

Platform
for Agricultural
Risk Management

Managing risks
to improve farmers'
livelihoods

Knowledge Management



Agricultural Risk Management: practices and lessons learned for development

K-Sharing
& Learning Workshop

25th October 2017
IFAD HQ, Rome, Italy

Participants'
Handbook





PARM
PLATFORM FOR
AGRICULTURAL RISK
MANAGEMENT

Platform
for Agricultural
Risk Management

Managing risks
to improve farmers'
livelihoods



Participants' Handbook

Agricultural Risk Management and development: practices and lessons learned

K-Sharing & Learning Workshop

Better design.
Enhanced risk management.
More investment in agriculture.

Date:

Wednesday, 25 October, 2017

Venue:

International Fund for Agricultural Development (IFAD)

Italian Conference Room

Via Paolo di Dono, 44

00142 Rome, Italy





Foreword

The Platform for Agricultural Risk Management (PARM) is a G20 initiative led by IFAD and supported by the European Commission (EC), Agence Française de Développement (AFD) and the Italian and German cooperation focused on enhancing agricultural risk management in developing countries. PARM works in Africa in strategic partnership with NEPAD at a regional and national level.

While the importance of managing risks in agriculture is now widely recognized and various initiatives at different levels have recently been designed and implemented with the technical support of international financial institutions, there is a need to learn from those experiences. In fact, only few lessons have been formalized to identify and improve strategies to cope with the risks, and though most reviews/evaluations have been limited to specific risks or areas of intervention, they need to be shared among ARM practitioners.

In this context, PARM - in collaboration with its partners - has raised the need to foster the exchange of knowledge and bring together the experience available on ARM in developing countries, with the objective to identify and develop practices and lessons learned as guidance for policy makers and rural development practitioners to strategically design, implement and mainstream ARM in their activities.

The workshop is the result of the consultations and contributions from development partners, stakeholders, experts and institutions, which have actively participated in the different phases and aspects of the workshop preparatory process and which are acknowledged in the different sessions of the handbook.

A call for proposals was closed on September 12th, with 40 initiatives received. A Technical Committee¹ has been set up to work alongside the PARM Secretariat in defining the specific criteria to select the initiatives that will be presented and discussed during the workshop (Session 2 and Session 3) as well as contributing in the development of the Terms of Reference of the publication (Annex I) and guiding questions for the panel and group discussions.

The workshop sessions have been designed to allow participants to play an active role and contribute to the drafting of the outcome publication which will be the reference before, during and after the workshop. In particular, participants will work towards both the drafting of risk-specific checklists for good ARM design and drawing lessons from the selected initiatives presented.

This handbook represents the input document that will then be further developed to include the outcomes of the workshop discussions.

The work of the participants will then be continued by the PARM Secretariat and the Technical Committee in order to finalize the publication titled "**Agricultural Risk Management: practices and lessons learned for development**" which is planned to be published by November 30th.

The Platform for Agricultural Risk Management would like to thank in advance all the colleagues and partners for their contribution in the preparation of the workshop. Special thanks to the Technical committee, discussant leaders and various panellists who have made and will make available their valuable knowledge and inputs during the discussions.

We look forward to a successful and fruitful event with the hope that this workshop will contribute to build the way forward for better design for enhanced risk management and foster investments in agriculture on the basis of the discussions and lessons learnt.

¹ Members of the Technical Committee are: Carlos Arce, PARM; Federica Carfagna, ARC/WFP; Ilaria Firmian, ECD/IFAD; Alessandra Garbero, SKD/IFAD; Åsa Giertz, World Bank; Gideon Onumah, NRI/AGRINATURA; Mariam Soumare, NEPAD.



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Time	Description	Presenter
08:30 - 09:00	Registration of participants	
09:00 - 09:15	Opening Remarks	Adolfo Brizzi, IFAD
09:15 - 09:20	Workshop Objectives and methodology	Facilitator: Maria Magdalena Heinrich, FAO
Session 1. Setting the scene: What makes a good agricultural risk management project?		
09:20 - 10:15	<p>Panel Discussion Defining key pillars for "agricultural risk proofed" projects from design to implementation and results.</p> <ul style="list-style-type: none"> From a holistic risk assessment and prioritization to the identification of tools for better design Information, capacity building and partnership at the core of ARM Measuring results and impact: ARM tools for increasing resilience 	<p>Facilitator: Carlos Arce, PARM</p> <p>Panelists: Gideon Onumah, NRI Fabio Bedini, WFP Federica Carfagna, ARC Jonathan Hellin, CIMMYT Marco d'Errico, RIIMA/FAO Alessandra Garbero, IFAD</p>
10:15 - 10:30	Panel Discussion Q&A	Facilitator: Maria Magdalena Heinrich, FAO
10:30 - 10:45	Coffee Break	
Session 2. Drawing lessons from the field: how to learn and assess good practices to manage risks?		
10:45 - 12:15	<p>Group Discussions</p> <p>The group discussions will aim at jointly define a set of methodological guidelines and criteria to identify good practices on ARM tools, including potential indicators and measurement on their impact. Participants will then apply their criteria to one of the selected initiatives. Participants will be grouped by thematic blocks:</p> <ol style="list-style-type: none"> Climate risks Market and price risks Biological and environmental risks Policy and institutional risks Integrated approach (more than 2 types of risks) 	<p>Facilitator: Maria Magdalena Heinrich, FAO</p> <p>Lead Discussants: Jonathan Agwe, IFAD Carlos Arce, PARM Paxina Chileshe, ECD/IFAD Steve Hodges, Uganda Agribusiness Alliance Aly Mabye, UCAD Joseph Mulema, CABI Lauren Phillips, IFAD Julio Pinto, FAO Francesco Rispoli, WRMF/IFAD Mariam Soumare, NEPAD</p> <p>Presenters: Rupsha Banerjee, CGIAR - Index-based Livestock Insurance Fabio Bedini, WFP – Rural Resilience Initiative Federica Carfagna, ARC- Africa Risk Capacity Dhanush Dinesh, CCAFS – ASAP Jim Hansen, CCAFS – Climate services for ARM Arun Khatri-Chhetri, CGIAR – Climate smart villages Gideon Onumah, NRI - FARMAF Norbert Tuyishime, EAFF - eGranary Manoj Yadav, GIZ - RIICE Hijaba Ykhanbai, JASIL</p>
12:15 - 12:45	Report Back from groups: recommendations	Group reporters Facilitator: Maria Magdalena Heinrich, FAO
12:45 - 13:45	Lunch	(...)



(...) Time	Description	Presenter
SESSION 3: ARM Practices and lessons for development		
13:45 - 15:45	<p>"Information Market" showcase (<i>Parallel Sessions</i>).</p> <p>Participants will be free to move around the information market to learn the opportunities and challenges of selected initiatives. The showcase will be organized in two rounds. For each round, initiatives will be presented in parallel sessions grouped by thematic topics:</p> <p>A - Fostering integration of ARM into policies ANADIA, IBIMET Uganda Agricultural Risk Management Initiative, MAAIF Uganda Disaster Risk Management Support, AfDB</p> <p>B - From germination to the market: transforming risks into opportunities Commodity exchange trading Ethiopia, ATA Integrated grain value chain lending and insurance/ Feed the Future RTI Replanting Guarantee, ACRE Africa</p> <p>C - Using farm practices to manage risks Hydroponic grass, MAVIM Farming with Indigenous Micro Organisms, SARRA Assisted Natural Regeneration, IFAD</p> <p>D - Innovation against climate and biological risks Picture based insurance, IFPRI Bima Maono Climate and agro-insurance, KfW VFI Agro-met tools, FAO</p> <p>E - Accessing information to manage risks Digital Inclusion, FAO EMPRES-i/EMA-I, FAO Plantwise, CABI</p> <p>F - From insurance to social protection CADENA Mexico, FAO Agricultural Index Insurance, Feed the Future/USAID Weather Risk Management Facility, IFAD/WFP</p>	<p>Facilitator: Maria Magdalena Heinrich, FAO</p> <p>Presenters: Vieri Tarchiani, IBIMET Tom Mugisa, PARM focal point, Uganda Cecil Nartey, African Development Bank</p> <p>Tewodros Demeke, ATA Jean-Michel Voisard, Feed the Future Senegal Stewart McCulloch, VisionFund International</p> <p>Indra Mallo, MAVIM Shindhe Shiva Shankar, SARRA Alice Brié, IFAD</p> <p>Berber Kramer, IFPRI Stefan Hirche, KfW Ana Heureux, FAO</p> <p>Henry Burgsteden, FAO Julio Pinto, FAO Joseph Mulema, CABI</p> <p>Niclas Benni, FAO Jennifer Cissé, Feed the Future/USAID Francesco Rispoli, IFAD/WFP</p>
15:45 - 16:00	Coffee Break	
SESSION 4: Mainstreaming ARM holistic approach into policy for better design and investment		
16:00 - 16:10	Wrap up: Summary of Session 1, 2 and 3	Carlos Arce, PARM
16:10 - 17:00	<p>High-level Panel discussion</p> <p>The panel will present how different actors at different level have managed to integrate ARM into the national policies through a holistic process and how this can encourage investments into agriculture and to engage the private sector and other stakeholders.</p>	<p>Facilitator: Mariam Soumare, NEPAD</p> <p>Panelists: Hon Vincent Frerrio Bamulangaki Ssempijja, Minister of Agriculture, Animal Industry and Fisheries, Uganda Michael Hamp, IFAD Graziella Romito, Ministry of Agriculture, Italy Haladou Salha, AU-NEPAD Jost van Odijk, GROW Africa Francesco Rampa, European Centre for Development Policy Management</p>
17:00 - 17:30	Q&A and plenary discussion	Facilitator: Maria Magdalena Heinrich, FAO
17:30 - 17:45	Closing Remarks	Michael Hamp, IFAD
17:45 - 18:30	'Italian Aperitivo' Networking and Exhibition Area	





Workshop Programme

SUMMARY



Workshop Programme

SUMMARY



1. The Context

Over the past years, many institutions have placed considerable importance on Agricultural Risk Management (ARM). Despite the experience and know-how could have been leveraged to develop more comprehensive strategies to cope with the risks, bottlenecks in terms of insufficient knowledge transfer between countries, lack of a structured lessons learned management system, and low take-up of innovation still persist in the area of agricultural risk management.

In this context, the Platform for Agricultural Risk Management (PARM) - in collaboration with its partners - has raised the need to foster the exchange of knowledge and bring together the experience available on ARM in developing countries, with the objective to build and develop an organized collection of good practices and lessons learned as guidance for policy makers and rural development practitioners to strategically implement and mainstream an holistic ARM approach at global, regional and country level.

2. The Host

The Platform for Agricultural Risk Management (PARM) is an outcome of the G8 and G20 discussions on food security and agricultural growth. PARM is a four-year multi-donor partnership between the European Commission (EC), the French Development Agency (AFD), the Italian Development Cooperation (DGCS), German Cooperation (BMZ/KfW) and the International Fund for Agricultural Development (IFAD) in strategic partnership with the New Partnership for Africa's Development (NEPAD) and other development partners to make risk management an integral part of policy planning and implementation in the agricultural sector.

PARM has the global mandate to contribute to sustainable agricultural growth, boost rural investment, reduce food insecurity, and improve resilience to climate and market shocks of rural households through a better management of risks. PARM plays the role of knowledge broker and facilitator to: enable the integration of ARM into the policy planning and investment in the agricultural sector; enhancing national stakeholders' awareness and capacities to manage agricultural risks; improve the generation, access, sharing of knowledge and strengthen synergies with partners on ARM related issues, develop methodologies for risk analysis and adoption of holistic risk management strategies.

3. The Workshop

Building on selected case studies and lessons learned on ARM-related practices, technologies or institutional arrangements, the workshops aims at facilitating knowledge-sharing and learning to draft guidelines on how to build on existing ARM experience, how to measure their adoption and impact, and how to better design "ARM-proofed" projects.

For this purpose, the workshop brings together policy makers, rural development practitioners (development and knowledge partners), farmers organizations and private sector to share strengths and weaknesses of their ARM experiences. Although a full impact assessment of different ARM initiatives is beyond the scope of this workshop, examples of detailed assessment will be conveyed.

Objectives

- Define a set of methodological guidelines and measures to help identify the key pillars for good ARM practices and guide on how to mainstream ARM into project design and investments in agriculture;
- Share knowledge and experiences on ARM tools and initiatives showcasing their strengths, weaknesses and lessons learned;
- Present how different partnerships or institutional arrangements, including public and private sector, and national or international agencies, can create opportunities for mainstreaming ARM into policies;
- Facilitate knowledge sharing, peer-to-peer, south-south cooperation and partnership-building on ARM among practitioners.



Setting-up

In preparation of the workshop, a Call for Proposal has been shared among key stakeholders at global, regional and local level with the objectives to identify good practices and lessons on ARM.

The proposals have been evaluated by a **Technical Committee** and the selected initiatives will be featured into an input document that will serve as background material for the workshop. In addition, the selected initiatives will participate and contribute to the working groups and will be showcased during the workshop. The sessions will be in the form of interactive panels and world cafés.

The aim is to facilitate the learning process through the exchange between practitioners of different ARM initiatives, and the feedback received from technical experts. The outcomes of the discussions will then result in the development of a final publication on ARM tools and lessons learned.

The initiatives have been classified in terms of their response to a specific risk or by category of tool as per Table 1.

Table 1: List of topics eligible for the workshop in terms of either source of risk or ARM tool

Sources of risks tackled in the project or initiative	ARM Tools implemented in the project or initiative
Weather: – Droughts – Floods – Rainfall variability, etc.	On-Farm and Community Level Risk Management Tools – Climate Smart Agriculture – Crop and Enterprise Diversification, and – Asset and Income Based Strategies Finance Related Risk Management Tools – Agricultural Insurance – Weather Index Insurance, and – Agricultural Finance and Microfinance – Remittances Market Related Risk Management Tools, and – Contract Farming – Commodity Exchanges and Futures Markets – Warehouse Receipts Systems Government-based Agricultural Risk Management Tools – Public Foodgrain Reserves – Disaster Assistance Programs – Social Protection and Productive Safety Nets Information and knowledge Management Tools, – Access to climate information and risk profile – Farm business advice – Capacity building and experience shared program
Biological and environmental risks – Plant pest and diseases – Livestock diseases, etc.	
Market risks – Access to inputs – Quality of inputs – Output prices, etc.	
Policy and institutional risks – Land policies – Trade policies – Uncertain subsidies, etc.	
Macro level risks – Exchange rates – Interest rates – Access to finance, etc.	
Infrastructure risks – Storage – Transportation – Post-harvest losses, etc.	

4. The Publication

The main outcome of the workshop will be a publication on “**Agricultural Risk Management: practices and lessons for development**” collecting a set of selected initiatives and including the exchanges and conclusions reached during the workshop. The publication has two main objectives:

- Document and collect best practices for agricultural risk management based on the strengths and weaknesses identified in the case studies;
- Provide guidelines for better design and assessment of agricultural risk management practices.

The publication will be directly linked to the workshop “Agricultural Risk Management: practices and lessons learned for development” held on 25 October 2017. It will follow the same outline and consolidate on the outcomes of discussions. Similarly, the workshop sessions have been designed to allow participants to contribute to the publication. (See Annex 1).

During Session 2 of the workshop, working groups will define broad criteria for effective ARM design and apply them to the selected initiatives. The outcomes of these discussions will then be collected by the PARM Secretariat, consolidated and validated with the help of the Technical Committee to form the content of the first two sections of the publication. The final session of the workshop, dedicated to linking agricultural risk management and policy, will also serve as the basis for the third chapter of the publication.





Session 1.

Setting the scene: What makes a good agricultural risk management project?

PANEL DISCUSSIONS' GUIDELINES

Session 1.

Setting the scene: What makes a good agricultural risk management project?



