Work Package (WP) 1:

Wp 1: Results chain							
Impact/ ultimate outcome	Increased agricultural productivity 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	*Assessment Pathway (see figure 3.1)* ** Discussed and agreed roadmaps based on the scaling and institutionalisation of LSC hubs - available for the design of an enabling and vibrant national AKIS 2.0 exist to contribute to rural transformation, climate change adaption and mitigation in Ethiopia, Kenya, Rwanda, and eventually, in East Africa (specified in **WP 2**)*					
		Development Pathway ** Through the effective operation of LSC knowledge and innovation hubs, the hubs evolve and expand towards national Agricultural Knowledge and Innovation Systems (AKIS 2.0) contributing to continously challenging the status quo of food system performance, to rural transformation and a climate-smarter agricultural sector in Ethiopia, Kenya, Rwanda, and eventually, in East Africa (specified in **WP 3**)* ** Enhanced adaptive capacity exists in information users and producers resulting in the continous updating and improving of LSC hubs and their operation in particular and the national AKIS 2.0 in general in Ethiopia, Kenya, Rwanda, and eventually in East Africa (specified in **WP 4a and WP 5a**)*					
		Scaling and Institutionalisation Pathway *LSC hubs in particular - and the national AKIS 2.0 in general - contribute to a decrease of the digital divide in the agricultural sector and are used for policy formulation, for the development of policy frameworks, for public and private advice and sevice provision as well as for the development of (inter)national funding schemes contributing to rural transformation and climate change adaption and mitigation Ethiopia, Kenya, Rwanda, and eventually, in East Africa (specified in **WP 4b and WP 5b**)*					
		Monitoring & Learning Pathway *The latest trends and approaches to stimulate knowledge exchange and social learning are applied to enhance innovative capacity of the LSC hubs in particular and the national AKIS 2.0 to contribute to rural transformation, climate change adaption and mitigation in Ethiopia, Kenya, Rwanda, and eventually, in East Africa (specified in **WP 1**)*					
		Indicator	***Baseline***	***Target***	***Achieved up to now***	***ON TRACK YES/NO or at RISK***	***Comments***
Medium-term effect / Specific objective / intermediary outcome 1	1. A clear overview of the results, outcomes and lessons learnt and recommended steps to further optimise sector performance and resilience exists; These have been widely disseminated and enjoy a great visibility.	Number of roadmaps to develop a national AKIS based on lessons learnt and effective practices at LSC hubs	0	3			
		An online monitoring dashboard (including historical logs) with (periodically updated) results and final Action outcomes	0	1			

Work Package (WP) 2

		Indicator	*Baseline*	*Target*	*Achievedup to now*	*ON TRACK YES/NO or at RISK*	*Comments*
Medium-term effect / Specific objective / intermediary outcome 2	2. A (proven) effective methodology and strategy for a LSC hub design trajectory based on lessons learned of clearly specifying demands, roles, responsibilities and capacity of actors exists and ownership has been made explicit.	Description of sustainability strategies developed for Ethiopia, Kenya, Rwanda Description of user needs assessments for LSC-hub information services for Ethiopia, Kenya, Rwanda Methodology for country demand and capacity assessment Methodology for country institutional assessment	0 0 0 0	3 3 3 3			
Outputs Workpackage 2	Output 2.1 Multi-stakeholder consultative process design for the demand and capacity assessment	A documented multi-stakeholder consultative process design for the demand and capacity assessment.	0	3			
	Output 2.2 Multi-stakeholder consultative process design for the institutional assessment	A documented multi-stakeholder consultative process to define the institutional requirements and assessment.	0	3			
	Output 2.3 Multi-stakeholder implemented country based demand, capacity and institutional assessments	Number of focus group discussions per country covering at least 5 stakeholder groups Number of multi-stakeholder workshops per country Documented multi-stakeholder country-based demand capacity and institutional assessments.	0 0 0	10 FGDs 2 workshops 3 country documents			
	Output 2.4 Overview of generic and country specific demands, capacities and institutional requirements for the LSC hub design	Overview of generic and country specific demands, capacities and institutional requirements for the LSC hub design	0	1 generic and 3 country specific overviews			
	Output 2.5 Consolidated report of the demand, capacity and institutional assessment and sustainability strategy	Consolidated report of the demand, capacity and institutional assessment, including sustainability strategy; and publication	0	4			

