also involved in household chores such as collecting firewood and preparing meals. They are at risk of sexual and gender-based violence (SGBV) during activities like fetching firewood or water. Inefficient cooking methods, such as traditional three-stone fires, produce smoke that poses severe chronic and acute health risks. These include child pneumonia, lung cancer, chronic obstructive pulmonary disease, heart disease, and low birthweight in children born to mothers who inhale smoke from open fires and traditional cookstoves during pregnancy (GACC, 2014).	including their ability to reap the benefits of livestock production. Combining their role on nutrition, health, food safety, under a One Health <sup>15</sup> approach, the Project will improve nutrition quality and diversity and reduce foodborne diseases (FBDs). The introduction and use of fuel-efficient technologies reduce the cooking time, the time spent collecting firewood, the risk of abuse for those collecting firewood, particularly women and children and cooking smoke that poses severe chronic and acute health risks especially to young children and expecting mothers.
<b>Challenge #5: South Sudan is exposed to multiple risks of fragility, conflict, and violence.</b>  The country's fragility and conflict interact with agro-pastoralism, displacement, extreme weather, tribal relations, governance systems, and cross-border movements of people and animals. Stability is threatened by the fragile political economy, high inflation, and localized conflicts. Despite peace milestones in 2018 and 2020, intra- and inter-ethnic fighting remains common. Competition for grazing land and farm encroachment fuels herder-farmer conflicts. Decentralizing decision-making and strengthening traditional governance systems for managing natural resources and land disputes can mitigate conflicts in fragile situations. <sup>16</sup>	Given the sustained risk of instability and violence, investing in viable and holistic mechanisms and approaches to address challenges on equitable use of land, water, and fodder is imperative for long-term sustainability.

12. The proposed project would catalyze peace by restoring water resources and rangelands to prevent competition over these natural resources that results in conflict. It will deploy a strong community-based approach for engaging the beneficiaries in the design and implementation of the project investments. By reducing the occurrence and impact of animal diseases in the herds and enhancing their productivity, the Project would reduce the compulsion to move animals away from disease hotspots. The outcome of such interventions would promote intercommunal cohabitation, conflict resolution and reduction by fostering peace and understanding among pastoralists and agropastoral (PAP) communities and farmers.

13. **The proposed project is also aligned with objective #2 of the draft CDDR** focusing on Sustainable Rural Livelihood Development and will be consistent with and on-track in achieving the country's and World Bank's climate change and resilience agenda. It will address the effects of increasing climate variability, and the growing frequency and intensity of climate-related disasters that have heavily affected vulnerable livestock community populations. Project activities will enhance climate mitigation, adaptation, and resilience building. Since livestock

<sup>15</sup> One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. It recognizes that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent. (WHO, n/d)

<sup>16</sup> Transforming agriculture in South Sudan from Humanitarian aid to a development-oriented growth path, A co-publication of the Food and Agriculture Organization of the United Nations and The World Bank Rome, 2022.



emissions are influenced by animal nutrition, the project will focus on improving availability and quality of feed/fodder and water. It will also focus on rangeland restoration and management with a two-pronged approach that aims to reduce emissions arising from eroded rangelands, while increasing rangelands capacity to sink carbon. The proposed activities will increase uptake of crop residues as feed ingredients, improve grassland management and grazing strategies, promote use of locally available feed ingredients, and promote fodder conservation and storage. The project will build boreholes/hafirs to avail water for livestock along the grazing corridors.

14. The **proposed project is also aligned with the Food Systems Transformation Pathways for South Sudan** in building a national food systems that is more resilient and contributes to peace consolidation, stability, territorial balance, food security and healthier diets, and economic stabilization. The proposed project will empower communities to enhance animal health and production, develop community-based peace-building mechanisms that strengthen conflict resolution, and promote social cohesion through community-driven development interventions. It will protect and invest in human capital, particularly in women and youth, with targets for women (40 percent) above what is planned in the second NDC.