PANEL DISCUSSIONS' GUIDELINES

Time	Description	Presenter
Session 1. Setting the scene: What makes a good agricultural risk management project?		
09:20 - 10:15	<p>Plenary Panel Discussion Defining key pillars for "agricultural risk proofed" projects from design to implementation and results.</p> <ul style="list-style-type: none"> From a holistic risk assessment and prioritization to the identification of tools for better design Information, capacity building and partnership at the core of ARM Measuring results and impact: ARM tools for increasing resilience 	<p>Facilitator: Carlos Arce, PARM</p> <p>Panelists: Gideon Onumah, NRI Fabio Bedini, WFP Federica Carfagna, ARC Jonathan Hellin, CIMMYT Marco d'Errico, RIIMA/FAO Alessandra Garbero, IFAD</p>
10:15 - 10:30	Panel Discussion Q&A	Facilitator: Maria Magdalena Heinrich, FAO

1.1. How does it work?

This first session of the day will set the scene and focus of the workshop debates, to create a common ground among all participants. In particular, the panel discussion aims at reaching an agreement on what key pillars for a "good ARM project/initiative/tool" could be, looking at the different project phases, from design to implementation and therefore results.

While the importance of managing risks in agriculture is now widely recognized and various initiatives at different levels have recently been designed and implemented with the technical support of international financial institutions, there is a need to learn from those experiences. In fact, only few lessons have been formalized to identify and improve strategies to cope with the risks, and though most reviews/evaluations have been limited to specific risks or areas of intervention, they need to be shared among ARM practitioners.

Lately, important advances have been made in identifying a holistic approach to ARM that can serve as the conceptual and operational framework for assisting countries to transit from an ex-post reaction to risk towards a more proactive ex-ante strategy to ARM.

PARM holistic approach to ARM is being considered and adopted as a broad integrated approach that provides practical guidelines to countries in the identification and design of policies, strategies, and tools to manage risk. However, that important conceptual framework for assessing and prioritizing risk needs to advance in providing guidelines for operationalizing the package of solutions that will eventually be implemented and monitored.

The mainstreaming of agricultural risk management and thereby development of resilient and sustainable agricultural systems has been hindered by a lack of an integrated operational approach to agricultural risk management that is embedded in country development and investment planning. It is recognized that there is still much work to be done to establish an enabling environment that will foster country-led, country-specific strategies for mainstreaming agricultural management risk measures into agricultural policies and investments. Today, the exercise we will have during this workshop aims at taking first steps in drawing a roadmap in this direction.

With the expanding range of experiences across several countries and agricultural commodities, there is an extended and refined understanding of agricultural risks, their impacts, their transmission along supply chains, and the efficacy of different strategies to manage them. There is however a large gap in applying basic and specific criteria for mainstreaming risk management initiatives into the realities of emerging economies.

The experience so far points in the direction that the factors for success might be around meeting the following broad conditions, among others:



- Need for holistic risk assessment and prioritization process (ownership by stakeholders)
- Identification of gaps/tools and strengthening existing tools
- Developing capacities, access to information
- Partnerships and policy engagement
- Measuring the results

1.2. Discussion topics and panelists

Panel discussions - 50 min.

Holistic approach to assess risks: the need for a rigorous methodology to move from perceptions to evidence-based interventions

Speaker: **Gideon Onumah**, NRI

Often risks are based on perceptions. Building on the experiences from FARMAF, the speaker will present how a rigorous risk assessment is crucial to identify and prioritize risks based on evidence to inform better design and identification of tools.

Scalability and complexity of ARM initiatives

Speaker: **Fabio Bedini**, WFP

In the debates about how to assess an initiative, scalability is often one of the key criteria. The speaker will reflect on whether scalability is a good criterion in the case of ARM, and analyse how the complexity of the solution put in place can influence project outcomes.

The importance of partnerships and information for agricultural risk management

Speaker: **Federica Carfagna**, ARC

Building on the experience of the African Risk Capacity, the speaker will look at the central role that capacity development, access to information and partnerships play in developing risk management mechanisms at the level of governments.

Agricultural research for development for increased agricultural risk management

Speaker: **Jonathan Hellin**, CIMMYT

CIMMYT and other CGIAR research centres have developed substantial contributions on understanding the risks farmers face, modelling how weather and climate fluctuation affect crops and livestock, and developing solutions, including insurance, to enable farmers to better face these risks. However, these contributions seem underutilized in project design and policy making.

Measuring Agricultural Risk Management results and impacts? Theoretical and operational links between ARM and resilience

Speaker: **Marco d'Errico**, RIIMA/FAO

Based on the work of the Resilience Index Measurement and Analysis, the presenter will analyse the linkages between the notions of resilience and ARM at the theoretical level, and the potential implications of these linkage on project development and policy making.

Impact evaluation for ARM

Speaker: **Alessandra Garbero**, IFAD

Building on the experience of IFAD in measuring impact, the speaker will dive into the requirements and potential measurable outcomes of agricultural risk management practices, including related to the type of data required for an appropriate analysis.

Plenary Discussion Q&A - 15 minutes

The session will follow a Q&A plenary session.





Session 2.

Drawing lessons from the field: how to learn and assess good practices to manage risks?

GROUP DISCUSSIONS' GUIDELINES

Session 2.

Drawing lessons from the field: how to learn and assess good practices to manage risks?

PANEL DISCUSSIONS' GUIDELINES



Time	Description	Presenter
Session 2. Drawing lessons from the field: how to learn and assess good practices to manage risks?		
10:45 – 12:15	<p>Group Discussions</p> <p>The group discussions will aim at jointly define a set of methodological guidelines and criteria to identify good practices on ARM tools, including potential indicators and measurement on their impact. Participants will then apply their criteria to one of the selected initiatives.</p> <p>Participants will be grouped by thematic blocks:</p> <ol style="list-style-type: none"> 1. Weather and climate-related risks 2. Market and price risks 3. Biological and environmental risks 4. Policy and institutional risks 5. Integrated approaches 	<p>Facilitator: Maria Magdalena Heinrich, FAO</p> <p>Lead Discussants: Jonathan Agwe, IFAD Carlos Arce, PARM Paxina Chileshe, ECD/IFAD Steve Hodges, Uganda Agribusiness Alliance Aly Mabye, UCAD Joseph Mulema, CABI Lauren Phillips, IFAD Julio Pinto, FAO Francesco Rispoli, WRMF/IFAD Mariam Soumare, NEPAD</p> <p>Presenters: Rupsha Banerjee, CGIAR - Index-based Livestock Insurance Fabio Bedini, WFP – Rural Resilience Initiative Federica Carfagna, ARC- Africa Risk Capacity Dhanush Dinesh, CCAFS – ASAP James Hansen, CCAFS – Climate services for ARM Arun Khatri-Chhetri, CGIAR – Climate smart villages Gideon Onumah, NRI - FARMAF Norbert Tuyishime, EAFF - eGranary Manoj Yadav, GIZ - RIICE Hijaba Ykhanbai, JASIL</p>
12:15 - 12:45	Report Back from groups: recommendations	<p>Group reporters</p> <p>Facilitator: Maria Magdalena Heinrich, FAO</p>

2.1. How does it work?

The purpose of this session is to make participants discuss and reflect on the way to identify good practices for agricultural risk management. The objective of this session is to arrive at several “checklists” developed by each group to design and identify “ARM-proofed” initiatives. The relevance of these checklists will also be tested directly, as participants will apply them to selected case studies to begin an in-depth analysis of the agricultural risk management components which can be found in initiatives currently implemented.

During the group discussions, participants will be grouped according to their fields of expertise and interests to:

- Develop a set of criteria to design effective ARM initiatives;
- Apply and refine these criteria on selected case studies.

Based on the experience and interests of participants as declared during the registration period, four thematic blocks will be formed. For each block, several subgroups will be created to allow for constructive debates among participants. The thematic groups are as follows:



1. Weather and climate-related risks
2. Market and price risks
3. Biological and environmental risks
4. Policy and institutional risks
5. Integrated approaches

In each group, a discussant leader will facilitate the exchanges between participants. The discussions in each group will be organized in two interrelated rounds

ROUND 1 - 40 minutes

During this first round of discussions, participants will reflect on how to assess agricultural risk management practices, and develop a set of criteria, indicators or general guidelines related to better design ARM initiatives and for specific risks. This will be done following the checklist template provided in the handbook.

ROUND 2 - 40 minutes

During the second round of discussions, participants will refine their criteria and guidelines through their application to case studies. Each group will be assigned one case study in advance, and the representative of the organization that submitted the case studies will be present to describe their initiative and answer participants' questions.

Each group will therefore be able to share two main outcomes after this session: a checklist of criteria, indicators or guidelines for good ARM design and their assessment of a specific case study. The discussant leaders will report back to the plenary with their main findings and lessons learned.

After consolidation, the outcomes of Session 2 will be part of the final publication, which will include a description of each initiative, the consolidated outcomes of the working groups' conclusions, and an analysis by the technical committee to draw lessons from diverse initiatives managing agricultural risks.

METHODOLOGY

The initiatives were selected by the PARM Secretariat a group of experts – the Technical Committee - after the wide dissemination of a call for proposals, based on the following criteria:

- Has there been a risk assessment before the design of the initiative?
- How appropriate are the tools put in place with regards to the risks?
- Is access to information, a crucial component of risk management, part of the initiative?
- Is the initiative promoting partnerships for ARM for better action at different levels? Is it integrated into policy or using existing policies to strengthen its impact and ensure its sustainability?
- How innovative is the initiative?
- Does the initiative currently measure or plan to measure the level of its impact?
- Can the initiative be applied on a larger scale without significant changes to its design and/or cost?

In addition to these criteria, special attention has been paid to ensure that the initiative selected represent a wide variety of agricultural risks and agricultural risk management tools.



2.1.1. Checklist for the design and analysis of an ARM initiative

The following template checklist is a tool to guide the discussions of the working groups. Based on the 5 key pillars defined by the PARM Secretariat in collaboration with the Technical Committee, participants are invited to think about more specific criteria to assess agricultural risks, both at the general level and for specific types of risks (climate related, market related, etc. depending on their working group). The checklist, once reviewed and updated in the working groups, will be used to analyze the case studies, in the second round of discussions in Session 2.

ROUND 1		ROUND 2			
In first round, you will work with your group to review the criteria discussed in Session 1 to define a checklist to integrate ARM into the design of projects that will be used as input for ROUND 2. Your objectives will be to: 1) review, amend and add the ARM Key pillars; 2) develop risk specific criteria using the guiding questions distributed during the event as reference.		In the second round, you will apply the reviewed and risk specific checklist to the assigned case study through discussions with the representative of the initiative.			
#	ARM Key Pillars	Remarks	Risk Specific Criteria	Check	Lessons Learned from the initiative
1	Holistic Risk Assessment				
	In order to design and implement an initiative to manage agricultural risks, it is important that the risk has been assessed and prioritized following a rigorous holistic methodology.				
	How has the risk been assessed? Has there been a prioritization exercise?				
	Have frequency and severity of the risk been assessed? Have worst scenarios been forecasted?				
	Have the different layers of risks been assessed, looking at the macro, meso and micro levels?				
	Have the links between the different risks present been analysed?				
	Have all relevant stakeholders been engaged in the process? Who were they?				
	Who has or should undertake the risk assessment process? How is it be integrated into the design of the project?				
				
2	Tools identification and implementation				
	Following the prioritization of the risks, adequate tool (or different tools) should be chosen to address the risks identified together with a mapping of existing tools to identify gaps.				
	Has there been a mapping of existing tools to identify gaps? Have the gaps been measured adequately? Using which indicators?				
	Are the tools in place adequate to address the risk(s) identified?				
	Is the tool identified integrated with the existing tools? How?				
	...				



ROUND 1	ROUND 2
<p>In first round, you will work with your group to review the criteria discussed in Session 1 to define a checklist to integrate ARM into the design of projects that will be used as input for ROUND 2. Your objectives will be to: 1) review, amend and add the ARM Key pillars; 2) develop risk specific criteria using the guiding questions distributed during the event as reference.</p>	<p>In the second round, you will apply the reviewed and risk specific checklist to the assigned case study through discussions with the representative of the initiative.</p>
<p>3 Access to information and capacity building</p> <p>Access to information, whether linked to climate events, market prices or policy decisions, is crucial for farmers to manage risks. For an initiative linked to agricultural risk management to be sustainable, access to information by farmers should be central, and capacity building should be planned to enable farmers, extension workers or policy makers to progressively enhance their skills and agricultural risk management techniques.</p>	
<p>Have information systems in place been assessed? By whom? At what level?</p>	
<p>Have the gaps been identified in term of access to information? What level? What measures have been taken to address these gaps ?</p>	
<p>Were all relevant stakeholders involved in this process?</p>	
<p>Has an assessment of capacity needs undertaken?</p>	
<p>Has a capacity development module integrated in the initiative? Who is implementing it? Who are the target?</p>	
<p>Is the target group able to access information and capacity building?</p>	
<p>What has been put in place to ensure sustainability of the capacity building?</p>	
<p>...</p>	
<p>4 Partnership and policy integration</p> <p>As agricultural risk management often requires coordinated action at different levels, it is important that the initiatives take into account how they are affected by policy and how they influence them, while working to bring together different stakeholders (private and public sector, national regional or international organisations, etc.). To ensure sustainability, ARM initiatives can also be designed to foster the integration of ARM practices into policies.</p>	
<p>Has there been a mapping of the key stakeholders to engage with before, during and after implementation?</p>	
<p>How does the initiative/tool ensure integration into policy to strengthen its sustainability and impact?</p>	
<p>Is the initiative promoting partnerships for ARM? Is the private sector engaged? How?</p>	
<p>How are responsibilities assigned to ensure the sustainability of ARM-related policies?</p>	
<p>...</p>	



<p>ROUND 1 In first round, you will work with your group to review the criteria discussed in Session 1 to define a checklist to integrate ARM into the design of projects that will be used as input for ROUND 2. Your objectives will be to: 1) review, amend and add the ARM Key pillars; 2) develop risk specific criteria using the guiding questions distributed during the event as reference.</p>	<p>ROUND 2 In the second round, you will apply the reviewed and risk specific checklist to the assigned case study through discussions with the representative of the initiative.</p>
<p>5 M&E and knowledge management</p>	
<p>Is there a system to measure the results and/or impact of the initiative? How is it set-up?</p>	
<p>Are coordination mechanisms in place for monitoring the initiative? Are responsibilities for monitoring well assigned? Who is in charge of monitoring and evaluation?</p>	
<p>Does the initiative document, share and learn from its results and impact? Who is targeted by the KM strategy? What are the links between the KM strategy and capacity building?</p>	

2.1.2 Organisation of the groups

Based on the participants' expressed areas of interest and expertise, the following working groups have been formed.

