



CGIAR Innovation Packages and Scaling Readiness (IPSR)

CGIAR week of science and practice of scaling agri-
food system innovation

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22 November 2022

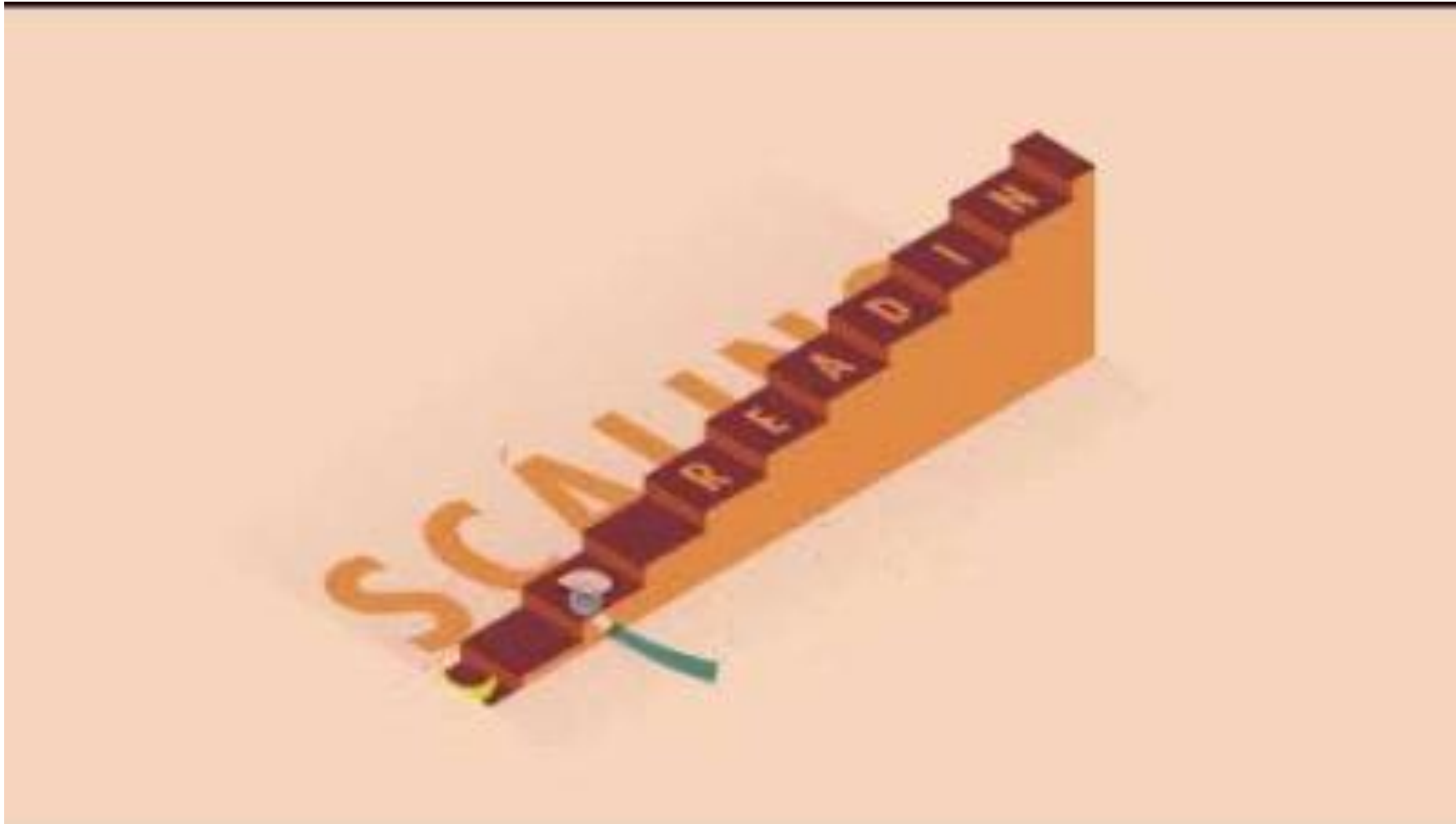
Nairobi, Kenya

What is Scaling Readiness?

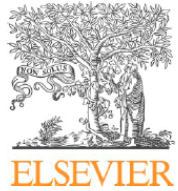
- Framework to ‘bridge’ research and development
- Supports critical reflection, decision-making and action based on evidence
- Challenges innovation and scaling myths (copy/paste; unrealistic impact pathways)
- Standardized approach enables innovation portfolio management



What is Scaling Readiness?



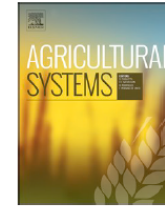
Innovation Packages & Scaling Readiness



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Agricultural Systems

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Scaling Readiness: Science and practice of an approach to enhance impact of research for development