Work Package (WP) 3

		Indicator	*Baseline*	*Target*	*Achieved up to now*	*ON TRACK YES/NO or at RISK*	*Comments*
Medium-term effect / Specific objective / ..	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.	Number of LSC hubs at national level, complemented by viable business plans. Number of producers of knowledge and information (i.e. organisations) engaged in the LSC hub.	0 0	3 45 (on average 15 per country)			
Outputs Workpackage 3	Output 3.1 Existing basic land, soil and crop information available in the right format for deployment in the LSC hubs	Number of harmonised datasets with existing basic land, soil and crop information available	0	3			
	Output 3.2 GIS layers with basic land, soil and crop information at 250*250m resolution in the LSC-hub	Number of nation-wide GIS layers with basic land, soil and crop information at 250*250m resolution	0	3			
	Output 3.3 Tailor-made GIS layers to support CSA and agricultural transformation decision-making (e.g. nutrient deficiency, potential for improved water management and water harvesting, and potential for carbon sequestration)	Number of tailor-made GIS layers to support CSA decision-making	0	3			
	Output 3.4 Agreed hub architecture, based on the demand and institutional assessment in WP 2	Document describing the agreed upon architecture of the hubs	0	1			
	Output 3.5 LSC hubs developed in three countries according to user demands and populated with the data developed in activity 3.1 – 3.3	Hubs in three countries developed and populated with the data developed in activity 3.1 – 3.3.	0	3			
	Output 3.6 Human and institutional capacity for operating and maintain LSC hubs, and provide support services to stakeholders promoting and facilitating use; develop training materials	Number of training packages Number of training documents indicating that training material used at the three national hubs to train staff in data management, data integration and use.	0 0	3 3			
	Output 3.7 LSC-hubs embedded in existing national agricultural data infrastructures and agricultural advisory services of NARS (see WP4b)	LSC-hubs embedded in existing national agricultural data infrastructures and in existing multi-stakeholder platforms of agricultural sector collaboration	0	3			

Work Package (WP) 4

Results chain		
Impact/ ultimate outcome	Increased agricultural productivity 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	*Assessment Pathway (see figure 3.1)* ** Discussed and agreed roadmaps based on the scaling and institutionalisation of LSC hubs - available for the design of an enabling and vibrant national AKIS 2.0 exist to contribute to rural transformation, climate change adaption and mitigation in Ethiopia, Kenya, Rwanda, and eventually, in East Africa (specified in **WP 2**)*
		Development Pathway ** Through the effective operation of LSC knowledge and innovation hubs, the hubs evolve and expand towards national Agricultural Knowledge and Innovation Systems (AKIS 2.0) contributing to continously challenging the status quo of food system performance, to rural transformation and a climate-smarter agricultural sector in Ethiopia, Kenya, Rwanda, and eventually, in East Africa (specified in **WP 3**)* ** Enhanced adaptive capacity exists in information users and producers resulting in the continous updating and improving of LSC hubs and their operation in particular and the national AKIS 2.0 in general in Ethiopia, Kenya, Rwanda, and eventually in East Africa (specified in **WP 4a and WP 5a**)*
		Scaling and Institutionalisation Pathway *LSC hubs in particular - and the national AKIS 2.0 in general - contribute to a decrease of the digital divide in the agricultural sector and are used for policy formulation, for the development of policy frameworks, for public and private advice and sevice provision as well as for the development of (inter)national funding schemes contributing to rural transformation and climate change adaption and mitigation Ethiopia, Kenya, Rwanda, and eventually, in East Africa (specified in **WP 4b and WP 5b**)*
		Monitoring & Learning Pathway *The latest trends and approaches to stimulate knowledge exchange and social learning are applied to enhance innovative capacity of the LSC hubs in particular and the national AKIS 2.0 to contribute to rural transformation, climate change adaption and mitigation in Ethiopia, Kenya, Rwanda, and eventually, in East Africa (specified in **WP 1**)*

		Indicator	***Baseline***	***Target***	***Achieved up to now***	***ON TRACK YES/NO or at RISK***	***Comments***
Medium-term effect / Specific objective / intermediary outcome 4	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	Number of national and regional users (organisations) using LSC-hub services for their decision making processes.	0	75			