Group number	Thematic Block	Name of initiative	Presenter	Discussant Leader	Group members
1	Weather and climate-related	African Risk View / ARC	Federica Carfagna	Carlos Arce, PARM	Niclas Benni, FAO Jonathan Hellin, CIMMYT Ana Heureux, FAO Stefan Koppmair, KfW Berber Kramer, CGIAR
2	Weather and climate-related	Climate Services for ARM Rwanda / CCAFS	James Hansen	Paxina Chileshe, IFAD	Alice Brié, IFAD Henry Burgsteden, FAO Natasha Maru, FAO Stewart McCulloch, VFI Stephen Twomlow, IFAD
3	Weather and climate-related	RIICE / GIZ	Manoj Yadav	Francesco Rispoli, IFAD	Marco D'Errico, FAO Stefan Hirche, KfW Cecil Nartey, AfDB Pranav Prashad, ILO Andrea Stoppa, independent consultant
4	Weather and climate-related	ASAP / IFAD	Dhanush Dinesh	Aly Mbaye, UCAD	Indra Mallo, MAVIM Philippe Remy, IFAD Shindhe Siva Shankar, SARRA Vieri Tarchiani, IBIMET
5	Market and price	eGranary / EAFF	Norbert Tuyishime	Steve Hodge, Uganda Agribusiness Alliance	Michael Hamp, IFAD Clea Kaske-Kuck, CARGILL Eric Patrick, IFAD Joost van Odjuk, GROW Africa Tom Kisembo Mugisa, Ministry of Agriculture



Group number	Thematic Block	Name of initiative	Presenter	Discussant Leader	Group members
6	Market and price	FARMAF / NRI	Gideon Onumah	Jonathan Agwe, IFAD	Tewedros Demeke, PARM focal point Gerald Masila, EAGC Martin Murangiri, Sokopepe Tisorn Songsermsawas, IFAD Jean-Michel Voisard, RTI International
7	Biological and environmental	Index-based Livestock Insurance (IBLI) / ILRI	Rupsha Banerjee	Julio Pinto, FAO	Jennifer Cissé, USAID Fairouz Larfaoui, FAO Mumtaz Kassam, Ugandan Embassy to Rome Laurent Tits, VITO Hon Vincent Ssempijja, Minister of Agriculture, Uganda
8	Policy and institutional	JASIL Mongolia / ILC	Hijaba Ykhanbai	Lauren Phillips, IFAD	Giulia Baldinelli, ILC Charles Mukama, Ministry of Agriculture, Uganda Genevieve Theodorakis, FAO Graziella Romito, Italian Ministry of Agriculture Francesco Rampa, ECDPM
9	Integrated	Climate Smart Village / CGIAR	Arun Khatri-Chhetri	Joseph Mulema, CABI	Fabrizio Bresciani, IFAD Silvia Nicoli, Italian Ministry of Agriculture Olivier Mundy, IFAD Véronique Ancey, FAO Zodidi Sivetshe, NEPAD
10	Integrated	Rural Resilience Initiative / WFP	Fabio Bedini	Mariam Soumare, NEPAD	Futha Al-Abdulrazzaq, IFAD Ivan Ramiro Cossio Cortez, IFAD Sanjay Sethi, Phoenix Global DMCC Stefan Kachelriess-Mathess, GIZ

2.2. List of Initiatives

2.2.1. Weather and climate-related risks

GROUP 1 - African Risk Capacity

Presented by: Federica Carfagna, Technical Team Manager & Vulnerability Analyst, African Risk Capacity

Quick facts

- **Risks:** Weather risks, including droughts, floods, rainfall variability and tropical cyclones
- **Tools:**
 - Agricultural insurance
 - Weather-index insurance
 - Disaster Assistance programmes
 - Access to climate information
 - Capacity building and experience sharing
- **Location:** Africa Union member states
- **Number of people benefiting:** In 2015, 1.3 million people benefited from interventions supported with ARC pay-out in Senegal, Mauritania and Niger. A total of 18 million people were indirectly insured through ARC insurance policies. The 2020 Goal is to indirectly insure 150 million people in Africa.
- **Implemented by:** Government entities, Local and International NGOs, WFP
- **Funded by:** DFID, KfW, USAID, Rockefeller Foundation, Agence Française de Développement (AFD), CIDA, SIDA, SWISS and IFAD.

The initiative: risk assessment, tools identification and design

ARC offers an integrated solution for African governments that includes the configuration of weather risk models, pooled risk insurance, and a capacity building programme in disaster risk and its management through risk financing, early warning and contingency planning. ARC promote an index-based weather risk insurance that provides African countries with a tools and products to quantify and manage disaster (drought) risk. The insurance transfers weather risk away from governments – and the vulnerable households they protect to ARC.

ARC's early warning and risk modelling platform *Africa RiskView* combines remote sensing data with information on populations vulnerable to disaster and the associated historical response cost and frequency. Thus, the rules for the insurance pay-out from ARC are identified up front, accurately reflect losses faced by member countries, allow pay-outs to occur promptly as soon as it is clear the rains have failed, and are based on objective and transparent criteria.

Currently ARC provides support and insurance product for drought risks for three reasons. First, African countries among the most vulnerable to the impacts of natural disasters are likely to experience severe and frequent extreme weather events now and even more so in the future as a result of climate change. Such events diminish economic growth, cause major budget dislocation, erode development gains and resilience, and increase the risk of political instability. Second, it is estimated that a 1-in-10-year drought event could have an estimated adverse impact of 4% on the annual Gross Domestic Products (GDP) of a country like Malawi, with even larger impacts for 1-in-15 and 1-in-25 year events. Third, droughts exacerbate food insecurity and poverty in most of the African countries due to the structure of their economy: agriculture which represent 32% of the continent Gross Domestic Product is dominated by rain-fed production (95% of farmed land), smallholder and subsistence farming.

Within the ARC approach, the risk is managed at the government level. Government officials form the in-country technical Working Groups customise the risk models underlying the insurance products and determine the portion of risk to be transferred from the country to ARC.

Learning from the field: monitoring and evaluation, impact and lessons

ARC uses a results-based approach to Monitoring and Evaluation in tracking progress and reporting on the use of resources, the implementation of its interventions (at continental, regional and country level), the delivery of expected results (outputs, outcomes and impacts) and in the assessment of institutional core assumptions, effectiveness, efficiency, and sustainability of its results. The monitoring which is a continuous activity tracks performance and progress against established targets, and focuses on resources used to do our work (inputs), what we do (activities), the services and products we deliver (outputs), the expected short and medium-term changes in people and institutions awareness and capabilities in the area of disaster risk management (outcomes and impacts). It generates routine information for management decision making, timely adjustments, planning and accountability.

ARC M&E department supports the development of country Contingency Plans (CP) and Final Implementation Plans (FIP) to ensure that these plans include a robust Monitoring and Evaluation framework and clear Performance Monitoring Plan (PMP) with expected results (outcomes and outputs), key performance indicators and the specific and quantifiable targets to be achieved. In case of pay-out, ARC M&E department supports the countries and the implementing partners to track and report on a monthly basis the progress against expected results and targets as specified in the plan. Specifically, ARC receives from the country a narrative report and a performance indicator tracking table using an agreed format.

A process evaluation is conducted in all the countries that receive insurance pay-out from ARC. It aims to assess whether or not the countries contingency plans are implemented as initially planned in terms of processes and management. Thus, it focuses on the operations, the implementation, and the delivery of the country approved Final Implementation Plan (FIP).



ARC's core strength lies in its comprehensive offering which includes a combination of all 3 elements of Early Warning, Contingency Planning, and Risk Transfer, for a robust system of response to disaster in African countries. This unique offering ensures that African countries benefit from strengthened capacity as well as quicker and efficient receipt of pay-outs in a timely manner, thus preventing the worsening of the food insecurity situation. Africa RiskView software, the technical engine of the ARC, quantifies in a transparent and objective manner the impact on the population.

Challenges are related to the fact that being a parametric insurance and not indemnity based is subject to a non-eliminable basis risk (discrepancy between the quantified impact on the ground and the actual field assessments) as there are many compounding factors that a model does not (or cannot) capture. The development phase requires a large amount of information and analysis before a model becomes operational and a large amount for the local adaptation to each context (local or national) once the model is developed and used by the ARC member states.

Key lessons from the ARC initiative can be summarized as follows:

1. Quality of input data into the Africa RiskView model is important.
2. There is a need for constant updating of the Africa RiskView model input parameters and associated customization and a continuous improvement of the software platform.
3. There is a need for continued and active Research & Development on new products and tools to address the expressed needs of Member States.
4. There is a need to ensure greater level of understanding and ownership of Africa RiskView by the in-country Technical Working Groups.
5. Strengthening of partnerships with African technical and academic institutions is a priority.
6. There are political implications associated with the declaration of a disaster and this can have implications for fast-tracking response implementation.
7. Different actors perceive the urgency of a disaster differently and this can impact speed of response.
8. ARC pay-outs empower governments to take a lead role in coordinating response efforts with humanitarian actors.
9. Accurate and timely reporting on pay-outs can be difficult to obtain.
10. Despite challenges in reporting, Government interventions following ARC pay-outs have all largely matched interventions as outlined in their FIPs.
11. There is a need for a more robust Monitoring and Evaluation Process and corresponding strengthening of Government Monitoring and Evaluation systems.
12. Defining clear channels of communication is important for efficiency in implementation of pay-outs.
13. Despite interest in ARC insurance products, countries face a number of challenges in mobilising premium and ensuring consistent participation in the insurance pool.

What next?

ARC ensures its sustainability by building capacity in the countries participating to the risk pools and ensuring full ownership of the risk model and risk pooling and transfer concepts. Next steps include the development of other perils insurance products, namely river floods, tropical cyclones, excessive rainfall, outbreaks & epidemics, extreme climate.

Learn more: <http://www.africanriskcapacity.org>

GROUP 2 - Climate Services for Agricultural Risk Management

Presented by: James W. Hansen, Ph.D., Senior Research Scientist, Flagship 4 Leader of the CGIAR Research Program on Climate Change, Agriculture and Food Security: Climate Services and Safety Nets at the International Research Institute for Climate and Society, Columbia University.

Co-author of this contribution: Dr. Desire Kagabo, Project manager, CIAT-Rwanda.

Quick facts

- **Risks:** Weather and climate risks, including droughts and rainfall variability
- **Tools:**
 - Training and participatory processes for reviewing existing farm and livelihood strategies in light of local climate risks, and adapting farm management based on seasonal climate forecasts.
 - Agricultural drought risk analysis and early warning system.
 - Access to climate information
- **Location:** Rwanda (nation-wide)
- **Number of people benefiting:** Objective: 750 000 farm households. Midway through the project, 50 000 farmers have been trained and it is estimated that each trained farmer shares information with more than ten community members.
- **Timeframe:** March 2016- September 2019
- **Implemented by:** International Centre for Tropical Agriculture (CIAT), Rwanda Meteorological Agency (Meteo-Rwanda) and Rwanda Agriculture Board (RAB) in partnership with international technical partners: International Research Institute for Climate and Society (IRI), International Livestock Research Institute (ILRI), World Agroforestry Centre (ICRAF), and University of Reading. National partners include the Ministries of Agriculture, Environment and Local Government; and a number of media companies, development NGOs and community-based organizations.
- **Funded by:** Rwanda Mission of the U.S. Agency for International Development (USAID/Rwanda), and coordinated by the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)

The initiative: risk assessment, tools identification and design

CCAFS is working with partners to develop methods and capacity to provide climate services that enable farmers, government and institutional decision-makers to understand, anticipate and management climate-related risks in Rwanda.

USAID interest in supporting the development of climate services in Rwanda, and the leadership role of the CCAFS program led the initiative to focus on climate-related risks. Climate-related risks that are important to Rwanda's agriculture sector were summarized in a desktop scoping review, which was validated with stakeholders at the project launch event. A nation-wide household survey (3000 respondents) provided further information about climate-related risks important to farmers.

While the initiative employs a range of tools for developing, communicating and applying climate-related information, two tools play a prominent role in enabling the development of climate services at scale. First, the ENACTS (Enhancing National Climate Services) initiative of the IRI had already proven to be an effective approach to overcoming data scarcity as a barrier to providing locally relevant climate services at scale. The resulting gridded historic data set, and the flexibility of the Data Library software as a platform for developing more advanced online "Maproom" products that meet known information needs of agricultural decision-makers made it an obvious foundation for Meteo-Rwanda to develop an expanded suite climate information products for farmers and for Rwanda's agriculture sector more broadly. Climate services would have been infeasible in Rwanda in the absence of a good method to fill in the ~15-year gap in meteorological observations following the 1994 genocide would make climate services.

PICSA (Participatory Integrated Climate Services for Africa), developed by the University of Reading, provides a structure and training curriculum for integrating climate services into Rwanda's Twigire Muhinzi national agricultural extension system. Based on a participatory approach developed by the IRI, PICSA has been adapted to support communication and use of seasonal climate forecasts, downscaled onto local



historical climate information and expressed as probability of exceedance graphs. Although several participatory approaches have been developed for supporting farmers to understand climate information and apply it to their management decisions, PICSAs was determined to be most suitable based on: (a) compatibility with the types of graphic climate information products that ENACTS enables, (b) training materials appropriate for communication intermediaries, and (c) demonstrated experience across several African countries and contexts.

PICSAs and ENACTS are being adapted and integrated to support the development of climate services for farmers at a national scale. The choice of tools, and strategy for adapting and integrating them, were informed by the extensive experience of the CCAFS program and its partners with developing, communicating, applying and evaluating climate-related information to manage agricultural risk.

The initiative is developing climate services and capacity to manage climate-related risk at the farm level, and through national and local government. At the level of national government, the development of new climate information products and tools are meant to support early warning and management of drought risk, and planning (e.g., seed procurement and distribution) and recommendations related to the onset of the two rainy seasons and the timing of planting. At the farm level, the range of risk management decisions includes: seasonal adjustments for choice of crops, cultivars and production technology; timing of planting and other field operations; management of livestock feeding and health; and in a few cases fundamental changes in household livelihood strategy in response to increased understanding of the local climate and its associated risks.

Learning from the field: monitoring and evaluation, impact and lessons

The initiative employs two complementary methods to assess how effectively climate services reach the farming population. Mid-term and final nation-wide household surveys will be used to assess access and use of climate services, through all relevant communication channels, relative to a 3000-household baseline survey. The mid-term survey will take advantage of the phased scaling strategy, using districts where the PICSAs training process has not yet been rolled out as a pseudo-control group. A complementary, bottom-up monitoring process tracks randomly sampled subsets of farmers who have participated in PICSAs workshops, to understand their use and satisfaction with the climate information and facilitated participatory planning process. Institutional capacity to generate, translate, communicate and use climate information is assessed through training workshop records, and self-assessment by leaders and key informants in the target institutions.

The main success criteria are: (a) institutional capacity to provide effective climate services to Rwanda's agricultural sector, (b) use of climate services by government and institutional decision-makers, (c) number of farm households that access climate information and other facets of the services, and (d) number of households who use climate services to more effectively manage risk.

The main strength of the initiative is that the involvement of research institutions applied climate and agricultural research institutions, which are well grounded in climate services, enabled the initiative to bring scalable innovations to bear on supply- and demand-side challenges and capacity constraints in a balanced and coordinated manner. Experience supports the main conclusion of an earlier multi-sector gap analysis: that ineffective demand and inadequate supply of climate information are mutually reinforcing, and that both capacity bottlenecks must be addressed if climate information is to be used effectively and routinely.

At the current midpoint of the project, the main weakness is that we assumed that the benefits to participating farmers would be compelling enough to prompt the government of Rwanda to start to take on responsibility for mainstreaming climate services into agricultural sector activities, and invest resources into scaling up training agricultural extension staff early in the project. We did not put enough effort in engaging the right decision-makers at the start of the project, and are trying to do so mid-way into project implementation.

The main lessons learned at this point can be summarized as follows:

1. Developing climate services that support agricultural risk management requires substantial investment in capacity in three key areas:
 - Supply side: National meteorological service capacity to provide locally relevant information tailored to the needs of farmers, often addressing historic data gaps;
 - Demand side: National agricultural research and extension system capacity to translate, communicate, and build farmers' capacity to understand and act on climate information;
 - Institutional and governance arrangements to sustain co-development of services beyond a project's lifespan.
2. Involving applied climate and agricultural research institutions, which are well grounded in climate services, improves the prospects of finding scalable solutions to supply- and demand-side capacity challenges.
3. Climate research provides viable options for filling data gaps and generating locally relevant information without overextending their limited human resources.
4. Climate services for farmers benefit from a mix of delivery channels that includes participatory communication facilitated by trained intermediaries.
5. Mainstreaming climate services in agriculture requires strong partnership between agricultural and meteorological agencies and their associated Ministries, and enabling governance.
6. Getting high-level political buy-in early is important for ensuring sustainability at the end of a project.

What next?

In order to develop the policy and governance arrangements needed to sustain climate services after project funding ends, the initiative is partnering with the WMO-led Global Framework for Climate Services to facilitate the development of a national climate services framework and action plan.

