ICARDA
Science for resilient livelihoods in dry areas

IFAD
Investing in rural people

Strengthening Knowledge Management for Greater Development Effectiveness in the Near East, North Africa, Central Asia and Europe

Monitoring and Evaluation Plan

CIHEAM BARI

Procasur

VT

Monitoring and Evaluation Plan

Authors

Kulkarni, Ramya; Vansant Emilie; Akramkhanov, Akmal; Bonauiti Enrico; Graziano, Valerio(2020). Strengthening Knowledge Management for Greater Development Effectiveness in the Near East, North Africa, Central Asia and Europe. Beirut, Lebanon: International Center for Agricultural Research in the Dry Areas (ICARDA).

Keywords

Capacity Development, Data Curation, Evaluation, Knowledge, Knowledge Creation, Knowledge Curation, Knowledge Discovery, Knowledge Management, Knowledge Sharing, Knowledge Storage, Learning, Monitoring, Online Platform, Portal, Survey, Information, Innovation, Research for Development, R4D, SKiM

Prepared by

International Center for Agricultural Research in the Dry Areas (ICARDA)

Project

Strengthening Knowledge Management for Greater Development Effectiveness in the Near East, North Africa, Central Asia and Europe

Funded by

International Fund for Agricultural Development (IFAD)

Type: Report

Report is a separately published record of research findings, research still in progress, policy developments and events, or other technical findings, usually bearing a report number and sometimes a grant number assigned by the funding agency. Also, an official record of the activities of a committee or corporate entity, the proceedings of a government body, or an investigation by an agency, whether published or private, usually archived or submitted to a higher authority, voluntarily or under mandate. In a more general sense, any formal account of facts or information related to a specific event or phenomenon, sometimes given at regular intervals. Source: COAR

About ICARDA

Established in 1977, the International Center for Agricultural Research in the Dry Areas (ICARDA) is a non-profit, CGIAR Research Center that focusses on delivering innovative solutions for sustainable agricultural development in the nontropical dry areas of the developing world. We provide innovative, science-based solutions to improve the livelihoods and resilience of resource- poor smallholder farmers. We do this through strategic partnerships, linking research to development, and capacity development, and by taking into account gender equality and the role of youth in transforming the non-tropical dry areas.

Address

Dalia Building, Second Floor, Bashir El Kasser St, Verdun, Beirut, Lebanon 1108-2010. www.icarda.org

Disclaimer

Revision History

Version	Date	Originator(s)	Reviewer(s)	Description
1.0	10 June 2020	Emilie Vansant	Enrico Bonaiuti	Structure, content
1.1	31 July 2020	Ramya Kulkarni	Enrico Bonaiuti, Laura Becker	Structure, content
1.2	29 October 2020	Ramya Kulkarni	Innocent Bikara, Akmal Akramkhanov, Valerio Graziano	Structure, content
1.3	24 November 2020	Ramya Kulkarni	Jeffery Alwang, Barbara Massler, Enrico Bonaiuti, Akram Akramkhanov, Valerio Graziano	Content

Acronyms

CCT	Cross-Cutting Theme
CIHEAM Bari	Centre International de Hautes Études Agronomiques Méditerranéennes – Bari
CRP	CGIAR Research Program
FP1	Flagship Program 1
GLDC	Grains, Legumes and Dryland Cereals
ICARDA	International Center for Agricultural Research in the Dry Areas
IDO	Intermediate Development Outcome
IFAD	International Fund for Agricultural Development
KM	Knowledge Management
KS	Knowledge Sharing
M&E	Monitoring and Evaluation
NARS	National Agricultural Research System
NEN	Near East, North Africa, Europe and Central Asia
PROCASUR	Procasur Corporation
RA	Research Area
RIMS	Results and Impact Management System (IFAD)
SDGs	Sustainable Development Goals
SKiM	Strengthening Knowledge Management for Greater Development Effectiveness in the Near East, North Africa, Central Asia and Europe
SKO	SKiM Project Outcome
SLO	System Level Outcomes
SRF	Strategic Research Framework
SRP	Strategic Research Priority
SSTC	South-South and Triangular Cooperation
STA	SKiM Project Thematic Area
Sub-IDO	Sub-Intermediate Development Outcome
TOC	Theory of Change
VFM	Value for Money
VT	Virginia Tech

Table of Contents

List of Figures

List of Tables

1. Introduction

1.1 Project Overview

Knowledge sharing (KS) and management for public institutions, as well as NGOs, community-based organizations and the private sector, is a key element to ensuring appropriate dissemination and maintenance of knowledge, and to building capacities and development effectiveness in rural areas. Lessons learned and results in the field of knowledge management (KM) must be scaled-out for enhanced impact in agricultural development and to ensure that knowledge gaps are identified, and then filled, so that public institutions and organizations in-country can benefit.

The Strengthening Knowledge Management for Greater Development Effectiveness in the Near East, North Africa, Central Asia and Europe project is a grant project led by the International Center for Agricultural Research in the Dry Areas (ICARDA) and funded by the International Fund for Agricultural Development (IFAD). The project also works with international partners Virginia Tech (VT), the Centre International de Hautes Etudes Agronomiques Méditerranéennes (CIHEAM-Bari), the Corporation for Regional Rural Development Training (PROCASUR), as well as National Agricultural Research Systems (NARS), governments, and agricultural extension services in Moldova, Morocco and Sudan.

Initiated in June 2018, the project facilitates and supports KM and capacity development activities in the three selected countries and will provide practical examples of KM best practices that will be analysed and adopted by participating institutions. Increasing the capacities of participating public institutions in this work, by providing necessary structures and systems at the country and regional levels, will ensure that knowledge being developed can be effectively managed for long-term growth and development.

A project website has been created with relevant information at https://mel.cgiar.org/projects/SKiM.This website describes the background information, project team, partners and stakeholders engaged, key documents and proposal, goals and objectives, impact pathway, focus countries, resources uploaded on website, and a news and events calendar.

The total cost of the project is estimated at US$2,115,000 over four (4) years (2018–2022) of which IFAD contributes US$1,800,000 (85%), while cost sharing from in-kind contributions will come to US$315,000 (15%). US$115,000 is contributed by International Partners while the remaining amounts are sustained by national intuitions partnering in the project. The official project duration is from 8 June 2018 until 30 June 2022.

1.2 Project Goal, Objectives and Outcomes

The **goal** of the project is to develop effective and long-term knowledge management-related capacities in target countries: Moldova, Morocco and Sudan. This will be undertaken through effective knowledge generation and sharing approaches that ensure improved knowledge management and results measurement for rural poverty reduction.

This goal is to be met through achieving the following **objectives:**

(i) Assess capacity and enhance knowledge management skills of key rural institutions and other stakeholders in Moldova, Morocco, Sudan (with the possibility to include two more countries);
(ii) Foster and promote knowledge exchange across in-country, cross-country and trans-regional partners to foster knowledge uptake, transfer and management.

This work engages key governmental and non-government institutions in the rural development sector of each project country, and which represent the areas of research, education and extension. The above objectives are pursued in the context of three thematic areas: (i) Financial inclusion of rural women and youth; (ii) Natural resource management and climate resilience; and (iii) Productive agricultural technologies (eg. water management technologies, conservation agriculture, drought-resilient crops). Strengthening KM capacities in these three areas facilitates collaboration and expansion of previous work undertaken by ICARDA and the SKiM implementing partners: Virginia Tech, CIHEAM-Bari, and PROCASUR. These thematic foci also encourage the development of strategic synergies with other IFAD-funded projects in the target regions, fostering mutual enhancement of KM systems and capacity development. Given IFAD's extensive network of assets and partnerships in R4D and South-to-South cooperation, such synergies increase the scaling-up of successful and innovative KM approaches and interventions.

Achievement of these objectives will result in the following **outcomes:**

(i) Improved understanding of KM capacities of the key rural institutions in 3 target countries.

(ii) Effective learning systems established and embedded in organizational processes with strengthened human and institutional capacities to manage the systematization of good practices.

(iii) Improved knowledge exchanges among stakeholders based on increased adoption of good practices and knowledge transfer for increased South-South and Triangular Cooperation (SSTC), replication and scaling up.

1.3. Project Components

The project is composed of the following three components, the focus and activities of which are summarized in Table 1.

Table 1. Project Components

Component 1: KM capacity assessment for enhanced formulation of learning needs
Focus: Undertake an assessment of the current state of knowledge management, knowledge sharing, and learning needs in target organizations to determine the project baseline and develop plans for addressing "KM gaps" through a KM Approach Paper, capacity development and innovation plans for the target countries, as well as the formation of Communities of Practice.

Activities: **1.1: Assessment of knowledge management capacity gaps and learning needs** **1.2: Formulation of Approach Paper on knowledge management and communication strategy** **1.3: Formulation of capacity development and innovation plans for the target countries** **1.4: Regional workshop to kick-start implementation plans and Community of Practice establishment**
Component 2: Capacity development and knowledge systematization
Focus: Develop and implement capacity development activities in target countries using training courses in KM best practices and learning routes in each project country.
Activities: **2.1: Delivery of on-demand training courses in knowledge management and capacity development best practice** **2.2: Organization of at least 3 learning routes in the target countries**
Component 3: Enhanced regional knowledge exchange
Focus: Developing tools and activities that promote knowledge sharing within and across target regions
Activities: **3.1: Set-up and regular maintenance of online portal that builds upon previous tools and capacities** **3.2: Roll-out of five knowledge symposia** **3.3: Development and dissemination of knowledge products**

1.4 Project Management Structure

The SKiM project is organized to facilitate collaboration between international and national management bodies (See Figure 1 and Figure 2). The project is overseen by a steering committee in which the secretary is the project leader on behalf of the lead organization administering the funds provided by the donor. The Project Leader is supported by a core team within the project management unit. Project activities are implemented at the global and country level by national and international partners. At the national level, a technical team coordinated by a national focal point supports the implementation of activities and is overseen by the country steering committee representative.

Figure 1. Project Organization and Information Chart

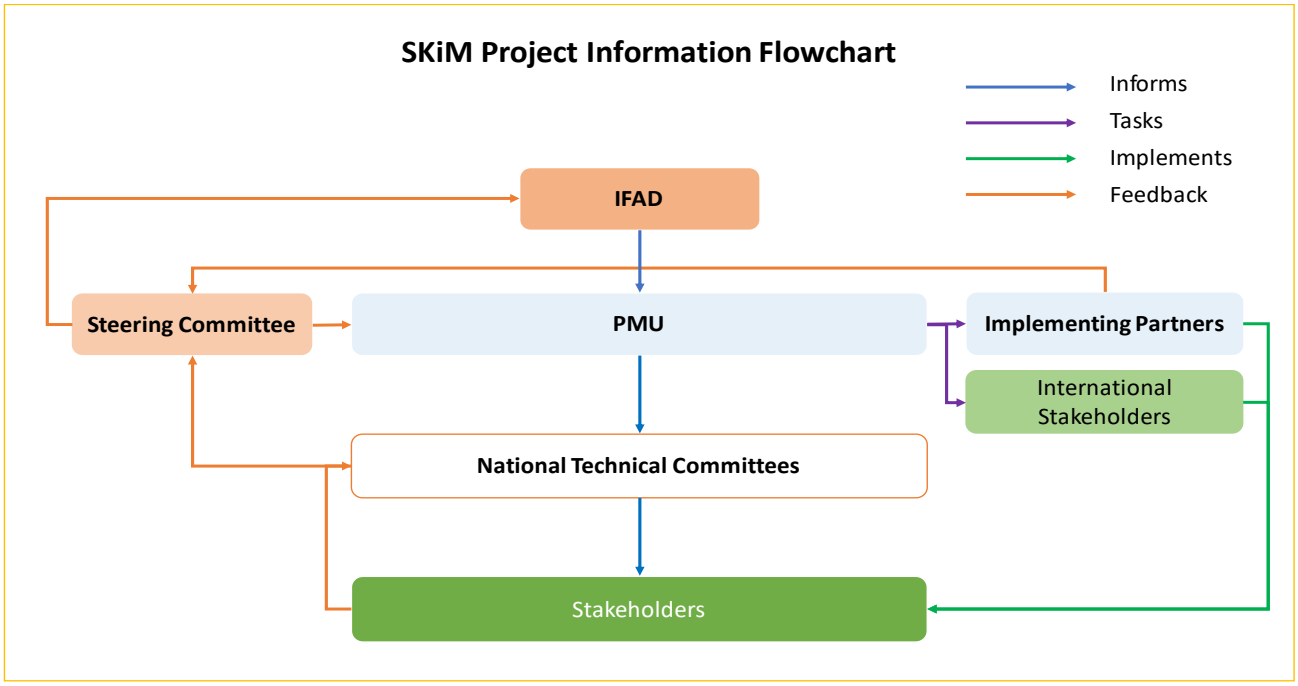
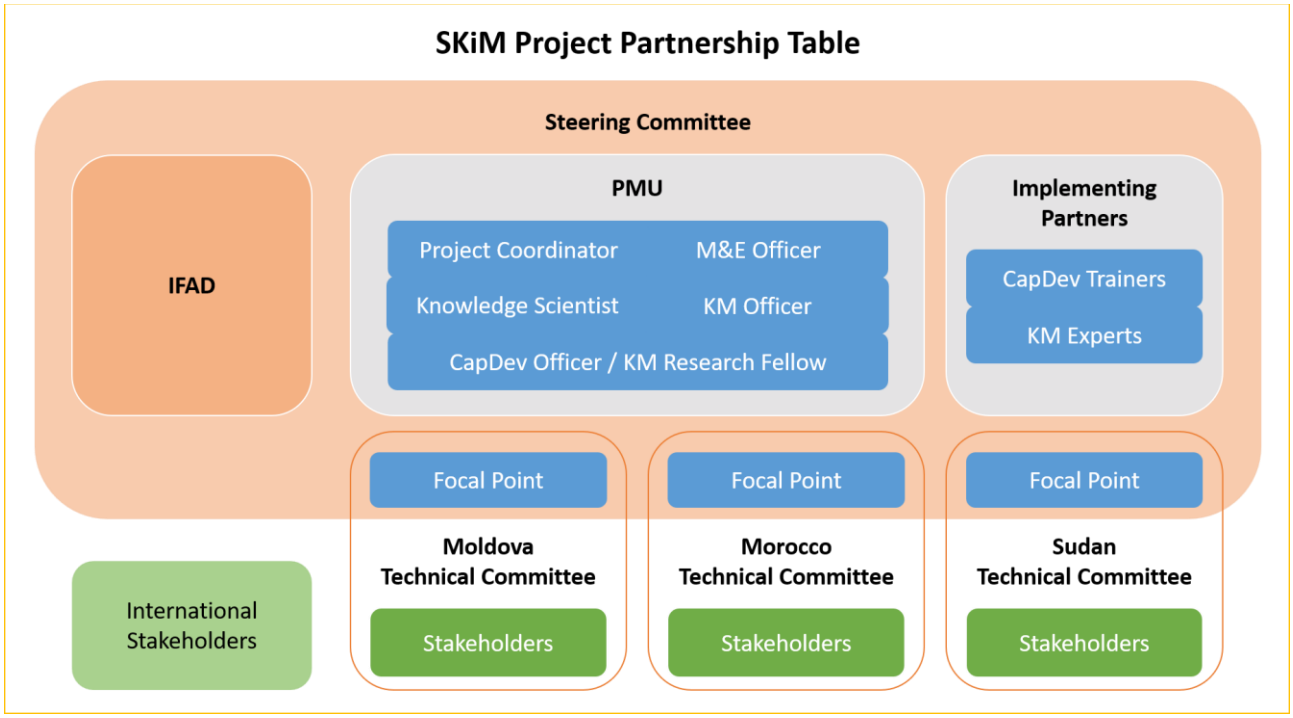


Figure 2. SKiM Project Partnership Table



1.5 Purpose of This Document

This document presents the Monitoring and Evaluation (M&E) Plan for the SKiM project. The purpose of the Plan is to provide project stakeholders an overview of the design and implementation of M&E processes in the context of the project's Results-Based Logical Framework, as well as the strategic frameworks of ICARDA, CGIAR, and IFAD. The document outlines indicators for project results and explaining how they will be measured, how data is collected, and the associated knowledge management strategies for data treatment. This plan, to be updated throughout the project life, also details the iterative processes of reflection, learning and adaptation in order to continually improve M&E measures in the context of the project's objectives. The implementation structure of the monitoring processes is also described, outlining the roles and responsibilities of key personnel and the organizational structure for reporting. Lastly, plans are presented for greater integration of M&E measures into project annual planning and for improving feedback mechanisms, concluding in action points for follow-up.

