

# **Terms of Reference**

Mid Term Review of DeSIRA project "Land Soil Crop Information Hubs to support rural transformation and Climate Smart Agriculture (LSC-IS) in Ethiopia, Kenya and Rwanda"

9 May 2023

#### 1 Background

This document describes the Terms of Reference (TOR) for the Mid-Term Review (MTR) of the DeSIRA Land, Soil and Crop Information Services (DeSIRA LSC-IS) project. The project is part of the Development Smart Innovation through Research in Agriculture (DeSIRA) Initiative of the European Union.

The **DeSIRA Initiative**, funded by the European Commission (EC), Directorate General for International Partnerships (DG INTPA), seeks to enhance an inclusive, sustainable and climate-relevant transformation of rural areas and agri-food systems, by linking agricultural innovation with research and education for developmental impacts at scale. It supports actions in low- and middle-income countries (LMICs) to strengthen agriculture and food systems resilience, the relevance of the national and regional innovation systems, and the coherence and efficiency of their agricultural public research and extension services related to climate change adaptation.

DeSIRA LSC-IS aims at supporting Climate-Smart Agriculture in Ethiopia, Kenya, and Rwanda (LSC-IS) through better access to soil, land and crop information. The project as such tests the hypothesis that better access to soil, land and crop information and better exchange between farmers, knowledge organisations and governmental organisations, will enhance innovation and informed decision-making in the agricultural sector of Eastern Africa.

The general objective of the DeSIRA LSC-IS is to develop sustainable land-, soil-, crop information hubs in national agricultural research organisations that facilitate the exchange of knowledge and information between farmers, knowledge organisations, private sector and policy makers, enhance the effectiveness of national Agricultural Knowledge and Innovation Systems and contribute to rural transformation and Climate Smart Agriculture in East Africa.

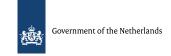
Ultimately DeSIRA LSC-IS aims to create an impact of increased agricultural productivity and farm income especially for small-scale farmers based on climate resilient and sustainable food production in Ethiopia, Kenya and Rwanda. Primary users of the LSC-hubs, however, will be policy bodies, knowledge organizations and development partners operating at the national level. Secondary users are local landscape and watershed planning and management bodies, local public rural extension, NGOs, farmer organizations and private sectors (kebele, district, county level).

The project consists of five work packages (WPs):

 WP1, Management & coordination, is geared towards having a clear overview of the results, outcomes and lessons learnt and disseminating recommended steps to further optimise sector performance and resilience;









- WP2, Needs assessment and LSC-hub design, needs to result in a (proven) effective
  methodology and strategy for a LSC hub design trajectory, which is based on lessons
  learned of clearly specifying demands, roles, responsibilities and capacity of actors and
  criteria for the ownership of the LSC hubs;
- WP3, Development of LSC-hubs, results in LSC partners (i.e., producers and users of data) being familiar with LSC services, able to reflect on these services, and able to update LSC functions and operations;
- WP4 focuses on the LSC-hubs use at national level, i.e., operational LSC hubs, complemented by a long-term viable business plan, can collect and provide up to date LSC data to users at the national scale such as various ministries, agencies and universities, research centres and national stakeholder platforms related to agriculture and climate change adaptation. Producers of LSC information are actively engaged in the knowledge exchange. LSC hubs will start to play an active role in policy development and in CSA decision making at the national scale.
- WP5 addresses the LSC-hubs use at local level: Operational LSC hubs, complemented by a
  long-term viable business plan, can collect and provide up-to-date LSC data to users at the
  local scale such as local authorities, local representation of agricultural agencies and
  research centers, extension services, farmers associations etc. Local producers of LSC
  information are actively engaged in knowledge exchange. LSC hubs are contributing to
  enhancing the performance of extension services and public and private sector advisors.
  The strategy developed during the project to reduce the gap between research and
  practice in the farm planning of small-scale farmers has been embarked upon by public
  and private sector stakeholders.

