

Terms of Reference

1. Consultant Title:

Consultant for Baseline Survey of 1) Fruit, Vegetable and Mushroom Production and 2) Poultry in Urban and Peri-urban Localities of Juba City

2. Background:

Food Security trends in South Sudan indicate an alarming rise in food insecurity over the past five years. According to the latest IPC analysis in December 2020, an unprecedented sixty (60 %) percent of the population in South Sudan is projected to face severe food insecurity in the lean season from April to June 2021. Inter-communal conflict, extreme climatic conditions such as flooding and drought, pests such as desert locust swarms and diseases such as fall army worm are some of the key drivers of low agricultural productivity leading to severe food insecurity nationwide. Furthermore, macroeconomic shocks due to low oil prices in global markets and currency depreciation drastically impacted agricultural production. This alarming situation is exacerbated by the COVID-19 pandemic, which has led to disruptions in supply chains, restrictions on humanitarian movements and lower agricultural production further impacting overall food security.

As the revitalized peace agreement gradually consolidates peace and stability in South Sudan, building resilience of the people is indispensable to efforts targeting substantial improvement in food and nutrition security across South Sudan. In addition, more refugees and internally displaced people are expected to return from outside of the countries and camps, there is a need to revamp food/agricultural production and productivity to address critical food and nutritional needs in the short and medium term.

Currently, the lion share of food items, including horticultural and poultry, in South Sudan is imported from neighboring Uganda and to a lesser degree Kenya. This has led to a perpetual strain on the macro-economic stability of South Sudan due to the large and growing food import bill. Moreover, rising demand for food items in growing urban centers has led to rising food prices as observed by the consumer price index. As a result, low income households are at an increased risk of food insecurity and malnutrition. Limited number of small scale peri-urban production of horticultural crops and poultry is inadequate to satisfy the local market demand. A big proportion of the population depends on relief support from donor partners and UN agencies while many organizations have also recently been shifting focus to emergency support in food security and resilience building among affected communities.

Promotion of increased local production of horticultural crops such as fruits, vegetables and mushrooms can be a vital and strategic tool to address the mounting macro-economic, livelihood, food insecurity and nutritional challenges in South Sudan. Reducing the food import bill by meeting demands for horticultural crops locally creates ample opportunities for low income and vulnerable households to build resilience by enhancing their livelihoods and improving their nutrition. This would require targeted and consolidated efforts to raise awareness to encourage people to engage in fruit, vegetable and mushroom growing, provide extension support/training on best practices/new and innovative technologies, and improve accessibility to agricultural inputs such as seeds, tools, pesticides and insecticides to realize sustainable production of vegetable and fruit produce.

In addition, backyard poultry is equally a promising enterprise with great potential for alleviating poverty and malnutrition in the most vulnerable households in urban and peri-urban settings. Increasing population growth rates and urbanization has led to the gradual increase in market size of the poultry sector, mainly due to rising demands of poultry products. Furthermore, the affordability and nutritional value of poultry products is increasingly desired in urban settings. This has created a wide range of enterprise opportunities across the entire poultry value chain that are yet to be fully exploited. In order to realize tangible socio-economic improvements of low income households through poultry enterprise, well defined and targeted poultry sector interventions are required to systematically

address obstacles and barriers to entry. Smallholder poultry producers stand to exponentially benefit from improved access to quality extension services, easily accessible and affordable feeds/foundational flocks and marketing services. This would facilitate the development of integrated supply chains in the poultry sector thereby leading to improved livelihoods and improved access to affordable sources of animal protein.

JICA South Sudan is committed to the revitalization and development of the agricultural sector as agriculture has the huge potential to become the alternative industry, contributing to overall food security, economic output, significant improvement in livelihoods and living standards of people in South Sudan. JICA is currently implementing a technical cooperation project, “The Project for Capacity Development for CAMP/IDMP Implementation” (2017-2021). The project focuses on strengthening the institutional capacities of four line ministries: Ministry of Agriculture and Food Security (MAFS), Ministry of Livestock and Fisheries (MLF), Ministry of Environment and Forestry (MEF) and Ministry of Water Resources and Irrigations (MWRI). Through consultation with the four CAMP/IDMP line ministries, several priority projects from the CAMP Investment Plan from various sectors (crops, livestock and fisheries) were selected for further evaluation and possible implementation in the near future.