2. Frameworks

This section provides an overview of the M&E components that comprise the SKiM Project and how project progress will be assessed. The Results-Based Logical Framework (Table 2) summarizes the performance and impact indicators derived from project objectives and activities, and the Impact Pathway will further detail the relationships between activities, outputs, outcomes and impacts. Note that the Logical Framework and Impact Pathway presented in this section were created at the initiation of the project. After careful review of project progress towards objectives and targets in the first two years since implementation, suggestions for revision of these M&E system components will be presented in Section 4. This section also contains an analysis of SKiM Project Outcomes in relation to the Strategic Research Framework (SRF) of IFAD, CGIAR, and ICARDA. These analyses will inform the selection of relevant indicators to form the revised project impact pathway.

2.1 Results-Based Logical Framework

The SKiM Project's Results-Based Logical Framework is presented in Table 2.

Table 2. Results-Based Logical Framework

Level	Objectives-hierarchy	Objectively verifiable indicators	Means of verification	Assumptions
Goal	Develop effective and long-term knowledge management-related capacities in target countries (#5)	• Increased budgetary commitment for KM-related activities (target >= 60% of participating rural institutions)	• Final independent evaluation report • National institutions budget plan for the 3-5-10 year plan after the closure of the project and if not available survey of key stakeholders on their commitments to KM activities.	Institutional commitment to KM-related investments

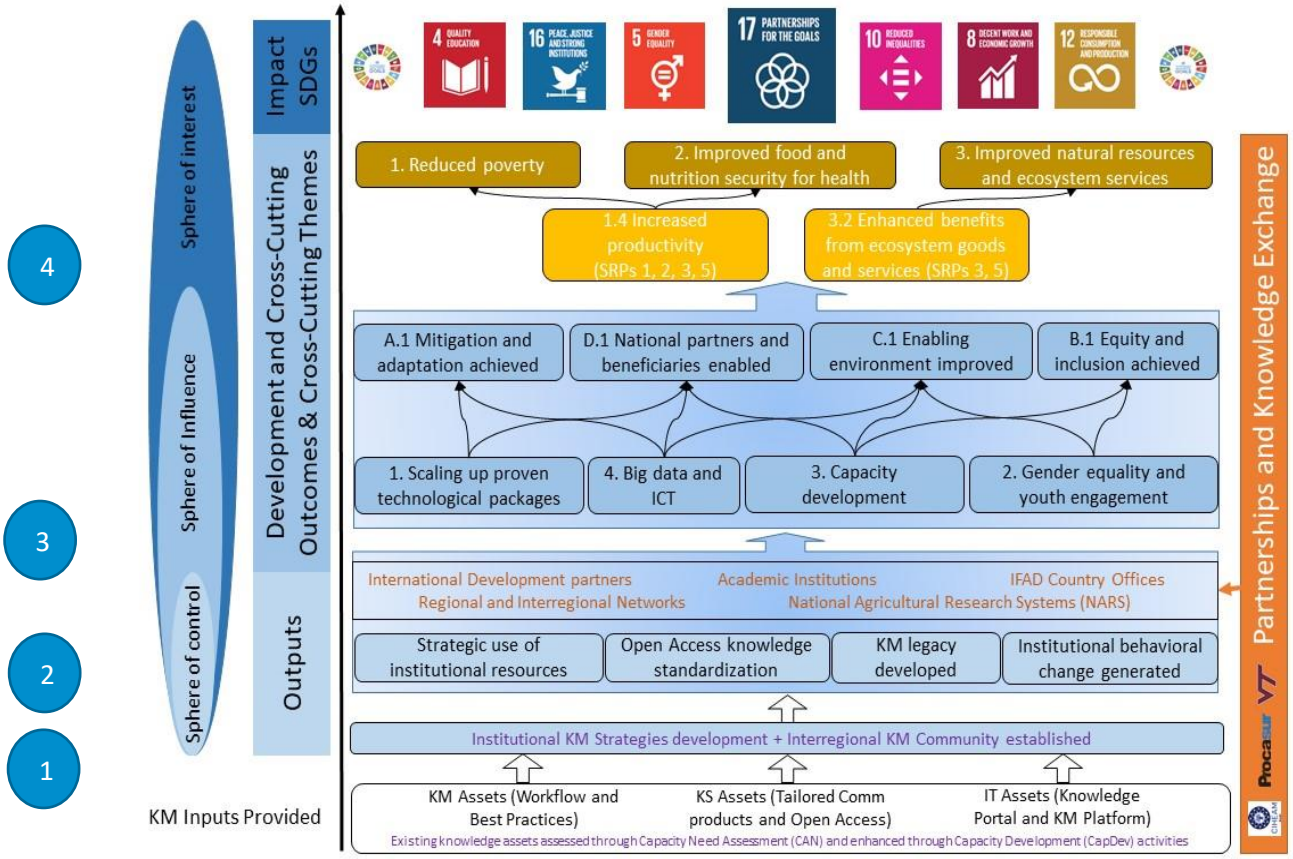
Level	Objectives-hierarchy	Objectively verifiable indicators	Means of verification	Assumptions
Objectives	1. Assess capacity and enhance knowledge management skills of key rural institutions and other stakeholders in Moldova, Morocco, and Sudan (with possibility to add two other countries) 2. Foster and promote knowledge exchange in-country, cross-country and among trans-regional partners to foster knowledge management and transfer	• Level of knowledge management skills of target institutions (target >= 80% of participating rural institutions) • Level of knowledge sharing capacity of target institutions among each other and across countries (target >= 80% of participating rural institutions)	• Project mid-term external evaluation • Completion survey	National governments, particularly the ministries of agriculture and other relevant institutions, are willing to improve their KM systems, instruments and processes. Commitments to upscale and replicate by development partners.
Outcomes	1. Improved understanding of KM capacities of the key rural institutions in 3 (+2) target countries in NEN region 2. Effective learning systems established and embedded across organizational processes with strengthened human and institutional capacities to manage the systematization of good practices 3. Improved knowledge exchanges among stakeholders based on increased adoption of good practices and knowledge transfer for increased SSTC, replication and scaling up.	• Number of participants adopting improved KM approaches and practices in their particular function (target >= 60%) • Frequency of use of knowledge products (target = 600 downloads per year and 3,000 visits per year) • Number of innovation platforms, learning alliances, CoPs or other multi-stakeholder platforms established (target = 3)	• Project KM assessments (method: systems analysis disaggregated by theme, gender and country) • Project evaluations • Online tracking tools • Survey on adaptation patterns/behavioral changes among target groups	High commitment and sense of ownership from relevant rural institutions, as well as individual officers, particularly, those in strategic positions, to engage in the process. International development partners are supportive and acknowledge the progress and updates.
Outputs	Components: 1. KM capacity assessment for enhanced formulation of learning needs 2. Capacity development and knowledge systematization 3. Enhanced regional knowledge exchange	• Number of KM capacity & learning needs assessments (gap analysis) conducted (Target: at least 5 pre-selected institutions per country) • Number of Approach Paper developed • Number of KM training courses organized (target = 8; at least 160 participants; >=80% satisfaction/effectiveness rate) • Number of learning routes organized (target=3; at least 75 participants, >=80% satisfaction/ effectiveness rate) • Number of symposia rolled-out at country level (target = 5, >= 80% satisfaction/effectiveness rate) • Number of knowledge products generated (target = minimum of	• Project KM assessments • Peer-reviewed papers submitted and accepted for publication • Attendance records and online surveys and key informant interviews to assess the level of satisfaction and effectiveness of training, learning routes, symposia and knowledge products	Commitment and participation of target group and effective collaboration with strategic partners.

Level	Objectives-hierarchy	Objectively verifiable indicators	Means of verification	Assumptions
		30 produced and disseminated to 5,000 people) • Online interoperable repository and portal established		

2.2 Impact Pathway and Theory of Change

Impact pathways are used to visualize a Theory of Change (TOC) (Section2.3), describing the causal interrelationships between project activities, outputs, outcomes, and impacts. Figure 2 illustrates the proposed Impact Pathway of the SKiM project, detailing how the project activities and inputs will contribute to CGIAR IDOs, SLOs, and the Sustainable Development Goals (SDGs) outlined by the United Nations.

Figure 3. Project Impact Pathway



This impact pathway was designed at the inception of the project in 2018. Although a TOC was not determined at this time, the impact pathway is published in SKiM documents and the website, accompanied by the following text:

Knowledge Management Strategic Objective (KMSO) 1 is based on Objective 1 "Assess the capacity and enhance KM skills" of the project, and related activities under the Output "Knowledge Management capacity assessment for an enhanced formulation of learning needs". It also contributes to Objective 2 "Foster and promotes knowledge exchange in-country, cross-country, and trans-regionally". While the KMSO1 will be sustained by different activities in all components, it finds its main support from activities in the Outputs

"Capacity development and knowledge systematization" and "Enhanced regional knowledge exchange". In addition, this objective will be contributed by specific activities presented in the Knowledge Management work packages section. Overall, KMSO1 will contribute to the Project Outcomes "Effective learning systems established and embedded in organizational processes with strengthened human and institutional capacities to manage the systematization of good practices" and "Improved knowledge exchanges among stakeholders based on increased adoption of good practices and knowledge transfer for increased SSTC, replication and scaling up", and will be measured by related indicators. Knowledge Management Strategic Objective (KMSO) 2 is mainly focused on activities under the Outputs "Capacity development and knowledge systematization" and "Enhanced regional knowledge exchange", while contributing to the Project Outcome "Effective learning systems established and embedded in organizational processes with strengthened human and institutional capacities to manage the systematization of good practices". In addition, this objective will be contributed by specific activities presented in the Knowledge Management work packages section. Knowledge Management Strategic Objective (KMSO) 3 is grounded on the Output 1 "Knowledge Management capacity assessment for enhanced formulation of learning needs" and is supported by activities in the Output "Enhanced regional knowledge exchange". It links to the Project Objective 2 "Foster and promote knowledge exchange across in-country, cross-country and trans-regionally" and contributes to the Outcome "Improved knowledge exchanges among stakeholders based on increased adoption of good practices and knowledge transfer for increased SSTC, replication and scaling up". This objective will be contributed by specific activities presented in the Knowledge Management work packages section.

According to the IFAD Evaluation manual (see Annex V), a TOC "articulates how activities are linked to outcome and impact, clearly outlining the assumptions behind, including the implicit assumptions." The TOC is a living document, to be continually adapted throughout the project based on lessons learned (See Section 4).

2.3 Risks and Assumptions

Although the original SKiM impact pathway did not include a formal TOC, the risks and assumptions that are embedded in the interrelationships (as signified by the arrows in Figure 3) between different components of the impact pathway are described retroactively. Below, are the SKiM Indicators with proposed actionable risk mitigation measures.

Table 3. SKiM Indicators with proposed actionable risk mitigation measures.

N.	Risk	Indicators	Assumption	Risk mitigation measure
1	The assessment methodology might in-part rely on institutions to self-evaluate their KM capacity, which can lead to biases or inaccurate self-assessment of capacity development needs in certain areas.	Increased budgetary commitment for KM-related activities; Number of participants adopting improved KM approaches and practices in their particular function;	Project stakeholders will fully participate in a capacity needs assessment in order for the results to accurately inform the capacity development activities and knowledge products.	This risk can be mitigated by approaching the assessment through multiple participatory methods, including surveys, writeshops, and a regional workshop, in order to acquire a nuanced understanding of KM gaps in key rural institutions and develop appropriate responses.
2	Stakeholders might not have the resources to build and maintain KM systems that interlink with those of other national institutions, potentially causing fragmentation of KM systems at the country-level and replication of innovations.	KM Approach Paper Developed; Number of KM training courses organized; Number of Learning Routes organized; Number of symposia organized at the country level; Number of knowledge products generated;	Through establishing effective learning systems through targeted trainings and capacity development activities, key rural institutions operating at the country level will develop stronger KM systems. This requires commitment and sense of ownership from relevant rural institutions, as well as individual officers, particularly, those in strategic positions, to engage in the process of KM system enhancement.	Can be mitigated by emphasizing systematization of good KM practices across institutions and the building of partnerships through multi-stakeholder platforms, strengthening partnerships at the country level.
3	Innovations not being widely and openly disseminated due to weak KM networks can be mitigated through increased emphasis on building partnerships not just at the country-level, but across regions through symposium events, learning routes, and other international capacity development activities.	Dissemination of knowledge products; Online interoperable repository and portal established;	Dissemination of these innovations through enhanced knowledge sharing mechanisms will increase transparency and contribute to an enabling policy and regulatory environment that facilitates the spread of information across public and private spheres. Replication and scaling up of successful KM interventions have the potential to influence KM policies at an international level.	
4	KM systems of participating institutions are not accessible to end-users from all demographics, including	Number of innovation platforms, learning alliances, CoPs and/or other multi-stakeholder platforms established; Number of KM capacity and learning needs assessments (gap analysis) conducted;	The direct beneficiaries of SKiM activities, and thus the primary target of SKiM outcomes, are people working in national public institutions across target countries that can most benefit from enhanced KM	

	women and youth, so that they might be equally equipped with the knowledge to participate in informed decision-making processes. This risk can be mitigated through employing multiple levels of supervision and internal organization in each target country, as well as the implementation of a KM Plan to outline the personnel, processes and tools that will be managed to ensure impacts and effective learning among project participants.	Number of men and women participating in KM-related capacity development activities	systems. It is expected that through targeting these institutions and empowering them through capacity strengthening, the project impact will be extended to indirect beneficiaries; through enhanced KM systems, rural institutions will become more inclusive and effective training and knowledge sharing mechanisms.	
5	Novel COVID-19 Coronavirus Pandemic brought the whole world to a standstill. Countries all over the world faced unprecedented lockdowns, travel restrictions which hampered the effective progress of the project activities.	Number of KM training courses organized; Number of Learning Routes organized; Number of symposia organized at the country level; Number of men and women participating in KM-related capacity development activities;	PMU and the Project stakeholders will be able to facilitate in-person meetings, trainings, and project activities in target countries.	Virtual meetings were held to facilitate project information sharing and planning with international partners, as well as with national implementing partners and institutions.

2.4 Alignment with Strategic Frameworks

2.4.1 IFAD Strategic Framework

The IFAD Strategic Framework (2016 - 2025) highlights IFAD's comparative advantage of having decades of experience shaping national policies and programs in international development, working with governments and other stakeholders from both public and private sectors all over the world. This advantage lends IFAD a unique opportunity to leverage knowledge from a great diversity of country contexts, drawing on a wide range of experiences in order to shape agriculture and rural development policy discourse on a global level. As such, the framework highlights knowledge management as the necessary condition for targeted data collection, effective results measurement, and systematic dissemination of lessons learned. The 2019 IFAD Knowledge Management Strategy acknowledges the advantage of IFAD's well-developed network of country programmes and cites a need for greater systemization of knowledge generated at the country level with thematic knowledge developed across countries to improve IFAD's broader knowledge base. Through developing strategic synergies across on-going IFAD projects in target countries, SKiM will contribute to this objective and thereby facilitate greater connections between IFAD units, external partners, and regional networks of stakeholders.

Figure 4 offers an interpretation of how elements of the SKiM project align with certain aspects of the IFAD Strategic Research Framework (SRF) (for full IFAD framework, see Annex I). As illustrated, the first SKiM Project Outcome (SKO1) most directly contributes to SKOs 2 and 3. This is because an improved understanding of the knowledge management capacities of the key rural institutions in SKiM project countries is integral to establishing learning systems (SKO2) and improving knowledge exchanges (SKO3). In order to fulfill SKO1, an assessment is conducted in the early phase of the project to evaluate KM capacity gaps in participating institutions for enhanced formulation of learning needs. It is assumed that these stakeholders will fully participate in the assessment in order for the results to accurately inform the capacity development activities and knowledge products that contribute to SKO2 and SKO3. However, there is a risk that the assessment methodology might in-part rely on institutions to self-evaluate their KM capacity, which can lead to biases or inaccurate self-assessment of capacity development needs in certain areas. This risk is somewhat mitigated by approaching SKO1 through multiple participatory methods of assessment, including surveys, writeshops, and a regional workshop, in order to acquire a nuanced understanding of KM gaps in key rural institutions and develop appropriate responses.