LSC-IS is a project (in the contract referred to as 'the Action¹') funded by DG International Partnerships of the European Commission (through the EU Delegation to the Republic of Kenya), the Netherlands Ministry of Foreign Affairs (MoFA) and ISRIC. The Action is coordinated by the MoFA by means of a 'delegated agreement' between DG INTPA and the Dutch MoFA.

The Consortium implementing the Action consists of Wageningen Research (WR) with Wageningen Centre for Development Innovation (WCDI) and Wageningen Environmental Research (WEnR), ISRIC - World Soil Information and the International Livestock Research Institute (ILRI) of Consultative Group for International Agricultural Research (CGIAR). The Consortium coordinates the Action with the following national partners in Ethiopia, Kenya and Rwanda: the Ethiopian Institute of Agricultural Research (EIAR), Kenya Agriculture and Livestock Research Organisation (KALRO) and Rwanda Agriculture and Animal Resources Development Board (RAB). The LSC-IS hubs will be hosted by EIAR, KALRO and RAB. In addition, the International Union for Conservation of Nature (IUCN), International Centre for Research in Agroforestry (ICRAF,) Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) and the German Aerospace Center (DLR) provide specific services for the delivery of the Action.

The countries Ethiopia, Kenya and Rwanda are chosen because all have expressed the need for a LSC-hub and because the strong links the consortium partners have with the national agricultural research organisations of these countries. Also it was preferred to learn from establishing such LSC-hubs in countries with different government styles of the AKIS. Ethiopia has a more governmental-driven AKIS while in Kenya the role of the private sector is much higher. Rwanda can be place somewhere in between

The consortium partners, national partners and service provision partners together form the project team members or implementation partners.

<sup>&</sup>lt;sup>1</sup> This ToR refers to DeSIRA LSC-IS, therefore, as either 'the project' or 'the Action'.









# 2 Purpose and scope

This Mid-Term Review (MTR) will look back in order to look forward and is primarily geared towards learning, steering and the improvement of the implementation of activities. The results, furthermore, feed into the reflection on the project outcomes and results which are the basis for quality improvements and scaling. The findings and concrete recommendations of this MTR are additionally meant to feed into the reflection on the Theory of Change (ToC) of the project.

The MTR covers the period from 1 January 2021 (the start of the Action) up to 'today'. The evaluation will cover all project components, countries and/or work packages.

The end-users of the MTR are the consortium partners, its implementing partners at national level, the Dutch MoFA and the EU delegation in Kenya (regionally representing EU DG-INTPA in the East Africa).

#### 3 Objectives and evaluation questions

The objectives of the mid-term evaluation are:

- To assess the relevance, effectiveness, efficiency\*, scaling potential and sustainability of the Action in achieving its intended results as described in ToC and logframe;
- To evaluate the extent to which the ToC's assumptions hold true;
- To conclude if the Action can be expected to deliver results within the remaining project period and budget;
- To identify and analyse factors that have facilitated or hindered project implementation;
- To conclude if the Action can achieve its envisaged impact within or beyond the project period;
- To provide recommendations for adjustments to the Action design and implementation to improve its relevance, effectiveness, efficiency, scaling potential and sustainability and;
- To finally advise the consortium and donors on the need (if any) to extend project duration.

\*Efficiency = With efficiency we mean here whether the right resources (capacities, time and funds) are available and distributed over the various WPs, countries and partners in order to implement the activities such that the project is able to achieve the intended outputs and outcomes. In this MTR, it does not investigate the performance aspect of efficiency like the number of beneficiaries reached per unit of financial investment.

These objectives are supported by the following, more detailed, evaluation questions.