Proposed candidate projects include 1) promotion of smallholder producers of fruits, vegetables and mushrooms and 2) promotion of smallholder poultry production within urban centers, specifically in the three Payams of Juba, Kator and Munuki and within peri-urban localities around Juba City, with a future plan of replication to other locations within the state and the country. Those two projects are complimentary strategies to improve urban livelihoods, especially in light of the COVID-19 pandemic which has drastically impacted livelihoods and household incomes in Juba exposing them to further risk from food and nutrition insecurity. The proposed project will greatly contribute to alleviating food and nutrition insecurity and income generation of the target households . Thus, JICA South Sudan would like to collect some key data and information to examine the potential of horticulture and poultry production in urban and peri-urban localities in Juba City and adequately assess the prospects and feasibility of projects as preliminary study to guide the incoming detailed planning mission to formulate a project.

3. Duty Station:

Juba, South Sudan

4. Duration:

July to October 2021(4 months)

5. Scope of Works:

5.1 Objective:

The consultant will conduct a survey and an analysis of the horticulture and poultry sector in Juba City and surrounding peri-urban areas to examine the feasibility of small-scale fruit, vegetable, mushroom and poultry production and make recommendations of the possible areas of interventions for JICA. The survey will consist of collecting and collating key baseline data on 1) institutional arrangements, 2) stakeholders, and 3) production. The survey will be conducted in two phases and the direction of the second phase may be changed according to the findings of the first phase.

5.2 Summary of the Survey:

5.2.1: Phase I: Baseline Survey

(1) Horticulture (Fruit, Vegetable and Mushroom Production)

The Consultant shall collect information and conduct an analysis on the basic profiles of the current fruit, vegetable and mushroom production.

- a) Institutional arrangements
 - Policy Framework (national, state and county level)
 - Outline of directorates involved in agricultural research and extension services at the national, state and county level (organizational structure, mission, division of roles, budget system, scale of budget and main expenditure items, and number and composition of staff)
- b) Stakeholders/resource mapping in the study area:
 - Overview of the state of public and private agricultural research and extension services at the national, state and county level (activities, technical level of staff)
 - Status of existing model gardens, training/research centers, extension offices (active/inactive) for production and other ancillary services
 - Number of horticulture farmers/ households and geographical distribution
 - Status of existing (active and inactive) fruit, vegetable and mushroom farmer groups, such as village level enterprises and cooperatives (activities, legal and financial status, social and economic structure of its membership, gender ratio and geographical distribution)
 - Status of collective bargaining groups/organizations/institutions such as lobby groups or Producers' Union/Farmer's Union etc. (activities, legal and financial status, social and economic structure of its membership, gender ratio and geographical distribution)
 - Completed and on-going fruit, vegetable and mushroom production and sales interventions by humanitarian/development partners, donors, INGOs, national NGOs and/or private sectors
- c) Status of fruit, vegetable and mushroom production/extension in the study area
 - Horticultural crops farmed (crop varieties, average yields)
 - Technological variations used in production (e.g., line planting, mulching, grafting, etc) and its viability
 - Source of water used in horticulture crop farming (rain-fed, irrigation, hybrid), types of irrigation (e.g., pump, drop, etc)
 - Most common pests and diseases. Economic burden and impact of various pests and diseases encountered. Types of control mechanisms applied (traditional, chemical pesticides/insecticides, organic, none)
 - Agricultural inputs (fertilizers), tools and equipment utilized. Affordability, availability and accessibility and sources of tools/inputs/equipment (e.g., provision by development partners, purchase from shops)
 - Types of extension methods including collaboration with research institutions.
 - Common farm land tenure system and its accessibility
 - Extent of interlinkages with other agricultural activities such as livestock and fisheries.
 - Major challenges experienced by farmers