Developing sustained institutional capacity is a major focus of the initiative. This includes supporting education at the M.Sc. level for 6 staff members from Meteo-Rwanda and 3 from RAB. With the training provided, the development of a high-resolution merged gridded historical database, and the degree of automation, Meteo-Rwanda is expected to be able to maintain the provision of a greatly expanded suite of online information products tailored to the needs of the agriculture sector with existing human resources. While the initiative has trained close to a thousand intermediaries in participatory climate information communication and planning processes, we anticipate that sustainability will require a policy change that formalizes climate services within the mandate of Rwanda's agricultural extension service.

Learn more: <https://ccafs.cgiar.org/building-climate-services-capacity-rwanda>

GROUP 3 - Remote sensing-based Information and Insurance for Crops in Emerging Economies (RIICE)

Presented by: Manoj Yadav, Project Advisor for RIICE, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

Quick facts

- **Risks:**
 - Weather and climate risks, including droughts and floods.
 - Agriculture portfolio risk management for governments and insurance companies
- **Tools:**
 - Access to climate and production information
- **Location:** India, Thailand, Vietnam, Cambodia and Indonesia. The case study focuses on the state of Tamil Nadu in India
- **Number of people benefiting:** 15 000 farmers during the 2016-2017 main cropping season
- **Timeframe:** Phase I: 2012-2015, Phase II: 2015-2017, Phase III: 2017-2019
- **Implemented by:** Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GmbH), International Rice Research Institute (IRRI), Sarmap SA, Tamil Nadu Agricultural University (TNAU), Agriculture Insurance Company of India (AICI), and Swiss Re.



- *Funded by:* Swiss Agency for Development and Cooperation (SDC) and the German Federal Ministry for Economic Cooperation and Development (BMZ).

The initiative: risk assessment, tools identification and design

Rice is the staple food of more than three and a half billion people worldwide, and 90% of the world's rice production comes from Asia. However, the entire region struggles with extreme weather conditions. Floods, typhoons and periods of drought are everyday occurrences that repeatedly wipe out the entire harvests.

In order to better forecast harvests, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, the Allianz Re, the International Rice Research Institute, the software company Sarmap SA and the Swiss Agency for Development and Cooperation (SDC) have launched a rice crop monitoring initiative called RIICE (Remote sensing-based Information and Insurance for Crops in Emerging economies). Since 2013, this partnership between public and private organisations has been helping rice farmers and governments in Asia to undertake timely countermeasures when faced with imminent harvest losses.

RIICE generates information that tells which areas are cultivating rice at which point in time. It then calculates both the expected and the actual crop yield. These harvest forecasts factor in weather and soil data, rice varieties and cultivation methods and – following natural disasters such as a drought or flood – include information about dried out fields or rotten seeds. Insurance companies use these crop forecasts to be able to respond considerably more flexibly, transparently and quickly. This is important because for many farmers their entire livelihood depends on how quickly they get compensation. Before satellite data, they were not able to receive compensation until after the harvest and until the insurers/government agencies had inspected the damage on site – a process that sometimes took months to complete. The forecasts based on satellite data make for much swifter compensation for farmers. RIICE reduces the vulnerability of smallholder farmers engaged in rice production in two ways:

- By increasing the information on rice growth areas and expected yields to help governments, agricultural intermediaries and relief organizations in better managing domestic rice production and distribution both during the normal growing cycle as well as after natural catastrophes struck.
- By providing access to insurance solutions for governments, insurers and individual rural farmers to cushion the financial effects on farmers that stem from natural catastrophes such as flood and drought – the major causes for crop destruction in Asia.

To inform the design of the Phase III of RIICE in Tamil Nadu, risk assessments were carried out throughout the state by the Tamil Nadu Agricultural University in 2015 and 2016. In these years, shortfalls in paddy production and under-cultivation of fields were observed, as a result of flooding (in 2015) and drought (in 2016). RIICE therefore supports the existing Indian government's crop insurance scheme by identifying the shortfall in paddy area and yield during a particular cropping season. This is achieved by using remote sensing based information to estimate reduction in paddy area and yield at village level and facilitating crop insurance pay-outs to the affected farmers in those villages. The remote sensing technology has been developed in cooperation with the stakeholders in the crop insurance scheme like state government and public and private insurers operating in the state, thereby allowing its direct application.

The insurance companies operating in the state of Tamil Nadu are responsible for managing their portfolio risk and compensating the farmers in case of shortfall in area and yield. The area yield index insurance scheme allows compensation to farmers by assessing area and yield shortfall at village level. There are about 16,000 villages in the state of Tamil Nadu out of which about 10,000 villages were monitored during the 2016-17 cropping season.

Learning from the field: monitoring and evaluation, impact and lessons

The project uses an outcome monitoring process to capture the progress of the project across its stated outputs and indicators on a quarterly basis. The two main components of the outcome monitoring process are enhanced risk management and insurance solutions. The key criteria for assessing the initiative are related to its main outcomes:

- Governments and other stakeholders use the crop / yield information system in agricultural and disaster risk management policies, strategies, and action plans to strengthen food security and to transfer risks to the insurance sector;
- Governments have integrated / accepted RIICE-supported insurance solutions in the respective agricultural insurance schemes or guidelines;
- Institutions in the target area offer demand-oriented, effective and efficient insurance solutions to target client segments;
- Rice producers are covered by RIICE insurance solutions.

The use of satellite data to generate information like rice area statistics, mid-season rice yield forecasts and end-of season yield estimates down to the village level helps government decision makers, insurers, and relief organizations in better managing the risks. RIICE-based information is indeed more transparent, faster and readily usable towards compensation the farmers than traditional methods of compensation like Crop Cutting Experiments.

Since the project focuses on managing production losses due to adverse climate conditions for rice cultivation, there have been requests from stakeholders to expand the scope of the initiative to other crops. The covering of wheat under the RIICE initiative is being considered.

Several lessons can already be learned from the RIICE experience:

1. Technology must be tried and tested for its accuracy, consistency and suitability in providing reliable and timely information before it can be presented to the Government/users for application. The engagement with the Department of Agriculture, Government of Tamil Nadu began in late 2015 and led in the following year to pilot RIICE technology in the 2016-17 cropping season.
2. Effective stakeholder engagement is critical, so that the dialogue is not lost in the scientific complexities but caters to the needs and requirements of policy makers and farmers alike to benefit them the most.
3. Apart from effective stakeholder engagement, priorities and (economic) interests of various stakeholders like farmers, insurers and the government must be in harmony and addressed effectively so that farmers benefit in the long run.
4. Provision of know-how transfer and technical advisory to decision-makers is key to technology adoption through capacity building.

What next?

The current phase of the project (Phase III) aims at integrating the project deliverables with the existing crop insurance architecture. This entails a shift in the donor funded technology application to market or government financed operational model and is expected to be achieved by end of 2019.

Learn more: <https://www.asean-agrifood.org/projects/riice/>

GROUP 4 - Adaptation for Smallholder Agriculture Programme

Presented by: Danush Dinesh, Global Policy Engagement Manager, CGIAR Research Program on Climate Change, Agriculture and Food Security.

Quick facts

- **Risks:**
 - Weather and climate-related risks, including droughts, floods and rainfall variability
 - Market risks, including access to inputs, quality of inputs, output prices
 - Access to finance
 - Infrastructure risks, including post-harvest losses and storage risks.
- **Tools:**
 - Climate-smart agriculture
 - Crop and enterprise diversification



- Asset- and income-based strategies
- Access to climate, production and market information
- Farm business advice
- Capacity building and experience sharing
- *Location:* Global. As of September 30, 2017, ASAP had a portfolio of 42 projects approved in 41 countries. Two examples will be presented, for programmes in Mali and Rwanda.
- *Number of people benefiting:* 8 million poor smallholder household members to see their climate resilience increased by 2020
- *Timeframe:*
 - Programme d'amélioration de la productivité agricole (PAPAM) in Mali: 2014-2018 (midterm review in 2016)
 - Climate Resilient Post-Harvest and Agribusiness Support Project (PASP) in Rwanda: 2014-March 2019 (midterm review in March 2017)
- *Implemented by:*
 - In Mali: Mali Météo, with local radios to disseminate climate information
 - In Rwanda: Rwanda Climate Services for Agriculture project, Rwanda Agricultural Board
- *Funded by:* IFAD

The initiative: risk assessment, tools identification and design

The Adaptation for Smallholder Agriculture Programme (ASAP) is a global programme of the International Fund for Agricultural Development (IFAD), which invests in climate resilience among small-scale farmers. Since 2015, IFAD has established a Learning Alliance with the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) to support the knowledge needs of ASAP, and to harvest lessons of relevance to the wider agriculture for development community.

As part of ASAP, several projects focus on reducing climate risks through climate information. In Rwanda, as part of the Climate Resilient Post-Harvest and Agribusiness Support Project (PASP), farmers are provided climate information which reduces post-harvest risks and losses. The project also enhances the capacity of organizations to access funding from commercial lending for integrating climate-smart features in warehouse construction and other post-harvest infrastructure. The identification and promotion of crop and forage varieties that mature earlier and are more tolerant to floods is another activity which helps reduce risks. In Mali, the Programme d'amélioration de la productivité agricole au Mali, provides climate information and supports smallholder farmers to access information, tools, training and technologies, thus helping build resilience to climate change.

A main characteristic of the ASAP programme is to look for the new ingredients that climate change requires in rural development programmes to improve their effectiveness and impact in a changing and increasingly uncertain environment. Such new approaches may include the use of downscaled climate models for long-run scenario planning, community-based climate vulnerability and capacity analysis, and empowering local institutions to engage with national climate policy. They also involve improving the collection, analysis and dissemination of meteorological data, establishing evidence-based monitoring systems for climate resilience, providing access to risk transfer and insurance schemes, and re-assessing infrastructure and land-use plans taking new and emerging risks, such as sea level rise, into account. In line with this logic, ASAP's response to the climate change challenge focuses on basing projects and policies on a deeper risk assessment and a better understanding of the interconnections between smallholder farming and wider landscapes. In this context, in both Mali and Rwanda disruption of production with all its consequences in terms of vulnerability, food insecurity, increase in women's workload, etc. was identified as a major climate-related risk to be addressed.

What next?

The CSV approach aims at scaling-up through policy and institutional change/reform at national, sub-national and local levels, and through the development of business and institutional models of the CSV approach applicable for government and private sectors. Next steps therefore include engagement with policy makers at different scales and the development of CSV scaling-out schemes in collaboration with key stakeholders.

Learn more: <https://ccafs.cgiar.org/climate-smart-villages#.WehdBa3pNE4>

2.2.2. Market and price risks

GROUP 5 - eGranary

Presented by: Stephen Muchiri, CEO of the East Africa Farmers Federation

Quick facts

- Risks:
 - weather risks including droughts, floods and rainfall variability
 - Market risks including access to inputs, quality of inputs and output prices
 - Infrastructure-related risks including post-harvest losses, transportation and storage
- Tools:
 - Climate-smart agriculture
 - Crop and enterprise diversification
 - Agricultural insurance
 - Weather index insurance
 - Agricultural finance and microfinance
 - Contract farming
 - Access to climate, production and market information
 - Farm business advice
 - Capacity building and information sharing
- Location: Kenya and Uganda. To be expanded to Rwanda and Tanzania
- Number of people benefiting: Over 27 000 farmers are registered on the platform in Kenya
- Timeframe: Started in 2016
- Implemented and funded by: East Africa Farmers Federation, in partnership with FAO and Mobile Decisioning Holdings Ltd (a fin-tech company).

The initiative: risk assessment, tools identification and design

eGranary is a virtual aggregation platform that provides the following 5 services at a go – access to markets, access to certified seed and fertiliser, affordable credit, agriculture insurance and extension services. It intends to make agriculture data available on time for decision making at the farmer level, investors level and to influence policy, as well as to make farmers more bankable by de-risking their operating environment and building their capacity.

EAFB has signed a supply contract and sub-contracted it members, providing a floor price linked to the cost of production. By providing a predictable market and predictable prices, farmers have an incentive to get into the program. Upon signing the contract, they receive certified inputs, advice on when to plant, and benefit from a weather and multi-peril crop insurance which is bundled with the in-kind loan of inputs, to be repaid by instalments. EAFB then monitors the crops and provide drying services and a place to store harvested crops. A post-harvest loan (30% of value of collected product) is also available for farmers, and after the final evaluation by the off-taker, farmers are paid via mobile money.

Many financial institutions have either excluded smallholder farmers in east Africa from the products they develop for many years or created requirements that limit their ability to borrow either long or short term, as they view them as high-risk clients. In addition, fragmented farmers do not have the opportunity to exploit remunerative markets. Since mobile technology is part and parcel of life of citizens in East Africa, e-Granary is an initiative to aggregate farmers for markets in an innovative way.

Risks are managed at the farm level, as EAFB trains farmers on agricultural practices and provides them with timely information on outbreak of diseases and ways to fight them. Farmers also manage the risks by subscribing to insurance program provided by Acre Africa, Heritage Insurance and recently APA companies.



Learning from the field: monitoring and evaluation, impact and lessons

This learning process is continuous. The platform itself is evaluated on a quarterly basis in order to understand how it is performing and to upgrade it. The number of registered farmers, the number of loans given and the rate of repayment are part of the criteria used for the monitoring of the platform.

eGranary links farmers together, with EEAF safeguarding individual farmers and providing them with bargaining power facing big corporations. Moreover, the bundling of insurance with other services means that the initiative is able to insure farmers that would have been reticent to subscribing to insurance on its own. Finally, the ICT component of the initiative allows for good penetration and ease of use by the farmers.

A few lessons can already be shared from the eGranary experience:

1. Lack of complete transaction history both financial and productive i.e. from planting to harvest is a major impediment for financial institutions to be able to make decisions on the credit worthiness of the farmers. Most farmers don't keep accurate up-to-date records of their farming activities which means that there is a need to concentrate on going through a complete production cycle with farmers and keeping records.
2. Terms and conditions of contacts with the insurance providers need to be very clear for all parties involved.

What next?

The rolling-out of eGranary will continue in Kenya and Uganda, and expansion to Tanzania and Rwanda is under consideration.

Learn more: http://www.eaffu.org/index.php?option=com_content&view=article&id=154&Itemid=727

GROUP 6 – FARMAF: Enhancing agricultural marketing and finance through better risk management

Presented by: Gideon Onumah, Ph.D., Agricultural Economist/Rural Finance Specialist, Natural Resources Institute

Quick facts

- **Risks:**
 - Weather risks, including droughts and rainfall variability
 - Market risks, including access to inputs, output prices
 - Access to finance
 - Infrastructure risks, including post-harvest losses and storage
- **Tools:**
 - Agricultural insurance
 - Weather-index insurance
 - Agricultural finance and microfinance
 - Commodity exchange and futures market
 - Warehouse receipt systems
 - Public foodgrain reserves
 - Access to climate, production and market information
- **Location:** Burkina Faso, Tanzania and Zambia
- **Number of people benefiting:** About 175,000 farmers directly benefited in the three target countries. However, as the tools promoted are being scaled up nationally, it is possible that over 3 million farmers will be impacted within the next five years.
- **Timeframe:** 2012-2016
- **Implemented by:**
 - Farmers' organizations: PAFO, EAFF, ROPPA and PROPAC, CPF (Burkina Faso), MVIWATA (Tanzania) and ZNFU
 - Agrinatura institutes: CIRAD, NRI and WUR.
- **Funded by:** European Union, Agrinatura

The initiative: risk assessment, tools identification and design

The Farm Risk Management for Africa (FARMAF) Project promoted scaling-up and/or development of market-based agricultural risk management (ARM) tools, including crop insurance, in most cases interlocked with production financing schemes; sustainable market information systems (MIS); and structured output marketing systems including warehouse receipt systems (WRS) on different scales (commercial operations in Tanzania and Zambia and small-scale inventory credit or Warrantage in Burkina Faso) as well as exchange-based trading systems.