#### Relevance

- 1. How do the services provided by the LSC-IS hubs meet the information needs of users at the national level and contribute to making better strategic decisions towards climate smart agriculture in their country?
- 2. How do the services provided by the LSC-IS hubs meet the information needs of users at the local level and contribute to making better operational decisions towards climate smart agriculture in their area?
- 3. How is it ensured that the LSC-IS hubs support providing advice to farmers in an inclusive way (hence targeting different types of farmers: small-scale, commercial, female, young, landless etc.)









- 4. To what extent are the LSC-hubs perceived as dynamic platforms where producers and users of data meet and exchange to improve the innovative capacity of the agricultural sector?
- 5. To what extent are the LSC-hubs perceived as being able to reduce the digital divide between AKIS actors and being owned by AKIS actors?
- 6. To what extent are project activities perceived as (directly or indirectly) contributing to the structural/systemic improvement of the agricultural performance of small-scale food producers?
- 7. To what level is the implementation of DeSIRA LSC-IS connected and aligned with other national, MoFA, EKN and EU-financed programs on CSA, AKIS and digitalization of agriculture?

#### **Effectiveness**

- 8. To what extent has the project achieved and /or will it achieve its intended results as described in the ToC and in the logframe (in other words, what is the level of effectiveness of the developed LSC-IS hubs for Ethiopia, Kenya, and Rwanda in meeting the demands among stakeholders for supporting climate smart agriculture knowledge and information)?
- 9. To what extent is the project set-up (WPs, consortium partners, national partners and service providers, list of activities, sequence of activities) conducive to the implementation of the program?
- 10. To what extent are the roles and responsibilities (ASMT, AMT, AAC, scientific coordinator, PM, WP leads) and the various information sharing and decision-making mechanisms of the Action clearly understood, agreed upon and executed by the project team members?
- 11. To what extent do clear communication lines with the project partners exists and are they up-to-date about the activities of the project?

### **Efficiency**

- 12. To what extent are WUR and the other implementation partners able to mobilize sufficient and relevant capacities to implement their part of the Action?
- 13. Is the current time and budget allocation over the various WPs, countries and partners conducive to efficiently reach the project outputs and outcomes?
- 14. If current budget and planning seem insufficient, what are estimated time and resources needed to reach project outputs and outcomes?

#### Sustainability

- 15. How is it ensured that the, project-based, to be developed capacities of national partners allow the continued operating and hosting of the hubs after project finalization? This relates to the available level of knowledge (content and technical) and capacity of people.
- 16. How is the support for continuing the information services through LSC-hubs being guaranteed politically (policies, legislation) and institutionally? E.g., how do the hubs appear in the strategic papers and year planning of the hosting organizations and national and local users?
- 17. How is the support for continuing the information services through LSC-hubs being guaranteed financially? What is the magnitude of national financial investments in KALRO,



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- EIAR, and RAB for the strategic, technical, operational and institutional requirements for sustaining the developed LSC hubs?
- 18. How is it ensured that the to be developed capacities within national and local hub users allow effective utilization of LSC information for improving their decision-making on CSA and to provide feedback to the hub hosts for improving their hub-services after project finalization?

### Testing of ToC assumptions

The project was developed based on the following ToC assumptions:

- Better access to LSC-information supports climate resilience and sustainable food production and helps to improve the efficacy of CSA measures and projects.
- Better access LSC-information and better exchange between farmers, knowledge organisations and governmental organisations, will enhance innovation and entrepreneurship in the agricultural sector.
- Better access to LSC-information requires capacity development at national, local and at farming systems level, and an enabling environment for (multi-stakeholder) monitoring, learning and action.
- Making LSC-hub data available as Open-Source data will boost its application.
- Local stakeholders are crucial actors in soil, land and crop data use and data provision. The knowledge exchange with farmers (large and small-scale, men and women, experienced and young) is important for the understanding of CSA practices, impact of LSC hub through embedding CSA farming practices, and feedback from involved farmers to LSC hub developers.
- Farmers (large and small-scale, men and women, experienced and young) are crucial actors in soil, land and crop data use and data provision.
- The LSC-information users at the local level (local authorities, local representation of agricultural agencies and research centers, extension services, farmers associations etc.) form intermediates to reach the farming system levels and numbers of farmers that will benefit from the LSC-hubs
- Embedding LSC-hubs in the National Agricultural Research System (NARS) will increase national ownership of data, and thereby its recognition and usage as source for policy development and decision making.
- An enhanced innovative approach and improved entrepreneurship will make a significant change in the increase of agricultural productivity and farm income, especially for small-scale farmers.
- Bridging the digital divide between farmers, knowledge institutes and governmental organisations is providing the fundament for sustainable growth.
- A gender sensitive and youth inclusive approach during the Action is pivotal for having gender equal and youth inclusive outcomes by the end of the Action.
- A gender and youth inclusive approach lays out the baseline for fair rural transformation.

The evaluation questions are:

- 19. Are these preliminary ToC assumptions, developed at the start of the project, still relevant and likely to hold true?
- 20. Which project hypotheses and/or ToC assumptions are missing?









# Scaling potential

- 21. How did the Action facilitate the upscaling of the LSC hubs project within the implementation countries at the sub-national scale (from pilot counties/woredas/districts to others)?
- 22. What are interim key lessons learned which are relevant for other countries in East-Africa?
- 23. How can we best follow up this national and international upscaling: when, how, with whom?

# 4 Methodology

The mid-term evaluation will use a qualitative approach, including a document review, key informant interviews and focus group discussions. These sources can be supplemented with quantitative data when available (like number of people assessed during needs assessment in WP2). Despite the more qualitative approach of the MTR, it will be necessary to review the quantitative targets indicated in the Logical Framework of the Action.

The review will establish a Reference group consisting of the Action Advisory Commission and an independent representative of DeSIRA LIFT who have an overarching monitoring and evaluation role across DeSIRA project. The Reference group with the following roles and responsibilities:

- Give approval of selection of evaluators;
- Provide feedback on and give go / no-go on inception rapport;
- Provides feedback on draft final report.

The review will include an online validation workshop<sup>2</sup> with project implementers and the Reference group.

### 5 Qualifications of the evaluation team

The evaluation can be conducted by an individual evaluator or by a team of evaluators. The evaluators and affiliated organisations must not have been involved in the design or implementation of the project and must have no interest in the evaluation's outcome (see IOB quality criteria evaluations). We look for the following minimal qualifications:

- Proven experience in conducting evaluations of large, multi-annual development projects and/or programmes;
- Able to work with local translators provided by the National Partners and to reflect on translators' and own biases.
- Proven experience with participatory, qualitative methodologies;
- Ability to write concise, readable and analytical reports;
- Educational background or experience in (a combination) of the following topics: agriculture, climate adaptation and/or mitigation, LSC-information systems;
- Experience in at least one of the implementation countries (Ethiopia, Kenya and/or Rwanda) is mandatory. Experience in all countries will be an added advantage.

<sup>&</sup>lt;sup>2</sup> The date and details of the validation workshop will be prepared in cooperation with the MEL officer of DeSIRA LSC-IS









#### 6 Deliverables

The deliverables for the mid-term evaluation are:

- Inception report: The inception report will include the evaluation methodology, data collection tools, work plan, and evaluation team roles and responsibilities;
- The data set and transcriptions of both qualitative and quantitative data;
- Draft report: The draft report will include the evaluation findings, conclusions, and recommendations and provides for country specific information
- Online validation workshop: The evaluators will organize an online validation workshop to present their draft report and collect final additions and feedback;
- Final report (< 35 pages, excluding annexes): The final report will include the evaluation findings, conclusions, and recommendations, considering the feedback received on the draft report and the validation workshop. It provides for country specific information. It will also include a 2-page narrative and visual summary of the key findings, meant for a general audience.

