



Information Systems for Agricultural Risk Management

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

Knowledge Sharing Workshop

IFAD HQ, Rome - Italy | 31st January, 2017

PARTICIPANT'S HANDBOOK





PARM
PLATFORM FOR
AGRICULTURAL RISK

Platform
for Agricultural
Risk Management

Managing risks to improve farmers' livelihoods

PARTICIPANT'S HANDBOOK



Information Systems for Agricultural Risk Management

Knowledge Sharing Workshop

Thursday, 31st January 2017

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

Good and accessible information is the main requirement for an efficient management of agricultural risks. The Platform for Agricultural Risk Management (PARM) in collaboration with other partners is organizing an International Workshop on Information Systems for Agricultural Risk Management (IS-ARM) in order to explore gaps and opportunities in developing harmonized information systems to enhance investments in agriculture to manage risks.

Date:

Tuesday, 31st January, 2017

Venue:

International Fund for Agricultural Development (IFAD)

Italian Conference Room

Via Paolo di Dono, 44

00142 Rome, Italy



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Agenda

Time	Description	Presenter
08:30 - 09:00	Registration of participants	
09:00 - 09:15	Opening Remarks	<i>Adolfo Brizzi, IFAD</i>
09:15 - 09:20	Workshop Objectives and methodology	<i>Ute Eberhardt, Workshop Facilitator</i>
Session 1. Setting the scene: information systems for agricultural risk management		
09:20 - 10:15	<p>Plenary Panel Discussion</p> <ul style="list-style-type: none"> Assessment of Agricultural Risk Management Information Systems in Africa Remote sensing for ARM ICT at the service of ARM Big Data for ARM 	<p>Facilitator: <i>Jesús Antón, PARM</i></p> <p><i>Alberto Garrido, CEIGRAM</i></p> <p><i>François Kayitakire, JRC/EU</i></p> <p><i>Carlos Arce, World Bank</i></p> <p><i>Jawoo Koo, CGIAR/IFPRI</i></p>
10:15 - 10:30	Panel Discussion Q&A	Facilitator: <i>Ute Eberhardt</i>
10:30 - 10:45	Coffee Break	
Session 2. Information Systems: sources, tools and accessibility		
10:45 - 12:15	<p>World Café Group Discussion</p> <p>Thematic Block 1 Meteorological and climate information (inclusive of Satellite image information)</p> <p>Thematic Block 2 Market and price information</p> <p>Thematic Block 3 Information on Plant and Animal production and health</p>	<p>Facilitator: <i>Ute Eberhardt</i></p> <p>Discussant Leaders TB1: <i>Rogério Bonifacio, WFP</i> <i>Paxina Chileshe, ECD/IFAD</i></p> <p>Discussion Leaders TB2: <i>Hélène David-Benz, CIRAD</i> <i>Abdolreza Abbassian, AMIS/FAO</i></p> <p>Discussion Leaders TB3: <i>Fairouz Larfaoui, EMPRES/FAO</i> <i>Dannie Romney, CABI</i></p>
12:15 - 12:45	Report Back from Groups: recommendations	Facilitator: <i>Ute Eberhardt</i> Discussant Leaders: <i>TB1, TB2, TB3</i>
12:45 - 13:45	<p>DINING ROOM</p> <p>“Lunch with the Authors”</p> <p>Official release of PARM’s study on “Informational Assessment of Agricultural Risk Management Information Systems in Africa”</p>	<i>José Maria Sumpsi, CEIGRAM</i> <i>Alberto Garrido, CEIGRAM</i>