Though a generic range of agricultural risks were identified during the design phase of the project, the national farmers' organisations (NFOs) were specifically allowed to play a lead role in the prioritisation of risks to be addressed under FARMAF. The choice by the NFOs was not informed by specific studies on risks prevalent in each of the countries but rather on their assessment of how various risks impacted the farm sector, especially the smallholder farmers. Risk prioritisation was led by the NFOs and based primarily on two considerations: the importance given by target farmers to the risks (based on their assessment of the frequency of the risks and their impact on farm households, albeit without much quantification), and the limits in the effectiveness of existing ARM tools in the country.

A review of potential tools was undertaken prior to the launch of FARMAF and the NFOs prioritised strengthening existing tools rather than simply replicating what may have been successful elsewhere. Opportunities were then identified to scale up the tools considered appropriate to the target farmers as well as to develop new or complementary ARMs which will enhance the utility of the existing tools.

Within the initiative, various stakeholders are managing risks:

- Agricultural insurance: mitigation of the risks (mainly weather risks) was provided by private providers, some of which were semi-commercial (NGOs offering sustainable products).
- MIS: two different models were successfully trialled: management by NFOs (in Tanzania and Zambia) and by an independent provider in collaboration with the NFO (in Burkina Faso).
- Storage services under WRS: by independent warehouse operators (in Tanzania and Zambia) and by farmer-controlled rural organisations (in Burkina Faso).
- Structured financing: by banks taking advantage of available agricultural insurance and secure output marketing systems.
- Inputs risk: mitigated by means of direct payment for inputs supplied by credible distributors.

Learning from the field: monitoring and evaluation, impact and lessons

Monitoring and evaluation involved three key actions:

- a) Direct participation of regional farmers' organisations and the Agrinatura institutes in monitoring implementation of actions by the NFO;
- b) Review of progress by peers during annual meetings of all partners; and
- c) Impact assessment, focusing in particular on Burkina Faso where pilots were undertaken in green-field communities allowing for a clear baseline to be determined before launch of the project.

In general, the experiences and lessons emerging from implementation of the project varied in the three countries but overall, the tools mentioned above were successfully developed with real tangible evidence that target farmers benefited in all three countries. Important improvements to the design of the tools (especially crop insurance, MIS, Warrantage/WRS and contract marketing) were made during the course of project implementation. The benefits included better access to finance at pre-harvest (eased by use of crop insurance and interlocked output marketing arrangements) and at post-harvest (secured against collateralised stocks). Marketing decisions by farmers have been improved as a result of access to market information whilst output marketing was enhanced by means of the use of Warrantage/WRS and other forms of contract-based commodity trading.

It is also apparent that the risk management tools promoted in the three countries will be sustainable as they are provided by private actors and/or the FOs, where they see a gap in delivery of the service.

Important lessons which have emerged from implementing FARMAF include the following:

1. Giving a lead role to farmers' organisations is crucial- owning and embedding the ARM development programme in their agenda;
2. To the extent possible, one should prioritise financially viable private service provision (rather than project-tied, subsidised delivery);
3. The active involvement of governments, private service providers and civil society organisations in the design and implementation of the project is necessary;



4. Partnerships between FOs and research organisations have to be fostered to facilitate demand-driven research-to-use solutions;
5. Promoting combination of tools (rather than individual tools in isolation) enhances uptake and risk management effectiveness;
6. Differences in the national context need to be factored into the design and implementation of ARM development projects;
7. It is important to recognise variability in the technical capacity of key stakeholders to undertake project activities. This has to be addressed through effective capacity building;
8. Private service providers often lack internal research and development capacity and therefore require assistance in innovating in response to context-specific challenges;
9. Policy and regulatory challenges can significantly impede the sustainable development of ARM tools and need to be prioritised. Addressing them often takes a long time.

What next?

As service provision is primarily private sector-led, there is potential for sustainability beyond the life of the project in the three target countries. However, to ensure that actions implemented under the pilots are taken forward, in all three countries, the NFOs have incorporated the ARM development programmes in their strategic development plans. There are also efforts by the NFOs to incorporate lessons in ARM development programmes initiated by national governments (as is the case in Burkina Faso and also Zambia) and to actively pursue policy and regulatory reforms which can improve the effectiveness and access by smallholder farmers to the promoted ARM tools (as is happening in Tanzania and Zambia).

Learn more: <http://www.farmaf.org/en/>

2.2.3. Biological and environmental risks

GROUP 7 - Index-based livestock insurance (IBLI)

Presented by: Rupsha Banerjee, Ph.D., Post-doctoral fellow, International Livestock Research Institute, Nairobi, Kenya.

Quick facts

- **Risks:** Weather risks, specifically droughts
- **Tools:**
 - Climate-smart agriculture
 - Asset- and income-based strategies
 - Weather index insurance
 - Social protection and productive safety nets
 - Access to climate, production and market information
 - Capacity building and experience sharing
- **Location:** Arid and semi-arid lands of Kenya and Ethiopia
- **Number of people benefiting:** Over 20 000 pastoral households: 12 000 in Kenya and 8 000 in Ethiopia
- **Timeframe:** Phase I: 2011-2012, Phase II: 2012-2016, Phase III: 2017 onwards
- **Implemented by:** Takaful Insurance of Africa (TIA), APA Insurance, State Department of Livestock - Government of Kenya, Oromia Insurance Corporation (OIC)
- **Funded by:** World Bank, CTA, UC Davis, WFP, USAID Feed the Future. In the past, IBLI was also funded by: EU, DFID, World Bank, DFAP, Kenya Markets Trust, 3ie and USAID.

The initiative: risk assessment, tools identification and design

The Index-Based Livestock Insurance (IBLI) works towards improving the resilience of pastoralists to drought-related losses of their key productive asset i.e. livestock. The design of the product relies on low cost, accessible and reliable data of pasture availability through satellite imagery of the earth's surface, to evaluate the state of the pasture and apply it to the design of an insurance product targeting drought-vulnerable pastoralists in Northern Kenya and the Borena region in Southern Ethiopia. The initiative has heavily invested in market and capacity building, building

standardized extension manuals and tools, designing marketing campaigns, developing mobile-based sales transactions platforms for increased cost-efficiency and improved knowledge management. Most of the research in this project is demand driven and need based from the private sector who are underwriting this product.

The background data for identifying risks was the Arid Lands Data and the PARIMA data collected in Marsabit County in Northern Kenya. Further studies by scientists in ILRI from 2008 onwards revealed that drought was one of the biggest co-variate risks that the pastoralists face, which usually affects their biggest assets – the livestock. Though other risks are present, such as conflict, animal disease outbreaks and cattle rustling, drought was believed to be the most pervasive risk which could have a catalytic effect to increase the prevalence of animal disease, increase conflict and cattle rustling. Moreover, with increasing variability in climate, the incidence of catastrophic droughts is increasing, the latest ones being in 2015 and 2016 in the Horn of Africa.

The pastoralists in the Arid and the Semi- Arid Lands (ASALs) have been for the longest time been using traditional coping mechanisms against drought. Over the years these coping methods against drought related risks have been eroding, and there are very few market interventions such as insurance in these areas. Given the vastness of the landscape and the sparse population, having a conventional insurance product would not work. For this reason, an innovative insurance scheme was designed, which used free and cheaply available satellite data to measure the availability of forage over a season. Pay-outs are based on the depleting forage over a given area beyond a certain threshold.

Learning from the field: monitoring and evaluation, impact and lessons

A clear distinguishing feature of the IBLI is its operational framework which is the intentional and successful coupling of the core research activities (its science platform) with capacity building and stakeholder brokering activities (an applied implementation platform) aimed at helping insurance companies and other key players in the delivery process incubate the IBLI insurance product into a viable sustainable product. Close social distance between these two platforms with continued exchange of ideas and a symbiotic iteration of the research into development cycle has made this structure particularly productive for the IBLI project. Most of the initiatives are demand driven, which involves testing and trying out innovative methods of extension and education through the use of digital platforms and working towards institutional innovations that involve local community members and groups being part of the sales and distribution system of IBLI.

Being a pastoral region, there is still a high level of illiteracy which makes the penetration and high uptake of insurance challenging. Moreover, though there is high mobile penetration in the project sites, transaction costs are still high with regards to extension and education, despite the introduction of digital methods of learning. Given that the sales of IBLI is only two times in a year, retaining agents is a costly affair for the private sector. However, the project is working on institutional models where agents' capacities can be assessed and they can be used to deliver complimentary service with IBLI.

One of the main lessons after a decade of implementing IBLI is that core set of practices are essential for delivering technologies or services through a public – private partnership and scaling in pastoral regions:

1. Selecting and managing partners from different backgrounds who are willing to adapt and recognize the challenges that come as part of working in pastoral areas.
2. Identifying new research questions that support the uptake of the technology and packaging the research and the research findings in a manner that excites and keeps interest of market/development partners
3. Folding in research questions that arise during the implementation of the project back into its research pipeline.
4. Developing non-traditional skill sets within the project team that range from pure science/technical researchers to action/participatory researchers and development practitioners as bridging agents between research and implementation.
5. Creating a project structure that couples research, implementation, testing, trouble shooting, market and capacity development and fostering a culture that enables innovation and creativity.

Moreover, for every technology to be adopted, there is a need for institutional and process innovation throughout the lifecycle of the technology.



What next?

IBLI's exit strategy is a public-private partnership model for scale with ILRI being a technical support. This has already started happening, where the insurance companies now brand IBLI as their product, and the government partnering with the private sector to implement this product. Ethiopia also seems promising with the Government being very interested to take up this product at a national level.

Learn more: <https://ibli.ilri.org>

2.2.4. Policy and institutional risks

GROUP 8 - JASIL

Presented by: Hijaba Ykhanbai

Quick facts

- **Risks:**
 - Weather risks, including rainfall variability and soil degradation
 - Policy and institutional risks, including land policies
- **Tools:**
 - Community-based natural resources management
 - Access to climate, production and market information
 - Farm business advice
 - Capacity building and experience shared programme
- **Location:** Mongolia
- **Number of people benefiting:** 54 community leaders have signed co-management contracts at the district level, while 42 community leaders and 2 830 community members have established agreements at the local level.
- **Timeframe:** 2000 - present
- **Implemented by:** JASIL

The initiative: risk assessment, tools identification and design

The 200,000 herder households of Mongolia – representing more than 20% of the population – manage around 45 million livestock heads. Most of these nomadic and semi-nomadic herders move on a seasonal basis, in pursuit of pastureland. Pastureland is owned by the state but herders can access the land and its resources as a public good. The Land Law of Mongolia, approved in 2002 and amended in 2004, only allows herders to use pastureland and does not permit its allocation or long-term lease. This pastoral way of life – vital to rural communities in Mongolia – faces unique and inter-related challenges. The combined effects of rapid transition from a state-led economy to a marketbased economy, the increasing number of livestock, and climate change have contributed to the degradation of the public pastureland in the past few decades. The cost of pastureland degradation, which is calculated by the net price of additional fodder required for the number of livestock that exceeds the carrying capacity of the pastureland, is estimated to be 9.5 billion MNT (4.5 million USD) annually. The situation in the country may thus be an example of the proverbial 'tragedy of the commons', where public land is overused and not properly managed to prevent further degradation.

While it may be difficult to point out a single cause of the degradation, scholars usually propose the following solutions: (a) privatise the common pool resources; or (b) improve the communal ownership of the common pool resources. However, in Mongolia, private or communal ownership and management of pastureland has never been practiced, due to the many diverse local arrangements and the changing use of the pasturelands on a seasonal basis. Against this background, turning pasturelands into privately or communally owned land would cause conflicts. It is therefore of paramount importance to devise an institutional set-up that addresses land use and land management in such a way that it conserves the natural resources, preserves the biodiversity, and respects the herders' traditional livelihood strategies.

In order to curb this resource degradation and to strengthen the traditional production system of the pastoralists, JASIL, with a wide diversity of stakeholders, developed and implemented a novel approach for community-based natural resource management (CBNRM) of the pasturelands. The approach is based on insights from pastoral ecology and related sciences such as livestock management, natural resource economics, and sociology. In the CBNRM of pastureland, the herding families enter into contract with each other and with the local government, in order to define the seasonal use and management of pastureland. The contracts are science-based and include guidelines on the carrying capacity of the plots covered by the contract. The plots are demarcated in a participatory way. This management tool is inclusive and empowers all stakeholders to actively participate in ecosystem management, along with local authorities. It puts local people at the centre of development, supporting their livelihood needs, and respecting their traditions. Moreover, when implemented at large scale, it can be an effective approach for adaptation to climate change and reduction of natural resource degradation.

Learning from the field: monitoring and evaluation, impact and lessons

Before the JASIL intervention, there were no formal community organisations in any of the four study sites. Herders undertook activities independently, without any joint measures or collaboration with each other. Local governments worked with each herder household individually. The main achievement is that the long-term management of pasturelands is now assigned to both the herding communities and local authorities, who are obliged to collaborate according to the terms of the co-management contract. Throughout the pilot phase, the traditional land use rights of herders and community were formalised and incorporated in the co-management agreements with the local government. Since the co-management projects took off, pastureland degradation has diminished, and the herders' income has significantly increased. A participatory assessment in three communities, living in three completely different ecosystems, showed the following increments in annual household income over the period 2010-2013:

- in the Ikhbulag community (forest and steppe ecosystem): from +43 to +56%,
- in the Karatau community (high mountain steppe ecosystem): from +30 to +39%,
- in the Aduunchuulun community (steppe and prairie ecosystem): from +23 to +36%.

Moreover, in each of the 54 study sites, between 85 and 98% of the community members support the co-management arrangements. The income of the households involved in the 10-year experimentation has also increased by 23-56%.

As CBNRM of pastureland is new in Mongolia, no guidelines or past experiences were available. Therefore the team adopted an experimental, learning-by-doing approach. The ten years of learning-by-doing have produced a rich record, demonstrating that co-management is an effective way of maintaining the natural resource base at healthy levels while at the same time contributing to the improvement of herders' livelihoods. The 10 years of experience have also provided useful inputs to parliamentary deliberations on land-related laws, especially on pastureland allocation, use and management. For example, while the draft Land Law and draft Pasture Law are still under consideration by the government, the drafts were updated in 2012 to recognise and describe procedures for CBNRM. Further, in the approved amendment of the Forest Law (2012), the legal base of the Forest User Groups has been strengthened to include CBNRM and participatory forest and pasture land management.

The decision making around pastureland is often conflictual because many stakeholders are involved and both individual and collective interests are at stake. Therefore, in creating co-management contracts, it is important to include all the principal stakeholders, to wit, the local governments, the communities, and the individual community members. In practice, co-management strengthens the links and trust between the local people and the decentralised governmental administrations. The government is and remains an important stakeholder in the co-management of pastureland, as the success of the co-management depends greatly on a supportive legal framework, policies and actions of the state. It is possible to imbue traditional pastureland management methods with scientific innovations and experiences from other countries.

One of the main challenges encountered in the allocation of pastureland is related to the migration of herders during episodes of severe winter weather ('zhud') from one area to another. This type of migration creates negative impacts in the areas and communities that receive these migrating herders. The incoming community risks to contribute to a further degradation of the pastureland, but the contracts do not oblige them to pay compensation to the receiving communities. A higher land use payment for herders coming from outside the community



area is currently under consideration and subject to the governors' approval. This should also be reflected in the land law and the co-management agreements.

More reviews and corrections need to be made in terms of legalising co-management of natural resources in Special Protected Areas (SPA). If herders need to use some parts of the SPA lands, for instance in the case of severe winter conditions ('zhud'), they should be obliged to pay a compensatory land use tax that is higher than the standard tax. Moreover, a stronger legal framework is needed to regulate the use of pastureland by mining companies. Also mining activities should be subject to land use tax.

What next?

JASIL is testing how ICTs can improve the effectiveness of the CBNRM in environmental and economic terms, e.g. by disseminating weather forecast data.

Learn more: <http://www.landcoalition.org/en/regions/asia/member/jasil>

2.2.5. Integrated approaches

GROUP 9 - The climate-smart village approach: Framework of an integrative strategy for scaling up adaptation options in agriculture

Presented by: Arun Khatri-Chhetri, Ph.D., Agri-System Economist, CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), South Asia Regional Programme, New Delhi, India.

