



Terms of Reference to Conduct the Climate Risk Assessment in the Cotton, Dairy and Horticulture value chains

SNV Netherlands Development Organisation

SNV Netherlands Development Organisation (SNV) is a not-for-profit international development organisation founded in the Netherlands in 1965, with local presence in over 25 developing countries in Asia, Africa and Latin America. SNV provides advisory services, knowledge networking and supporting advocacy in the agriculture, water, sanitation and hygiene and renewable energy sectors. Driven by the Sustainable Development Goals (SDGs), SNV makes a lasting difference in the lives of people living in poverty by helping them raise incomes and access basic services.

Background and rationale

SNV implemented 4-year projects, Energy for Agriculture project (E4A) and Sustainable Integrated Land Management Solutions (SILMS) which ended in 2019. E4A and SILMS respectively promoted decentralised biogas systems and climate smart agricultural (CSA) practices among smallholder farmers to improve agricultural production and avail clean energy to smallholder farmers. INCREASE (Increasing Climate Resilience in Energy & Agriculture Systems and Entrepreneurship) project has evolved from both lessons learned and achievements in the two Sida-funded projects on climate smart agriculture and renewable energy (biogas).

The INCREASE project is running from 2020 for an initial 3 years and will work with leading private sector companies in dairy, cotton and horticulture value chains to increase resilience in smallholder out-grower systems to stabilise production, productivity and secure supply chains under a changing climate.

The project aims to contribute to resilience in farming and agribusiness by working with the targeted private companies (with whom SNV will have an MOU), to encourage the smallholder/contract farmers to adopt climate smart agricultural practices and deploy decentralised energy systems (solar, biogas, etc.) to increase and stabilise supply chains. The project will also work with mandated public institutions to influence formulation and/or implementation of policies that enable private enterprises in the following three agricultural value chains to thrive: cotton, dairy and horticulture.

The project is being implemented in Southern, Lusaka, Central, Copperbelt and Eastern Province. An additional pilot area for climate resilient organic cotton production is implemented in Northern and North Western Province.

What risks exist to secure the supply chains in these three sectors? To answer this question, climate risk assessments are to be undertaken. The objective of the assessment is to support stakeholders in the agricultural value chain in;

- Identifying and prioritising climate related risks in the selected value chains
- Creating awareness on the impact of climate change along the selected value chains to the key stakeholders
- Identifying mitigation measures to stabilize or reverse the impacts of climate change
- Identifying opportunities for business cases addressing climate related risks

The assessment is designed for the project and its stakeholder in order to solicit information and analyse findings on climate risks and its impact on stakeholders along the selected value chains. The climate risk assessment combines a focus on climate information for better coping with current climate variability and for the use of climate projections assessing how these vulnerabilities may change in future.

The climate risk assessment in the value chain involves a process consisting of the following - interrelated- four (4) steps:

Step 1: Value chain mapping. Identification of climate variables relevant to value chain stakeholders and generating first insights into climate/weather related hazards that value chain stakeholders are experiencing as well as climate change projections for specific regions.

Step 2: Assessing impact of climate change on water availability and crop and milk production - this step will address the major question “given the climate change projections, how might the crop and dairy production and water resources be affected?” To address this question, a quantitative impact assessment of climate change on water availability vs crop and dairy production will be required, but also to include an alternative approach based on existing literature and expert knowledge.

Step 3: Climate change risk assessment - The third step identifies the risk that climate change poses to each of the stakeholders’ business in the value chain. Here climate risks are potentially severe adverse consequences for social ecological systems resulting from the interaction between climate-related hazards and vulnerability of people and systems exposed to these hazards. This step will involve three major activities. Given projections of future climate change and their impact on crop production and water availability the following major questions to address include:

- a) What are the (potential) risks for people’s livelihood and businesses of stakeholders in the value chain, starting at the top of each value chain with the leading private companies engaged in the project?
- b) What are the potential mitigation measures that smallholder farmers and businesses can take to mitigate these risks?
- c) What are stakeholders’ current adaptive capacity to address these risks? What are the different adaptive capacities of men and women of different age groups?
- d) How do they prioritise the risks?
- e) What are the stakeholders’ current adaptive capacity to adopt the mitigation measures proposed?

It is recommended to start off this activity with a limited number of preparatory interviews with stakeholders in the value chain. However, these questions should also be addressed in a two-day workshop with value chain stakeholders and other experts (climate, crop, trade).

Step 4: Identification of potential business case – this step is conducted in the second day of the workshop with key stakeholders of the value chains to explore adaptation strategies and identify potential business ideas. The following elements will be part of the identification:

- Prioritised climate-weather related risk in the context of the value chain
- Possible adaptation strategy to address the prioritised risk
- How do stakeholders perceive the feasibility – sustainability (social, finance, cultural, technical) – is the strategy gender and age inclusive or is it necessary to develop specific strategies towards women, youth and/or other vulnerable groups?
- Is there any actor (in the value chain or elsewhere) who could be interested to transform the adaptation strategy into a business?
- Are there any customers who are willing/able to pay for the service /product being sold?
- Do we consider this adaptation strategy as a potential business idea? Yes/No and Why?