#### 7 Timeline

The key activities and time indications of this MTR are:

Table 1 Key activities and time indications of the MTR process

Nr	Activity	Output	Time period
1	Call for Expressions of Interest (EoI)	Call for EoI published by WUR	10 May 2023
2	Submission of EoIs	EoIs, including track record and key CVs obtained	Submission closes on 24 May 2023
3	Selection of EoIs to develop a full proposal	At least 3 EoIs invited to develop a full proposal	26 May 2023
4	Submission of proposals	At least three proposals received	21 June 2023
5	Evaluation of proposals and interviews	Winning proposal selected and service provider awarded	23 June 2023
6	Subcontracting service provider	Subcontract signed	28 June 2023
7	Inception phase	Revisit the proposed work plan, methodology, and tools regarding details and schedules	28 June 2023 – 12 July 2023
8	Presentation of inception report (revisited work plan and methodology for evaluation)	Online assessment of revisited work plan and methodology with a go/no-go decision by Reference group in case the plan is not in line with this ToR	12 July 2023
9	Implementation phase	Interviews and data collection done  Data processed and interpreted	12 July 2023 – 16 August 2023









Nr	Activity	Output	Time period
10	Validation	Online validation workshop with key project staff and Reference group with PowerPoint presentation of preliminary results and recommendations	16 August 2023
11	11 Reporting	Draft report and presentation of the findings	22 August 2023
		Review of draft report by Reference Group	29 August 2023
		Final report	05 September 2023

#### 8 Budget

The budget for the mid-term evaluation is 40,000 EUR (incl. VAT). This includes all costs associated with the evaluation, including consultancy fees, possible travel expenses, and any other relevant expenses.

### 9 Expression of Interest

The MTR consultant or MTR team leader is requested to complete the attached Expression of Interest (EoI) form and submit it to: Mr Frank van Weert (<a href="mailto:frank.vanweert@wur.nl">frank.vanweert@wur.nl</a>), project manager of DeSIRA LSC-IS by 24 May 2023.

The EoI is to be accompanied by information on two previous assignments that the MTR team leader believes to best illustrate the track record, (some of) the capabilities that they intend to bring to this current assignment (e.g., through links to webpages, reports, videos, testimonials, other documentation). Please include at least one example of an earlier assignment that has a strong qualitative component. In addition, please supply the CVs of any individuals already identified who can give input to the design of the evaluation.

For questions related to this ToR, please contact Ms Hermine ten Hove (<a href="hermine.tenhove@wur.nl">hermine.tenhove@wur.nl</a>). The selection of EoIs that are invited to submit full proposals will be communicated latest 26 May 2023.

Table 22 Expression of Interest form

1. Applicant details				
Name of applicant:				
Applicant company/organization:				
Contact details of applicant				
Email:	Telephone:	Physical address:		









2. Acknowledgement of terms and conditions		
The starting date of this MTR is 19 June 2023		
The final report deadline is 31 August 2023		
A total budget of 32,000 Euro (inc. VAT) is available for this MTR		
EoI is to be accompanied by information of three previous assignments that the MTR leader believes best illustrate the track record that they intend to bring to this current assignment		
EoI is to be accompanied by the CVs of any individuals already identified who can give input to the design of the evaluation		
<b>3. Track-record</b> [max. 200 words each including links to resources; please include at least one example of a qualitative/mixed methods (mid-term) evaluation]		
Example 1:		
Example 2:		
4. CVs [max. 2 pages each]		
CV 1:		
CV 2:		
CV n:		

# 10 Full proposal

The full proposal should include the following and be prepared upon invitation to do so (i.e., after having submitted a successful Expression of Interest as described in the previous section).