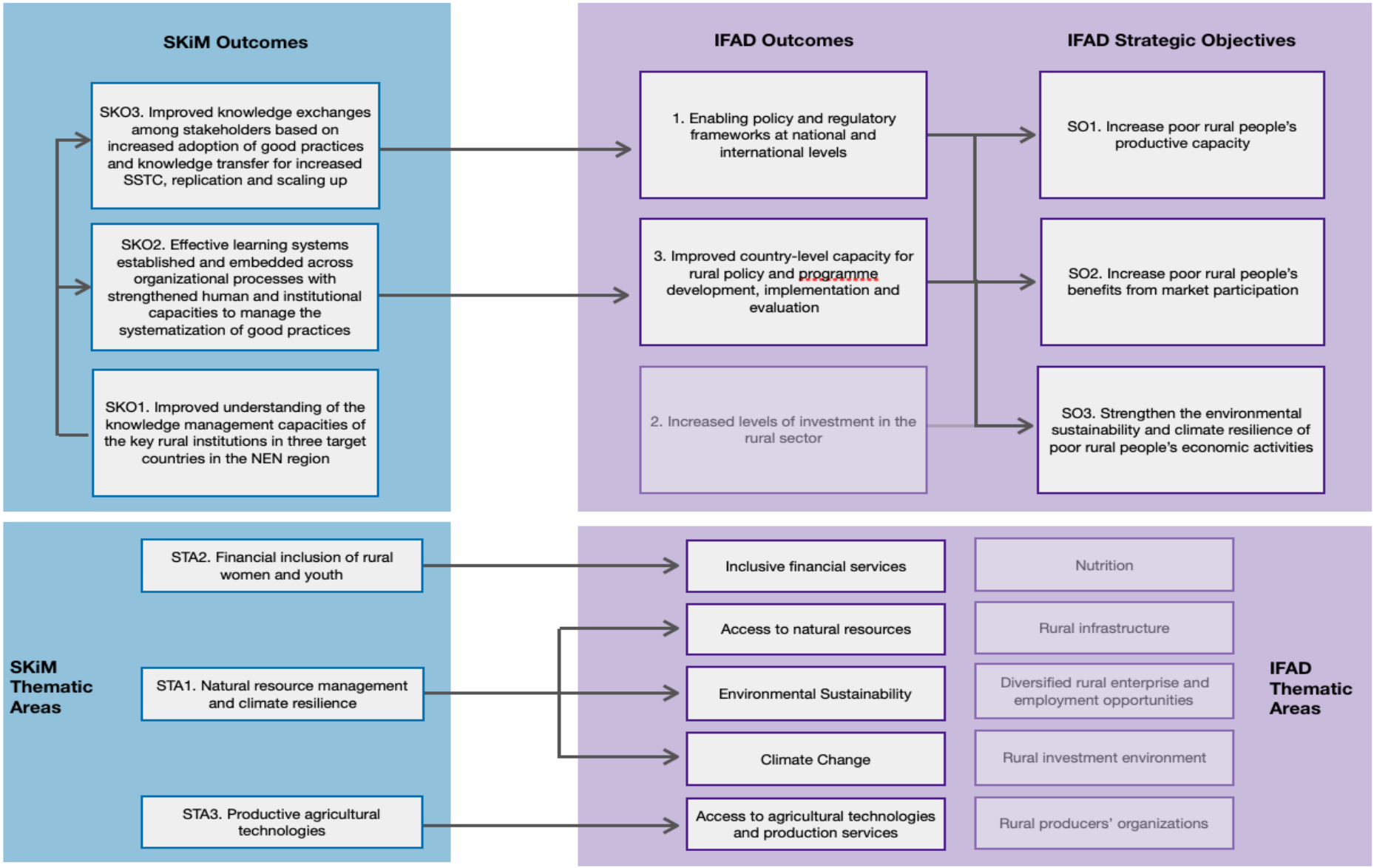
The chart shows how SKO2 corresponds with and contributes to IFAD Outcome 3, "Improved country-level capacity for rural policy and program development, implementation and evaluation." It is assumed that through establishing effective learning systems through targeted trainings and capacity development activities, key rural institutions operating at the country level will develop stronger KM systems. It is through better organizational management of knowledge assets that these institutions will then improve their capacity to develop, implement, and evaluate research programs. The risk with this assumption is that stakeholders might not have the resources to build and maintain KM systems that interlink with those of other national institutions, potentially causing fragmentation of KM systems at the country-level and replication of innovations. That is why SKO2 emphasizes systematization of good KM practices across institutions and the building of partnerships through multi-stakeholder platforms, strengthening partnerships at the country level.

Figure 4 also details how SKO3 corresponds with and contributes to IFAD Outcome 1, "Enabling policy and regulatory frameworks at national and international levels." This is because in line with IFAD's understanding of KM efforts detailed in the IFAD Evaluation manual (see Annex V), the project aims to identify, develop and promote successful and innovative approaches and interventions that have demonstrated potential to be scaled up. The dissemination of these innovations through enhanced knowledge sharing mechanisms will increase transparency and contribute to an enabling policy and regulatory environment that facilitates the spread of information across public and private spheres. This assumes that replication and scaling up of successful KM interventions have the potential to influence KM policies at an international level. The risk of innovations not being widely and openly disseminated can be mitigated through increased emphasis on building partnerships not just at the country-level, but across regions through symposium events, learning routes, and other international capacity development activities.

The direct beneficiaries of SKiM activities, and thus the primary target of SKiM outcomes, are people working in national public institutions across target countries that can most benefit from enhanced KM systems. It is expected that through targeting these institutions and empowering them through capacity strengthening, the project impact will be extended to indirect beneficiaries; through enhanced KM systems, rural institutions will become more inclusive and effective training and knowledge sharing mechanisms. It is therefore also expected that through helping fulfill IFAD Outcomes, SKiM will indirectly contribute to IFAD's three Strategic Objectives: (1) Increase poor rural people's productive capacity, (2) Increase poor rural people's benefits from market participation, (3) Strengthen the environmental sustainability and climate resilience of poor rural people's economic activities.

The SKiM project fosters improved knowledge exchange and systemization of solutions for the following thematic areas (i) Financial inclusion of rural women and youth; (ii) Natural resource management and climate resilience; and (iii) Productive agricultural technologies (eg. water management technologies, conservation agriculture, drought-resilient crops). These areas correspond with several highlighted areas of thematic focus identified in IFAD's Strategic Framework (see Figure 4): Inclusive financial services, access to natural resources, environmental sustainability, climate change, and access to agricultural technologies and production services. Other IFAD areas of thematic focus that do not directly correspond with those of SKiM are included, but not highlighted.

Figure 4. Alignment with IFAD Strategic Framework 2016-2022



2.4.2 CGIAR-GLDC Strategic Framework

As ICARDA is one of 15 CGIAR research centers, the SKiM project is mapped to the CGIAR CRP (CGIAR Research Program) Grains Legumes and Dryland Cereals (GLDC). One of GLDC's primary objectives is to conduct research on new and innovative ways to address the grand challenge of underperforming agri-food systems and how they can be transformed into well-functioning systems at scale with greater productivity, profitability, and economic benefits from market demand and linkages, value chain development and improved grain legume/dryland cereal technologies and management practices.

The SKiM project contributes to the fulfillment of this objective by working with identified institutions in countries that conduct agriculture research involving GLDC key crops. SKiM activities focus on making the required knowledge available to institutions across one of three thematic areas of work: productive agricultural technologies, including drought-resilient curtails and legume crops (e.g. pearl and finger millet). In line with GLDC cross-cutting themes (see link to GLDC SRF, Annex V), the SKiM approach to partnership building, being aimed at youth and gender sensitive stakeholders in the target countries, as well as knowledge generating, storing and transferring actors in the respective agri-foods systems, including science-policy and academia-entrepreneurship interfaces for better livelihoods in low- and middle-income countries. SKiM activities include gender-focused outputs (including training and gender-specific knowledge products) to ensure that both rural men and women benefit from strengthened knowledge management systems, and by building upon and extending previous work undertaken by ICARDA, CIHEAM-Bari and VT in the promotion of gender-sensitive approaches in value chains and knowledge management. Furthermore, these activities will take place in Sudan, one of GLDC's 13 priority countries, with parallel initiatives implemented in Moldova and Morocco.

The GLDC CRP is structured through 5 Flagship Programs (see Annex IV) that inform research planning. The SKiM project is mapped to the first Flagship Program (FP1): Priority Setting and Impact Acceleration. The overall objective of FP1 is to ensure that GLDC research is demand-driven, outcome-focused, inclusive, and scalable with high potential for large impact contributing to the SRF and SDGs. Building on previous achievements, FP1 will generate evidence and support learning on GLDC innovations with the largest development impact. FP1 will facilitate these processes across all GLDC FPs and thereby achieve:

- Improved targeting and responsiveness of research to end-user demands for accelerated scaling and impact of research outputs;
- Development of more inclusive technologies and related innovations; and
- Dissemination of evidence to enable scaling up.

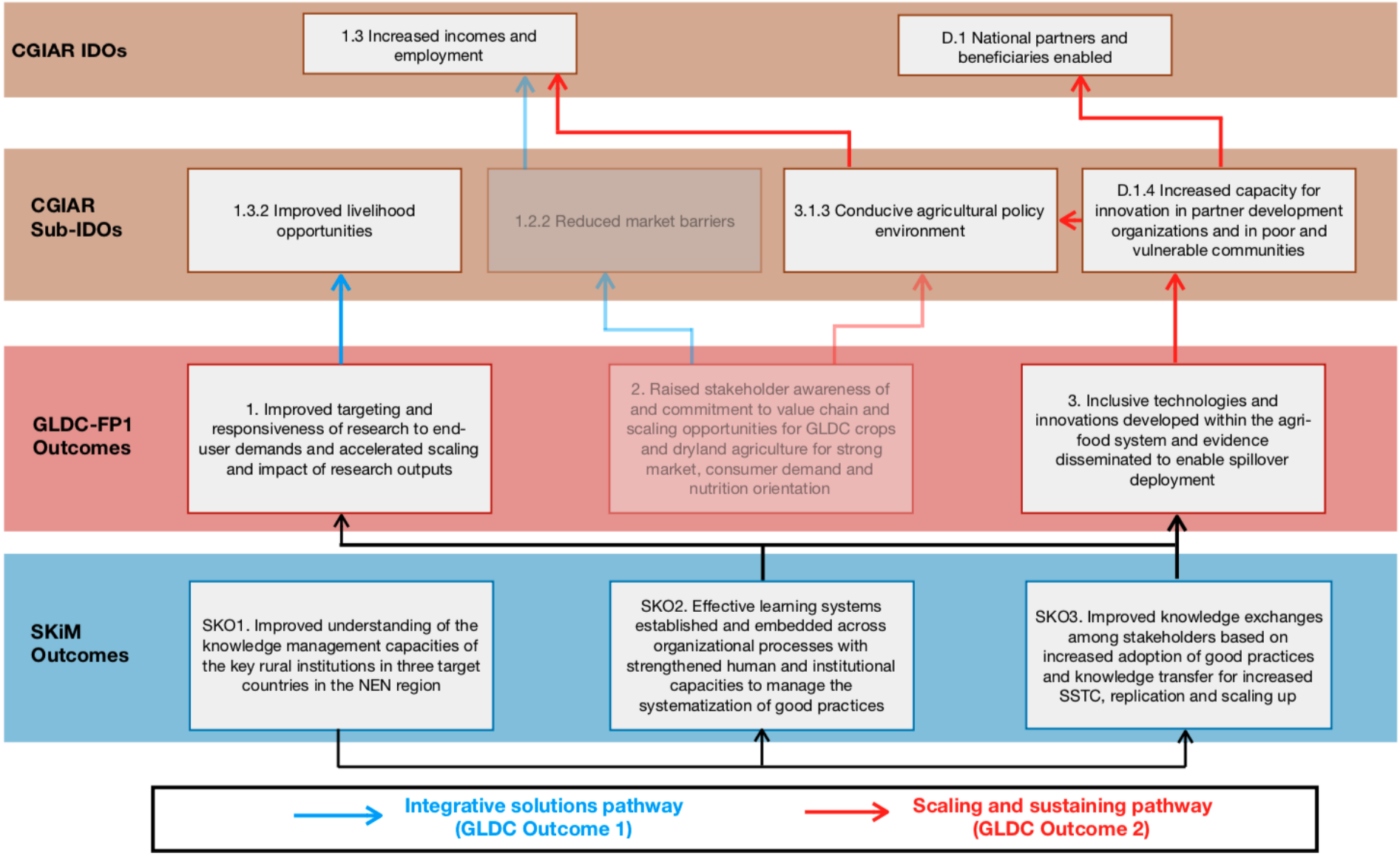
Following these objectives, Figure 5 illustrates how SKiM outcomes correspond with GLDC-FP1 outcomes and thereby contribute to GLDC-FP1 Impact Pathway (for full FP1 Impact Pathway, see Annex II). As discussed with regard to the IFAD framework, SKO1 directly contributes to SKO2 and SKO3 as a necessary preliminary step to developing targeted interventions in order to establish learning systems (SKO2) and improve knowledge exchanges (SKO3) (see Section 2.3.1).

Figure 5 also shows how SKO2 and SKO3 collectively factor into the GLDC FP1 Impact Pathway by contributing to the fulfillment of GLDC FP1 Outcomes 1 and 3. By enhancing KM systems in participating institutions and improving knowledge transfer between these institutions, stakeholders will have greater access to

knowledge in which to improve targeting and responsiveness of research to end-user demands (GLDC-FP1 Outcome 1). This assumes that these institutions have the resources to actively maintain their KM systems to facilitate overall responsiveness and targeting mechanisms. However, the risk remains that even with these resources, the data might not have the scope to be extrapolated for accurate targeting. This risk can be mitigated through project activities facilitating enhanced knowledge systematization, regional knowledge exchange, and establishment of effective learning systems.

SKO2 and SKO3 also contribute to GLDC-FP1 Outcome 3 by ensuring appropriate dissemination and maintenance of knowledge, and to build the capacity and development effectiveness in rural areas through effective management and sharing for public institutions, as well as NGOs, community-based organizations and the private sector for longer term growth and development. This rests on the assumption that stakeholders will use their respective and interlinked KM systems effectively, adopting best practices to facilitate the dissemination of inclusive technologies and innovations. To mitigate the risk underlying this assumption, SKiM activities must emphasize the benefits of utilizing such best practices in order to incentivize institutional investment in KM system enhancement.

Figure 5. Alignment with GLDC-CGIAR FP1 Strategic Research Framework (2018-2022



2.4.3 Alignment with CGIAR Framework

In accordance with its goals and objectives, the SKiM Project outcomes are closely aligned with aspects of the CGIAR Strategy and Results Framework (2016-2030). Areas where the SKiM project contributes to the CGIAR SRF are presented in Figure 6 (for the full CGIAR SRF see Annex IV). As illustrated in Figure 6, GLDC and GLDC-FP1 frameworks contain numerous overlapping aspects across SLO, CCT, IDO, and Sub-IDO levels.

As illustrated in Figure 6, the SKiM project contributes to CGIAR's SLO1: Reduced Poverty, as well as three Cross-Cutting Themes (CCT)s: CCT-B Gender and Youth, CCT-C Policies and Institutions, and CCT-D Capacity Development. The project activities work towards the fulfillment of these overarching themes and outcomes in part through strategic partnerships. In order to effectively implement capacity development activities in target countries, the SKiM project must also partner with country-level institutions in order to navigate the agricultural policy and institutional environment in which the KM system is embedded. This is why ICARDA leverages the knowledge of its implementing partners to conduct specialized trainings across target countries. For example, ICARDA is partnering with CIHEAM-BARI to jointly nurture the entrepreneurial capacity of women and youth through established networks in the Mediterranean region and to share lessons learned in Central Asia and Europe. Experience by Virginia Tech is tapped through joint development and provision of training to rural women and youth in building their employment capacity. Organizationally, learning activities is delivered through targeted training courses in participating countries and, in collaboration with PROCASUR, through 'learning routes' to promote cross regional exchange of experiences.

As discussed in previous sections (2.3.1), fulfillment of SKO1 facilitates SKO2 and SKO3. SKO2 focuses on the development and implementation of capacity development activities that work to fulfill the IDO and Sub-IDOs highlighted under CCT-D. Through tailored innovative approaches to KM enhancement at the country-level, SKiM focuses on institutions as the primary beneficiaries of strengthened KM capacities and knowledge systematization. Capacity development activities involve using a variety of mediums to train stakeholders on deeper analysis of results and lessons from operations, systematic management of data and evidence of effectiveness, proactive mobilization of knowledge from partners, and a strategic approach to internal and external knowledge sharing and communication that assembles and conveys knowledge and evidence tailored to specific needs of different audiences.

By strengthening institutional capacity of partner research organizations (D.1.1) through enhanced KM systems, the SKO2 will also indirectly increase the capacity of beneficiaries to adopt research outputs. SKO3 also contributes to this outcome through helping stakeholders develop best practices for knowledge transfer for increased SSTC and scaling-up. Enhanced regional knowledge exchange facilitates greater levels of institutional collaboration and thus improves the enabling environment for agricultural policy development. In addition, the project seeks to improve knowledge exchange among stakeholders from all demographics to create inclusive KM systems, building upon and extending previous work undertaken by ICARDA, CIHEAM-Bari and VT in the promotion of gender-sensitive approaches in value chains and knowledge management. Therefore, working to increase the capacities of beneficiaries to adopt research outputs (C.1.1), in accordance with STA2, can lead to improved capacity of women and young people to participate in decision-making, facilitating greater equity and inclusion in KM processes.