Data collection Methodology

This climate risk assessment is expected to employ participatory approaches in data collection, using quantitative models (e.g. climate or hydrological models) and qualitative methods (e.g. workshops with stakeholders of value chain, expert's workshops). Models or model-based information should be used when quantitative information is required/desired to support decision making. The study should make use of recent developments in climate services, hydrological models, crop models and visualisations of climate related information. Participatory methods should be used to assess people's and businesses' adaptive capacity to mitigate climate risks, prioritise risks, and identify adaptation options and potential business ideas.

The Climate Risk Assessments done by SNV in Zambia for a previous project and in Kenya for an ongoing project will offer guidance on the structuring of the assessment and the overall approach taken.

Adaptation measures as business case

Climate change and climate variability impacts agricultural productivity and water resources availability and therefore affects the economic situation of different stakeholders in the value chain. Farmers, businesses and other key stakeholders in a value chain can experience benefits from investing in adaptation measures that increase resilience. The climate risk assessment aims to support stakeholders to identify adaptation measures that do not only address the ability to better manage and mitigate risk, but also decrease costs, increase profits, creates new markets, and/or improves reputation. Male and female farmers of different age groups are affected differently by climate change and respond differently to adaptation options. Equally, access to mitigation measures and ability to implement solutions to climate change are affected by individual starting positions in society. Climate risk assessments therefore need to be gender and age sensitive.

The consultant is invited to discuss how the quantitative and qualitative methods will be employed in all the 4 steps process of climate risk assessment describe above. Restrictions due to Covid 19 and proposed solutions to work within these restrictions need to be explicitly addressed.

Time frame: 40 Calendar days

- a) 8 working days - Desk review and meetings with project stakeholders in Lusaka and field offices. The consultant should as much as possible utilize virtual platforms for meetings. This also includes designing of data collection tools for each of the steps described above
- b) 12 days - Data collection, using telephone interviews and teleconference and where possible physical meetings with stakeholders (management of the main companies involved in the project, and their out-grower farmers as well as traders and small businesses involved in the company supply chain)
- c) 15 working days - Organising, analysing data, writing the draft report and submission of a draft report to SNV for comments.
- d) 1-day Meeting for presenting the draft report to the project team
- e) 2 days - Validation workshop (teleconference) with company management of the respective value chains and district stakeholders and beneficiaries (Lusaka, Katete, Kabwe and Mazabuka)
- f) 2 working days writing the final report incorporating feedback from project team and submission final evaluation report

Deliverables

All written documents are to be submitted in English using Microsoft Word in both soft and hard copy. All primary data collected, and analysis conducted, for the purpose of the assessment will remain the property of SNV and must be submitted electronically and in a clear and comprehensible format.

The Consultant will provide the following deliverables to the SNV within the timeframe stated:

1. Inception Report: within 8 working days of the launch of this assignment, a detailed report on the Consultant's proposed final assessment plan and methodology for each of the 4 steps will be submitted to SNV for approval. If SNV does not respond within 2 days, the consultant may assume the Inception report is approved. The report will provide preliminary understandings based on document review, rationale and a detailed description of the methodology and tools, research questions, analytical methods, budget with a breakdown of costs and detailed work plan for the entire exercise. Any draft questionnaires or interview forms will also be submitted for review at this stage.

2. Interview Notes and List of Resource Documents: The Consultant shall provide SNV summaries of all key meetings, workshops, and discussions conducted during the course of the assessment and copies of any relevant documents and reports gathered during the assessment.

3. Summary Presentation of Findings to SNV and Stakeholders: The Consultant shall present initial findings to SNV for review, comment and feedback. A PowerPoint presentation and handout shall be prepared for the presentation through a workshop. The Consultant shall consider SNV and stakeholder comments and revise the draft report as appropriate. SNV welcomes differing views and these can form part of the Consultant's recommendations.

4. Evaluation Report: A draft evaluation report is due five business days after the field visit is completed. Within 10 business days of receiving SNV's feedback to the draft report, two hard copies and one electronic (MS Word) copy of the final evaluation report are due to SNV.

MANAGEMENT AND SUPERVISION RESPONSIBILITIES

The consultant will report directly to the SNV Zambia Country Director (CD) and the INCREASE Project Manager. However, s/he will also be expected to work closely with the M&E Manager and field staff.

SNV Zambia shall provide the following to the consultant;

- All relevant project documents;
- Copies of all key background resources identified;
- The report on Climate Resilience Assessment for a previous SNV project
- Field staff time to assist with data collection and discussion/analysis;
- Introductory meetings with companies and key government staff;

EVALUATION TEAM QUALIFICATIONS

The evaluation is to be done by a local consulting firm. The lead consultant should have wide knowledge on climate change and experience with the Zambian agriculture and natural resources sector. Should have a minimum of a Master's degree in Environmental studies, Agriculture, Agricultural Economics, or a related field, and at least have a minimum of 7 years' experience working in Natural resources or related fields and in carrying out Climate Change assessments, demonstrable academic and practical experience in qualitative and quantitative research methodology, evaluation design and implementation. The Consultant should also have strong analytical, facilitation and communication skills (both written and oral) and demonstrated experience working in rural areas in Zambia.

Interested Consultants or firms are requested to submit:

1. An Expression of Interest detailing their interpretation of the TOR, proposed Assessment plan including sampling framework, work schedule and proposed budget;
2. A capability statement demonstrating how they meet the required qualifications and competencies;
3. Copies of all relevant Curriculum Vitae (CVs). Only CVs for the specific individuals that will form the proposed evaluation team should be included;
4. Two references (including one from your last client/employer).