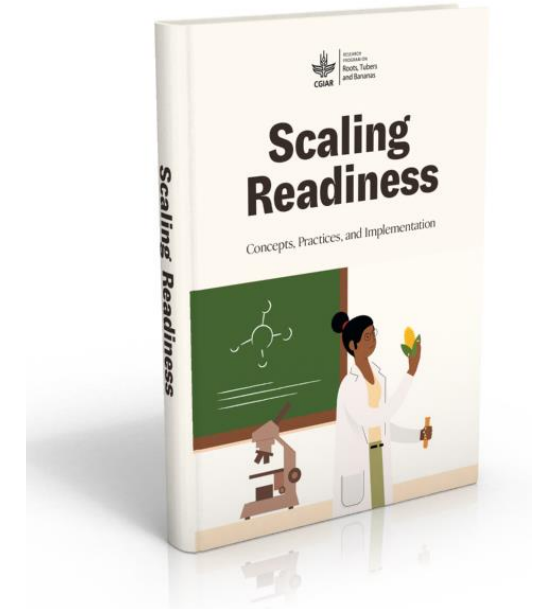


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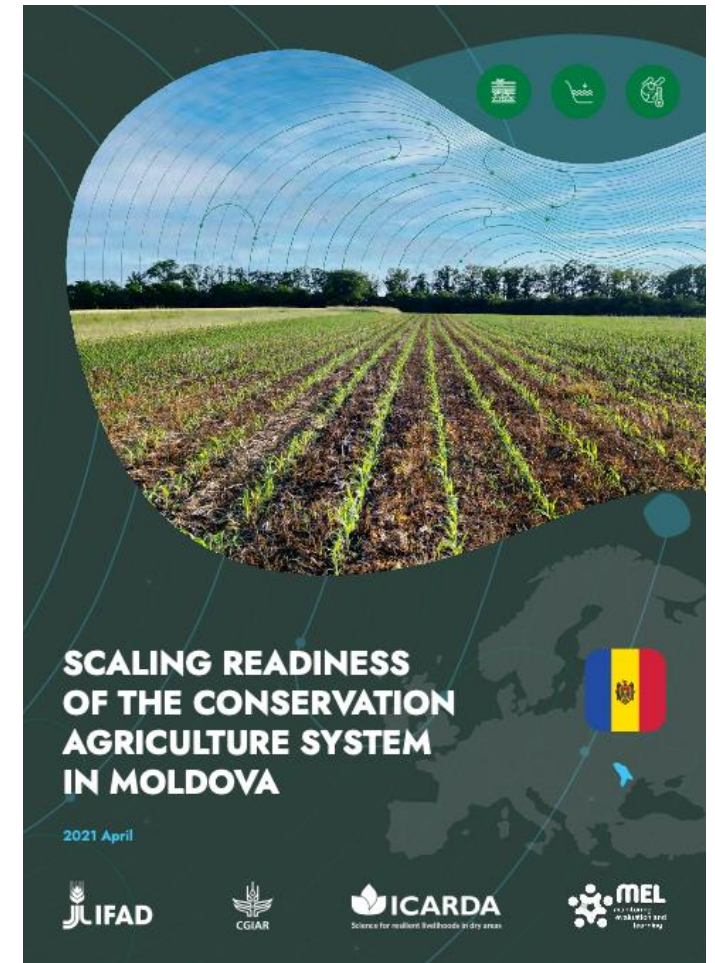
^c CGIAR Research Program on Roots, Tubers and Banana (RTB) 1558, Av. la Molina 1895, La Molina 15023, Peru



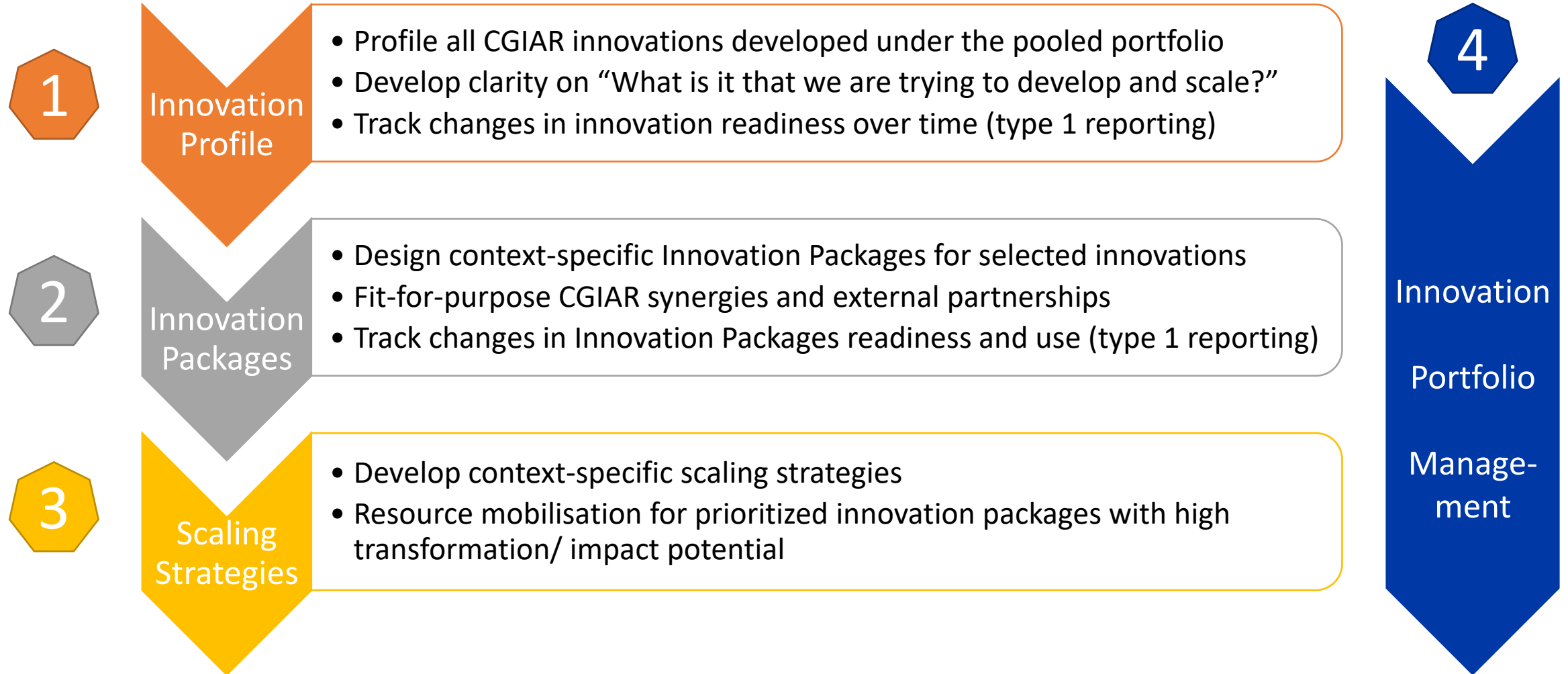
1. Keep overview and track Innovations in an evidence-based way
2. Agricultural innovation system synergies around Innovation Packages
3. Fit-for-purpose partnerships to tackle innovation and scaling bottlenecks
4. Inform CGIAR innovation portfolio management (prioritization, portfolio diversity, risk management, strategic resource mobilization)