- 1. Detailed descriptions of:
  - a. Intended scope;
  - b. Methodology of answering each evaluation question;
  - c. A workplan, indicating also the expected role of project staff and partners and detailed timeline (using the broad timelines provided in the ToR);
  - d. Detailed budget for this study based on the objectives outlined in the ToR;
  - e. Potential risks and strategies to mitigate these.
- 2. CV(s) of all team members, and information about their *availability* during the MTR
- 3. At least two relevant references from previous clients, including contact details.
- 4. At least two examples of recent and relevant evaluation reports.

The proposal will be analysed based on the following criteria and related points:









 $\textbf{Table 3} \ \text{Criteria for the evaluation of the MTR full proposal} \\$ 

Nr	Criteria	Points
1	Comprehensive and convincing proposal (delivering on the ToR)	20
2	Methodology of the MTR appropriate to review the project, including the different evaluation questions	35
3	CVs and experience	35
4	Budget	10
	Total	100









# Annex 1: LSC-IS Theory of Change

Draft Theory of Change DeSIRA - LSC-IS 13 tener \$= A.PP.T **Our Impact** (or where we want to be ...) So we ultimately contribute to ...
Increased agricultural production and farm income especially for small-scale farmers based on climate resilient and sustainable food production in Ethiopia, Kenya and Rwanda, characterised by reduced greenhouse gas emissions from primary production systems Our ultimate outcome LSC hubs evolved and expanded towards dynamic national Agricultural Knowledge and Innovation Systems (AKIS 2.0) in Ethiopia, Kenya and Rwanda, which contribute to the continuous monitoring of the status quo of food system performance and food system governance and support rural transformation and the development towards a climate smart agricultural sector in Ethiopia, Kenya and Rwanda, and, eventually, in East Africa LSC hub partners (producers and users of data) have enhanced their adaptive capacity to stimulate knowledge exchange and improve the innovative capacity of the LSC hubs in particular and of the agricultural sector in general. Discussed and agreed roadmaps for the design of an enabling and vibrant national AKIS 2.0 exist. These roadmaps have the aim to further reduce the gap between research and practice and contribute to rural transformation, climate change adaptation and miltigation in Ethiopia, Kenya and Rwanda and, eventually, in East Africa LSC hub partners have created performing and inclusive national multi-stakeholder partnerships/platforms, including public and private sector stakeholders, McOs and knowledge institutes, in Ethiopia, Kenya and Rwanda while building on and complementing LSC hub lessons learnt to further optimise sector performance and resilience Other: The strategy developed during the Action reduced the gap between research and practice in the farm planning of small-scale farmers and has been embarked upon by public and private sector stakeholders Sphere of influence 4. LSC hubs are used at national level, are complemented by a long-term viable business plan, are able to provide up-to-date LSC data to users and LSC hubs started to play an active role in policy development and in CSA decision making at national level. are complemented by a long-term viable business plan, are able to provide up-to-date LSC data to users and LSC hobs started to play an active role in policy development and in CSA decision making at local level and contribute to enhancing the performance of extension services and public and private sector advisors 3. LSC hub partners (i.e. producers and users of data) are familiar with LSC services, are able to reflect on these services and are able to update LSC functions and operations. A (proven/tested) effective methodology and strategy for a LSC hub design trajectory based on lessons learned of clearly specifying the strategy of the s Other: Youth have enhanced repreneurial skills to contribute to an innovative agricultural sector capacity Other: National Agricultural Research Institutes are able to operate the LSC hubs Our Action We will train, test and adapt together and scale hub use at local level including introducing and trainin local level users in the testing of the hubs and collect feedback, demonstrate the use of LSC-information for climate smart farm- and watershed- level management, and include local level use of LSC-hub services in LSC-hub sustainability plans. Embedding & Scaling Monitoring Evaluation Adapting Together we use, learn, improve, innovate We will train, test and adapt together and scale hub use at national level including introducing and training national level users in the testing of the hubs and collect feedback, demonstrate the use of LSC-information in CSA related agricultural policy development and planning and agricultural extension systems, and -implement and adapt sustainability and financial strategies; Together we plan, monitor, evaluate, adapt, learn We will develop a conducive learning environment for the implementing environment for the implementing teams, but particularly focus on facilitating multi-stakeholder learning. We will keep stakeholders, as well as the general public at large informed and engaged about performance and progress of the Action. Developing & Testing Together we develop, test, adapt, test, learn We will design, build, train, test and adapt together an innovative IT system, databases -of land, soil, crop and other data- and user interfaces of the hubs in Ethiopia, Kenya and Rwanda, and train staff in the operation and maintenance. The Action will use a gender equal and youth inclusive approach with a strong focus on PPHAL regarding all activities to be implemented which, supported by the communication plan-will stimulate interest in and support the development of agricultural sector particularly sector productive sector. We will assess together the agricultural sector (i.e. the institutional setting) and prepare stakeholder overviews at national and local levels. This includes carrying out information-needs assessments of users at national and local level, as well as an assessment of the capacity of the hub host. The assessments and overviews will determine the requirements for the design of the hubs. Together we assess, we learn, we build partnerships