### C. Proposed Development Objective(s)

15. To enhance animal health, improve rangeland management, and strengthen resilience of livestock production in selected project areas

#### Key Results

16. Progress will be measured against the following PDO-level results indicators (see Annex 2 for the Results Framework):

- I. To enhance animal health: (i) Animals vaccinated against priority diseases (Number).
- II. To improve rangeland management: (ii) Landscapes under enhanced conservation and/or sustainable management (terrestrial and inland water areas (hectares). ( CRI)
- III. To strengthen resilient livestock production: (iii) People with enhanced resilience to climate risks (number). (CRI) with two sub indicators: (a) People benefiting from climate resilient infrastructure (number) and (b) People benefitting from enhanced resilience of terrestrial and aquatic systems (Number)

### D. Project Description

17. The **proposed investment will take an integrated approach with complementary activities to improve food and health security.** This will be achieved through enhanced animal health, under a One Health approach, improved natural resource management, and resilient livestock production. Investments were informed by assessments on relevant dimensions of the livestock sector<sup>17</sup>, al developed and consulted with government, private sector, and partners to ensure long-term sustainability. It will invest in vital activities like providing vaccines for key diseases, innovative rangeland management, and implementing supportive legislation. The project will map pastoralist routes to support transit agreements, promoting sustainable natural resource use among farmers, pastoralists, and

<sup>17</sup> "One Health in South Sudan: Entry points through livestock sector strengthening" finalized in November 2024; "Political Economy Analysis of the Livestock Sector South Sudan" finalized in December 2024; and "Framework for achieving methane triple-win from the livestock sector in Eastern and Southern Africa" underway as part of a grant by the Global Methane Reduction Platform for Development (CH4D), it will inform the Project's results framework by defining a baseline and tracking methodology specific to methane emissions from the livestock sector.



livestock herders. These investments aim to establish a modern, climate-resilient, and gender-sensitive livestock sector in South Sudan. The project will have the following interrelated components: (a) Component 1: Strengthening animal health and welfare systems; (b) Component 2: Sustainable and integrated development and management of natural resources for livestock systems, with focus on rangelands and water management; and (c) Component 3: Technical Assistance, Institutional Strengthening, and Project Management and Coordination.

18. **Component 1: Strengthening animal health and welfare systems (US\$16.5million).** In South Sudan, over 70 percent of people depend on livestock, making them vulnerable to animal diseases. Enhancing livestock health is crucial for human well-being, resilient livelihoods, and boosting sector productivity and competitiveness. However, public veterinary services are insufficient and access to animal health care is limited. Animal diseases like Foot and Mouth Disease (FMD), foodborne diseases, and zoonotic diseases hinder livestock productivity and public health. The project, using a One Health approach, will provide animal health services such as vaccinations and parasite control in target areas to improve livestock productivity and health security. It aims to vaccinate cattle and small ruminants against priority diseases<sup>18</sup>, reduce disease prevalence, and enhance food system resilience and livelihoods, thereby reducing forced displacement of livestock herders.

19. **Sub-component 1.1: Capacity building for effective delivery of animal health services (US\$6.4million).** The sub-component will support: (i) Training: delivery training to 224 new Community Animal Health Workers (CAHW) , 120 Animal Health Auxiliaries (AAH), and 56 Stock persons of whom 40 percent will be women; (ii) CAHWS equipment: provision of equipment and drug kits for CAHWS such as solar power (16 panels) fridge and cold ice boxes for vaccines transportation, provision of motorbikes for CAHWS, protective equipment for CAHW, electronic tablets for digitalization and disease reporting; (iii) Community resource equipment: equipment of community resource centers at the county level with solar panels; (iv) Veterinary clinics: construction and rehabilitation of veterinary clinics (with solar systems (16 panels), water and sanitary equipment), vaccination centers and quarantine centers compound; (v) Mini-laboratories: construction of five minilabs equipped with 10 solar panels and with basic diagnostic kit for disease screening at State level to increase veterinary laboratory capacity for ad-hoc screenings; and (vi) Rehabilitation of Marial Lou Livestock Training Centre which is in charge of training the CAHWS with the provision of 8 solar panels and furniture.

20. The activities will be conducted in coordination with and under the supervision of local veterinary authorities, , the Central Veterinary Diagnostics Laboratory (CVDL) in Juba, and the Marial-lou Livestock Training Center. The latter is the national livestock training institute for para-veterinarians, which has experience and a successful track record in delivery of CAHWS training in underserved and at-risk areas of South Sudan. They will be conducted in collaboration and leveraging shared resources with technical partners and their ongoing operations.

21. Training will cover good animal husbandry practices (GAHP), basic animal health and welfare care, animal nutrition, and animal disease control with focus on foodborne diseases (FBD) and zoonoses. Practitioners will be trained also on how to conduct post-vaccination sero-surveillance and outcome surveys to assess effectiveness of interventions matters. They will receive knowledge related to community-based disease surveillance, and awareness towards management and early reporting of disease outbreaks.