IPSR definitions

- **Innovation:** New, improved or adapted outputs or groups of outputs such as products, technologies, services and institutional arrangements with high potential to contribute to positive impacts when used at scale.
- **Innovation Packages:** Combinations of interrelated innovations and enabling conditions that, together, can lead to transformation and impact at scale in a specific context.
- **Scaling Readiness:** Metric that combines single or average innovation readiness and innovation use scores at innovation package or portfolio level.



CGIAR's new approach to scaling innovation



1 Innovation Profiling

Profile CGIAR innovations designed, tested and/or scaled under the pooled portfolio.

Self-directed survey tool that collects info on:

- Innovation (name, description, type, etc)
- Geofocus (country)
- Lead and contributing Initiative(s)
- Partnerships
- Impacts (Impact Areas and SDGs)
- (Changes in) Innovation Readiness



Will act as the baseline, and annual follow up surveys will enable track progress over time



1 Innovation Profiling – key metrics

- **Innovation Readiness:**

- Builds on NASA technology readiness levels (TRL)
- Broadened to “innovation” readiness to capture the non-technological innovations that R&D organizations work on (e.g. policy, capacity and business model solutions)
- Focusses on assessing the development/ maturity stage of an innovation (is the innovation is proven to work?)
- 0-9 levels ranging from *Idea* to *Proven Innovation*
- Going from 0->2 is just as important as going from 7->9
- Evidence-based assessment that is Quality Assured
- Data is updated annually as part of Type 1 reporting Feeds CGIAR IPSR Innovation Profile and Innovation Dashboard and Innovation Portfolio Management



CGIAR Innovation Packages and Scaling Readiness (IPSR)

INNOVATION PROFILE

ENVIRONMENTAL FLOW ESTIMATION TOOLS

A set of software tools will enable quick coarse-scale desktop estimates of the environmental flow requirements of rivers by water planners and managers using time series data of monthly river flows.

2022
1st Edition

The Environmental Flow Estimation Tools are a set of user-friendly (online and offline) software tools enabling desktop estimation of quick, coarse-scale environmental flow requirements of rivers. The input data required are time series data of monthly "natural" river flows, either measured or estimated. The tools are meant to be used by water planners and managers in making initial planning-level estimates of environmental flows, which may then be followed by more comprehensive assessments using further data related to aquatic ecology, moving beyond river flow data. Five tools are currently available, two covering major rivers and the other three specifically for estimating environmental flow requirements in the Ganges Basin, Sri Lanka and Nepal. The tools are also useful for building capacity on environmental flow estimation, including for students and practitioners seeking to gain an initial understanding of the concept of environmental flows.

INNOVATION TYPOLOGY

TECHNOLOGICAL INNOVATION

Innovations of technical/material nature, including varieties/breeds; crop and livestock management practices; machines; processing technologies; big data and information systems.

INCREMENTAL INNOVATION

Innovations that already exist and undergo constant, steady progress and improvement.

THIS INNOVATION IS EXPECTED TO CONTRIBUTE TO THE FOLLOWING IMPACTS

CGIAR IMPACT AREAS AND COLLECTIVE GLOBAL TARGETS

Environmental health & biodiversity
Targets: 5.1

Learn more: <https://www.cgiar.org/who-we-work-with/>

SDGs AND SDG TARGETS

Ensure availability and sustainable management of water and sanitation for all
Targets: 6.4 | 6.5 | 6.6

Learn more: <https://sdgs.un.org/track>

CGIAR INITIATIVES, PARTNERS AND GEOSCOPE

CGIAR LEAD & CONTRIBUTING INITIATIVE

NEXUS Gains: Realizing Multiple Benefits Across Water, Energy, Food and Ecosystems (Forests & Biodiversity)