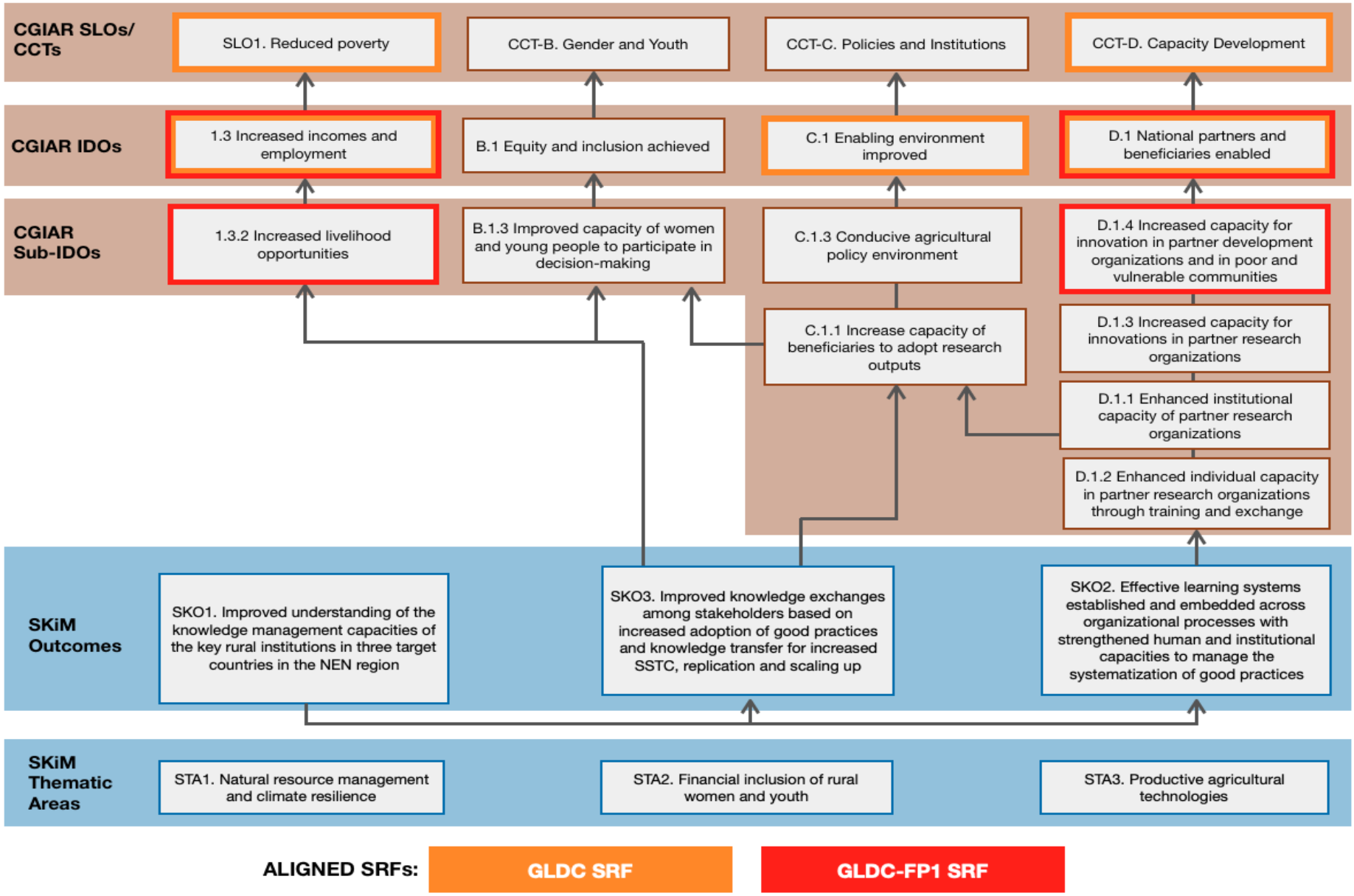
Working towards improved knowledge exchanges among stakeholders, SKO3 activities include the organization of international symposia, the creation of an online KM portal, and training in development and dissemination of knowledge products and communication materials. Through improving the capacity of stakeholders to exchange and disseminate knowledge products, SKO3 helps render agriculture-related knowledge more accessible for different audiences. As participating agriculture research institutions are generally focused on ecologically sustainable and economically efficient innovations, enhanced KM systems can lead to better practices in natural resource management and climate resilience (STA1) as well as productive agricultural technologies (STA3). The effective dissemination of knowledge and innovations by institutions across these thematic areas will help increase livelihood opportunities, increasing incomes and employment, and thereby contribute to reducing poverty (CGIAR SLO1).

The efficacy of the SKOs in contributing to the highlighted aspects of the CGIAR SRF rests on the following assumptions:

- High commitment and sense of ownership from relevant rural institutions, as well as individual officers, particularly, those in strategic positions, to engage in the process of KM system enhancement.
- Participating institutions are committed to the development and dissemination of innovative approaches to agriculture that prioritize productivity and ecological sustainability (including areas described by STA1 and STA3).
- Participating institutions ensure that their enhanced KM systems are accessible to end-users from all demographics, including women and youth, so that they might be equally equipped with the knowledge to participate in informed decision-making processes.
- Institutions that receive capacity development trainings engage in exchanges with partner research organizations in order to scale-up the impact of the trainings and potential for benefits to end-users.

The risks underlying these assumptions will be mitigated through employing multiple levels of supervision and internal organization in each target country, as well as the implementation of a KM Plan to outline the personnel, processes and tools that will be managed to ensure impacts and effective learning among project participants. Project coordinators (called National Focal Points) are established the country-level in order to test and validate KM methods and tools, provide capacity building and technical assistance in learning-oriented project management to benefitting entities, and establish and support KM and learning networks and partnerships within the country. Working together with the international SKiM Project Team, these in-country coordinators help facilitate collaboration with national partners for sustained engagement in project objectives. The establishment and maintenance of these multi-tiered project management structures helps ensure continued engagement and feedback at all levels to facilitate fulfillment of project objectives.

Figure 6. Alignment with CGIAR Strategy and Results Framework (2016-2030)



2.4.4 Alignment with ICARDA Strategic Plan 2017-2026

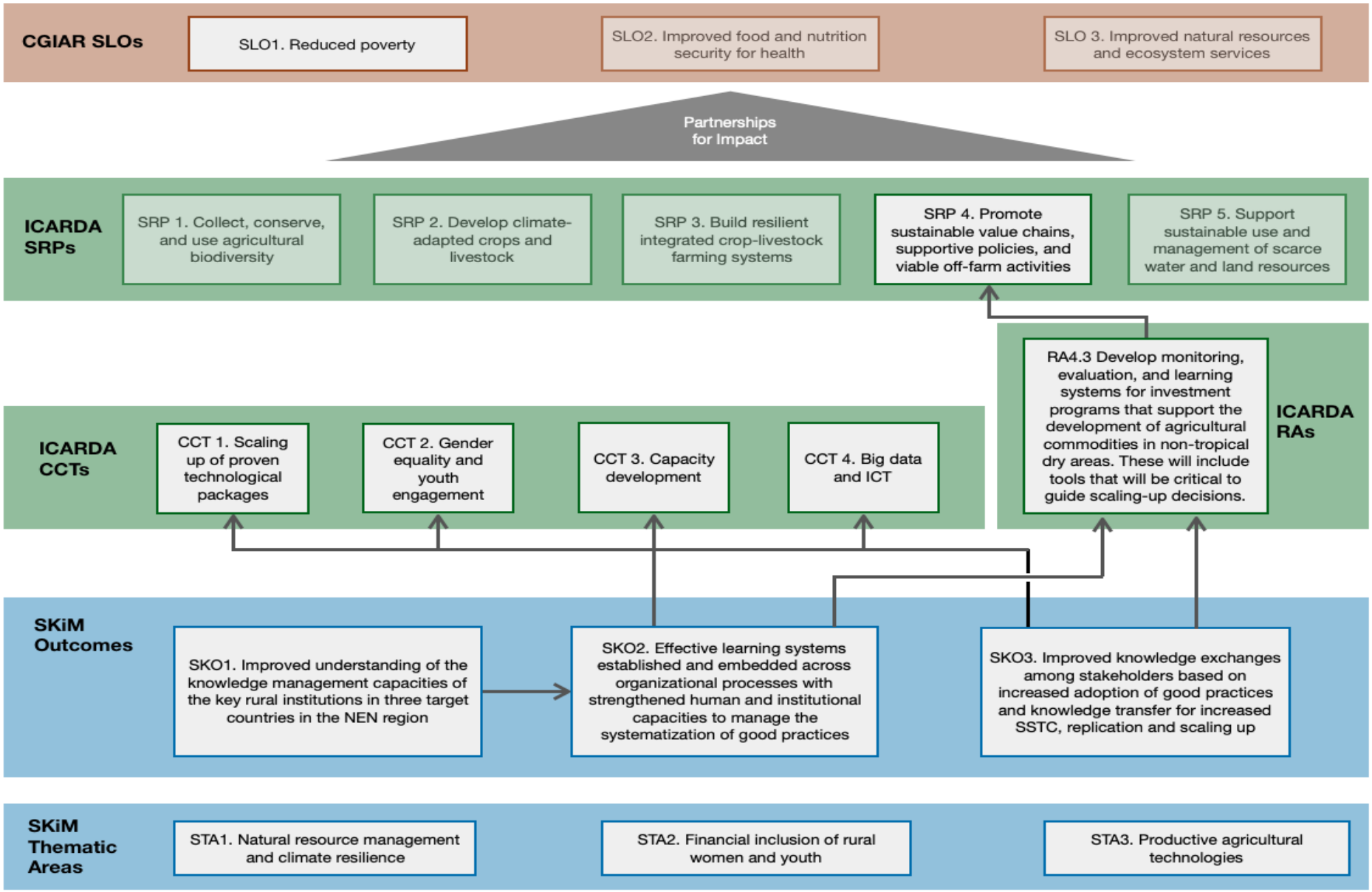
As ICARDA is the managing organization of the SKiM project, the project has been mapped within the Strategic Research Priorities (SRPs), Cross-Cutting Themes (CCTs) and associated Research Areas (RAs) of the ICARDA Strategic Plan 2017-2026 (see Annex V). The Strategic Plan is aligned with the national development priorities of the countries and regions in which ICARDA works, with the CGIAR Strategy and Results Framework 2016-2030 (see Annex IV), and with the UN Sustainable Development Goals. The core research and development agenda items of ICARDA are represented by five SRPs and four CCTs.

The SKiM Project has been mapped to SRP 4 "Promote sustainable value chains, supportive policies, and viable off-farm activities" as it is believed that targeted investments in improving the KM systems of rural institutions is necessary to the development of agronomic technologies, infrastructure, markets, and therefore effective value chains. This SRP values partnerships with stakeholders along the value chain as a critical catalytic agent in this process. The SKiM project is also highly focused on developing and maintaining strategic partnerships across NARS, governments, and agricultural extension services to help reduce poverty, thereby contributing to this SRP and the corresponding RA 4.3 "Develop monitoring, evaluation, and learning systems for investment programs that support the development of agricultural commodities in non-tropical dry areas. These will include tools that will be critical to guide scaling-up decisions." Figure 7 shows how SKiM project outcomes contribute to this SRP through corresponding with the activities outlined in RA 4.3.

The SKiM project outcomes are also closely aligned with three of the four ICARDA CCTs. Figure 7 illustrates how (as explained in prior sections) SKO1 serves as the necessary prerequisite to the fulfillment of SKO2 and SKO3, which subsequently contribute collectively to ICARDA's four CCTs. For example, SKO2 corresponds to capacity development through targeted training courses corresponding with institutions' KM needs. Through activities and trainings designed to improve knowledge exchange on a variety of thematic areas related to sustainable agriculture, SKO3 corresponds with ICARDA CCT1 and CCT4. Specifically, rural institutions working areas associated with the identified STAs will be guided toward the production of their own KM strategies, improving the efficacy of their services to benefit end-users and facilitate the scaling-up of proven technological packages. In addition, trainings on big data and ICT with participating institutions, including the launch of an online KM portal, is included in the overall strategy to fulfill STO2 and STO3. Finally, by stimulating engagement and knowledge transfer through the establishment of multi-stakeholder platforms and effective learning systems, STO2 and STO3 facilitate greater South-to-South dialogue. Such measures will work towards creating a common ground for intellectual resources accessible to all sectors of society, including women and youth, so they may equally benefit from innovative technologies and associated financial opportunities (ICARDA CCT2).

The assumptions and associated risks with this logic do not differ from those describing SKiM contributions to the CGIAR SRF and are therefore elaborated in section 2.4.3.

Figure 7. Alignment with ICARDA Strategic Plan 2017-2026



3. Performance Monitoring System

The SKiM M&E system includes the tracking of indicators to assess the project's overall progress towards objectives and targets, and, in addition, engagement with stakeholders to understand why or why not such objectives are being met. This requires the integration of quantitative and qualitative methods. In monitoring of outputs, methods are employed to capture distributional effects of the project on different types of institutions (project beneficiaries), including the use of appropriate disaggregation, eg. gender disaggregation (men and women). The Logical Framework (Table 2) forms the basis of the M&E plan, with performance and impact indicators being derived from the project's objectives and activities.

The project will utilize an ICARDA-developed web-based knowledge sharing and monitoring, evaluation and learning (MEL) platform. This MEL platform already provides support to 198 research and development projects which seek to alleviate poverty, improve food, nutrition security and health and enhance natural resources systems and ecosystems services. The platform is currently used and funded by five IFAD large grants and other donors/projects. It bases its experience on a previous knowledge-sharing platform developed with the IFAD project, MENARID in several countries in the NENA region, and funded by GEF, IFAD and the World Bank.

The monitoring and evaluation of this project includes both routine and periodic components. The following section will describe the plans for both levels of project monitoring, including descriptions of indicators at multiple result levels. Output indicators measure the creation of tangible products or services to be delivered in order to achieve desirable outcomes. Outcome indicators reflect the achievement of immediate or intermediate results of the activities and outputs, such as changes in behavior or increased skills. Successful outcomes contribute to fulfilling project objectives and goals, which measure longer-term impacts of project activities.

Table 4. SKiM Custom Indicators

SKiM Custom Indicators						
No.	**Indicator**	**Indicator Level**	**Source**	**Monitoring**	**Adaptation**	**Indicator Details**
1	Increased budgetary commitment for KM-related activities	Goal	SKiM LogFrame	Periodic		Link
2	Number of institutions reporting enhanced KM skills	Objective	SKiM LogFrame	Periodic		Link
3	Dissemination of knowledge products	Outcome	SKiM LogFrame	Periodic	Adapted from ICARDA Indicator No. 5, IFAD KM RMF 1.1.1, IFAD KM RMF 2.1	Link
4	Number of participants adopting improved KM approaches and practices in their particular function	Outcome	SKiM LogFrame	Periodic	Adapted from IFAD KM RMF 1.2.4	Link
5	Number of innovation platforms, learning alliances, CoPs and/or other multi-stakeholder platforms established	Outcome	SKiM LogFrame	Periodic	Adapted from IFAD RIMS Indicator Policy 2	Link
6	Number of KM capacity and learning needs assessments (gap analysis) conducted	Output	SKiM LogFrame	Periodic		Link
7	KM Approach Paper Developed	Output	SKiM LogFrame	Routine	Adapted from ICARDA Indicator No. 3	Link
8	Number of KM training courses organized	Output	SKiM LogFrame	Routine		Link
9	Number of Learning Routes organized	Output	SKiM LogFrame	Routine		Link
10	Number of symposia organized at the country level	Output	SKiM LogFrame	Routine		Link
11	Number of knowledge products generated	Output	SKiM LogFrame	Routine	Adapted from IFAD RIMS Indicator Policy 1	Link
12	Online interoperable repository and portal established	Output	SKiM LogFrame	Routine	Adapted from IFAD KM RMF 2.1	Link
13	Number of men and women participating in KM-related capacity development activities	Output	Adapted from #8 and 9	Routine	Adapted from ICARDA Indicator No. 7	Link

Outputs are often assessed on a regular basis throughout the project, whereas outcome, objective, and goal-level indicators are measured through periodic evaluations. Table 3 describes the indicators presented in the Results-Based Logical Framework (Table 2). If the indicator was adapted from an existing ICARDA or IFAD research framework, the source indicator is listed in the table below.