22. The mini laboratories aim to increase veterinary laboratory capacity for ad-hoc screenings, improve diagnostic capacity and speed, and facilitate early detection at the local level. They will therefore improve and harmonize

<sup>18</sup> Priority Cattle diseases: Contagious Bovine Pleuropneumonia (CBPP), Hemorrhagic septicemia (HS), Black Quarter (BQ, also known as 'Black Leg') and Anthrax. Priority Small Ruminant diseases: Peste des petits ruminants (PPR), Sheep and goat pox (S&G pox), Contagious caprine pleuropneumonia (CCPP), Anthrax in Warrap State (where the disease is endemic).



national, bilateral, and regional standards, quality assurance schemes, and sanitary frameworks to enhance and facilitate flow of regional and international trade. In conjunction, increased availability and capacity of community-based animal health practitioners and disease screening tools, and availability of VMP will also support the operation of the Veterinary Health Centers (VHC), one per county, and strengthen delivery of basic animal health services. Under a One Health approach and to harmonize interventions, the use of the laboratories will be coordinated with those implemented under the Global Health Security Program (GHSP) funded by USAID, and other existing laboratories. Elements of this approach related to disease surveillance and response, governance, coordination and communication, and research and development (R&D) are streamlined in project components. Health security is as strong as its weakest link; an integrated approach to disease control, improved information systems, and ecosystem health will strengthen health security.

**23. Sub-component 1.2: Implementation of livestock vaccination deworming campaigns and dipping tanks for tick and tick-borne disease (TBD) control (US\$10.1million).** The sub-component will support vaccination campaigns for priority diseases and parasite control through the construction and rehabilitation of dipping tanks (3 per county) and deworming campaigns. Dipping tank sites are selected to minimize travel distance, reduce disease transmission, and mitigate conflicts between pastoralists and agro-pastoralists. The community will own and manage these facilities to ensure sustainability. Vaccination and deworming will be risk-based, tailored to region, livestock type, targeted diseases, and seasonality. The project will pilot a cost recovery scheme at the community level for animal health and veterinary services, aiming to encourage private sector involvement, reduce dependency on external projects, enhance aid delivery, promote long-term sustainability. The project will educate herders on early disease detection and rapid response using an early warning reporting system.

**24. Component 2: Sustainable and integrated development and management of natural resources for livestock systems, with focus on rangelands and water management (US\$18.3 million).** The proposed project will introduce rangeland management practices, fodder production, harvesting, and conservation techniques such as silage and hay making, and climate smart and gender sensitive water harvesting infrastructure such as multi-purpose solar – powered boreholes, water harvesting catchments (hafirs). Appropriate rangelands management will promote reduction of GHGE intensity of the livestock system, as healthy rangelands both emit less and sink more carbon. As scarcity of water and fodder is a driver of increasing concentration and competition over water and fodder, the component will strategically develop these resources to increase their availability, thus contributing to mitigate and reduce livestock-driven conflict. The sub-component will prioritize and promote women participation in the afforestation and use of food-efficient stoves (FES), which in turn will avail nutritious and diverse diets at the household level.

**25. Sub-component 2.1: Building capacity for sustainable rangeland management (US\$6.4million).** This sub-component aims to stabilize fodder availability for livestock, reduce GHGE intensity, and strengthen traditional grazing management. It will enhance rangeland restoration and improve herd distribution in South Sudan, reducing degradation and conflict over resources by establishing fodder nursery for seed multiplication, supporting community nurseries for forage establishing water points, improving access to grazing, and delaying migration to farming areas until after the harvest.

26. The sub-component will identify, build capacity for implementation, and measure adoption of climate-smart livestock practices at the pastoralist community's level. Under a One Health approach, it will improve skills of community-based animal health practitioners on climate-smart livestock practices so they can in turn train herders (under a Training of Trainers model) and deliver services and support for increased uptake of such practices. To this end, the sub-component will leverage demonstration centers to become hubs for training, knowledge exchange,



and to highlight and promote uptake of good practices in livestock management. Hubs will promote education and training workshops with a focus on showcasing technology and innovation so that agro-pastoralists can put them into practice. It will also strengthen the pastoralists organizations and other grassroots community leaders' capacity on grazing, land restoration, and rangeland management techniques. As a result, the sub-component will increase herders' knowledge and ability to uptake climate-smart livestock practices.