THIS INNOVATION IS DEVELOPED, TESTED AND/OR SCALED FOR IN THE FOLLOWING COUNTRIES

TYPE OF PARTNERS / PARTNERSHIPS

National Government
Academic, Training and Research

CURRENT INNOVATION READINESS

- 9 **PROVEN INNOVATION**
The innovation is validated for its ability to achieve a specific impact under uncontrolled conditions
- 8 **UNCONTROLLED TESTING**
The innovation is being tested for its ability to achieve a specific impact under uncontrolled conditions
- 7 **PROTOTYPE**
The innovation is validated for its ability to achieve a specific impact under semi-controlled conditions
- 6 **SEMI-CONTROLLED TESTING**
The innovation is being tested for its ability to achieve a specific impact under semi-controlled conditions
- 5 **MODEL/EARLY PROTOTYPE**
The innovation is validated for its ability to achieve a specific impact under fully-controlled conditions
- 4 **CONTROLLED TESTING**
The innovation is being tested for its ability to achieve a specific impact under fully-controlled conditions
- 3 **PROOF OF CONCEPT**
The innovation's key concepts have been validated for their ability to achieve a specific impact
- 2 **FORMULATION**
The innovation's key concepts are being formulated or designed
- 1 **BASIC RESEARCH**
The innovation's basic principles are being researched for their ability to achieve a specific impact
- 0 **IDEA**
The innovation is at idea stage

ACKNOWLEDGEMENTS

We would like to thank all Funders who support this innovation through their contributions to the **CGIAR Trust Fund** (<https://www.cgiar.org/funders/>). Additional bilateral investment for this innovation has been provided by IWMI, the CGIAR Research Program on Water, Land and Ecosystems and USAID.

MORE INFORMATION

WEBSITES AND DOCUMENTATION

- <https://www.iwmi.cgiar.org/resources/data-and-tools/models-and-software/environmental-flow-calculators/>
- <https://www.sciencedirect.com/science/article/abs/pii/S1364815208000649>
- <http://eflows.iwmi.org/>

CONTACT PERSON

For more information on this innovation please contact **Nishadi Eriyagama** (n.eriagama@cgiar.org)

PLEASE REFER TO THIS INNOVATION PROFILE AS

Eriyagama N., Dickens C., McCartney M., Wickramaratne C., Hafeez M., 2022. Environmental Flow Estimation Tools. Innovation Packages and Scaling Readiness (IPSR) Innovation Profile. CGIAR, October 2022. <https://hdl.handle.net/...>

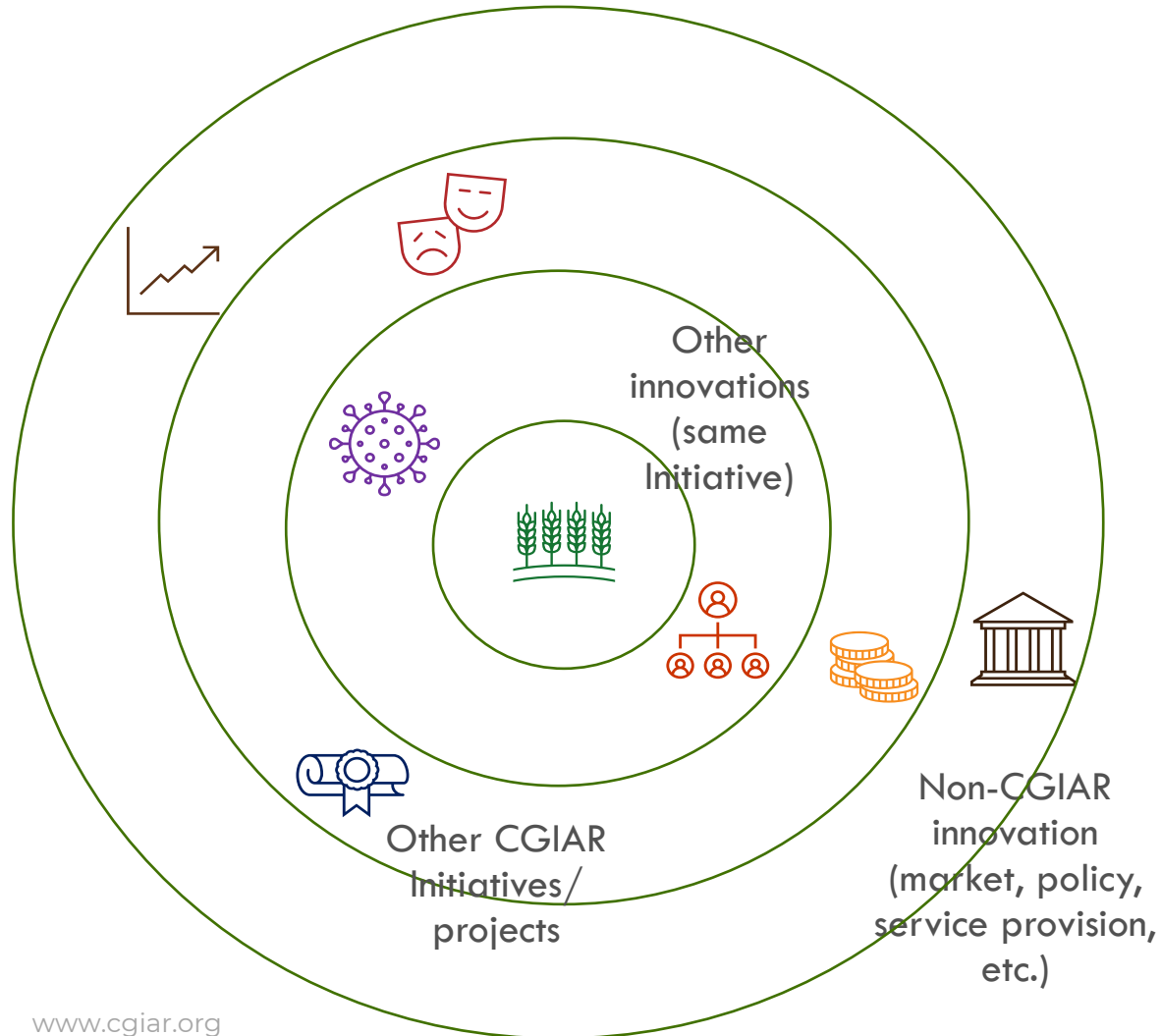
INNOVATION READINESS JUSTIFICATION

Since the development and dissemination of the tools, they have been independently used by other parties to estimate environmental flows, as evidenced by publications. For example, the online Global Environmental Flow Information System has been adopted to estimate environmental flows at country level in order to measure SDG indicator 6.4.2 on water stress. Inclusion of more ecologically grounded data into the tools may enable them to be adopted more widely.