Table 5. Adapted Indicators (ICARDA and IFAD)

ICARDA[1]					
2	Number of partnerships in which ICARDA is a party	Output	ICARDA Strategy, CRP; SRP4, CCT1, CCT3, CCT4	Routine	Link
2a	Number of partnerships in which ICARDA is a party – number of partner organizations that explicitly work on achieving gender equity/empowerments	Output			
3	Number of ICARDA research papers published in peer reviewed journals	Output	ICARDA Strategy, CRP; SRP4, CCT1, CCT3, CCT4	Routine	Link
5	Alternative Metrics Score for ICARDA publications	Outcome	ICARDA Strategy, CRP; SRP4, CCT1, CCT3, CCT4	Routine	Link
7	Number of men and women trained (Number of people attending capacity development events)	Output	ICARDA Strategy, CRP; CCT2, CCT3, CCT4	Routine	Link
IFAD RIMS (Results and Impact Management System) [2]					
Policy 1	Number of policy-relevant knowledge products completed	Output	IFAD RIMS; SO3	Routine	Link
Policy 2	Number of functioning multi-stakeholder platforms supported	Output	IFAD RIMS; SO3	Routine	Link
IFAD KM RMF (Knowledge Management Strategy Results Measurement Framework)[3]					
1.1.1	Timely, relevant and useful knowledge products	Outcome	IFAD KM RMF	Periodic	Link
1.2.4	Uptake of recommendations from evaluations	Outcome	IFAD KM RMF	Periodic	Link
2.1	Knowledge Generation	Output	IFAD KM RMF	Routine	Link

3.1 Routine Monitoring

The SKiM Project will conduct routine monitoring measures by ensuring regular reporting of project activities from all levels of project management personnel (see Figure 1). Project data will be deposited, curated and processed via the principal data hub (MEL) to ensure optimized data flow knowledge storage. Routine monitoring is managed by project personnel at the international and country-level. Members of the National Technical Committee in each country, representing national partner institutions, are responsible for reporting and regular updates on activities at the country-level. The Project Manager will be responsible for updating the M&E Plan with participatory and innovative outcome/impact measurements and learning methods/tools, as well as leading progress reporting from ICARDA to IFAD. The M&E officer will assist with these tasks and in addition help design impact tracking and monitoring protocols to ensure that the project/research impacts are well documented and in compliance with the project strategy/objectives. Collaboration between personnel at all levels of management is key for ensuring thorough and regular reporting of project outputs, as described by the following indicators:

3.1.1 Routine Indicator Definitions

[1] https://cgiarmel.atlassian.net/wiki/spaces/IMF/pages/965312514/ICARDA+Indicators+Reference+Manual+IRM
[2] https://webapps.ifad.org/members/eb/120/docs/EB-2017-120-R-7-Rev-1.pdf
[3] https://www.ifad.org/documents/38711624/39417933/km_e.pdf/43599c5a-9a6c-4ff7-9299-e992aa4b9d24

7. Number of KM Approach Paper Developed

1.1 Description

Definition: This indicator relates to the development and publication of a journal article on knowledge management and communication strategy after consultation with key project partners (See Activity 1.2).
Result level: Output
Unit of Measure: Count
Method of Calculation: Successful publication of KM approach paper
Disaggregated by: Accessibility, ISI
Target: 1
Rationale: The formulation and publication of a KM approach paper will serve as a baseline for the KM System Enhancement methodology, providing an evaluation framework that identifies key partners and methods/techniques for data collection. In addition, information generated by this indicator will provide evidence of ICARDA's 'Organizational Goal 1: Enhance scientific quality' by tracking the work of ICARDA research staff publications in high-quality and high-impact journals.

1.2 Data Collection and Analysis

Data sources: Primary data for this indicator can be derived from MEL and chosen publishing journal.
Data collection method: Data can be collected from the MEL Data Repository (MELSpace)
Timing/Frequency of data collection and report: Routine data collection/reporting to MEL on progress of paper
Data collection responsibility: Knowledge Scientist (Project Team)
Evidence required: List of the following: Author(s), Date of Publication, Article Title, Journal Title, Volume, Issue, Page Numbers, Open Access status, ISI, DOI or handle, CRP/other Program.
Comments and limitations: This paper will provide the baseline for follow-up studies on the effectiveness and impacts of KM System enhancement and KM-related capacity development on rural communities. In addition, ICARDA and other CGIAR recognize that many types of publications can be important and useful, including manuals and guides, training videos, infographics, web tools, and open data. Nevertheless, monitoring peer reviewed journal article publication is a traditional way to measure academic quality outputs. Publications that are peer reviewed have undergone a careful review process led by academics working in a similar field.

8. Number of KM training courses organized

1.1 Description

Definition: This indicator measures the number of on-demand KM training courses delivered as part of the capacity development and knowledge systemization component of the project.
Result level: Output
Unit of Measure: Count
Method of Calculation: Sum the number of face to face and online (Moodle) courses given over the duration of the project, count the number of participants per course (see Indicator 13), use post-training feedback survey to calculate percentage of participants satisfied with training courses
Disaggregated by: Topic of course, format of course (online vs. face to face), country of implementation, language of course, organizing partner(s), trainers (leading the course), percentage of participants satisfied with course
Target: 8 courses, with at least 160 total participants, with >80% satisfaction rate
Rationale: This indicator measures how effectively the project is able to develop KM-related capacities and communicate best KM practices to participating rural institutions in target countries.

1.2 Data Collection and Analysis

Data sources: Course report, course attendance records, online feedback surveys, key informant interviews to assess the level of satisfaction and effectiveness of training
Data collection method: Record all details from the trainings on MEL as Capacity Development Activities. Register all people that attended, transfer the records to MEL (See Indicator 13. Use in-place end of training surveys (digital if possible) and MEL follow-up surveys to get feedback on the training from participants.
Timing/Frequency of data collection and report: Routine data collection/reporting to MEL
Data collection responsibility: All staff involved in the training
Evidence required: Course organization materials, scanned participation sheets or digital sign-in sheet with signatures/contact details (see Indicator 13)
Comments and limitations: (see Indicator 13)

9. Number of Learning Routes organized

1.1 Description

Description: This indicator measures the number of Learning Routes organized and implemented in target countries in order to strengthen the KM networks of local institutions relating to relevant thematic areas for participating stakeholders. These learning routes will be based on, but not limited to the successful knowledge gained from the previous projects of ICARDA and its partners.
Result level: Output
Unit of Measure: Count

Method of Calculation: Sum the number of Learning Routes implemented over the duration of the project, count the number of participants per learning route (see Indicator 13), percent of participants satisfied with training courses
Disaggregated by: Topic of Learning Route, country of implementation, language of trainings, organizing partner(s), trainers (leading the course), percentage of participants satisfied with Learning Route
Target: 3 Learning Routes, with at least 75 total participants, with >80% satisfaction rate
Rationale: This indicator measures how effectively the project is able to develop KM-related capacities and communicate best KM practices to participating rural institutions in target countries. The Learning Route is a CapDev activity scaling best practices by context through discovery and transfer of solutions from key grassroot providers. Learning routes scale and foster uptake of best practices from local providers to learning stakeholders. They should emphasize technical innovations, as well as organizational change (such as better-defined objectives and tasks, internal processes, and management and governance). Projects will facilitate close communication with local champions of successful cases.

1.2 Data Collection and Analysis

Data sources: Training materials, course organization materials, course attendance records, online feedback surveys, key informant interviews to assess the level of satisfaction and effectiveness of Learning Route
Data collection method: Record all details from the trainings on MEL as Capacity Development Activities. Register all people that attended, transfer the records to MEL (See Indicator 13). Use MEL Surveys to get feedback on the Learning Route from participants.
Timing/Frequency of data collection and report: Routine data collection/reporting to MEL
Data collection responsibility: All staff involved in the Learning Route
Evidence required: Learning Route organization materials, scanned participation sheets or digital sign-in sheet with signatures/contact details (see Indicator 13)
Comments and limitations: (see Indicator 13)

10. Number of symposia organized at the country level

1.1 Description

Description: This indicator measures the number of symposia organized and rolled out in target countries in order to support national partners in the sharing of best practice on knowledge management and dissemination with specific emphasis on the three project thematic areas.
Result level: Output
Unit of Measure: Count
Method of Calculation: Sum the number of Symposia implemented over the duration of the project, count the number of participants per symposium (see Indicator 13), use feedback survey to calculate percentage of participants satisfied with symposia
Disaggregated by: Topics covered during symposia, countries of implementation, language of event activities, organizing partner(s), trainers/presenters, number of participants, percentage of participants satisfied with symposium
Target: 5 Symposia with a minimum of 25 participants each, with >80% satisfaction rate
Rationale: This indicator measures how effectively the project is able to develop KM-related capacities and communicate best KM practices to participating rural institutions in target countries. Such thematic workshops and regional symposia bring together international and national expertise, providing a platform for national partners to exchange and devise new ways of sharing and disseminating knowledge.

1.2 Data Collection and Analysis

Data sources: Symposium materials, attendance records, online feedback surveys, key informant interviews to assess the level of satisfaction and effectiveness of symposia
Data collection method: Record all details from the trainings on MEL as Capacity Development Activities. Register all people that attended, transfer the records to MEL (See Indicator 13). Use MEL Surveys to get feedback on the Symposium from participants.
Timing/Frequency of data collection and report: Routine data collection/reporting to MEL
Data collection responsibility: All staff involved in the Symposium
Evidence required: Symposium organization materials, scanned participation sheets or digital sign-in sheet with signatures/contact details (see Indicator 13)
Comments and limitations: (see Indicator 13)

11. Number of knowledge products generated

1.1 Description

Description: This indicator measures the number of knowledge products (research papers, reports and briefs, training materials, conference materials, communication materials, etc.) related to the SKiM thematic areas generated and disseminated throughout the duration of the project.
Result level: Output.
Unit of Measure: Count.
Method of Calculation: Sum the number of knowledge products generated over the course of the project, use of MEL data and AltMetrics data from Indicator 3 to calculate the extent of dissemination.
Disaggregated by: Topics covered by the knowledge product, type of knowledge product, method of dissemination.
Target: minimum of 30 produced.

Rationale: This indicator measures how effectively the project facilitates the packaging, repackaging and dissemination of knowledge of relevant interest to the participating stakeholders and SKiM thematic areas.

1.2 Data Collection and Analysis

Data sources: MEL, AltMetrics.
Data collection method: Project staff ensures all knowledge products and associated information are uploaded on MEL and that related URIs are employed for dissemination.
Timing/Frequency of data collection and report: Routine data collection/reporting to MEL.
Data collection responsibility: Project Team.
Evidence required: Knowledge Products URIs, dissemination statistics (see Indicator 3).
Comments and limitations: Materials developed will be disseminated via a variety of media to provide greater visibility and accessibility. Documented and recorded training courses (Moodle), videos and communication materials will be promoted through ICARDA web resources, and IFAD web resources. For more comments on gathering dissemination data, see Indicator 3.

12. Online knowledge management portal and platform established

1.1 Description

Description: This indicator measures whether or not an online interoperable portal integrating a repository was established through the SKiM project as a knowledge sharing mechanism to facilitate knowledge storage and exchange between participating stakeholders a to a wider audience. This indicator is to be linked with Indicator 11 to help facilitate the dissemination of project related knowledge products.
Result level: Output.
Unit of Measure: Count.
Method of Calculation: Successful establishment a Knowledge Management Portal that is accessible and available to all partners.
Disaggregated by: N/A.
Target: 1 portal developed, with at least 5,000 views/downloads of linked materials and pages.
Rationale: This indicator helps measure how effectively the project facilitates partners data findability and sharing online, enabling their use of an online KM platform with data storage and curation capabilities. The portal will be part of a communication strategy including social media guidance for the partners, and will be capacitated with relevant expertise for maintaining, upgrading and integrating the KM infrastructure.

1.2 Data Collection and Analysis

Data sources: Knowledge Portal and interoperable websites hosting linked resources (e.g. MEL, MELSpace).
Data collection method: Websites analytics measurement and count.
Timing/Frequency of data collection and report: Routine data collection by development stage of the portal.
Data collection responsibility: Project Team.
Evidence required: Functional portal, use of portal link in knowledge products for proper dissemination, dissemination of instructions on how to navigate and use the knowledge portal, navigation/views/downloads of linked materials and pages.
Comments and limitations: This indicator measures whether or not the portal is established, and that the link to the portal is widely disseminated to project partners ensuring stakeholder contributions of data and active sharing of portal information. Also, the establishment of the portal must also include a knowledge product and/or training for stakeholders, containing instructions for successful navigation and use of the portal and its resources. Finally, evidence of portal use in terms of navigation/views/downloads of the portal and linked materials are to be presented.

13. Number of men and women participating in KM-related capacity development activities
1.1 Description
Definition: This indicator measures the number of participants that attended KM-related capacity development activities throughout the project, providing an indication of the gender equity in measures to increased knowledge management capacities of personnel in rural institutions. **Result level:** Output **Unit of measure:** Count **Method of calculation:** participation data **Disaggregated by**: training format (virtual, workshop, seminar symposium, online course, learning route), country, participants' institution, country of institution, training subject, duration of training, gender of participant, country where training occurred **Target:** 160 overall for training courses (see Indicator 8), 75 overall for Learning Routes (see Indicator 9), 125 overall for symposia = 360 total participants with a minimum 30% female, 70% male gender balance. **Rationale:** Counting and collecting data on the people who participate in the KM-related capacity development activities gives useful insight into the demographics of those who benefitted from enhanced KM skills, especially considering metrics such as gender and type of institution.
1.2 Data Collection and Analysis
Data Sources: Training reports, registration sheets **Data collection method:** Register all people that attend a training supported by ICARDA resources, transfer the records to MEL. If possible, collect data including gender, email address, institution, and country of institution. **Timing/Frequency of data collection and report:** Routine data collection/reporting to MEL **Data collection responsibility:** All staff involved in the training **Evidence required:** Scanned participation sheets or digital sign-in sheet with signatures/contact details **Comments and limitations:** Although it might be difficult to implement at the training, having participants digitally sign-in and enter contact information into a common database is more efficient than hard-copy sheets, and will reduce errors in transcribing handwritten details later.

3.1.2 Reporting of Planned and Unplanned Deliverables

As part of the project curation on the MEL database, all planned project deliverables have been configured to facilitate reporting by various project staff. There is also the option for project staff to report unplanned deliverables, which may come as a result of post-implementation adjustments to the project. Research-related deliverables will go through internal controls to ensure that they meet the required standards (i.e. compliance with science quality standard, ensuring proper metadata fields, proper licenses applied etc.). Once this is done, each deliverable will be pushed on DSpace (Publications) and Dataverse (data). It is recommended that project staff make deliverables Open Access, however, where there is reason to restrict access, staff will have the option to save deliverables internally and fix an embargo period if needed.

3.1.3 Data access and privacy

Data and datasets that are project deliverables should be uploaded into MEL as soon as possible (or maximum 6 months after publication of products supported by this data, or 12 months after data collection), following consultation and approval from project manager. Project staff must ensure compliance with IFAD's policies relating to open access and research data management. In accordance with CGIAR policy, when possible, all information products generated from this project should be shared in Open Access repositories or journals. To ensure that information products are accessible to all, metadata or contextual information should be shared, and file formats should support interoperability.

The project implements several surveys requesting personal data (participant name) for follow-up purposes, therefore in alignment with General Data Protection Regulation policy, the intent of the survey will be communicated, and consent will be requested prior to the surveys. Personal identifier data will be removed from such datasets before archiving to the repository.

3.2 Periodic Monitoring

The SKiM project will conduct periodic monitoring to assess project progress towards outcomes, objectives and goals through external evaluations to be undertaken by independent consultants. The following aspects describe the timeline of project periodic monitoring measures, the guiding questions and definitions of relevant indicators at the goal, objective and outcome level.

3.2.1 Timeline of Evaluations

The project is subject to both internal and external monitoring and reporting mechanisms, with an M&E specialist from ICARDA in charge of the overall monitoring of the theory of change. Project team meetings will be held weekly and progress reports will be submitted to IFAD according to IFAD's procedure of reporting. For the mid-term and final evaluations, ICARDA will be the lead organization, and will assemble an evaluation team consisting of key project scientists, representatives of collaborating institutions, and a nominee from IFAD. A mid-term evaluation will take place after the mid-point of the project, with a final evaluation at the end of the project that will focus on impact and sustainability of the results, including the contribution to capacity development and impact. The monitoring function will assess, in a systematic and objective way, how well the components are being achieved throughout the project, identifying achievements, and introducing "on track" (amendment) measures as required. Website community screening will be measured to evaluate access to up-to date best practices, policy briefs, activity findings, contacts, and other resources useful for the stakeholders in each country. For each external evaluation, the terms of reference (including evaluation questions, selection criteria, and proposal outline) will be issued at least 5 months before the intended start of the evaluation period. Bids for the consultancy will be evaluated based on the select criteria and a selection report will summarize the template used for screening applicants and the chosen consultant.