(2) Poultry Sector

- d) Institutional arrangements
 - Policy Framework (national, state and county level)

- Outline of directorates involved in agricultural research and extension services at the national, state and county level (organizational structure, mission, division of roles, budget system, scale of budget and main expenditure items, and number and composition of staff)
- e) Stakeholders and resource mapping in the study area
- Overview of the state of public and private extension services at the national, state and county level
 - Status of existing model farms, training/research centers, extension offices (active/inactive) for production, animal health management and other ancillary services
 - Number of poultry producers/ households, its geographical distribution and gender ratio
 - The existing (active and inactive) poultry producer groups, such as village level enterprises and cooperatives, its activities, financial status and economic and social structure of its membership
 - Overview of producers and suppliers of foundational flocks, any existing local/regional hatcheries (private/publicly owned)
 - Information on local/regional producers/ manufactures of poultry feeds, including a brief synopsis of their background (family/privately/publicly owned, state/national government owned), institutional structure, status (active/dormant/inactive).
 - Sources, affordability and accessibility of veterinary services, drugs. Overview of public/private animal health facilities (active/dormant/inactive).
 - Information and status of collective bargaining groups/organizations/institutions such as lobby groups or Producers' Union/Farmer's Union etc.
 - Completed and on-going poultry sector interventions by humanitarian/development partners, donors, INGOs, national NGOs and/or private sectors in Juba and surrounding peri-urban areas
- f) Overview of poultry production in the study area
- Scale and types of poultry production practiced in the study area (smallholder/family/backyard systems, small scale - non-backyard poultry systems, commercial/large scale systems)
 - Poultry species farmed (indigenous chicken, exotic and cross-breed chicken, fowl, ducks, pigeon, turkey etc.). Types of poultry husbandry (broilers, layers, mixed). Volumes of poultry products (meat and eggs) in poultry production systems
 - Overview of housing structures used. Types of management systems (Extensive, confined, other) used in poultry production. Affordability, accessibility and availability of inputs, water, tools and equipment commonly used in poultry production
 - Condition of active and inactive poultry production facilities, technological variations of each facility and ownership/background of these facilities (privately/family/publicly owned, state/national government owned)
 - Sources, affordability and accessibility of foundational flocks (starter chicks)
 - Types of feeds used in poultry production systems. Sources, affordability and accessibility of feeds.
 - Common poultry diseases and respective mortality rates
 - Interlinkages with farming and livestock activities. Frequency of poultry systems integrated with other farming activities
 - Technical challenges of production

6.2.2. Phase II: Baseline survey and analysis on the livelihood profiles of procures and value chain (Details to be confirmed at the end of phase I)

(1) Horticulture (Fruit, Vegetable and Mushroom Production)

g) The Profiles of producers of fruit, vegetable and mushroom:

- Socioeconomic profiles of those engaged in horticultural production, such as household/family structure, level of education, income (share of household income from horticulture production activities), ethnic background, gender roles, common route of sales (e.g., individual, collective), power relationship with the stakeholders, such as agro-dealers, middlemen and others.
- Scale of horticultural crop farms (smallholder/family/backyard systems, small scale - non-backyard farming, commercial/large scale farming systems), and average number of farm workers/farm helps/casual workers and other informal laborers
- General interests in and social and economic motivations for engaging in fruit, vegetable production (for consumption, livelihood/income generation/ trade, etc.)
- Access to finance/microfinance from Village Savings and Loans Associations (VSLA), agricultural credit, etc.
- Sources of crop variety seeds and affordability, availability and accessibility of seeds.
- The levels of investment in tools and equipment (the amount, quantity, seasonal variation) and the sources of finance (microfinancing, loans from family and friends)
- Key challenges of production and management

h) Overview of horticultural crops value chain

- Producers and suppliers of seeds, any existing local/regional out-growers and seed suppliers (private/publicly owned)
- Volume and market/retail prices of local, regional and international trades of fruit, vegetable and mushroom (formal and informal)
- Export/in-country distribution/supply network of fruit, vegetable and mushroom and its transportation methods
- Demand for/market size and share of fruit, vegetable and mushroom
- Profiles of fruit, vegetable and mushroom consumers in Juba and the surrounding areas, common markets/purchasing methods, consumption methods, preference of fruits, vegetable and mushroom varieties, evaluation of quality toward domestic product (in comparison with export product).
- Common processing/value addition techniques
- Challenges for promotion of sales