EVIDENCE SUPPORTING THE INNOVATION READINESS LEVEL

<https://doi.org/10.24346/2022>

2 Innovation Packaging



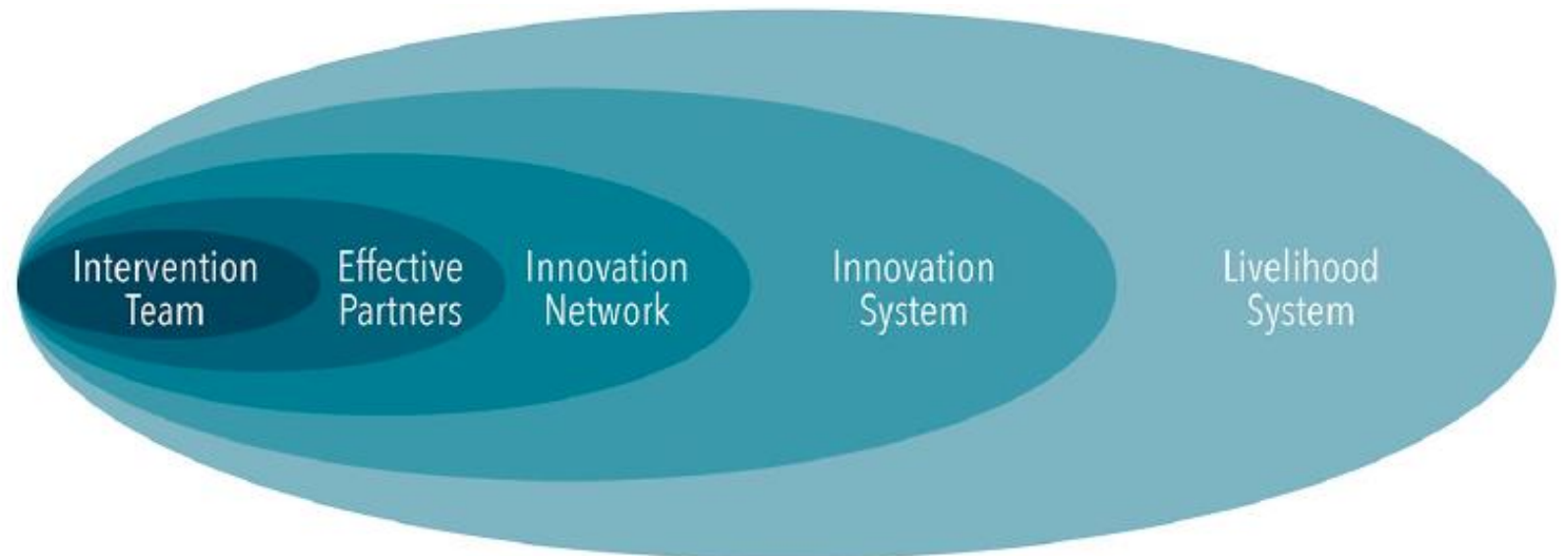
Design context-specific Innovation Packages for innovations that have a specific readiness level (e.g. >5 readiness)

Context-specific meta data:

- Enabling conditions
- Demand/ scaling partners
- End-use/ beneficiary typology
- Innovation Readiness
- Innovation Use

2 Innovation Packaging – key metrics

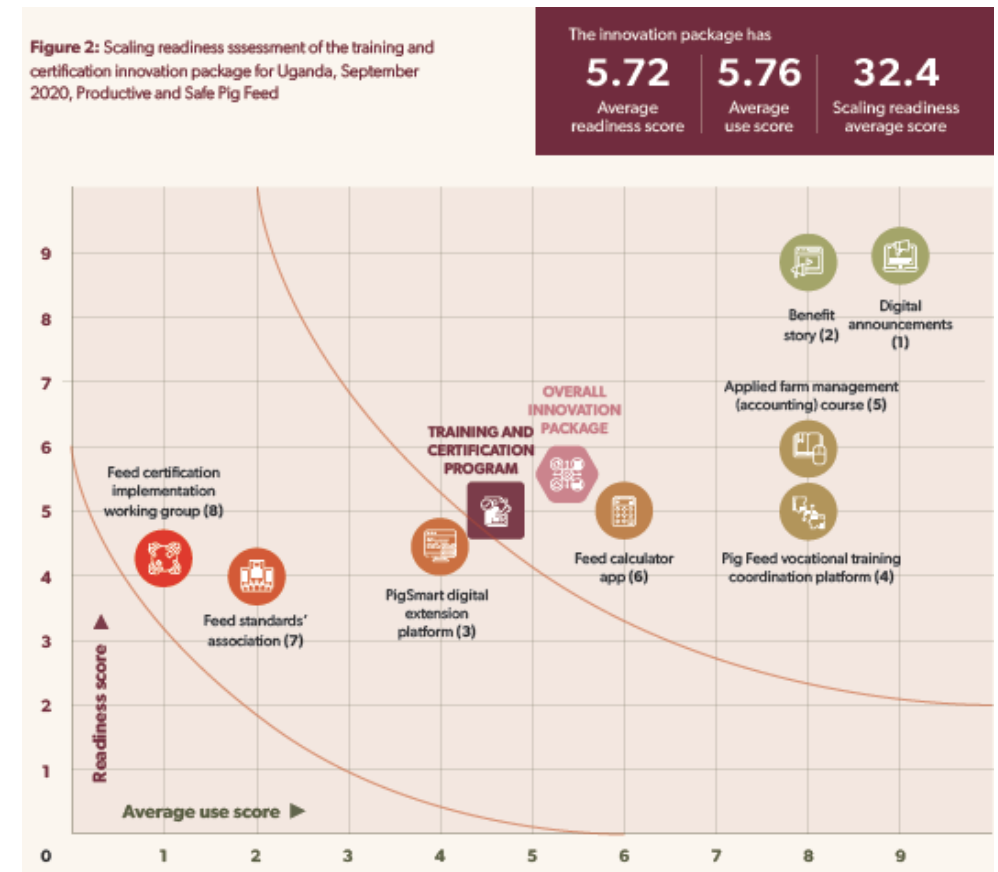
- **Innovation Use:**
 - Moves away from simplistic more=better thinking
 - Applies a network approach to measure diffusion of the innovation in the agricultural innovation system (who is using the innovation?)
 - 0-9 levels ranging from *No use* to *Common use by beneficiary*
 - Evidence-based assessment that is *Quality Assured*
 - Data updated annually Type 1 outcome reporting
 - Feeds dashboard, scaling strategy design and strategic decision-making