27. The sub-component will support awareness, training, and adoption on the following aspects:(i) fodder growing, harvesting, processing, and preservation – including hay bailing, silage, and drying techniques— to reduce waste and increase stable availability of fodder; (ii) sound rangeland management and restoration practices—including stock exclusion—to optimize the health and productivity of the rangeland; (iii) reseeding by introducing forage species mix in areas that have incurred heavy loss of vegetation cover and soil seed bank due to prolonged heavy grazing; (iv) management and handling of crop residues as a stable supply of feed to promote linkages between livestock and crop production for increased incomes; (v) promotion of formal and informal job creation for women and establishing women-led microenterprises; (vi) supply of 4,000 food efficient stoves (FES)<sup>19</sup> and supply of 40,000 multipurpose drought resistant trees seedlings<sup>20</sup> to restore the degraded ecosystem in herder's community and increase carbon sink, providing benefits such as shelter and shade, fodder, and food; and (vii) Community-level workshops on nutrition, to use ADFs resulting from Project activities to avail nutritious and diverse diets at the household level.

28. The sub-component activities will foster the natural redistribution of livestock away from degraded areas and into healthy and productive rangelands. This, in turn, will reduce erosion and promote restoration and improvement of areas with potential for livestock production. Sustainable rangeland management will also reduce the strong seasonality in the availability of pasture and fodder, thus reducing conflict over scarce resources, improving resilience of livestock producers and promote conflict mitigation measures.

29. **Sub-component 2.2: Support for natural resources-related infrastructure and critical capacity for livestock systems (US\$11.9 million).** The sub-component will finance: (i) construction of water points (boreholes/hafir) (8 catchments and 16 boreholes in project areas); (ii) construction or rehabilitation of 16 fodder conservation infrastructure; (iii) construction of 16 hafirs (each equipped with a solar panel for water purification) that rely on rainwater harvest and do not channel any water from the river Nile or any of its tributaries. Each hafir will have a capacity of 40,000 cubic meters and boreholes will each produce about 60 cubic meters per day depending on the number of users/households; (iv) targeting the staff of the MLF, state and county livestock authorities in collaboration with the South Sudan's pastoralist federal union, provide training for the operationalization and maintenance of the infrastructure to ensure the effective implementation, management, and maintenance of watering points. The project will support and facilitate all stakeholder engagement activities at community-level on their role for the long-term sustainability of the infrastructure to maximize the benefits of the infrastructure to the herder's community and its surrounding and minimize potential conflicts that may arise from the competition over related livestock resources; large infrastructure such as water harvesting structures and boreholes requires community maintenance through the clearing of sediments from waterways, terracing on degraded land by planting grasses and trees and the need for maintenance fees. The subcomponent will support the establishment of 40 water users' associations (WUA) whose board should be at least 40 percent women to ensure that their

<sup>19</sup> FES burn charcoal but require 20 to 50 percent less fuel than an open fire (the baseline/traditional cooking method in country) and reduce carbon monoxide emissions and particulate emissions by 26 and 60%, respectively. See: <https://www.fao.org/south-sudan/news/detail-events/en/c/1368051/>.

<sup>20</sup> Leucaena, Moringa, Guava, Lemon, Jackfruit, Passionfruit, Papaya, Mango, Sesbania, Natal Mahogany, Oak, Willow, and Neem



concerns are taken into consideration during deliberative meetings as they carry the burden of fetching water for cooking.

30. The 16 multi-purpose solar – powered boreholes (equipped with 32 solar panels) will be built along existing grazing routes to facilitate access to water by animals and potable water for domestic/household use, targeting gap areas to complement the existing water points along the grazing route. Each infrastructure will come with a portable solar – powered water purification system. The water harvesting infrastructure will not only provide access to water for animals, but it would also provide water for women and youth involved in vegetable production thus contributing toward household dietary and nutrition diversity. These interventions will help reduce drudgery for women and enhance their protection from GBV as they will no longer travel long distances to fetch water. The boreholes are an improvement of existing drinking water infrastructure for livestock along pastoralist routes and derive their water from underground sources primarily rainwater that infiltrates the ground, replenishing aquifers (recharge process). The amount of water required for small-scale agriculture is insignificant to affect inflow into the catchment area for the Nile River.

31. **Component 3: Technical Assistance, Institutional Strengthening, and Project Management and Coordination (US\$5.2million).** The component will support the MLF in developing policies and regulation needed to strengthen its policy, planning, managerial and technical roles and functions. As a result, the component seeks to improve the performance and competitiveness of the livestock sector with sound and conducive regulatory policies, bills that regulate the safety of ADF, and enhancing the agility of the disease alert and response systems, strengthening human and animal health security under a One Health approach. The component will also support the overall project management and coordination.