The best evaluated bidder will be notified in writing within two weeks of having reached the decision on the best evaluated bid, and if any negotiations on the budget or methodology is required, it will be done within this time. The hired consultant will then be given one month to submit an inception report, the first draft of which will be within the first 20 days, and improvements made upon receipt of comments from the project team to ensure that the final inception report is submitted within the 30 days. The study will then be commissioned upon submission of a satisfactory inception report. The consultant(s) will take a maximum of 3 months to conduct the fieldwork and submit a draft evaluation report to the project team. In doing so, the consultant(s) shall also submit the final raw data file, together with re-executable data management and analysis commands to help the project MEL Officer get a clear understanding of the data management and analysis process. The final evaluation report will be submitted 1 month after feedback is issued on the draft, with subsequent measures to disseminate the results with stakeholders and publicly through the ICARDA website and MEL platform.

Periodic evaluations will consist of the following:

1) Project progress and expansion evaluation: To ensure that the project work is not spread too thinly, the first twelve-to-eighteen months of the project includes an evaluation period to determine the following: (i) added value of expanding the project to more countries; (ii) risks to current project countries with the implementation of the work in new project countries; and (iii) benefits to current project countries with the implementation of the new project countries.

Note: At the Steering Committee meeting in November 2019, it was recommended that the project concentrate resources on the three countries selected at inception. The final decision will be made following the mid-term evaluation.

2) Mid-term evaluation (24 months after implementation): The evaluation will assess, in a systematic and objective way, how well project components are being achieved, identifying achievements, and introducing "on track" (amendment) measures as required. For this external evaluation, the terms of reference (ToR) (including evaluation questions, selection criteria, and proposal outline) were issued at least 5 months before the intended start of the evaluation period. Bids for the consultancy are evaluated based on select criteria and scored based on the importance of each criteria to the task.

3) Post-project evaluation (end of project): The evaluation will provide an overarching assessment of the intervention considering relevance, effectiveness, efficiency, sustainability of benefits, gender equality and women's empowerment, innovation and scaling up.

3.2.2 Key Evaluation Questions

Mid-term and post-project evaluations to be undertaken by independent consultants are to complete the following:

(i) Appraise the activities and outputs achieved by ICARDA and partners,
(ii) Identify and assess outcomes of the project,
(iii) Identify the enablers and/or constraints to the attainment of project results and lessons learned,
(iv) Make practical recommendations for corrective action required to achieve the envisioned project results within the remaining period of the project.

The evaluator(s) will refer to the OECD/DAC Evaluation criteria prescribed in the IFAD Evaluation Manual (see Annex V). The selected evaluator(s) will make reference, but not be limited, to the following evaluation questions, shown below in Table 4:

Table 6. Project Evaluation Questions

SKiM Evaluation Questions	
Relevance	
1	Was the project design appropriate to meet the intervention's objectives?
2	Was the project adjusted during implementation to any changes in context to retain continued relevance? Was the adjustment necessary?
Effectiveness	
3	To what extent have the objectives of the project and its components been attained in quantitative and in qualitative terms?
4	What changes in the overall context (e.g. policy framework, political situation, institutional set-up, economic shocks, civil unrest) have affected or are likely to affect project implementation and overall results?
Efficiency	
5	How does the project expenditure compare to the budget- whole budget and per deliverable?
6	Have any re-allocations been done? What was the rationale? What are the implications of the reallocations to the budget structure and cost-effectiveness?

Sustainability	
7	Do project activities benefit from the engagement, participation and ownership of local communities, grass-roots organizations and the rural poor, and are adopted approaches technically viable?
8	Is there a clear indication of government commitment after the project closing date, for example, in terms of provision of funds for selected activities, human resources availability, continuity of pro- poor policies and participatory development approaches, and institutional support?
Innovation and Scaling Up	
9	What innovative knowledge management tools and platforms have been promoted by the project? How should the innovative tools be contextualized (i.e never used before vs. new to the country or project area)?
10	Are the innovative knowledge management tools and platforms consistent with the IFAD KM Strategy?
11	How are the innovative KM tools and platforms being scaled by the project? What are the opportunities and the threats to the scaling? How can the project cease the opportunities and avoid the threats?
Partnerships	
12	To what extent has the project management unit developed partnerships with the entities highlighted in the proposal and other relevant entities?
13	To what extent is the project facilitating KM and KS activities within these established partnerships?

It should be noted that in reference to the aspects addressed in the above questions, the mid-term evaluation will also include recommendations for measures to improve project activities in order to achieve the desired outcomes. Lessons learned will be documented in a fashion to facilitate corrective action in the second half of the project duration.

All project evaluations will be based on primary data (field visits) and secondary data collection. Although the evaluators will propose their own methods through the proposal, it is expected that the consultants apply an objective and holistic approach to assessing the achievements and gaps of the project. The evaluators must demonstrate that the study sites are representative of the project locations such that the resultant findings are deemed representative as well.

3.2.3 Periodic Indicators Definitions

The project will conduct periodic monitoring through biannual reports and evaluations at project baseline, mid-term, and end line to assess project achievements and impact. The following sections describe the definitions of relevant indicators used in the monitoring.

Table 7. Definitions of relevant indicators

1. Change in budgetary commitment for KM-related activities
1.1 Description
Definition: This indicator measures by how much participating institutions have increased, within their budgets, their financial allocations from their baseline budgets (ie. budgets at project inception) for KM-related activities. **Result level:** Goal **Unit of Measure:** Percentage **Method of calculation:** Using national institutions' budgets at project inception to compare with budget plan for the 3-5-10 year period after the closure of the project. If not available, conduct survey of key stakeholders on their commitments to KM activities. **Disaggregated by**: type of institution, country, method of calculation (projection of budget plan) **Target:** 60% of participating rural institutions increase budgetary commitments for KM-related activities from baseline

Rationale: This indicator measures overall institutional commitment to strengthening their KM systems through the allocation of additional funding to this sector of activities, reflecting a desire to building upon the acquired KM-related capacities developed throughout the project for effective and long-term institutional development.

1.2 Data Collection and Analysis

Data Sources: Institutions' budget plans, key-informant interviews with stakeholders
Data collection method: Request national institutions' budget plan for the 3-5-10 year periods after the closure of the project, conduct key-informant interviews with stakeholders of these documents are not available.
Timing/Frequency of data collection and report: Annual data collection, published in final project evaluation report
Data collection responsibility: National Focal Point for each project country
Evidence required: Budget plans from participating institutions
Comments and limitations: Budgetary commitments to KM is a broad way of measuring enhanced KM systems that is appropriate given the diversity of institutions participating in the project. However, fulfillment of the goal of the project will also have to be determined through measuring outcome indicators, and ensuring that the KM-related activities adopted into the budgets of institutions reflect lessons learned from the project and an uptake of recommendations from the original capacity-needs assessment. Some institutions may not want to share their financial allocations to particular KM activities which can pose a limitation.

2. Number of institutions reporting enhanced KM skills

1.1 Description

Definition: This indicator measures the number of institutions reporting enhanced KM skills at the end of the project as a percentage of total stakeholder participants. Enhanced KM skills can be defined by reported improvements in capacities related to: knowledge discovery and detection, acquisition and creation, storage and curation, sharing and transfer. Note: this indicator could also be measured through tracking how many institutions followed-up on recommendations from previous evaluations of KM capacities, such as the capacity needs assessment.
Result level: Objective
Unit of measure: Count
Method of calculation: Project mid-term evaluation, project completion survey, final independent post-project evaluation, annual survey for each project country
Disaggregated by: type of institutions, country, institutions reporting enhanced KM skills
Target: 80% of participating institutions (reporting both enhanced KM and KS skills)
Rationale: This indicator reflects the number of institutions that report having been positively impacted by the project activities in terms of KM enhancement, and therefore also indicates participant satisfaction with the efficacy of the project.

1.2 Data Collection and Analysis

Data Sources: Mid-term evaluation report, analysis from project completion survey, key-informant interviews with stakeholders
Data collection method: Mid-term evaluation completed by an independent consultancy, project completion survey, final independent post-project evaluation, annual surveys for each project country, supplemented by key-informant interviews with stakeholders if necessary
Timing/Frequency of data collection and report: Mid-way through the project and after project completion
Data collection responsibility: Independent evaluation consultants
Evidence required: Mid-term evaluation report, analysis from project completion survey, records from any interviews conducted
Comments and limitations: There are inherent limitations to institutions self-reporting enhanced skills, as it is difficult to standardize how each institution measures enhancement. Therefore, the measurements from this indicator must be interpreted along with measurements from other outcome indicators to provide a more complete analysis.

3. Number of knowledge products disseminated

1.1 Description

Definition: This indicator measures the online dissemination and online citation of publications (including those that are not peer-reviewed), providing indications on reach and influence.
Result level: Outcome.
Unit of Measure: Count.
Method of calculation: AltMetrics scores for each disaggregated variable, based on Indicator 11, plus websites hosting the disseminated resources (e.g. MEL, MELSpace).
Disaggregated by: social media posts (i.e. Twitter), mentions (e.g. blogs, news), repository/website views and downloads (e.g. direct, MELSpace and MEL as by indicator 11, Knowledge Portal as by indicator 12).
Target: 3,000 views/year and 600 downloads/year.
Rationale: The traditional way of measuring dissemination and impact of research – through publication in peer reviewed journals and counting of related academic citations – alone can fail to capture its use, influence and dissemination by non-traditional means, such as HTML views and PDF downloads or discussion in news sources, policy documents, science blogs, Wikipedia, Twitter, and other media. As these non-traditional sources of information become increasingly important for uptake, also by policymakers, using alternative metrics ('AltMetrics') is useful for measuring dissemination and influence. AltMetrics is particularly useful for non-peer reviewed publications. There is often no permanent stable way to track use of these (although individual

projects may track downloads, etc.) and tracking in AltMetrics provides material to evidence their importance which can provide a counterbalance to an exclusive emphasis on peer reviewed publications. Use of AltMetrics require proper archiving and use of stable links, instead of temporary links (e.g. to project websites), which overall encourages more sustainable information management of published materials. This is particularly important for non-peer reviewed publications – for example briefing papers, working papers, games, decision trees –as there is often little incentive to archive these properly and they can become 'lost to history' after projects finish, encouraging reinvention of the wheel and also loss of 'negative results'. AltMetrics provide an incentive for researchers to archive such materials properly in order to track their uptake. Tracking AltMetrics can also provide research and administrative staff with ideas for how to better communicate research findings and reach target users.

1.2 Data Collection and Analysis

Data sources: MEL
Data collection method: CRP researchers and repository staff ensure that ICARDA research products are placed in MEL and associated repositories, which automatically picks up DOIs and repository handle links.
Timing/ Frequency of data collection and reporting: Annual reporting.
Data collection responsibility: MEL staff download AltMetrics data from MEL, review the data, add a short narrative analysis about the nature of their AltMetric scores, and submits both the raw data and analysis.
Evidence required: Publication statistics in CSV format, short narrative about the nature of their AltMetric scores.
Comments and limitations: It is recognized that annual reporting cycle/period does not give a full picture of the uptake of those publications that were completed at the end of the year, as it may take some months for full social media uptake (and years for conventional citations). However alternative periods have been suggested and none have found general acceptance. AltMetrics has a large number of disaggregates that are evolving over time. Interpretation of the scores is not straightforward as different types of AltMetrics reflect different sorts of sharing and spread. Appropriate reading of the scores is to be provided with this indicator.

4. Number of project participants adopting improved KM approaches and practices in their particular function

1.1 Description

Definition: This indicator measures the number of participating institutions that adopt improved KM approaches and practices in their particular function, depending on the role of the institution.
Result level: Outcome
Unit of measure: Count
Method of calculation: Project KM assessments, project evaluations, online tracking tools, survey on adaptation patterns/behavioral changes among target groups, acceptance and/or endorsement of innovation plans
Disaggregated by: type of institution, activities of institution, country of institution
Target: 60% of participating institutions
Rationale: This indicator helps measure the efficacy of the project in helping participating institutions learn and adopt improved KM approaches, reflecting the success of the institution in knowledge uptake and adaptation of lessons learned to their specific contexts.

1.2 Data Collection and Analysis

Data Sources: Capacity needs assessment report, innovation plans, other project KM assessments, mid-term evaluation, AltMetric scores reflecting knowledge sharing activity of institutions, survey results on adaptation/behavioral changes among target groups
Data collection method: Regular data collection via MEL (online tracking tool), capacity needs assessment, mid-term and post-project evaluations, survey with key-informants
Timing/Frequency of data collection and report: Periodic project evaluations, surveys
Data collection responsibility: Project staff, independent consultants (for mid-term and final project evaluations)
Evidence required: Capacity needs assessment report, endorsed/accepted innovation plans, other project KM assessments, mid-term evaluation, AltMetric scores reflecting knowledge sharing activity of institutions, survey results on adaptation/behavioral changes among target groups
Comments and limitations: This will be measured periodically throughout the project and shortly after project completion, and therefore will not reflect whether or not such adopted KM approaches/practices can be sustained by institutions. Data must be paired with other indicator data (such as Indicator 1, budgetary commitments to KM activities) to provide a more complete analysis.

5. Number of innovation platforms, learning alliances, CoPs and/or other multi-stakeholder platforms established

1.1 Description

Definition: This indicator measures the number of multi-stakeholder platforms that are formed; these platforms function as decision making bodies where a formal or informal group of diverse stakeholders decide about organizing and implementing coordinated events.
Result level: Outcome
Unit of measure: count
Method of calculation: Sum of the number of multi-stakeholder platforms that are established through the project
Disaggregated by: type of multi-stakeholder platform (Community of Practice, innovation platform, learning alliance, etc.), core theme/subject
Target: 3
Rationale: In the context of SKI/iM, multi-stakeholder platforms are anticipated to enhance the coordination of multiple efforts for improving the knowledge management systems in SKiM countries.

1.2 Data Collection and Analysis

Data Sources: Reports on multi-stakeholder platform activities
Data collection method: Register all people that attend a training supported by ICARDA resources, transfer the records to MEL. If possible, collect data including gender, email address, institution, and country of institution.
Timing/Frequency of data collection and report: Mid-way through the project and after project completion
Data collection responsibility: National technical committee representative (National Focal Point), project staff for training
Evidence required: Regular reports on platform meetings and activities, statistics on participation, analysis of the data on performance of platform processes (ie. member feedback surveys)
Comments and limitations: Although these platforms can be formed through a single event, the continued engagement of participants must be sustained and overseen by project personnel, including National Focal Points, platform facilitators, organizers, and monitors to ensure stakeholders benefit from enhanced knowledge creation, sharing and learning.

6. Number of KM capacity and learning needs assessments (gap analysis) conducted

1.1 Description

Definition: This indicator measures the number of capacity and learning needs assessments conducted to assess KM-gaps in participating institutions.
Result level: Output
Unit of measure: Number
Method of calculation: Successful completion of capacity needs assessment report and analysis
Disaggregated by: type of institution, country of institution
Target: 1
Rationale: Conducting a capacity needs assessment will serve as a baseline evaluation of the KM systems of participating institutions while also providing recommendations on areas for improvement, facilitating the development of targeted trainings in areas of KM and Knowledge Sharing.

1.2 Data Collection and Analysis

Data Sources: Capacity Needs Assessment Report
Data collection method: Primary data for this indicator can be derived from MELSpace.
Timing/Frequency of data collection and report: Data collection to be completed within first 6 months of the project and report to be published within first 18 months of the project, to serve as project baseline
Data collection responsibility: Project team
Evidence required: List of the following: Author(s), Date of Publication, Open Access status, DOI or handle
Comments and limitations: This assessment is based off of results from face to face meetings and an online survey with stakeholders to evaluate capacities related to policy, knowledge, partnership and implementation.

4. Learning Adaptive Management

Throughout the duration of the project, the project team will continuously work to enhance organizational efficiency and cost effectiveness through documenting lessons learned. In the context of project implementation, lessons learned refer to the knowledge captured through the identification of evidence-based failures and best practices. Following the IFAD Lesson Learned series model, "best practices" refer to processes or methodologies that have been proven to produce good results and thus are recommended as examples to be replicated. Therefore, documenting lessons learned is a way to capture, store, and share knowledge for improving project management based on prior successes and/or shortcomings.

It is recommended that lessons learned be stored in a common repository to serve as a knowledge base for further discussion by the project team and documentation in future project reports. The Lessons Learned will be documented and stored on MEL for internal dissemination. The information should be available to both project staff and stakeholders in order to facilitate access and contribution across all levels of project management (including both cross-regional and regional staff). The knowledge captured in the repository will be synthesized at project completion to inform learning outcomes, to be consulted in the design of future projects (see Section 4.3).

The project criteria for identifying lessons learned will be as follows:

a) Lessons that are relevant/related to the project thematic areas;
b) Lessons that are relevant/related to project management/implementation strategies;
c) Lessons that demonstrate a clear cause-effect relationship between project action and result realized;
d) Lessons whose recommendations have a bearing on project relevance, effectiveness, efficiency, sustainability, and impact;

Learning and adaptive management will be based on 1) operational processes lessons learned (routine); and 2) research-based learning (periodic).