2

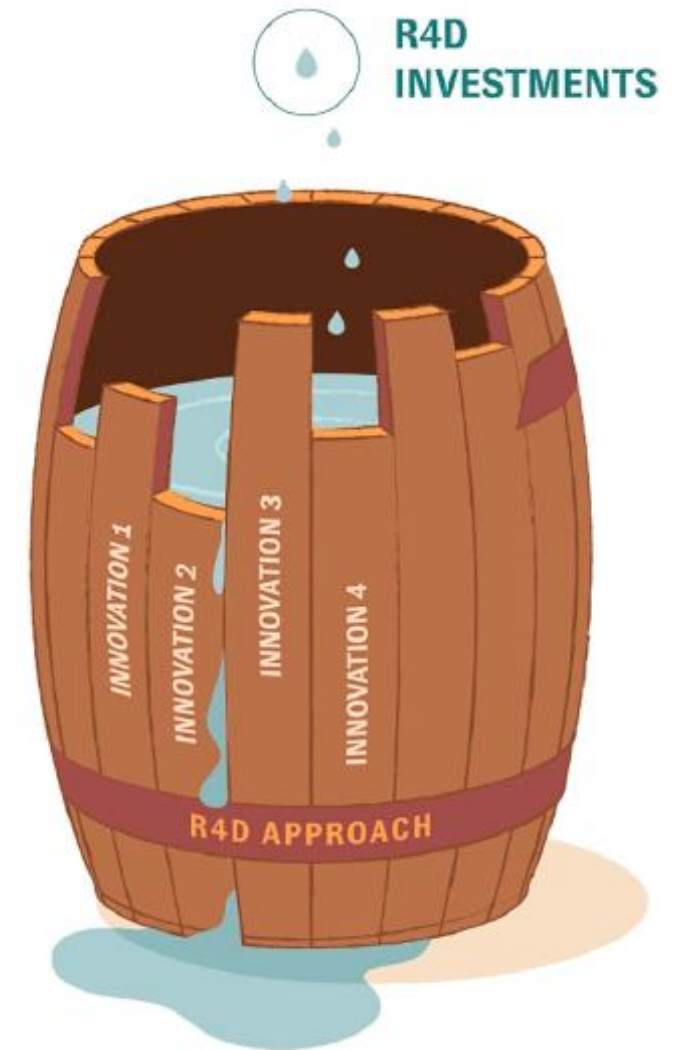
Innovation Packaging – key metrics

- **Scaling Readiness:**
 - Assessment of innovation readiness and use at innovation package level
 - Reveals context-specific bottlenecks/ levers (law-of-minimum)
 - Informs scaling strategy design and strategic partnerships to lift bottlenecks
 - Baseline for assessing changes overtime as result of investment
 - Stage-gating of innovation