Outputs Workpackage 4	Output 4.1 Policy bodies, knowledge organizations and development partners are aware and use information from LSC hubs	Number of public bodies (PB) trained in EthiopiaNumber of public bodies trained in KenyaNumber of public bodies trained in Rwanda Number of knowledge organisations (KO) trained in EthNumber of knowledge organisations trained in Kenya Number of knowledge organisations trained in RwandaNumber of development partners (DP) trained in Ethiopia Number of development partners trained in KenyaNumber of development partners trained in Rwanda Number of country reports on the training	Ethiopia 0 PBsKenya 0 PBsRwanda 0 PBsEthiopia 0 KOsKenya 0 KOs Rwanda KOs Ethiopia 0 DPKenya 0 DPRwanda 0 DP 0	Ethiopia 20 PBsKenya 20 PBsRwanda 20 PBsEthiopia 20 KOsKenya 20 KOsRwanda 20 KOsEthiopia 20 DPKenya 20 DPRwanda 20 DP3			
	Output 4.2 Feedback of policy bodies, knowledge organizations and development partners which contributes to the functionality, visualization and user friendliness of LSC hubs	Number of country reports including feedback consultations with policy bodies, knowledge organizations and development partners	0	3			
	Output 4.3 Inputs provided by policy bodies, knowledge organizations and development partners for scaling and institutionalisation of LSC hubs	Number of country reports including inputs for scaling and institutionalization from policy bodies, knowledge organizations and development partners	0	3			
	Output 4.4 Inputs for the business plan including a financial strategy contributing to the sustainability of the LSC hubs	Number of country reports with inputs for business plans for LSC hubs	0	3			

Work Package (WP) 5

		Indicator	Baseline	Target	Achievedup to now	ON TRACK YES/NO or at RISK	Comments
Medium-term effect / Specific objective / intermediary outcome 5	5. LSC hubs are used at local 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 local level and contribute to to enhancing the performance of extension services and public and private sector advisors	* Number of farmers actively using the LSC hubs	0	> 400,000 farmers (Ethiopia - 187.000 farmers, Kenya -100,000 farmers, Rwanda- 111.000 farmers)			
		* Number of farmers per country indirectly connected to the LSC hubs through communication of public and/or private advisory/extension services	0	>3,000,000			
		* Number of public and private sector extension officers and other local service providers actively using the LSC hub	0	9000 (3000 per country)			
		* LSC hubs are mentioned in national rural transformation strategies	0	3 (Ethiopia, Kenya and Rwanda)			
		* Enhanced entrepreneurial value of LSC hubs: indicated by number of business initiatives or start-ups	0	>6 (at least 2 per country)			
Outputs Workpackage 5	Output 5.1 LSC users operating in a direct linkage with small-scale food producers aware of the usefulness and potential impact of the hubs	Number of farmers and representatives of staff of local public rural extension, planning and policy development, NGOs, farmer organizations and private sector in 2 selected areas are aware of LSC hubs	0	20 staff x 2 areas x 3 countries = 120			
	Output 5.2 LSC information users able to access, work with and benefit from LSC information in their small-scale farmer level contributions to CSA and agricultural transformation	Number of farmers and representatives of staff of local public rural extension, planning and policy development, NGOs, farmer organizations and private sector in 2 selected areas trained in the use information from LSC hubs (including those organizations targeting specifically women and young small-scale food producers)	0	20 staff x 2 areas x 3 countries = 120			
	Output 5.3 Feedback from LSC information users working at the small-scale farmer level improves the design and content of the hubs	Number of farmers and representatives of staff of local public rural extension, planning and policy development, NGOs, farmer organizations and private sector in 2 selected areas provided feedback towards the functionality, visualization and user friendliness of LSC hubs.	0	20 staff x 2 areas x 3 countries = 120			

	Output 5.4 Inputs (by representatives of staff of local public rural extension, planning and policy development, NGOs, farmer organizations and private sector in 2 selected areas) for incorporating LSC information into scaling and embedding of LSC-hubs services	Number of workshop reports on the local policy consultation	0	1 per country = 3			
	Output 5.5 Inputs (by representatives of staff of local public rural extension, planning and policy development, NGOs, farmer organizations and private sector in 2 selected areas) for incorporating LSC information in their development- and business plans	Number of reports with inputs for business plans for LSC hubs	0	1 per country = 3			