(2) Poultry Sector

i) The profiles of poultry farmers

- Socioeconomic profiles of those engaged in poultry production, such as household/family structure, income (share of household income from poultry activities), gender roles, power relationship with the stakeholders, such as feed producers, middlemen and others
- General interests in and the motivations for engaging in the poultry sector (for consumption, livelihood/income generation/ trade, sociocultural, etc.)

- The levels of investment in tools and equipment (the amount, quantity, seasonal variation) and the sources of finance (microfinancing, loans from family and friends)
 - Access to finance/microfinance from Village Savings and Loans Associations (VSLA), agricultural credit, etc.
 - Key challenges on production and management
- j) Overview of poultry value chain
- Volume and market/retail prices of local, regional and international trades of poultry species and poultry products (formal and informal)
 - Export/in-country distribution/supply network of poultry species and poultry products and its transportation methods
 - Demand for/market size and share of poultry products.
 - Profiles of poultry products consumers in Juba and the surrounding areas, common markets/purchasing methods, consumption methods, preference of poultry products to other protein source of consumers.
 - Common processing/value addition techniques

For information collection and analysis of the above, the Consultant shall:

- a) Consult focal persons from Ministry of Agriculture and Food Security as well as Ministry of Livestock and Fisheries under guidance from JICA South Sudan
- b) Undertake literature review of the horticulture and poultry sector in South Sudan.
- c) Collect and analyze policies, legal/regulatory frameworks, plans and actions taken by the government of South Sudan to promote development of horticulture and poultry production in South Sudan.
- d) Organize meetings and interviews with relevant key personnel from Government institutions, development partners/agencies, UN agencies, NGOs (International and National), academia, etc.
- e) Conduct interviews with cooperatives, groups and private sector players involved in the horticulture and poultry production, to understand the current status and gaps on the ground (including site visits to Juba, Kator and Munuki Payams)
- f) Collect and analyze policies and programs of key donor agencies and organizations in horticulture and poultry production in South Sudan.
- g) Prepare minutes of meetings and interviews conducted.
- h) Write a progress report to summarize the results of a) to f).
- i) Conduct a validation workshop for the stakeholders to share and confirm the results.
- j) Confirm the work plan of the second phase with JICA South Sudan based on the outcome of the progress report
- k) Write a final report to summarize recommendations for interventions in the horticulture and poultry sector from key findings, expectations, lessons learnt based on the outcome of analysis a) to j).
- l) Perform any other duties as requested by JICA South Sudan Office in consensus with the Consultant.

(3) Throughout the consultancy, the Consultant shall take into consideration the following:

- a) The Consultant is expected to interact and interview technical staff of various institutions and the Government. The Consultant is encouraged to put COVID-19 infection prevention measures.
- b) The Consultant may be requested to attend relevant meetings that includes meetings with CAMP/IDMP line ministries.

7. Scope of the Service

Under the overall supervision of JICA South Sudan, the Consultant shall conduct the services as follows:

(1) Survey Planning and literature review

The Consultant shall prepare the Work Plan of the entire survey as a part of Inception Report in an English format and consult with JICA South Sudan, prior to the commencement of the survey. The Plan shall include the detailed schedule of the survey, the interviewee plan of both institutional and focus-group interviews, and analysis framework. The Consultant shall review and reflect on the Work Plan, the relevant literatures including the references listed below in 6. (1).

(2) Conducting interviews as well as data collection

After the Work Plan is approved by JICA South Sudan Office, the Consultant shall conduct baseline survey as planned. The progress shall be reported at least every two weeks and the initial summary of the findings from interviews submitted as Work Plan, as shown in 5. (1).