Quick facts

- **Risks:**
 - Weather risks, including droughts, floods and rainfall variability
 - Biological and environmental risks, including livestock diseases and plant pests and diseases
 - Market risks, including access to inputs, quality of inputs and output prices
 - Access to finance
- **Tools:**
 - Climate-smart agriculture
 - Crop and enterprise diversification
 - Asset- and income-based strategies
 - Agricultural insurance
 - Weather-index insurance
 - Agricultural finance and microfinance
 - Access to climate, production and market information
 - Farm business advice
 - Capacity building and experience sharing
- **Location:** India, Nepal and Bangladesh
- **Number of people benefiting:** 17 695 households, a number that will increase greatly as national and state governments, as well as a private company, ITC Limited, are implementing Climate-Smart Village approaches across Nepal and various Indian states (Haryana, Bihar, Maharashtra, Madhya Pradesh, Rajasthan, Uttar Pradesh, Punjab).
- **Timeframe:** Started in 2012
- **Implemented and funded by:** CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), National and sub-national government, farmers and farmers groups and private sector.

The initiative: risk assessment, tools identification and design

The Climate-Smart Village (CSV) is an approach to agriculture research for development, that tests technological and institutional options for dealing with climatic variability and climate change in agriculture using participatory methods. It aims to scale-up and scale-out the appropriate options and draw out lessons for policy makers from

local to global levels. The approach incorporates evaluation of climate-smart technologies, practices, services and processes relevant for local climatic risk management and identifies opportunities for maximising adaptation gains from synergies across different interventions and recognising potential maladaptation and trade-offs. It ensures that these are aligned with local knowledge and link into development plans. This approach is under implementation in Asia, Africa and Latin America in diverse agro-ecological settings. It incorporates climate smart technologies, practices, services and processes relevant for local climatic risks management and aligned with current adaptation policies/plans and village development programs. The focus is generally on a basket of synergistic options, rather than on single technologies. Major initiatives include:

- Strategic design of land use options including priority crops, technologies and practices based on agro-ecological analysis and farmer typologies;
- Promoting climate-smart technologies and maximizing synergies among interventions;
- Providing value-added weather information services including weather insurance to farmers;
- Facilitating community partnership for knowledge sharing; and implementation of CSA practices;
- Scaling-out through outreach activities like farmers' fairs and videos;
- Scaling-up through linkages with on-going government schemes, policies, and programs, and CSR programs of the private sector.

Risks were identified through baseline surveys, including assessments of climate risks and agriculture production systems for designing CSA interventions in the villages. Climate and agriculture production data were also used to assess current as well as future climatic risks. This risk assessment was conducted by the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), together with national and local partners. The prioritization of risks was then made on the basis of the frequency and severity of their impacts on agriculture and livelihoods. Participatory prioritizations of CSA technologies were conducted with a range of stakeholders i.e. farmers (male, women, youth), local agriculture officials, NGOs staff, private sector organizations and civil society organizations to minimize the impacts of selected climatic risks in the villages. Following this, portfolios of CSA technologies, practices and services were developed to minimize the selected climatic risks.

Despite availability of climate finance, several national and state level schemes, and ample availability of scientific knowledge base about climatic risks and their likely impacts, there is relatively little action that integrates top-down government schemes, scientific innovations, and stakeholder needs to address farmers' problems. The CSV approach is participatory bottom-up approach of promoting climate change adaptation and mitigation in agriculture which focuses on appropriate and location/context-specific enabling conditions, generating greater evidence of CSA effectiveness in a real-life setting and facilitating co-development of scaling mechanisms towards landscapes, subnational and national levels.

In this initiative, risks are managed through action at different levels. Farmers and farmers groups implement, monitor and evaluate the climate risks management activities at the village/community level, in collaboration with government and other organizations. Government and private sector supply technologies and extension of knowledge.

Learning from the field: monitoring and evaluation, impact and lessons

The approach uses indicator-based monitoring and evaluation of adaptation activities, based on indicators linked to specific types of outputs.

Output	Indicator
A. Economic	<ul style="list-style-type: none"> • Change in productivity of agriculture and allied sectors • Change in net return per hectare • Employment generation • Improvement in input use efficiency (water, nutrients and energy) • Coefficient of variation (CV) in yield and income



Output	Indicator
B. Environmental	<ul style="list-style-type: none"> • Total area under climate-smart interventions • Improvement of environmental services • Change in emissions intensity
C. Social	<ul style="list-style-type: none"> • Strengthen capacity of women, youth and marginalized groups • Strengthen cooperation and networks in CSVs
D. Institutional	<ul style="list-style-type: none"> • Level of local institutions' involvement • Coordination among different departments
E. Human well-being	<ul style="list-style-type: none"> • Climate resilient food systems and change in food security • Sustainable livelihoods

The main strengths of the Climate Smart Village approach are that it generates a strong evidence base for climate change adaptation and mitigation through its collaborative and participatory research, it integrates and converges adaptation and mitigation programs at the local level and enhances the climate literacy of farmers and local stakeholders to develop climate resilient agricultural systems.

This is, however, a knowledge intensive approach which requires considerable level of efforts to design and implement in collaboration with local stakeholders, and a lack of awareness about CSVs, unorganized farming, and financial constraints can obstruct the promotion of CSV.

Key lessons from the climate-smart villages initiative so far can be summarized as follows:

1. Integration of global and local knowledge through CSV approach can have a large positive impact on adaptation and mitigation of climate change in agriculture with better targets;
2. This approach promotes strong partnership at local level among government, private sector, research organizations and farming communities which can facilitate integration and convergence of adaptation and mitigation programs;
3. This approach also promotes synergies among the climate smart technologies, practices and services.

What next?

The CSV approach aims at scaling-up through policy and institutional change/reform at national, sub-national and local levels, and through the development of business and institutional models of the CSV approach applicable for government and private sectors. Next steps therefore include engagement with policy makers at different scales and the development of CSV scaling-out schemes in collaboration with key stakeholders.

Learn more: <https://ccafs.cgiar.org/climate-smart-villages#.WehdBa3pNE4>

GROUP 10 - Integrated approach: Rural resilience Initiative (R4)

Presented by: Fabio Bedini, Coordinator, Rural Resilience Initiative4, World Food Programme.

Quick facts

- **Risks:**
 - Weather risks, including droughts and rainfall variability
 - Biological and environmental risks, including plant pests and diseases
- **Tools:**
 - WeatherClimate Smart agriculture
 - Crop and Enterprise Diversification
 - Asset- and income-based strategies
 - Agricultural Insurance
 - Weather-index insurance
 - Agricultural Finance and Microfinance
 - Warehouse Receipts system



- Social protection or productive safety nets
- Access to climate, production and market information
- Capacity building and experience sharing
- Location: Ethiopia, Kenya, Malawi, Senegal, Zambia, Zimbabwe
- Number of people benefiting: 430 000 in 2017, target of 500 000 in 2020 in 10-15 countries
- Timeframe: 2009 - 2020
- Implemented by: Global strategic partnership between Oxfam and WFP. Implemented at the local level by governments and NGOs, as well as private sector actors.
- Funded by:
 - Past partners: USAID, Swiss RE, Cargill and Rockefeller Foundations
 - Current partners: SDC, Sweden, Norway and ELMA
 - Future partners: KFW and GCF.

The initiative: risk assessment, tools identification and design

The World Food Programme (WFP) and Oxfam America (OA) launched the R4 Rural Resilience Initiative (R4) in 2011 to enable vulnerable rural households to increase their food and income security in the face of increasing climate risks through a combination of four risk management strategies: improved resource management through asset creation (risk reduction), insurance (risk transfer), livelihoods diversification and microcredit (prudent risk taking) and savings (risk reserves).

R4 has broken new ground in the field of climate risk management by enabling the poorest farmers to pay for crop insurance with their own labor through Insurance-for-Assets (IFA) schemes. When a drought hits, compensation for weather-related losses prevents farmers from selling productive assets and stimulates faster recovery. IFA schemes are built into either existing government social safety nets or WFP's Food Assistance for Assets programme or even FAO conservation agriculture program. Assets built through risk reduction activities promote resilience by steadily decreasing vulnerability to disaster risks over time. Insurance facilitates access to credit at better rates, serving as collateral. Households can invest in riskier but more remunerative enterprises, as well as in seeds, fertilizers and new technologies to increase their agricultural productivity. Participants establish small-scale savings, which are used to build 'risk reserves'. Savings help build a stronger financial base for investing – but also act as a buffer against short-term needs and idiosyncratic shocks, such as illness and death. To ensure long-term sustainability, R4 contributes to the creation of rural financial markets, by building local capacity and gradually transitioning farmers to pay for insurance in cash.

In addition, R4 builds synergies with other relevant tools and programs, such as P4P which purchases part of the production to smallholder farmers. Through P4P or the village saving and loans approach, participants can sometimes even access warehouse receipt system. R4 also built linkages with climate services for agriculture. Although these tools are not strictly R4, the strength of this initiative is to create bridges which reinforce the impact of actions to build resilience and better manage climate and agricultural risks.

The initiative looks at improving households and community adaptive capacity to climate shocks affecting food security on agricultural based livelihoods. Main risks, their frequency and severity are determined at the start of any country intervention to define the priority areas and the most appropriate combination of risk management tools. This information is refined at lower levels to inform the design of specific insurance products. In most R4 countries, insurance products that offer coverage against extensive dry spells and drought have been designed to trigger at a frequency of one in four to five years.

R4 has given priority to countries and regions where drought or extensive dry spells during critical crop development stages constituted the main recurrent shock affecting the food security of large proportions of the population. R4 starts by identifying the tools and systems already existing in each country as well as gaps to be filled were then identified, before the development of partnerships that would provide the best combination of risk management tools. Under R4 coordination, partners work to adjust the tools to local context and integrate them in a way that provides households a set of complementary options to address risks.

The focus is on managing risks at community and household level. To achieve this, WFP engages with a wide range of public and private actors, and is progressively trying to support the development of national systems where different macro-micro solutions are integrated to best respond to the varied frequency and impact of shocks.



Learning from the field: monitoring and evaluation, impact and lessons

R4 is developing its own rigorous outcome monitoring system to measure over time the results of its integrated approach on building food security resilience of households and communities to climate related shocks. Based on its ToC a Logframe and M&E plan has been developed with a set of impact and outcome indicators sensitive enough to capture the effects of the intervention at household and community level. Process and participants satisfaction is regularly monitored through light surveys. To measure the changes at the outcome level a complete set of socio-economic and food security indicators linked to the intervention have been monitored over time. In its initial phase, to measure the impact of the intervention on household resilience to food insecurity, several resilience measurement indicators have been tested.

The micro insurance being the most innovative component of the approach, a specific set of Key Performance Indicators has been defined to inform the scale-up of the program. R4 is also developing indicators to measure results in building Government capacities to implement integrated risk management programmes and the development of sustainable rural risk transfer markets.

After 8 years of implementation, some key strengths can be identified in the Rural Resilience Initiative. It proposes a set of adapted interventions impacting positively household's and community capacity to face shocks, not in a one-fits-all approach, to offer a progressive path to develop commercial services. Index insurance offers opportunity to reach large numbers of smallholders, and it is not proposed as a standalone, but bundled with a basket of context-relevant services. Finally, the initiative blends public and private interests for enhanced sustainability.

However, this approach requires a high initial investment, and the complexity of the components calls for strong coordination mechanisms. Moreover, index insurance only covers specific risks and suffers from basis risk challenges. Finally, it is difficult in R4 to measure the impacts of individual components, and there is a strong need for ownership by local stakeholders

The main lesson from the R4 initiative is that insurance is not a 'miracle' solution. It has to be contextualised and bundled with other services. It allows to rapidly transfer resources to farmers affected by a shock and can unlock investment that provides opportunities for growth in non-shock years. Achieving a systematic transition process from food insecure to resilient and productive households requires a clear exit strategy and multi-year resources.

What next?

R4 is considering expanding to areas where other risks, including floods and/or excess rain, affect food security of large number of people. There is a two-pronged exit strategy. First, farmers are eventually able to fully pay for their insurance premiums out of their returns. Second, governments may choose to integrate micro insurance in their social protection strategy to build shock responsive safety nets.

Learn more: <http://www1.wfp.org/r4-rural-resilience-initiative>





Session 3. ARM Practices and lessons for development

SHOWCASE'S GUIDELINES

Session 3.

ARM Practices and lessons for development

SHOWCASE'S GUIDELINES



Time	Description	Presenter
SESSION 3: ARM Practices and lessons for development		
13:45 - 15:45	<p><i>"Information Market" showcase (Parallel Sessions).</i> Participants will be free to move around the information market to learn the opportunities and challenges of selected initiatives. The showcase will be organized in two rounds. For each round, initiatives will be presented in parallel sessions grouped by thematic topics:</p> <p>A - Fostering integration of ARM into policies ANADIA, IBIMET Uganda Agricultural Risk Management Initiative, MAAIF Uganda Disaster Risk Management Support, AfDB</p> <p>B - From germination to the market: transforming risks into opportunities Commodity exchange trading Ethiopia, ATA Integrated grain value chain lending and insurance/ Feed the Future RTI Replanting Guarantee, ACRE Africa</p> <p>C - Using farm practices to manage risks Hydroponic grass, MAVIM Farming with Indigenous Micro Organisms, SARRA Assisted Natural Regeneration, IFAD</p> <p>D - Innovation against climate and biological risks Picture based insurance, IFPRI Bima Maono Climate and agro-insurance, KfW VFI Agro-met tools, FAO</p> <p>E - Accessing information to manage risks Digital Inclusion, FAO EMPRES-i/EMA-I, FAO Plantwise, CABI</p> <p>F - From insurance to social protection CADENA Mexico, FAO Agricultural Index Insurance, Feed the Future/USAID Weather Risk Management Facility, IFAD/WFP</p>	<p>Facilitator: Maria Magdalena Heinrich, FAO</p> <p>Presenters: Vieri Tarchiani, IBIMET Tom Mugisa, PARM focal point, Uganda Cecil Nartey, African Development Bank</p> <p>Tewodros Demeke, ATA Jean-Michel Voisard, Feed the Future Senegal Stewart McCulloch, VisionFund International</p> <p>Indra Mallo, MAVIM Shindhe Shiva Shankar, SARRA Alice Brié, IFAD</p> <p>Berber Kramer, IFPRI Ana Heureux, FAO Henry Burgsteden, FAO</p> <p>Julio Pinto, FAO Joseph Mulema, CABI Stefan Hirche, KfW</p> <p>Niclas Benni, FAO Jennifer Cissé, Feed the Future/USAID Francesco Rispoli, IFAD/WFP</p>

3.1. How does it work?

There are many ways to manage agricultural risks, just as there exist a wide variety of agricultural risks facing farmers. During this session, various initiatives will be showcased to explore the diversity of approaches, level of intervention and tools put in place to avoid, transfer or manage agricultural risks.

The session will start with a general introduction and a brief description of the activity by the workshop facilitator. Afterwards, at the beginning of each round, each presenter will be given 1 minute to present him/herself to all participants, as well as to describe the tool/initiative that they are showcasing.

The showcase will then be organized in two rounds. For each round, initiatives distributed among three or four



parallel sessions will be presented. Participants will be free to move around the information market to attend the selected session. The identified thematic topics by round are:

ROUND 1 - Parallel Sessions (40 min)	ROUND 2 - Parallel Sessions (40min)
A. Fostering integration of ARM into policies	D. Innovation against climate and biological risks
B. Transforming market risks into opportunities	E. Accessing information to manage risks
C. Using farm practices to manage risks	F. From insurance to social protection

3.2. Information market topics and initiatives

3.2.1. Information market topics

Panel A: Fostering integration of ARM into policies

This panel will bring together three initiatives aiming at the mainstreaming of ARM into national policies. They encompass capacity building at various levels, risk assessments and the support of governments in drafting and implementing ARM policies.