#### **Our specific target groups**

We do this for ...
Primarily, small-scale farmers (male and female, and young farmers) and other (young) 'agripreneurs' (male/female).
We do this with...
preferably, small scale farmers themselves but to ensure a systems change we focus particularly on the 'hub-hosts' and 'primary and secondary hub-users'. The hub-hosts are the National Agricultural Research Centres in Kenya, Rwanda and Ethiopia. Primary users include policy bodies, knowledge organizations and development partners. Secondary stakeholders are those stakeholders with a direct interaction with small-scale farmers, and mechanisms for incorporating LSC-hub services in regular extension services, landscape planning and management bodies and digital service providers all operating at the local level. They include include local landscape and watershed planning and management bodies, local public rural extension, NGOs, farmer organizations and private sector stakeholders.

Therrefore, we aim to ...
To develop sustainable land-, soil-, crop information hubs in national agricultural research organisations that facilitate the exchange of knowledge and information between farmers, knowledge organisations, private sector and policy makers, enhance the effectiveness of national Agricultural Knowledge and Innovation Systems (AKIS 2.0) and contribute to rural transformation and Climate Smart Agriculture in East Africa

(this is the overall objective of the Action)

We believe that ...
Better access to soil, land and crop information supports climate resilience and sustainable food production and helps to improve the efficacy of CSA measures and projects;
Better access to soil, land and crop information and better exchange between farmers, knowledge organisations and governmental organisations, will enhance innovation and entrepreneurship in the agricultural sector;
Making LSC-hub data available as Open Source data will boost its application;
Farmers (Iarge and small-scale, men and women, experienced and young) are crucial actors in soil, land and crop data use and data provision
Embedding LSC-hubs in the National Agricultural Research System (NARS) will increase national ownership of data, and thereby its recognition and usage as source for policy development and decision making
An enhanced innovative approach and improved enterpreneurship, will make a significant change in the increase of agricultural productivity and farm income, especially for small-scale farmers;
Bridging the digital divide between farmers, knowledge institutes and governmental organisations is providing the fundament for sustainable growth
A gender sensitive and youth inclusive approach during the Action is pivotal for having gender equal and youth inclusive outcomes by the end of the Action.

(these are our underlying assumptions of how we believe change happens)

(these are our underlying assumptions of how we believe change happens)

#### The need for change (or where we are now...)

Currently, ...
Addressing today's climate challenges requires better access to data about land, about soil and about crops. This enables farmers to plan more effectively and be more efficient. Especially for small-scale farmers in East-Africa, the digital divide can largely be reduced and better access to information can lead to improved crop yields. Soil, land and crop information (in many East-African countries) can currently not be used effectively in decision-making (at national and at farming system level), because the data are not available in an organised and accessible form;



# **Annex 2: LSC-IS Logframe**

http://bit.ly/DeSIRA-LSC-IS-Logframe