(3) Compiling the results and analysis

The Consultant shall compile the results and conduct analysis based on the agreed framework, submit a draft progress and final report to JICA South Sudan Office respectively. The Consultant shall then hold a validation meeting with JICA and other stakeholders upon the completion of progress report. The final report and the data files (where necessary) shall need to be approved by JICA South Sudan Office.

(4) Regular meeting with JICA

Throughout the contract period, the Consultant shall conduct an online meeting every two weeks to share the progress and discuss further arrangements. The collected data and the result of the research conducted by the date of each meeting should be compiled in a summarized format and prepared prior to the meeting.

(5) Follow-up after report submission

Consultant shall correspond to inquiries from JICA South Sudan Office if requested, after the final report submission.

8. Deliverables

- (1) Inception Report: The overall research plan including 1) consultancy schedule, 2) research methodology, 3) the list of interviewee organizations and draft questionnaire to them, 4) list of documents to be reviewed and 5) brief summary of institutional arrangements and stakeholder/resource mapping as specified 5.2.1.(1) a), b) and 5.2.1. (2) d) and e) 10 working days after the signing of the contract [Mid July].
- (2) Progress Report: the summary of collected data and information, after the completion of all the interviews [Mid -August]
- (3) A validation meeting/workshop with stakeholders [Mid-August]
- (4) Draft Final Report, to be presented to JICA for validation [Mid September]
- (5) Final Report, after reflecting the comments from JICA and other stakeholders and having approval of final draft from JICA [End-September]

9. Duty of the Consultant:

The Consultant should not disclose any information, which will be obtained during this survey without the permission of the Client in writing, both during the survey and after the termination of the Agreement on the survey.

10. Qualifications:

- (1) Bachelor's Degree in the relevant field (Master's Degree in the relevant field is an advantage)
- (2) At least three years of working experience in research, analysis and/or agriculture and livelihood sector
- (3) Technical knowledge in horticulture especially fruit, vegetable, mushroom and poultry production is an advantage
- (4) Fluency in English and spoken Juba Arabic is an advantage
- (5) Excellent communication skills
- (6) Excellent time management skills

9. References:

- (1) Comprehensive Agricultural Development Master Plan Main Document (available at: https://www.jica.go.jp/project/english/south_sudan/009/materials/c8h0vm0000c43r5l-att/camp_main.pdf)
- (2) CAMP Annex 1 Volume 1: CAMP Investment Plan (1. Funding availability, requirements and allocation, 2. Crop subsector, and 3. Livestock Subsector) (available at: https://www.jica.go.jp/project/english/south_sudan/009/materials/c8h0vm0000c43r5l-att/camp_annex1_01.pdf)
- (3) CAMP Annex 4-1: Situation Analysis Report (Section 10: Crops) (available at: https://www.jica.go.jp/project/english/south_sudan/009/materials/c8h0vm0000c43r5l-att/camp_annex4-1.pdf)
CAMP Annex 4-2: Situation Analysis Report (Section 11: Livestock) (available at: https://www.jica.go.jp/project/english/south_sudan/009/materials/c8h0vm0000c43r5l-att/camp_annex4-2.pdf)
- (4) CAMP Annex 5-1: Livelihood Zone Data Book 2014 (available at: https://www.jica.go.jp/project/english/south_sudan/009/materials/c8h0vm0000c43r5l-att/camp_annex5-1.pdf)
CAMP Annex 5-2: Livelihood Zone Data Book 2014 (available at: https://www.jica.go.jp/project/english/south_sudan/009/materials/c8h0vm0000c43r5l-att/camp_annex5-2.pdf)
- (5) CAMP Annex 6-2: State Profile 2013 (Section 9 – Central Equatoria State) (available at: https://www.jica.go.jp/project/english/south_sudan/009/materials/c8h0vm0000c43r5l-att/camp_annex6-1.pdf)
- (6) The Project for Livelihood Improvement in and around Juba for Sustainable Peace and Development, Final Report (available at: <https://openjicareport.jica.go.jp/pdf/12057766.pdf>)
- (7) Country Gender Profile, Republic of South Sudan, Final Report, JICA (2017) (available at: <http://libopac.jica.go.jp/images/report/12284550.pdf>)