4.1 Routine Learning Processes

The SKiM project is organized and implemented in a way to provide opportunities for regular feedback processes and documentation of lessons learned across multiple levels of project management. These opportunities include the following:

1. Weekly Project Staff Meetings: The SKiM Project Staff meets weekly to discuss updates on project-related tasks and plan for upcoming project activities. Often, the meeting will also be used to gather group input for deliverables or communication processes. The meeting also serves as a platform for team members to reflect on the success or shortcomings of certain aspects of the project and to leverage knowledge from project partners, who are invited to join the meeting any given week.

2. Annual Project Steering Committee Meeting: The project's Steering Committee meets on an annual basis to provide stakeholders a platform to present yearly initiatives on KM activities, policies and practices. The PMU will also present the annual report as well as any updates to project strategies, as well as the discussion, agreement and finalization of the Plan of Work and Budget document. These topics provide ample

opportunity for reflection and documentation of challenges and lessons learned across different project areas.

3. Annual Report: The annual report submitted to IFAD describes the developments of the SKiM project over the last year and includes areas where the project implementation faced challenges and recommendations for future actions. Reporting on each project component contains a section for "lessons learned and knowledge shared" to summarize where the project can make further improvements in areas of implementation.

4. KM Research Fellow Monthly Reports: As a junior member of the project team, it is the responsibility of the Knowledge Management Research Fellow to document lessons learned in the form of monthly reports to properly document the development of skills related to project management, monitoring and evaluation, impact assessment, and communications/outreach. The research fellow also joins the weekly project staff meetings to share the updates.

5. Annual Report from National Focal Point: The National Focal Point (NFP) will be responsible for coordinating the implementation of the project at the country-level on a day-to-day basis. He/she acts as the Secretary of the National Technical Committee. He/she will closely collaborate with national partners and key country stakeholders to ensure project activities are fully in accordance with obligations specified in IFAD Grant Agreement, to test and validate KM methods and tools, provide capacity building and technical assistance in learning-oriented project management, and establish and support KM and learning networks and partnerships within the country. The NFP will also assist the Country Steering Committee Representative and Project Leader to compile project reports and presentations to IFAD, for Project Steering Committee meetings and meetings with other partners.
The NFP will support routine learning processes by implementing an adaptive and flexible KM, M&E and communications plan at the country level and contribute to the progress reporting from ICARDA to IFAD. The M&E Officer will be responsible for collecting and documenting lessons learned throughout project implementation. A template for documenting Lessons Learned can be found here.

4.2 Periodic Learning Processes: Adapting the Theory of Change

As discussed in Section 2.3, the TOC of the SKiM project is a documentation of how the project will affect change based upon assumed linkages between project outputs, outcomes, goals, and development outcomes within CGIAR, IFAD and ICARDA research frameworks. The TOC will undergo regular review following research-based lessons learned, during which project staff will reflect on the project's trajectory related to the Results-Based logical framework developed as initiation. Sessions for revising the TOC based on these reviews will be held annually at the meeting of the project Steering Committee. At least 2 months before the Steering Committee Meeting, all members, including the Project Management Unit (PMU), will receive the current project impact pathway and TOC for review. These materials will be accompanied by a questionnaire for participants to evaluate the need for TOC adaptation regarding the current status of the project in relation to its outlined objectives, outcomes and goal at inception.

To ensure all recipients fully understand the TOC and questionnaire, a live webinar and Q/A session will be scheduled shortly after the participants receive the materials. In this virtual format, the M&E Officer will explain the project TOC clearly and concisely while providing clarifications to stakeholders with questions. This event will be recorded to ensure stakeholders can access the webinar from all time zones. After the

webinar, all participants should be equipped to complete the questionnaire (see below) and therefore determine the need for TOC and impact pathway adaptation.

Questionnaire:

1. **Impact Pathway - Questions related with relevance of objectives and outcomes (at the project and SRF level):**
    a) Are the SRF outcomes/objectives still relevant to the target beneficiaries of the project? If not, why?
    b) Is the project still aligned to select elements of the ICARDA, IFAD and CGIAR-CRP SRF (as earlier envisaged)? If not, please identify where there are inconsistencies.
    c) Are all relevant SRFs considered in the TOC/impact pathway? If not, what is missing?
    d) Are the project outcomes still achievable within ICARDA and partners' technical and operational capacities, and within the available project resources? If not, why?
    e) Are the project outputs critical for achieving the corresponding 'higher-level' project and SRF outcomes? If not, how can these outputs be adapted?
2. **Theory of Change - Questions related with rationale of objectives, outcomes, and causal pathways:**
    a) Do the assumptions still hold? If not, how can they be revised?
    b) Are there shifts in the risk profiles of the 'unchanged' assumptions? If yes, then how can the risk mitigation measures be adapted?
    c) Do we now have better or worse evidence for the assumptions made? If worse, how can we seek/generate better evidence?
    d) Based on the changes made following the relevance of objectives and outcomes, are there new assumptions and risks following the revised linkages? How are these assumptions, risks, and mitigation measures integrated into future project activities?

Once the responses are submitted electronically, the M&E Officer will review how the stakeholders assessed the relevancy of the SKiM impact pathway and TOC. It is the job of the M&E Officer to determine from this feedback if the TOC merits further review and adjustment. If this is the case, they will review, consolidate, and synthesize stakeholder feedback into a report of proposed changes to the TOC, to be presented at the upcoming Steering Committee meeting.

When participants meet face-to-face, the M&E officer will lead a short presentation that summarizes the proposed changes to the project TOC based on their responses to the questionnaire. This will be followed by a plenary session, where the group will come to a consensus on adjustments to the project TOC. The Knowledge Management Officer will facilitate the conversation and ensure that all participants are able to voice their perspective. All proposed changes will be reviewed, revised, and finalized by the M&E Officer with justification. Following approval from the Steering Committee, the TOC revision will be sent to IFAD and documented in the Annual Report.

4.3 Knowledge Management and Learning Outcomes

In order to foster continuous learning and adaptation throughout and beyond the project, lessons learned from the project will be captured and synthesized through regular reporting meetings. Inspired from the IFAD Lessons Learned Series, a lessons learned template was designed as a tool to systematize knowledge from project implementation experiences. The template will facilitate the capture, storage, and dissemination of knowledge for improving project management based on prior successes and/or shortcomings. Documented lessons learned will be stored in a common repository (MELSpace) to serve as a knowledge base for further discussion by the project team and documentation in future project reports.

The template requires authors to complete several sections in order to describe, analyze and justify the lesson in the context of its contribution to the project. Key aspects that should be highlighted include:

1. Key changes in knowledge, skills, practices, behaviors, attitudes, policies and/or investments that emerged as a result of research conducted in the framework of the project(s) and relatable institutions;
2. Improvement of business practices and research for development practices (e.g. farming practices, policies, investments, attitudes);
3. Key steps along the project impact pathway/theory of change, especially those related to scaling the project results to a wider audience;
4. Key achievements in relation to research and development outcomes as well as to impacts;
5. Overall project performance and its strategies for implementation;
6. The project's impact on indirect beneficiaries.

In order to assess the economic value of the lessons learned, the author will also be asked to map the lesson on the Value for Money (VFM) Framework, adapted from the ICARDA Strategic Plan 2017-2026. The framework is presented as a method of linking project outputs, outcomes and impacts with financial data in order to show how money is used in achieving a project's goals. The author will be asked to describe where the lesson learned makes an economic contribution to the project based on these criteria:

Economy: The cost of inputs used for an activity, with regard to maintaining quality.
Efficiency: The extent to which an intervention converted input into outputs by increasing output for a given input, or minimizing input for a given output, with a regard for maintaining quality.
Effectiveness: The extent to which expected outcomes are achieved through the outputs obtained from an intervention.
Equity: The extent to which development outcomes have included the poorest, have reached the most vulnerable and have been gender-sensitive and youth oriented.

In doing so, it is imperative that the author specify the funding source that benefits from the application of the lesson learned, as well as how the lesson will manifest economic impact in the form of, for example, reduced cost of production, or increased incomes. By providing adequate justification in this regard, the author should clearly explain how the lesson increases the VFM of project inputs and thereby contributes to the achievement of the project's long-term goals.

Finally, the Lessons Learned template guides the author in making concrete recommendations in the form of corrective measures, knowledge products, or practical tools to enhance the project and/or future projects. These recommendations will inform best practices. According to the IFAD Lessons Learned series, best

practices can be defined as “processes or methodologies that have been proven to produce good results and thus are recommended as examples to be replicated.”

Overall, it is supposed that the time investment in recording thorough data on lessons learned throughout a project will facilitate the conversion of a lessons learned into best practices, which can then be used to inform learning outcomes that can be extrapolated to other projects. Learning outcomes are replicable, scalable knowledge products that are sustainable over time and across different types of projects. They are developed to be disseminated over a larger audience in order to facilitate learning and adaptation at a higher organizational level. Following in the footsteps of the IFAD lessons learned series, the lessons learned template is intended to inform people why documenting and synthesizing knowledge is in a standardized way is essential to facilitating systemization across research for development projects.

5. Implementation Structure

The section details the checklist of items to be reviewed during the assessment that should be saved in the MEL system or appropriate project data management system. The MEL staff should record the status of each component, the primary data source, and a brief explanation of how the action exists/is implemented.

5.1 Data collection, Aggregation and Validation

This will be done by tracing and verifying (recounting) data collected and used for reporting indicator results. This will help determine if the data was correctly recorded at the primary source and if there were no transcription and transmission errors.

5.2 M&E Governance and Leadership

The Project Leader will design and implement an adaptive and flexible KM strategy, M&E plan, Communications strategy, and system alignment with ICARDA policies and guidance. This will support the project and lead upon the progress reporting from ICARDA to IFAD. Under the Project Leader's guidance, the project Monitoring and Evaluation function is led by a skilled and experienced Monitoring and Evaluation Officer (MEO). The MEO provides support and technical assistance to plan, design and inform the deployment of robust monitoring and evaluation system needed for the project. The MEO will lead the project management team and partners in developing MEL strategy documents, work plans, and field activities. The MEO will also see to the designing and implementing of mid-term and final project evaluations. The main responsibilities of the MEO include designing impact tracking and monitoring protocols to ensure that project/research impacts are well documented and in compliance with the project strategy and objectives. The MEL data is to be recorded on the MEL Space.

5.3 M&E Information Systems and Knowledge Management

The M&E Information Systems and Knowledge Management tools facilitate proper data storage and management comprising of virtual storage space and manual filing system of paper-based data collection forms, summary tables, and reports. The manual records are serialized and safely stored. The "Knowledge Platform" (KP) will stimulate the synthesis of knowledge and evidence, the production of information products, and their dissemination to target audiences. Part of the platform will be an online 'knowledge portal' which will act as a repository of information and data relevant to financial inclusion of rural women and youth; natural resource management and climate resilience; and productive agricultural technologies (e.g. water management technologies, conservation agriculture, drought-resilient crops).

The Open Access "knowledge portal" will be based on the technology developed for the Monitoring, Evaluation and Learning (MEL) Platform and deliver practical results, in different types and grades of information for use by key target audiences. Information will be stored using international standards (Dublin Core, FAO AGROVOC, ISO) to facilitate data sharing and interoperable functionalities (API and web-services) to interact with other institutional systems and mobile applications.

The knowledge management aspect of the project is managed by the Knowledge Management Officer (KMO) and will support the core project documentation – the Knowledge Management & Communication Plan – and related project reports. Working in collaboration with the MEO, the KMO will produce communication material in the form of videos, boost the outreach of the project activities and to sling future activities. The

KMO will compile reports by documenting the project activities carried out by the implementing partners within the logical framework of the project, provide insights and recommendations for better efficacy. The KMO will also organize follow up project management activities with partners and target institutions. The KMO will manage the information on Knowledge Portal developed within the framework of the project, engaging with the knowledge creators (i.e. stakeholders), for increased outreach and dissemination. The KMO will establish, monitor and measure the analytics on the Knowledge Portal throughout the current year for enhanced outreach and knowledge dissemination.

6. Work Plan

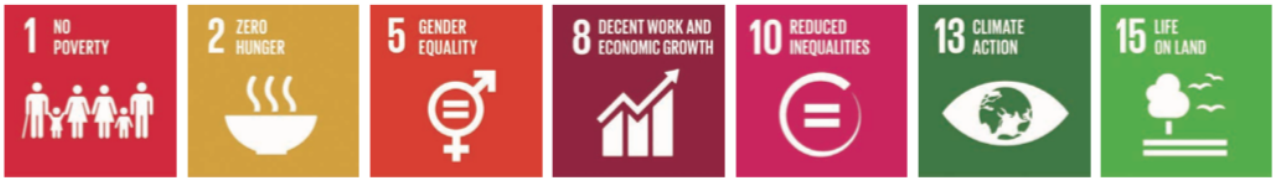
This section will discuss how Monitoring & Evaluation plan can be integrated into annual plan of work budget and the reflections on progress, outlining effective ways to get feedback on Monitoring and Evaluation from the project personnel followed by the action plan for the next year. There is a M&E calendar/timeline linked to the SKiM project's annual plan of work. These consists of the activities like SKiM PMU weekly meetings and National Technical Committee (NTC) monthly meetings. There is a separate allocation for M&E activities including but not limited to:

i) data collection exercises for periodic evaluations;

ii) review of the project plan of work against output-level indicators and targets;

The share of M&E budget in total budget is computed, shared, and discussed with the committee and donors during the regular meetings, making clear reference to the institutionally mandated share and unfunded activities, if any. Reflections on the activities, outputs, outcomes and impacts of the project are gathered in the annual Steering Committee meeting as well.

Annex I. Complete IFAD Strategic Framework



STRATEGIC VISION

Inclusive and sustainable rural transformation

OVERARCHING GOAL

Poor rural people overcome poverty and achieve food security through remunerative, sustainable and resilient livelihoods

STRATEGIC OBJECTIVES (SOs)

SO 1	SO 2	SO 3
Increase poor rural people's productive capacities	Increase poor rural people's benefits from market participation	Strengthen the environmental sustainability and climate resilience of poor rural people's economic activities

Areas of thematic focus

- Access to natural resources
- Access to agricultural technologies and production services
- Inclusive financial services
- Nutrition
- Diversified rural enterprise and employment opportunities
- Rural investment environment
- Rural producers' organizations
- Rural infrastructure
- Environmental sustainability
- Climate change

OUTCOMES

Enabling policy and regulatory frameworks at national and international levels	Increased levels of investment in the rural sector	Improved country-level capacity for rural policy and programme development, implementation and evaluation

PILLARS OF IFAD'S RESULTS DELIVERY

Country programme delivery	Knowledge building, dissemination, and policy engagement	Financial capacity and instruments	Institutional functions, services and systems

PRINCIPLES OF ENGAGEMENT

Targeting

Empowerment

Gender equality

Innovation, learning and scaling up

Partnerships

* IFAD's work will contribute significantly to Agenda 2030, particularly to SDGs 1 and 2, as well as to SDGs 5, 8, 10, 13, and 15.