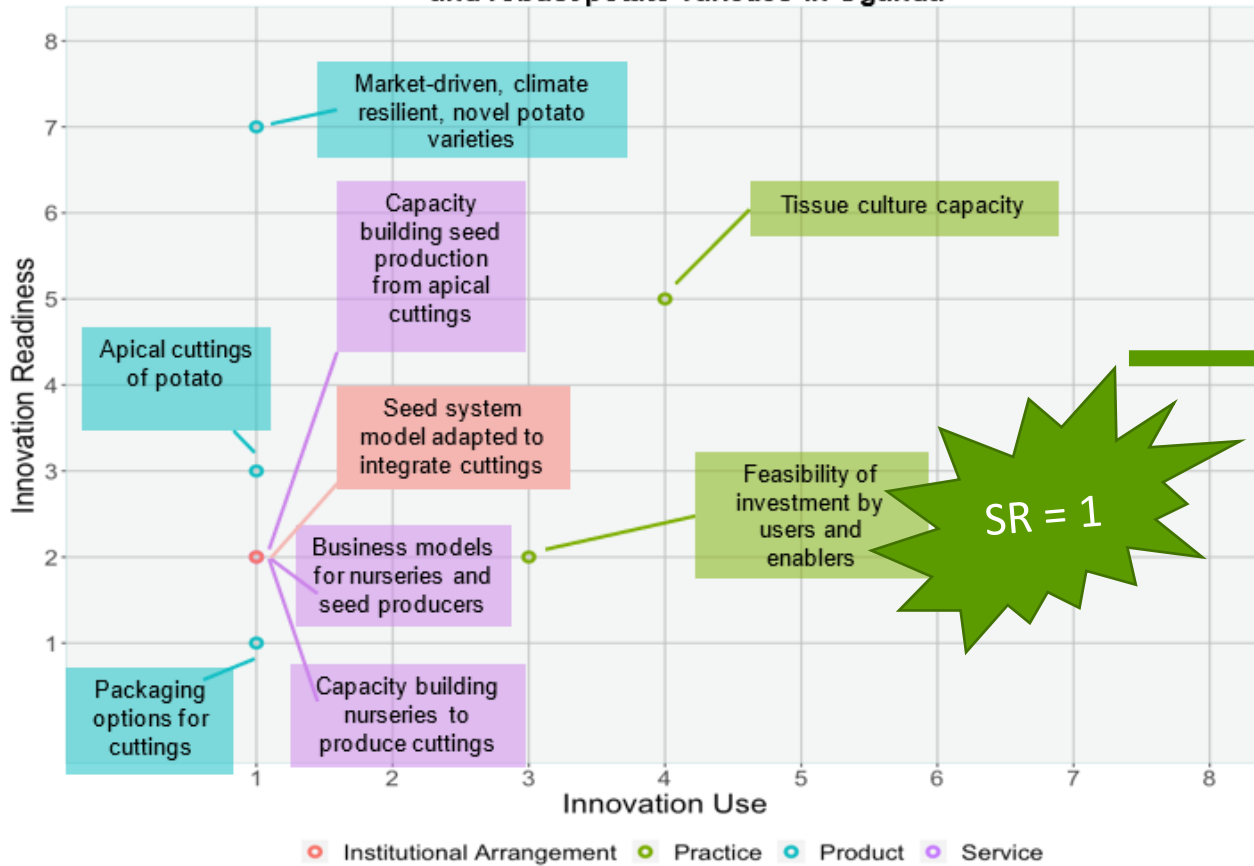
3 Scaling Strategies

- Only for packages with (for example) scaling readiness of >36 or high scalability potential
- Prioritization at the Innovation Package level around the “lowest staves in the barrel” (bottlenecks)
- Fit-for-purpose partnerships and (co-)investment to overcome strategic bottlenecks
- Baseline for MEL and adaptive management
- Monitor whether investments and partnerships have led to increased scaling readiness

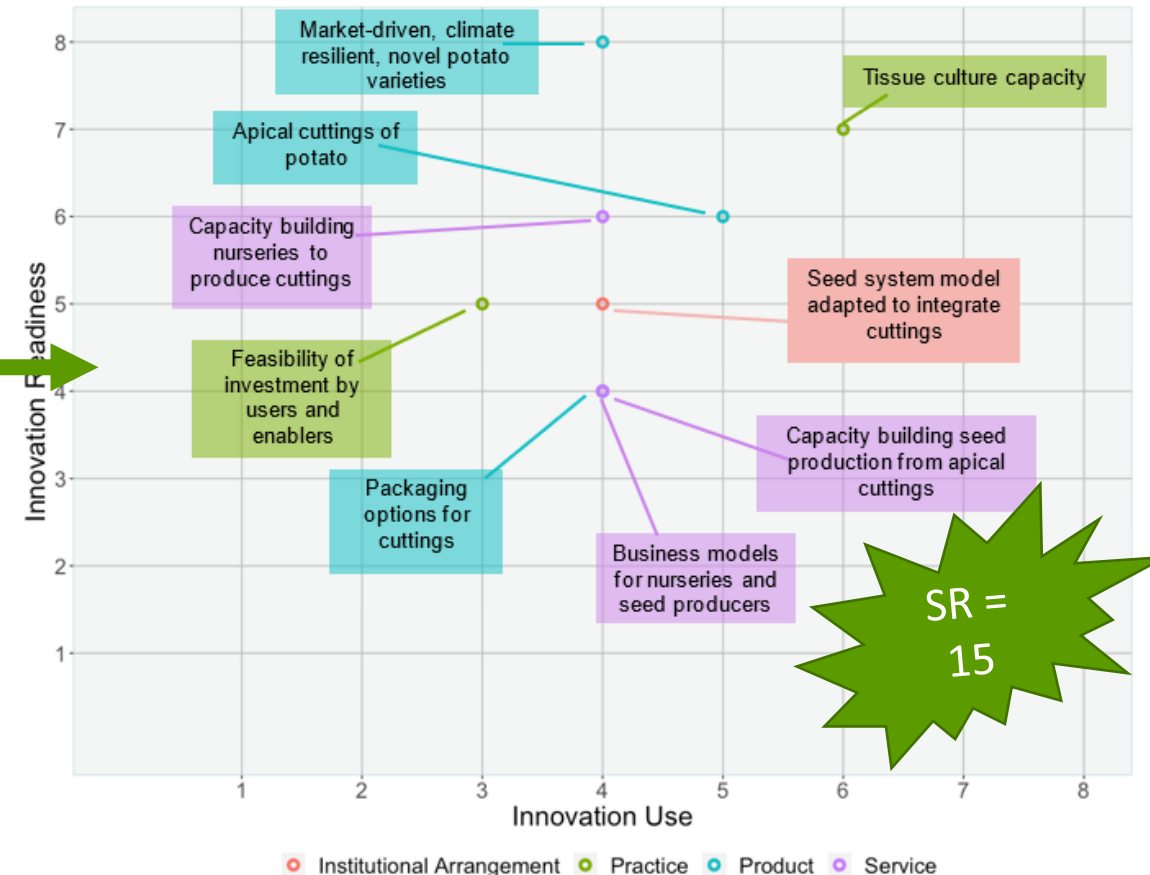


3 Scaling Strategies

Readiness versus Use at introduction of innovation package of apical cuttings and robust potato varieties in Uganda