Presenter 1: *Vieri Tarchiani*, Istituto di Biometeorologia del Consiglio Nazionale delle Ricerche (IBIMET) – ANADIA: Adaptation to climate change, disasters prevention and agricultural development for food security
 Presenter 2: *Tom Mugisa*, PARM focal point – Uganda Agricultural Risk Management Initiative
 Presenter 3: *Cecil Narthey*, African Development Bank – Disaster Risk Management Support

Panel B: From germination to the market: transforming risks into opportunities

In this panel, two initiatives transform market risks into opportunities, enabling farmers to access the market and take control over the sale of their produce. The third introduces an innovative hybrid insurance model, to ensure that farmers' produce is insured from the very early stages all the way to the harvest.

Presenter 1: *Tewodros Demeke*, ATA - Commodity exchange trading in Ethiopia
 Presenter 2: *Jean-Michel Voisard*, Feed the Future Senegal - Integrated grain value chain lending and insurance
 Presenter 3: *Stewart McCulloch*, VisionFund International – Replanting Guarantee (presenting on behalf of ACRE Africa)

Panel C: Using farm practices to manage risks

Farming practices can be used to face risks, by accelerating the regeneration of the soil, by helping farmers protect their ecosystems or enabling them to shift practices to respond to weather changes.

Presenter 1: *Indra Mallo*, MAVIM – Hydroponic grass
 Presenter 2: *Shinde Shiva Shankar*, SARRA – Farming with Indigenous Micro Organisms
 Presenter 3: *Alice Brié*, IFAD - Assisted Natural Regeneration

Panel D: Innovation against climate and biological risks

Designing a hybrid insurance product to cover the most vulnerable stages of plant growth, assessing losses through field pictures taken by farmers, or bringing weather information directly to farmers? Innovation can make a big difference in farmers' lives.

Presenter 1: *Berber Kramer*, IFPRI – Picture-based insurance
 Presenter 2: *Stefan Hirche*, KfW and Stewart McCulloch, VisionFund International - Bima Maono Climate and agro-insurance
 Presenter 3: *Ana Heureux*, FAO – Agro-met tools

Panel E: Accessing information to manage risks

This group brings together initiatives that aim to bridging the information gap between information providers and farmers. Through mobile application, these initiatives aim at bringing information directly to farmers, about best practices for animal and plant health or through a holistic approach.

Presenter 1: *Henry Burgsteden*, FAO - Digital inclusion

Presenter 2: *Julio Pinto*, FAO - EMPRES-i/EMA-i

Presenter 3: *Joseph Mulema*, CABI - Plantwise

Panel F: From insurance to social protection

In this panel, presenters provide feedback on index-insurance and how it can be used to help farmers manage risks, and how it can be linked to social protection.

Presenter 1: *Niclas Benni*, FAO - CADENA (a Programme of the Mexican Government)

Presenter 2: *Jennifer Cissé*, Feed the Future/USAID - Agricultural Index Insurance: Feed the Future Innovation Lab for Assets & Market Access

Presenter 3: *Francesco Rispoli*, IFAD/WFP - Weather Risk Management Facility

3.3. List of initiatives

3.3.1. Round 1

Panel A: Fostering integration of ARM into policies

ANADIA: Adaptation to climate change, disasters prevention and agricultural development for food security

Presented by: *Vieri Tarchiani*, Istituto di Biometeorologia del Consiglio Nazionale delle Ricerche (IBIMET)

ANADIA is a training and research for development project, implemented in Niger since 2013 and funded by the Italian Agency for Development Cooperation. The objective of ANADIA is to contribute to a sustainable agriculture, adapted to climate change and less vulnerable to climatic extremes in Niger. ANADIA aims to strengthen the capacity of stakeholders at national, regional and local level to mainstream climate change adaptation and disaster risk reduction in decision making from national to farm scale".

Uganda Agricultural Risk Management Initiative

Presented by: *Tom Mugisa*, PARM focal point, Uganda

The Uganda initiative on agricultural risk management has involved a sensitisation and capacity development process targeting public policy makers and technical staff at national level and selected local government leaders as well as farmers' representatives, private sector, academia, civil society organisations and development partners. This was coupled with the integration of ARM in national policies and investment plans, after a national risk assessment, the prioritising tools for managing key agricultural risks, and the analysis of the feasibility of selected tools.

Disaster Risk Management Support

Presented by: *Cecil Nartey*, African Development Bank

The disaster risk management support initiative aims to enhance the resilience and response to climate shocks in Burkina Faso, Chad, The Gambia, Mali, Mauritania, Madagascar, Niger and Senegal by improving the management of natural disaster risk and adaptation to climate change. More specifically, the initiative strengthens the technical capacity of the eight countries to evaluate climate-related risks and costs, and elaborate subsequent mitigation measures at both national and sub-national levels; and develops specialized financing mechanisms within each country to use in the planning, preparation and rapid response (including disbursement of emergency funds) to address climate disasters at national and local levels.



Panel B: From germination to the market: transforming risks into opportunities

Commodity exchange trading in Ethiopia

Presented by: Tewodros Demeke, ATA

Commodity Exchange trading, by creating certainty regarding the quality, quantity and location of commodities to be traded, reduces transaction costs, which may be in the form of: cost of sourcing produce for traders and processors as well as the cost of accessing markets for farmers, especially for premium quality produce. Exchange trading improves collection and dissemination of market information to all players. The warehouse receipt system, which may be developed to underpin commodity exchange trading (as a delivery mechanism), ensures that agricultural produce is stored in well-run facilities, thereby reducing post-harvest losses. That system also makes it possible for producers, who so desire, to defer sale during the harvest season, when prices are low and to gain from seasonal price increase. It also allows smallholder farmers to aggregate – sometimes facilitated by inventory finance and sell directly to processors and large traders, rather than through intermediaries.

Integrated grain value chain lending and insurance

Presented by: *Jean-Michel Voisard*, Feed the Future Senegal

Since 2012, the Senegal National Agricultural Bank (CNCAS), the National Agricultural Insurance Company, small scale farmer unions and local rice mills are implementing an integrated lending mechanism that links in-kind farmer loan re-imbursements to miller lines of credit by resorting to grain collateral management mechanisms. The Farmer loan performance is also secured through the bundling of an agriculture insurance product. The system rests on IT based inventory and farmer tracking tools, the development of adapted insurance products, the improvement of rice quality and the introduction of quality testing protocols at farm level, the mainstreaming of certified seed and best practices etc.

Replanting Guarantee, ACRE Africa

Presented by: *Stewart McCulloch*, VisionFund International, on behalf of ACRE Africa

The Replanting Guarantee Product (RPG) is an input replacement insurance product that covers the risk of adverse weather conditions like insufficient rainfall at the sensitive germination phase. In the event of the insured event, drought or insufficient rains, compensation is sent to the registered farmers via their mobile money wallets. This enables farmers to purchase another bag of input, example – seed, to salvage a season.

Panel C: Using farm practices to manage risks

Hydroponic grass

Presented by: *Indra Mallo*, MAVIM

In Maharashtra (India), the regions of Marathwada and Vidarbha had been facing severe drought conditions for 3 - 4 years. Scarcity of green fodder affected animal health and milk production resulting in distress sale of cattle. To prevent this, MAVIM introduced Hydroponic Grass and Azola cultivation among farmers under the Micro Livelihoods Plans (MLP) as part of the IFAD assisted Tejaswini Rural Women Empowerment Programme. Due to availability of hydroponic grass and Azola, fat ratio in the milk was maintained and milk production also increased. MLP members could retain their animals.

Farming with Indigenous Micro Organisms

Presented by: *Shindhe Shiva Shankar*, SARRA

Many traditional farming communities and indigenous peoples have over generations developed agricultural systems that are productive and environmentally sustainable. Such traditional farmers domesticated thousands of crop species and millions of plant varieties, mostly grown without agrochemicals. While traditional agricultural knowledge and practice has in many places been lost or atrophied, such small diversified farming systems offer promising models for promoting biodiversity, conserving natural resources, sustaining yield without agrochemicals, providing ecological services and lessons for resilience in the face of environmental and economic change. The initiative blends indigenous micro-organisms technologies with Indian traditional farming practice to increase the resilience of farmers.

Assisted Natural Regeneration

Presented by: *Alice Brié*, IFAD

Assisted natural regeneration (ANR) is a simple, low-cost forest restoration method that can effectively convert deforested lands of degraded vegetation to more productive forests. The method aims to accelerate, rather than replace, natural successional processes by removing or reducing barriers to natural forest regeneration such as soil degradation, competition with weedy species, and recurring disturbances (e.g., fire, grazing, and wood harvesting). Within the framework of a support from the Global Environment Facility to implement a programmatic approach for sustainable land management, Assisted Natural Regeneration was part of the initiatives put in place in the rural areas of the Maradi region in Niger.

3.3.2. Round 2

Panel D: Innovation against climate and biological risks

Picture-based insurance

Presented by: *Berber Kramer*, IFPRI

Picture-based insurance (PBI) is an innovative crop insurance product that we are currently piloting in the states of Punjab and Haryana in India. Using a smartphone app, insured farmers take pictures periodically of the same section of their insured plots, from land preparation to harvest. These geo-referenced pictures are uploaded to the cloud to serve as input for loss assessment. In the pilot phase, insurance pay-outs were determined by agronomic experts. Combining the data from these loss assessments with objectively measured yields and self-reported damage, developing algorithms are currently developed that estimate indices of crop damage based on geo-referenced pictures for low-cost automated loss assessment for insurance purposes.

Bima Maono Climate and agro-insurance

Presented by: *Stefan Hirche*, KfW and Stewart McCulloch, VisionFund International

VisionFund International's climate & agro-insurance scheme Bima Maono consists of crop (and limited livestock) insurance and is part of an integrated agricultural-development and financing programme, supported by KfW's InsuResilience Investment Fund. Starting in Tanzania, Bima Maono shall be rolled out to at least seven African countries. Crop insurance is extended on the back of agricultural lending (usually input loans) and supported by advisory on improved farming techniques. The insurance scheme is a hybrid of weather index and multi-peril crop insurance (flood, drought, pests and disease), the former up to the germination phase, the latter up to harvesting and based on expected yield shortfall (actual vs. expected yield, determined by agronomists), developed by ACRE Africa. Additionally, VisionFund is implementing a portfolio level climate index natural catastrophe scheme in 5 African and 2 Asian countries to provide a funding mechanism to maintain the supply of credit to communities affected by disasters.

Agro-met tools

Presented by: *Ana Heureux*, FAO

Increasing availability and accessibility of weather and agrometeorological information allows farmers to prepare for variability in weather, time their planting and harvesting and better understand their cropping systems. The purpose of the project is to present this information in the most user-friendly way possible and also combine weather data with country and region-specific crop data to make useful and specific recommendations. The close collaboration with national agencies and services in Africa and Macedonia facilitates the involvement of a great number of farmers, in the vision of a country-driven approach. In Rwanda and Senegal, a weather and agro-meteorology smartphone application and a SMS system have been developed. In Macedonia, a website has been developed with weather/ climate information and agrometeorological information such as crop disease, soil water and irrigation.



Panel E: Accessing information to manage risks

Digital inclusion

Presented by: *Henry Burgsteden*, FAO

The initiative focuses on the development of four apps that will help improving agricultural services and availability of local content. It will make useful data, information and statistics available and accessible as digital services to the rural poor. It is initially developed for use in two countries in Sub-Saharan Africa: Senegal and Rwanda. The applications are: "Cure and Feed your livestock", "e-Nutrifood", "Weather and Crop calendar", and "AgriMarketplace".

EMPRES-i/EMA-i

Presented by: *Julio Pinto*, FAO

EMPRES Global Animal Disease Information System (EMPRES-i) is a web-based application designed to support veterinary services by facilitating the organization and access to regional and global disease information. Timely and reliable disease information enhances early warning and response to transboundary and high impact animal diseases, including emergent zoonoses, and supports prevention, improved management and progressive approach to control. EMA-i is a mobile app that allows for transmission of data directly from the field to the EMPRES-i database.

Plantwise

Presented by: *Joseph Mulema*, CABI

Plantwise works to help farmers lose less of what they grow to plant health problems. Working closely with national agricultural advisory services we establish and support sustainable networks of plant clinics, run by trained plant doctors, where farmers can find practical plant health advice. Plant clinics are reinforced by the Plantwise Knowledge Bank, a gateway to practical online and offline plant health information, including diagnostic resources, best-practice pest management advice and plant clinic data analysis for targeted crop protection.

Panel F: From insurance to social protection

CADENA (a Programme of the Mexican Government)

Presented by: *Niclas Benni*, FAO

CADENA (Componente de Atención a Desastres Naturales en el Sector Agropecuario y Pesquero) is a Mexican governmental programme that offers macro-level crop and livestock catastrophe insurance programs to small-scale, vulnerable farmers, through a public-private collaboration mechanism. It is operated by the Mexican Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA). The CADENA program contains two main components: (i) the catastrophe agricultural insurance (SAC) programs for farmers, livestock producers, aquaculture farmers, and fishermen, and (ii) in states where SAC is not provided, a continued direct support that involves compensation payments to farmers for climatic disasters.

Agricultural Index Insurance - Feed the Future Innovation Lab for Assets & Market Access

Presented by: *Jennifer Cissé*, Feed the Future/USAID

The AMA IL has piloted a number of index insurance products, including most notably the Index Based Livestock Insurance (IBLI) project in Kenya and Ethiopia, but also area yield insurance for cotton farmers in Mali and Burkina Faso and bundled insurance with improved maize seed for farmers in Mozambique and Tanzania. The AMA IL activity is primarily a research activity, focused on developing innovations in index insurance and understanding farmer barriers to on-farm investment. The IL documents and shares lessons learned to assist project developers and policymakers design high-quality insurance products that protect farmers and increase resilience.

Weather Risk Management Facility

Presented by: *Francesco Rispoli*, IFAD/WFP

Since 2008, IFAD has partnered with the World Food Programme (WFP) through the joint Weather Risk Management Facility (WRMF). Through the partnership, IFAD has built experience in design and implementation of agricultural index insurance, and engaged in research, knowledge management and capacity enhancement. IFAD sees agricultural insurance as a tool to both protect and promote smallholder agricultural production and rural livelihoods. The presentation will look at some of the lessons learned on index insurance for smallholder agricultural development, including opportunities and constraints, and some solutions to scaling-up.





Session 4. Mainstreaming ARM holistic approach into policy for better design and investment

PANEL DISCUSSIONS' GUIDELINES

Session 4.

Mainstreaming ARM holistic approach into policy for better design and investment

PANEL DISCUSSIONS' GUIDELINES



Time	Description	Presenter
SESSION 4: Mainstreaming ARM holistic approach into policy for better design and investment		
16:00 - 16:10	Wrap up: Summary of Session 1, 2 and 3	Carlos Arce, PARM
16:10 - 17:00	High-level Panel discussion The panel will present how different actors at different level have managed to integrate ARM into the national policies through a holistic process and how this can encourage investments into agriculture and to engage the private sector and other stakeholders.	Facilitator: Mariam Soumare, NEPAD Panellists: Hon Vincent Bamulangaki Ssempijato, Minister of Agriculture, Uganda Adolfo Brizzi, IFAD Graziella Romito, Ministry of Agriculture, Italy Haladou Salha, AU-NEPAD Jost van Odijk, GROW Africa Clea Kaske-Kuck, CARGILL
17:00 - 17:30	Q&A and plenary discussion	Facilitator: Maria Magdalena Heinrich, FAO

4.1. How does it work?

The objective of the last panel discussion is to provide experiences and discuss what is needed to mainstream ARM into policy, to encourage investments into agriculture and to engage the private sector and other stakeholders. For a sustainable integration of ARM into policy, it is essential to ensure the engagement of all actors/stakeholders at the different levels (country, regional and global). The complementarity of capacities and responsibilities between different types of actors (governments, development partners, private sector, farmers' organizations) is a key pillar of agricultural risk management. The panel discussion also aims at highlighting strengths and weaknesses in existing partnerships and processes, in order to foster better collaboration between stakeholders.