32. **Sub-component 3.1: Technical Assistance and Capacity Building Support to Ministry of Livestock and Fishery to strengthen coordination and support for national policy formulation, planning, and implementation capacity (US\$1million).** This sub-component will support: (i) institutional capacity building of the MLF and knowledge management, including development and implementation of policies to strengthen its policy, planning, managerial and technical roles and functions ; (ii) the MLF to improve coordination of the service delivery model between the central and state veterinary services; (iii) to provide legal and regulatory support for finalizing and operationalizing relevant regulations, guidelines, and protocols such as the operationalization of the Draft National Livestock Development Policy and Strategic Plan (2024-2030), the enactment of the South Sudan Animal Health Bill, the South Sudan Veterinary Bill, the South Sudan Meat and Hygiene and Slaughter Bill and the South Sudan Livestock Bill and the dissemination of the National Livestock Feed Guide to all key stakeholders and build the capacity of livestock owners to adopt good practices for managing livestock feed the operationalization (iv) the formulation and implementation of policies on animal health and welfare, food safety, AMR, meat control and slaughtering facilities, control and quality assurance of VMPs, and nutrition-sensitive policies related to the commercialization of safe ADF to enhance food and nutrition security; (v) strengthen the departments in priority policy making including data and knowledge generation, promotion of sustainable and climate-smart livestock management, national policies and planning processes and other technical areas; (vi) support South Sudan's role in the regional context, to leverage regional and global opportunities and collaborations on prevention, control, and eradication of transboundary animal diseases (TAD) by conducting a Performance of Veterinary Services (PVS) in collaboration with the World Organization of Animal Health (WOAH) to provide actionable information on relevant priority areas and a road map for investment in the sector and to set benchmarks and opens opportunities for support and knowledge-sharing from WOAH and peer countries; (vii) South Sudan becomes a signatory of the IGAD Protocol on Transhumance which promotes safe cross-border movement of livestock as the protocol has not yet been ratified by South Sudan and customized to the country's routes and transboundary movements and (viii) commission a capacity needs assessment exercise, identify priority training areas and arrange training for the officials and technical staff.



33. **Sub-component 3.2: Project Management and Coordination (US\$4.2million).** The sub-component will support the MLF as the implementing ministry to carry out and coordinate overall project activities, assistance and capacity building. This component will, cover the costs associated with project management and implementation support, including financial management, procurement, scoping and monitoring of project environmental and social risks and impacts, and refurbishment of MLF facilities. This sub-component will also finance the establishment and maintenance of a Grievance Redress Mechanism (GRM) and conducting Gender-Based Violence/Sexual Exploitation, Abuse and Harassment (GBV/SEAH) risk assessment and consequent development and implementation of a GBV/SEAH Action Plan. It will be ensured that there is necessary staff, that is, environmental specialist, social specialist and GBV specialist to ensure: (a) effective implementation of the project activities in compliance with the requirement of the Environmental and Social Framework (ESF); (b) Environmental and Social (E&S risk) management, regular E&S implementation progress reports; and (c) oversight from Third Party Monitoring Agent (TPMA).

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Area OP 7.60	No
Summary of Screening of Environmental and Social Risks and Impacts	

34. The concurrent impacts of severe climate conditions, insecurity and conflicts situations may exacerbate project impacts. Guidance to manage these additional pressures is to be included in the ESMF. Gender-Based Violence (GBV). The project was found to be at substantial risk of GBV by the GBV risks assessment tool, but a strategy to regularly and qualitatively assess risks of GBV, including sexual exploitation and abuse and Sexual Harassment (SEA/SH), will be put in place to ensure that women and girls and other groups particularly vulnerable to risks of GBV have a safe and confidential venue to report risks that are potentially created or exacerbated by project implementation (such a survivor-centered GBV-GRM process). As some activities will be implemented near humanitarian areas, this increases GBV risks, including sexual exploitation and abuse to women and girls. In addition, the project includes some activities specifically at risk for sexual exploitation and abuse, such as those related to improving livelihoods of women and girl youth.

## E. Implementation

### Institutional and Implementation Arrangements

35. The project will be implemented by the MLF, which will serve as the lead implementing agency. The MLF will be the lead implementing agency responsible for overall implementation and fiduciary and Environment and Social



Framework (ESF) compliance for the project through an established Project Coordination Unit (PCU). An assessment on project implementation of the World Bank funded Project was conducted and found to be limited given this will be the first engagement with the ministry since the country became independent. The capacity in financial management and procurement is weak. To mitigate that risk, MLF will recruit a PCU with qualified staff and skills that are lacking in the MLF to adequately implement a World Bank funded Project. The PCU will oversee oversight and management, including on project management, coordination, partner and community mobilization and facilitation, capacity building, training, environmental and social risk management, fiduciary, and M&E.

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