Readiness versus Use 2 years after introduction of innovation package of apical cuttings and robust potato varieties in Uganda



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Filter by CGIAR Action Areas

Systems transformation

Resilient agricultural systems

Genetic innovation

Filter by CGIAR Impact Areas

Nutrition, health, and food security

Poverty reduction, livelihoods and jobs

Gender equality, youth and inclusion

Climate adaptation and mitigation

Environmental health and literacy

Filter by Sustainable Development Goals

Filter by Regions of Implementation

CGIAR Core Innovations (2538 on 1 Jan 2022)

Resilient Agrifood Systems	807	Genetic Innovation	1430
Systems Transformation	301		

Scaling Readiness of CGIAR Innovation Packages

Filters:

- Action Area(s)
- Country/ies
- Region(s)
- SDGs focus
- Impact Area focus
- Rising STAR Innovations
- Relative CGIAR investment
- Year(s)

CGIAR Innovation Portfolio Management and Stage-Gating

Discovery	Pilot	Incubate	Accelerate/ Scale
<i>(Low Readiness, Low Use)</i>	<i>(Medium Readiness, Low Use)</i>	<i>(High Readiness, Medium Use)</i>	<i>(High Readiness, High Use)</i>
USD 200M CGIAR investment in 2022	USD 400M CGIAR investment in 2022	USD 300M CGIAR investment in 2022	USD 200M CGIAR investment in 2022

Countries of Implementation

4 Innovation Portfolio Management

- **External functionalities (public dashboard)**
 - Reporting on progress/ learning
 - Communication and advocacy
 - Demand-Supply alignment (catalogue function)
 - External partnerships and synergies
- **Internal functionalities (Management Information System)**
 - Stage-gating (what to advance, boost, put on hold)
 - Risk-Return Management
 - Resource allocation/ prioritization to ensure Innovation Portfolio health
 - Strategic resource mobilization around portfolio gaps
 - Internal coherence around SDGs/ geoscope/ etc.

CGIAR IPSR objectives and key results



	IPSR Components	End 2024 Key Results	End 2030 Key Results
1	Innovation Profiling	95% of the Initiatives have profiled their innovations	95% of the Initiatives have profiled their innovations
		70% of Innovation Profiles have been updated	95% of Innovation Profiles have been updated
2	Innovation Packages and Scaling Readiness Assessment	At least 20% of profiled core innovations have been included in Innovation Packages design and Scaling Readiness assessment	At least 50% of profiled core innovations have been included in Innovation Packages design and Scaling Readiness assessment
		At least 30% of Innovation Packages/ Scaling Readiness Assessments have been updated	At least 75% of Innovation Packages/ Scaling Readiness Assessments have been updated
3	Scaling Strategy	IPSR has supported the design of scaling strategies for 10 innovations with transformative impact potential	IPSR has supported the design of scaling strategies for 90 innovations with transformative impact potential
4	Innovation Portfolio Management	Interactive IPSR-powered innovation portfolio dashboard is available for internal/ external audiences	Interactive IPSR-powered innovation portfolio dashboard is available for internal/ external audiences and support strategic decision-making

What could be your role?

- **IPSR facilitator**
 - Support your project/ program/ Initiative's innovation teams in using IPSR in a meaningful way?
- **IPSR user**
 - Use the IPSR approach in your day-to-day work to co-design, implement and monitor
- **Strategic ex-ante package design**
 - What are existing and proven policy, finance, market, partnership enablers to scale innovation X in country Y

Can you help us to...

- Tell us what you like about the approach?
- What would you like to hear/ learn more off?

More info

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<https://innovationandscaling.thinkific.com/>

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IFAD Consolidated Programme
Implementation Unit



12 OCT 2021

**An innovation perspective to IFAD impact investments:
how ready is the conservation agriculture system in
Moldova for impact at scale?**

www.cgiar.org



Scaling Readiness Innovation Profile of
"Supplementary Irrigation"
Water Management System

in Burkina Faso, China, Ethiopia, Iraq, Iran, Jordan, Kenya,
Lebanon, Morocco, Pakistan, Syria, Tunisia and Turkey

for Improving Water Availability and Efficiency In Rainfed Farming

in 2021-06-20

#1

CGIAR ICARDA MEL

Sartas Murat | Nangia Vinay | Oweis Theib | Bonaiuti Enrico



NOVEMBER 2020

SCALING READINESS REPORT
AND SCALING PLAN

for training and certification approach for
small scale pig feed producers in Uganda

ILRI CGIAR RESEARCH PROGRAM ON LIVELIHOODS

UGANDA



SCALING READINESS
OF THE CONSERVATION
AGRICULTURE SYSTEM
IN MOLDOVA

2021 April

IFAD CGIAR ICARDA MEL

www.scalingreadiness.org