The absence of clear operational definition of risk mainstreaming is a large constraint for development practitioners. Leadership, guidance and templates on how to incorporate risk at the operational level are also missing. They would help to create a more systematic way for country and sector economists to ascertain the extent to which agricultural risk should fit into their policy and strategies. Given the ex-post reaction that agricultural risk faces in many developing countries, mainstreaming agricultural risk requires a more active approach.

Topics/questions for the panel discussion:

- At country/government level: Uganda's experience of the holistic ARM process. How was ARM mainstreamed into national policies? How can we strengthen government capacities for more informed decisions and investments? What are the benefits of this approach and its challenges, especially related to the implementation of policies? How to bring agriculture risk management to the fore on the public policy agenda? Which multilevel, multi-stakeholder strategies have to be developed?
- At continental level: The critical role of risk management in achieving CAADP objectives. Which efforts are done with the CAADP to strengthen policy engagement of governments and investments in agriculture? What are the strengths and weaknesses of this framework?
- At the global level: The Italian experience in presenting ARM as concrete action at the G7 to empower farmers and improve results in agriculture and food security.
- Development partners: IFAD's experience on mainstreaming ARM into project designs. How to ensure that



funding is channelled to activities related to risk management in developing countries?

- Private Sector: (Financial Institutions or CARGILL): What are the challenges in investing in agriculture, and how is the private sector addressing those? What kind of support is needed and requested from governments to encourage investment in this sector?
- Farmers' organizations: How to empower farmers to be able to manage their risks? What kind of specific support is required to improve risk management skills? The role of farmers' organizations in raising awareness and mainstreaming ARM.

4.2. Discussion topics and panellists

The experience of Uganda in mainstreaming Agricultural Risk Management into national policies

Speaker: Hon **Vincent Ferrerio Bamulangaki Ssempijja**, Minister of Agriculture, Animal Industry and Fisheries, Uganda

The distinguished speaker will share his insights on the Ugandan experience with the integration of Agricultural Risk Management into national policies highlighting opportunities, challenges and way forward.

The role of development partners: mainstreaming ARM into project design

Speaker: **Michael Hamp**, IFAD

Based on the experience of IFAD, the speaker will discuss how mainstreaming of ARM can be achieved in project design, and the role of the holistic approach to ARM in guiding investment choices.

ARM in policy making: taking the dialogue to the global arena

Speaker: **Graziella Romito**, Ministry of Agriculture, Italy

The Italian Ministry of Agriculture supports the issue of Agricultural Risk Management at the G7. The speaker will explain why the Italian government sees ARM as a way to empower farmers, and why it should be part of the global discussions on food security and development.

The Comprehensive Africa Agriculture Development Programme and ARM

Speaker: **Haladou Salha**, AU-NEPAD

At the continental level, NEPAD and the African Union play a key role in defining agricultural policies. The speaker will therefore define how agricultural risk management plays a role in the CAADP process and the role of NEPAD in bringing ahead ARM in the continental agenda.

Engaging the private sector to foster investment in agriculture

Speaker: **Jost van Odijk**, GROW Africa

Based on his experience working with the private sector to foster investments in agriculture in Africa, the speaker will focus on current challenges for investors, and how agricultural risk management can help in creating a better investment climate to increase the role of the private sector in agricultural development.

The role of development policies in managing agricultural risk management

Speaker: **Francesco Rampa**, European Centre for Development Policy Management

What is the role of development partners, whether countries or donors, in promoting ARM as part of their approach to development? The speaker will share his experience on the role of development partners, more particularly European countries, to promote approaches to agricultural development that take into account agricultural risk management.



PARM
PLATFORM FOR
AGRICULTURAL RISK
MANAGEMENT



Annexes



A1. Terms of Reference of the publication

Context

While the importance of managing risks in agriculture is now widely recognized and various initiatives at different levels have recently been designed and implemented with the technical support of international financial institutions, there is a need to learn from those experiences. In fact, only few lessons have been formalized to identify and improve strategies to cope with the risks, and though most reviews/evaluations have been limited to specific risks or areas of intervention, they need to be shared among ARM practitioners. Further, there is a recognized gap on the basic and specific criteria and guidelines for the design of strategies and tools.

In this context, the Platform for Agricultural Risk Management (PARM) - in collaboration with its partners - has raised the need to foster the exchange of knowledge and bring together the experience available on ARM in developing countries, with the objective to identify and develop good practices and lessons learned as guidance for policy makers and rural development practitioners to strategically implement and mainstream ARM in their activities.

For this purpose, PARM is organizing a knowledge sharing and learning workshop on “Agricultural Risk Management: practices and lessons learned for development” on 25 October 2017. The publication will represent the main outcome of the event.

Purpose

The publication will be a tool for policymakers and practitioners to learn from ARM initiatives and to develop their own through methodological guidance. It will fulfil two main objectives:

1. Document best practices for agricultural risk management based on the strengths and weaknesses identified in the case studies.
2. Provide guidelines for assessing agricultural risk management initiatives.

The Approach

Scope of work

The publication will be based on ARM initiatives that have been put forward by public and private sectors, local, national or international, that works for the management of agricultural risks. Initiatives from any country or region have been accepted, as long as they address one of the risks or use one of the tools included in the following table.

Sources of risks tackled in the project or initiative	ARM Tools implemented in the project or initiative
<p>Weather:</p> <ul style="list-style-type: none"> - Droughts - Floods - Rainfall variability, etc. <p>Biological and environmental risks</p> <ul style="list-style-type: none"> - Plant pest and diseases - Livestock diseases, etc. 	<p>On-Farm and Community Level Risk Management Tools</p> <ul style="list-style-type: none"> - Climate Smart Agriculture - Crop and Enterprise Diversification, and - Asset and Income Based Strategies <p>Finance Related Risk Management Tools</p> <ul style="list-style-type: none"> - Agricultural Insurance - Weather Index Insurance, and - Agricultural Finance and Microfinance - Remittances <p style="text-align: right;">(...)</p>



(...)	
Sources of risks tackled in the project or initiative	ARM Tools implemented in the project or initiative
<p>Market risks</p> <ul style="list-style-type: none"> - Access to inputs - Quality of inputs - Output prices, etc. 	<p>Market Related Risk Management Tools</p> <ul style="list-style-type: none"> - Contract Farming - Commodity Exchanges and Futures Markets - Warehouse Receipts Systems
<p>Policy and institutional risks</p> <ul style="list-style-type: none"> - Land policies - Trade policies - Uncertain subsidies, etc. 	<p>Government-based Agricultural Risk Management Tools</p> <ul style="list-style-type: none"> - Public foodgrain Reserves - Disaster Assistance Programs - Social Protection and Productive Safety Nets
<p>Macro level risks</p> <ul style="list-style-type: none"> - Exchange rates - Interest rates - Access to finance, etc. 	<p>Information and knowledge Management Tools</p> <ul style="list-style-type: none"> - Access to climate information and risk profile - Farm business advice - Capacity building and experience shared program
<p>Infrastructure risks</p> <ul style="list-style-type: none"> - Storage - Transportation - Post-harvest losses, etc. 	

A number of initiatives have been gathered by the PARM Secretariat after the wide dissemination of a call for proposals, and selected by a group of experts - the Technical Committee - based on the following criteria:

- Has there been a risk assessment before the design of the initiative?
- How appropriate are the tools put in place with regards to the risks?
- Is access to information, a crucial component of risk management, part of the initiative?
- Is the initiative promoting partnerships for ARM for better action at different levels? Is it integrated into policy or using existing policies to strengthen its impact and ensure its sustainability?
- How innovative is the initiative?
- Does the initiative currently measure or plan to measure the level of its impact?
- Can the initiative be applied on a larger scale without significant changes to its design and/or cost?

Link to the workshop

The publication will be directly linked to the workshop "Agricultural Risk Management: practices and lessons learned for development" held on 25 October 2017. It will follow the same outline and consolidate on the outcomes of discussions. Similarly, the workshop sessions have been designed to allow participants to contribute to the publication.

During Session 2 of the workshop, working groups will define broad criteria for effective ARM design and apply them to the selected initiatives. The outcomes of these discussions will then be collected by the PARM Secretariat, consolidated and validated with the help of the Technical Committee to form the content of the first two sections of the publication. The final session of the workshop, dedicated to linking agricultural risk management and policy, will also serve as the basis for the third chapter of the publication.

Outline of the publication

The publication will be structured into three main sections. The introduction will first set the stage, explain why agricultural risk management is important, as well as why and how the publication came to be. The first chapter will then introduce a checklist for better design for ARM initiatives, based on the workshop outcomes and the work of the PARM Secretariat and the TC. In a second chapter, selected case studies will be analysed to draw lessons from diverse initiatives managing agricultural risks. The final chapter of the publication will consider the mainstreaming of agricultural risk management practices into policy and interventions, using the case of Uganda as an example, and emphasizing the role of partnerships between public and private actors.

Introduction

A key message to the reader here at the very beginning is to place the paper and the exercise in context. It is not intended to be exhaustive but illustrative to draw some conclusions that can be updated and refined later on when more experienced is gathered. The tools presented here are illustrative in nature and that are used for identifying the conditions and components of potential interventions in ARM for smallholders. A warning in the introduction also that the complexity of risks and variety of ARM tools and initiatives are complex and a paper like this does not pretend to be prescriptive but illustrative in nature.

Context

Briefly explain the different types of agricultural risks faced by farmers, and the diversity of ways to face them. Explain the potential impacts of unmanaged risks, especially on smallholder farmers. There is therefore a strong need for agricultural risk management initiatives. Differentiate between the risk and its impact on smallholders, between risks and constraints.

There is clearly a need for ARM, but what type of ARM? How can we ensure that the initiatives have the maximum impact on risk management, and do not “miss” some sources of risks or interaction between them? Identify a combination of complementary tools to solve many risks, instead of one tool to solve many risks. To answer this question, economists have developed the holistic approach to ARM. Define it, say why PARM is promoting it. Holistic approach also considers different interventions, not only regarding tools but also complementary measures.

However, it can be difficult to translate this conceptual framework into methodological guidance, because of how complex risk management is: interlinkages between risks, variety of sources of risks, variety of tools, context-specific nature of the interventions. In addition to this complexity, there has been little knowledge gathering and knowledge transfer on this topic so far. This is why PARM has decided to develop this publication, with two main objectives:

- Provide methodological guidance to design and/or assess ARM initiatives
- Document good practices and innovative initiatives

This publication has been developed together with a workshop held on October 25th. Selection of case studies by a TC after an open Call for Proposals, work on the case studies and on developing criteria for good ARM during the workshop by the participants. Then these criteria and their applications to the case studies were consolidated by the PARM Secretariat and the TC to arrive at this publication. The contents of this publication therefore mirror the discussions and outcomes of the workshop.

The Workshop: summary of the workshop agenda and objectives

Part I: “Agricultural risk management proofed”: a checklist for better design of ARM initiatives

This Part I will start with an introduction expressing that there are multiple ways to identify, design, and implement ARM policies, strategies, and tools; and that the task of doing so can be very complex. The purpose of this paper is not to evaluate the merits of different approaches, but to offer guidance on what criteria and guidelines can be useful and practical based on the PARM holistic approach to risk management and the available limited experience.

Whereas we describe here the basic criteria for successful interventions, this section needs also to bring the importance of the context and objective in which an intervention is designed, since ARM is contextual, and as such, any approach needs to be adapted to the particular circumstances of the country, supply chain, socio-economic context and geographic location. Explanations or examples of objectives could serve as illustrations (i.e. reduce income volatility, strengthening food security, increase productivity, transfer the residual risk, or multiple objectives). A table or graphic summarizing the various objectives and initiatives if pertinent could serve as illustration. Additionally, Is resilience the overall objective of all ARM initiatives? Resilience to What? A discussion of resilience here may be welcome.

Introducing basic criteria for designing ARM initiatives, regardless of the type of risk.

It is not possible to create a singular blueprint for a risk management road map because of the diversity of risks, approaches to manage them, supply chain contexts, and country contexts. A road map for managing the risk of a pest and disease outbreak could be quite different from the one required managing counterparty risk. Nonetheless, despite the diversity of approaches, there are some generic steps and basic criteria that could be adopted by all risk management approaches, as visible in the outcomes of the workshop discussions. And this should be the introductory content of this section.

Effective risk management typically requires a combination of measures, some designed to remove underlying constraints and others designed to address the risk directly. Resource availability will often determine what is possible, and integrated risk management programs are often more effective than stand-alone programs. Translating the risk management strategy into concrete action (mitigation, transfer and coping) requires the use of several kinds of criteria and processes. PARM has a conceptual framework for assessing agricultural sector-wide risks; however, there is still a need to identify the factors that will enable practitioners to operationalize the results of the assessment. This section will list the basic criteria and justify why it was arrived at them, conceptually and operationally. A conceptual description of each one will clarify why it is important and why it is in the list. Making use of table(s) of graphics could illustrate and/or summarize the operational side of the holistic conceptual framework. There are basic principles/ criteria that could be mentioned here -- examples: (i) applicability to current agricultural policy / programming or business objective, (ii) feasibility of implementation, (iii) affordability of implementation, (iv) scalability of implementation, (v) long-term sustainability.

The final content of this section will be adapted to capture the spirit of the discussions among workshop participants.

Introducing specific criteria based on the source of risks

This section will draw its content from the discussions that will emerge during the workshop. It will structure, summarize, and explain each one of the identified criteria describing its content and placing some examples if available, for each one of the categories of risk that will be analysed during the workshop. This will provide the structure and conceptual frame of the discussion, rather than just narrating the workshop discussions.

Methodology Box: Explains the process for arriving at these criteria: workshop discussions and application to case studies, input of the Technical Committee members.

Part II: Drawing lessons from the field: how to learn and assess good practices to manage risks?

- Description of the 10 selected initiatives, grouped by source of risks
 - Title
 - Type of risk covered, type of tools used
 - Location, number of people covered, timeframe, entity implementing/financing
 - Logical framework or theory of change
 - Narrative:
 - Risk identification
 - Tools identification
 - Implementation of the initiative, including partners at different levels (micro, meso, macro)
 - Monitoring and evaluation of the initiative's impact
 - Next steps for the initiative
- Assessment of the initiatives (following each description)
 - Checklist filled with comments
 - Strengths (opportunities) and weaknesses (threats)
 - Conditions for scaling-up or adapting the tools used in the initiatives
 - Suggestions/questions for the development of the initiatives

Part III: Mainstreaming the holistic approach to ARM into policy for better design and investment

There is still much work to be done to establish an enabling environment that will foster country-led, country specific strategies for mainstreaming agriculture risk measures into agricultural policies and investments. The opportunities for improving the development impact through risk mainstreaming include making donors intervention more responsive to country risk conditions and commitments; making these interventions more strategic; and improving the alignment of donor policies, processes, and resources to support such interventions.

- Guidelines for mainstreaming ARM into national policies
- Partnerships between public and private actors: making investments work for increased resilience
- Support for operations
- Aligning resources
- Monitoring and evaluation
- Challenges and sustainability
- Lessons from the PARM process in Uganda

Conclusion: Top take-aways from the workshop

Methodology

The publication will be drafted before, during and after the workshop. Before the workshop, the participants will receive some background information to work on the case studies in the form of an input document that will contain:

- The introduction of the publication
- The description of the 10 selected initiatives
- Guiding questions to assess each initiative, developed with the Technical Committee (TC)
- Key pillars for the development of risk specific checklists, developed with the TC

During the workshop, participants will work towards both the drafting of risk-specific checklists for good ARM design and the assessment of the selected initiatives (Part I and II of the publication). Group leaders will also try and consolidate the proposals from each group to arrive at general criteria for ARM-proofed initiatives.

The work of the participants will then be continued by the PARM Secretariat and the Technical Committee in order to finalize the publication. The publication should be ready (including graphic design) by November 30th.



A2. List of participants

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