Annex II. Complete GLDC Impact Pathway

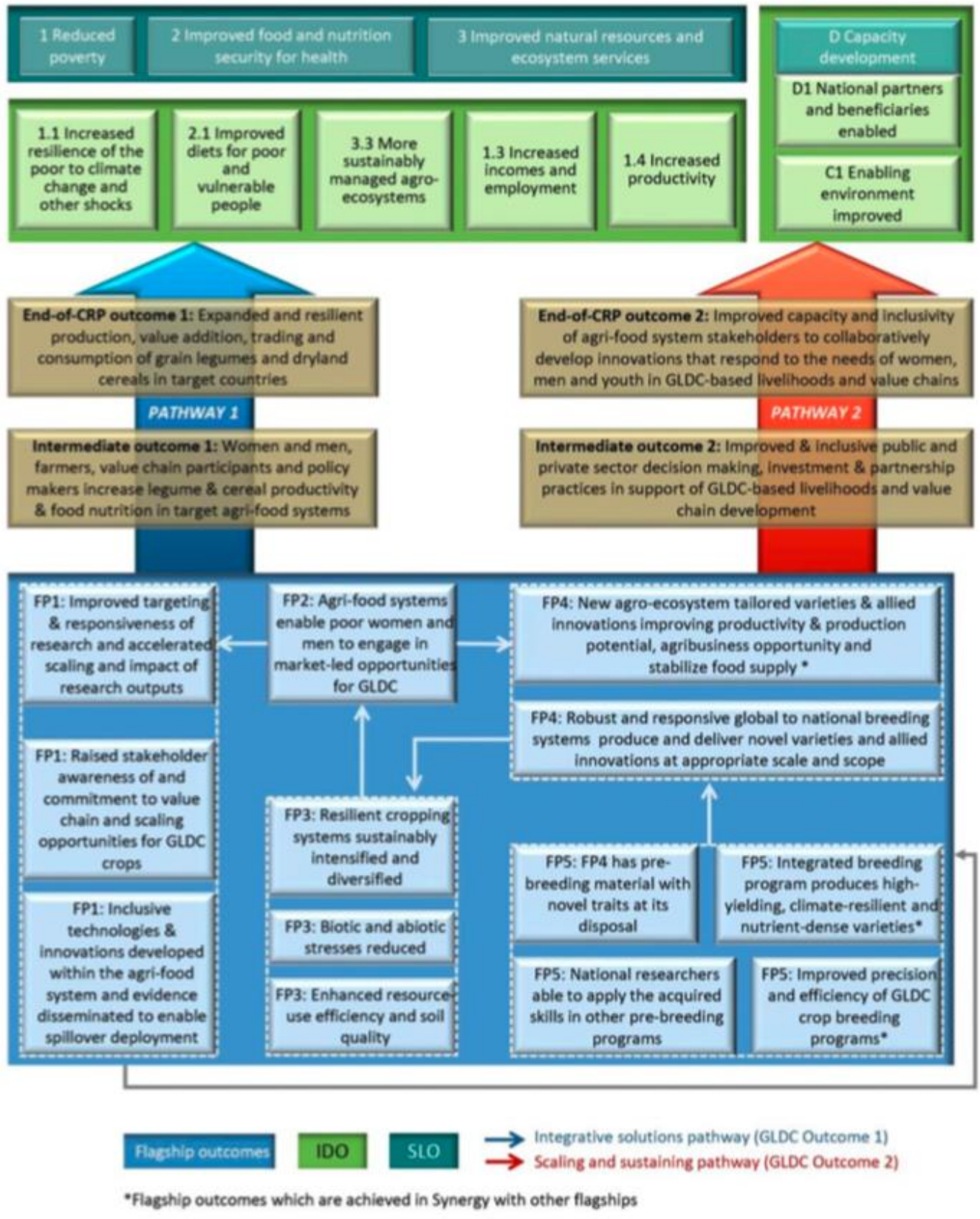
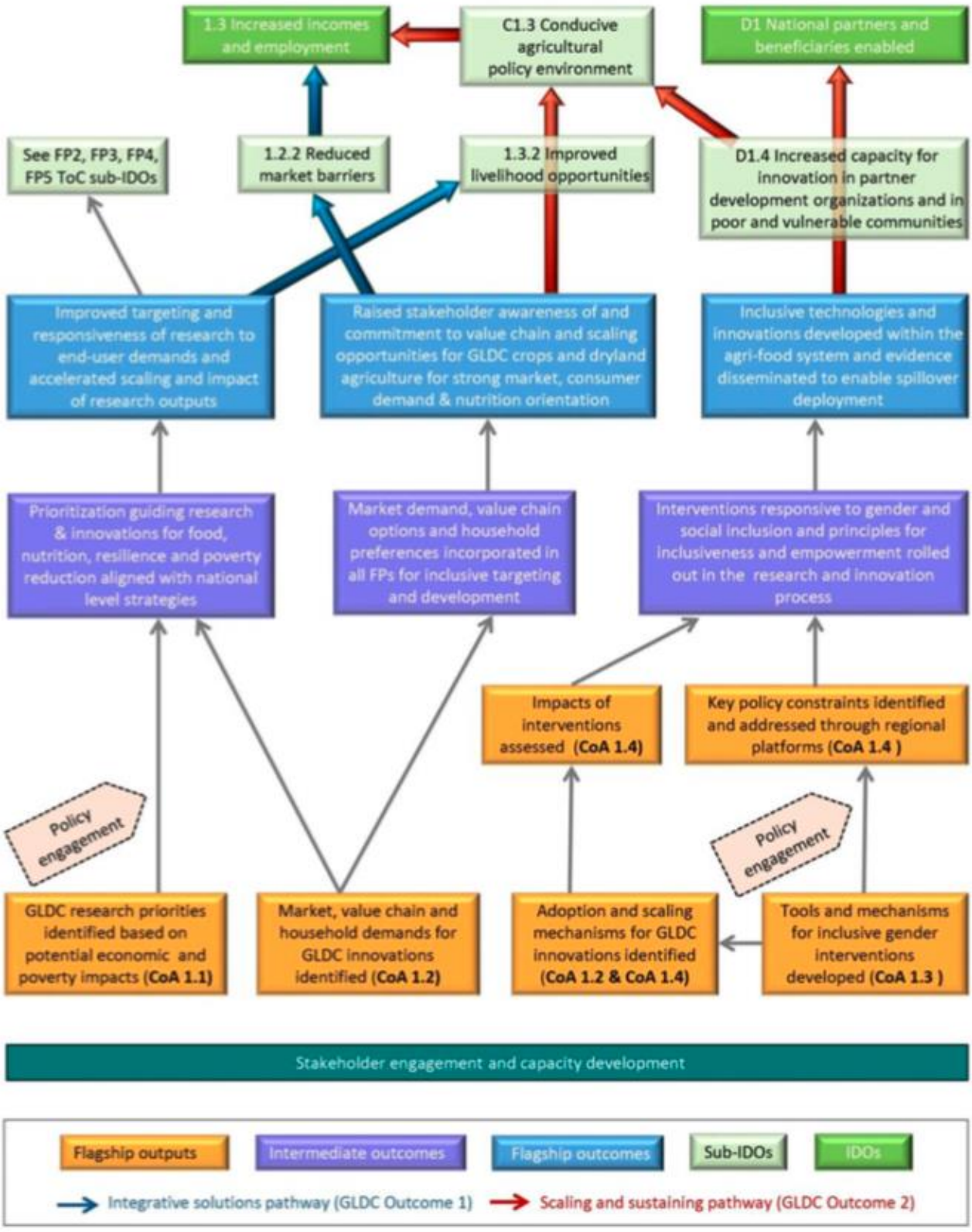
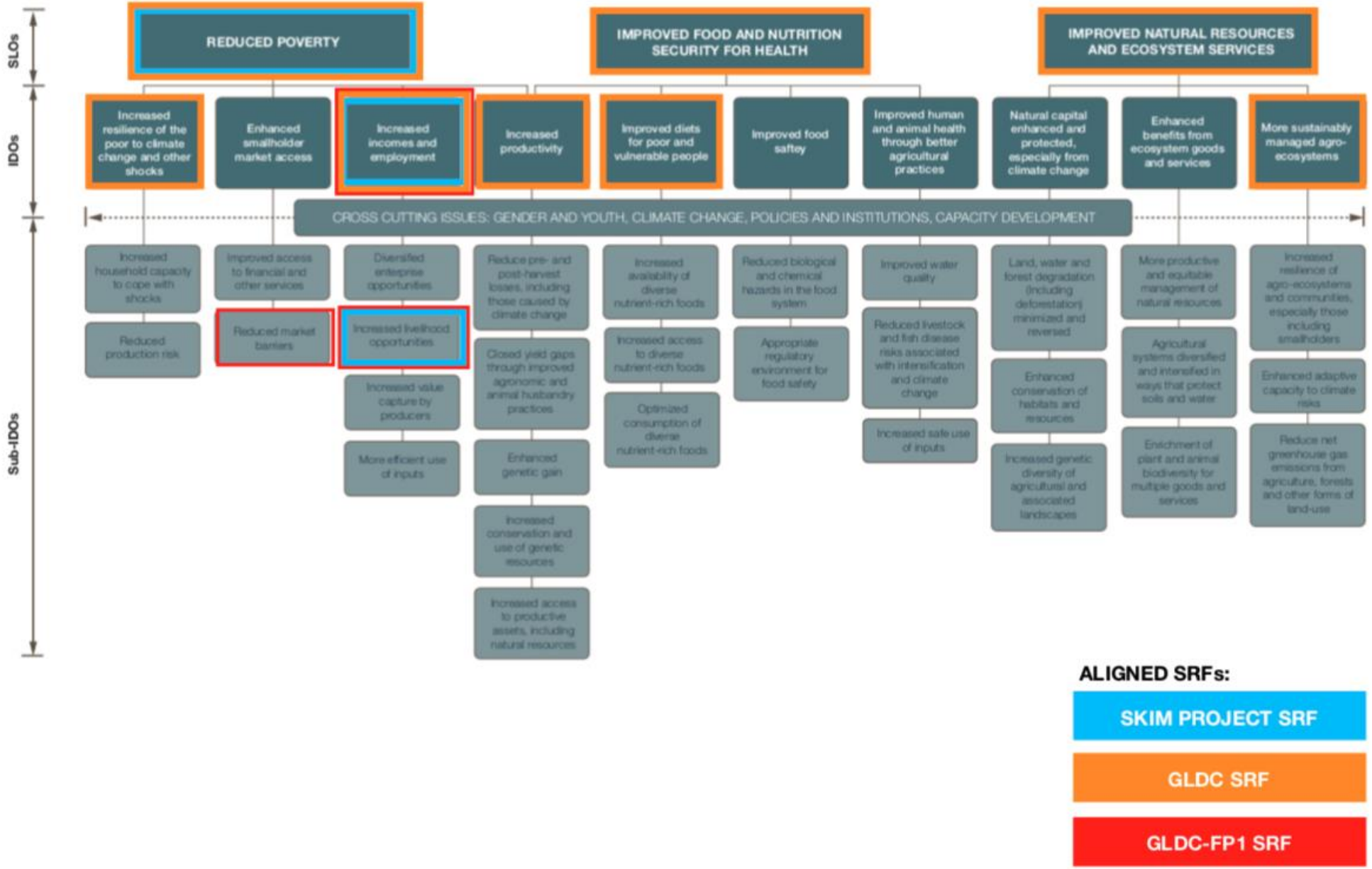


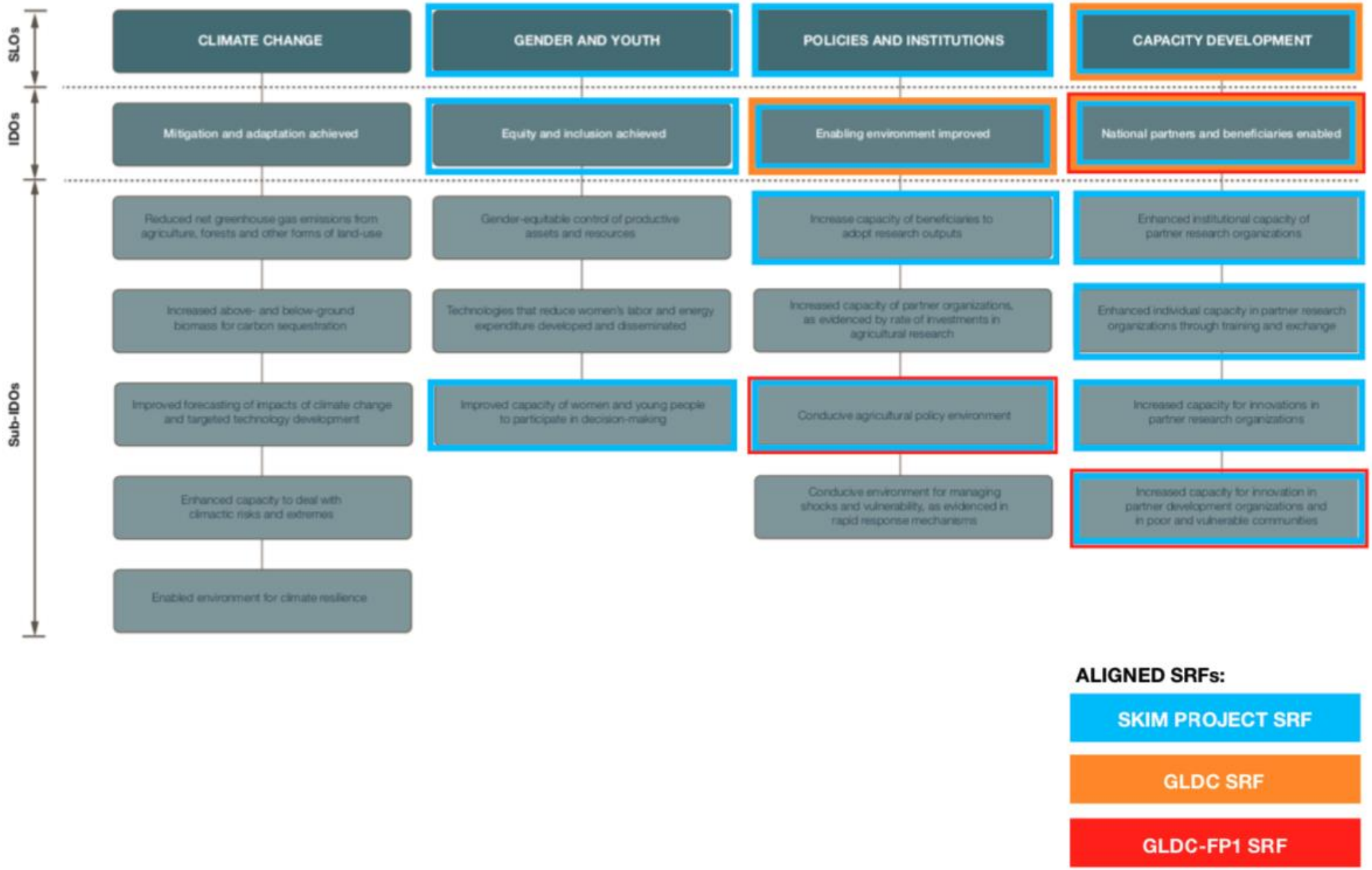
Figure 5: GLDC Impact Pathway

Annex III. Complete GLDC-FP1 Impact Pathway



Annex IV. Complete CGIAR Strategic Research Framework




SLOs
IDOs
Sub-IDOs
CLIMATE CHANGE
GENDER AND YOUTH
POLICIES AND INSTITUTIONS
CAPACITY DEVELOPMENT
Mitigation and adaptation achieved
Equity and inclusion achieved
Enabling environment improved
National partners and beneficiaries enabled
Reduced net greenhouse gas emissions from agriculture, forests and other forms of land-use
Gender-equitable control of productive assets and resources
Increase capacity of beneficiaries to adopt research outputs
Enhanced institutional capacity of partner research organizations
Increased above- and below-ground biomass for carbon sequestration
Technologies that reduce women's labor and energy expenditure developed and disseminated
Increased capacity of partner organizations, as evidenced by rate of investments in agricultural research
Enhanced individual capacity in partner research organizations through training and exchange
Improved forecasting of impacts of climate change and targeted technology development
Improved capacity of women and young people to participate in decision-making
Conducive agricultural policy environment
Increased capacity for innovations in partner research organizations
Enhanced capacity to deal with climactic risks and extremes
Conducive environment for managing shocks and vulnerability, as evidenced in rapid response mechanisms
Increased capacity for innovation in partner development organizations and in poor and vulnerable communities
Enabled environment for climate resilience
ALIGNED SRFs:
SKIM PROJECT SRF
GLDC SRF
GLDC-FP1 SRF

Annex V. Resources

1. IFAD Evaluation Manual- Second Edition- https://www.ifad.org/documents/38714182/39748829/manual.pdf
2. GLDC proposal- https://hdl.handle.net/20.500.11766/10228
3. CGIAR Strategy and Results Framework 2016-2030- https://cgspace.cgiar.org/handle/10947/3865
4. ICARDA Strategic Plan 2017-2026 https://www.icarda.org/publications/11369/icarda-strategic-plan-2017-2026-summary
5. ICARDA Indicators Reference Manual https://cgiarmel.atlassian.net/wiki/spaces/IMF/pages/965312514/ICARDA+Indicators+Reference+Manual+IRM
6. IFAD Results and Impact Management System- https://webapps.ifad.org/members/eb/120/docs/EB-2017-120-R-7-Rev-1.pdf
7. IFAD Knowledge Management Strategy Results Measurement Framework- https://www.ifad.org/documents/38711624/39417933/km_e.pdf/43599c5a-9a6c-4ff7-9299-e992aa4b9d24

Strengthening Knowledge Management for Greater Development Effectiveness in the Near East, North Africa, Central Asia and Europe (SKiM) is a grant project led by ICARDA and funded by IFAD. The project also works with international partners CIHEAM-Bari, PROCASUR, Virginia Tech as well as NARS, governments, and agricultural extension services in Moldova, Morocco and Sudan.

Initiated in June 2018, the project facilitates and supports KM and capacity development activities in the three selected countries and will provide practical examples of KM best practices that will be analysed and adopted by participating institutions. Increasing the capacities of participating public institutions, by providing necessary structures and systems at the country and regional levels, will ensure that knowledge can be effectively managed for long-term growth and development.

The project website (https://mel.cgiar.org/projects/SKIM) provides background information and describes the project team, partners and stakeholders engaged. The website also shares key documents including the project proposal, and outlines the goals, objectives and impact pathway of the project, as well as additional resources and information on news and events.

ICARDA
Science for resilient livelihoods in dry areas

IFAD
Investing in rural people

CIHEAM BARI

Procasur

VT