Time	Description	Presenter
Session 3. Information Systems: applications and innovation for risk management		
13:45 - 15:15	<p>Information Market Showcase</p> <p>Round 1 (parallel sessions) Holistic IS-ARM at Country-level</p> <p>Beyond Climate</p> <p>From Insurance to Social Protection</p> <p>Round 2 (parallel sessions) Global Holistic IS-ARM</p> <p>From Global Market to Farmer Gate</p> <p>Getting Information from the Crowd</p>	<p>Facilitator: <i>Ute Eberhardt</i></p> <p><i>Jaime ter Linden, FIRM</i> <i>Ben Addom, CTA</i> <i>Roger Day and Dannie Romney, CABI</i></p> <p><i>Michel Deshayes, GEOGLAM</i> <i>Tristan d'Orgeval, PREMISE</i> <i>Moussa Mama, ECOAGRIS/AGRHYMET</i></p> <p><i>Federica Carfagna, ARC</i> <i>Laurent Tits, WRMF/VITO</i> <i>Natalia WinderRossi, FAO</i></p> <p><i>Rogério Bonifacio, WFP</i> <i>Bruce Isaacson, FEWSNET/USAID</i> <i>Fairouz Larfaoui, EMPRES/FAO</i></p> <p><i>Abdolreza Abbassian, AMIS/FAO</i> <i>Gerald Masila, RATIN/EAGC</i> <i>Semou Diouf, PAFA/IFAD</i></p> <p><i>Gloria Solano-Hermosilla, Gunter Zeug</i> <i>and Conrad Bielski, JRC/EU</i> <i>Alexander Kennepohl, PEAT</i> <i>James Nguo, FARMIS/ALIN</i></p>
15:15 - 15:45	Panel Discussion Q&A	Facilitator: <i>Ute Eberhardt</i>
15:45 - 16:00	Coffee Break	
Session 4. Integration of information systems in decision-making: the way forward		
16:00 - 16:10	Wrap up Summary of Session 1,2 and 3	<i>José María Sumpsi, CEIGRAM</i>
16:10 - 17:00	<p>Plenary Panel Discussion</p> <ul style="list-style-type: none"> • Policy interlinks • Enhance investment decisions • Open information networks and accessibility • Sustainability of information systems • Innovation and technology • Institutions and partnerships • The role of private sector 	<p>Facilitator: <i>Jesús Antón, PARM</i></p> <p><i>Paul Winters, IFAD</i> <i>Kenn Crossley, WFP</i> <i>Rob Vos, FAO</i> <i>Ministry of Agriculture of Uganda (tbc)</i> <i>Mariam Soumare, NEPAD/AU</i> <i>Tuga Alaskary, ARC</i> <i>Fatma Ben Rejeb, PAFO</i> <i>Alexa Mayer-Bosse, Munich-Re</i></p>
17:00 - 17:30	Panel Discussion Q&A	Facilitator: <i>Ute Eberhardt</i>
17:30 - 17:45	Closing Remarks	<i>Périn Saint-Ange, IFAD</i>
12:45 - 13:45	DINING ROOM "Cocktail Exhibition"	




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Workshop Programme

SUMMARY



1. The Context

Information is the main raw material for agricultural risk management (ARM). Without information there is no way to assess the likelihood and severity of different risks, no way to be prepared in advance or improve resilience, nor to agree on how to manage or transfer the risk to others. Information from different sources on markets, climate and weather, diseases, inputs and technologies is the “light” that is needed to manage risks. Information systems play a broader role for agriculture, for good business practices, to improve livelihoods, increase productivity and ensure efficient value chains. Risk management is among the most information intensive aspects of agriculture, because of the deep information needs in terms of disaggregation in the space and evolution and changes over time.

Information and communication have always mattered in agriculture. Ever since people have grown crops, raised livestock, and caught fish, they have sought information from one another. What is the most effective planting strategy on steep slopes? Where can I buy the improved seed or feed this year? Who is paying the highest price at the market? Producers rarely find it easy to obtain answers to such questions, even if similar ones arise season after season. Farmers in a village may have planted the “same” crop for centuries, but over time, weather patterns and soil conditions change and epidemics of pests and diseases come and go. Updated information allows the farmers to cope with and even benefit from these changes. Providing such knowledge can be challenging, however, because the highly localized nature of agriculture means that information must be tailored specifically to distinct conditions.

Information about production, prices and diseases is key to assess farming risks and to find the most appropriate risk management strategies. Long historic inter and intra-annual information, and disaggregated data for specific locations is particularly useful for this purpose. Indeed information is the key input for most management and risk management decisions in the farm. In addition, exposure to these risks prevents farmers from easily planning ahead and making investments. In turn, risk inhibits external parties' willingness to invest in agriculture because of the uncertainty about the expected returns. In this context, where taking decisions on how to best manage the complex farming risks scenario requires reliable, timely and accessible information, the need for better information systems becomes more and more crucial.

At the same time information systems are significantly evolving in recent times, in terms of the type and amount of information that is and can be gathered, but also in terms of who collects and hosts the information and how it can be accessed. Information and communication technologies are generating a revolution in terms of satellite, sensor and geospatial data, access through mobile devices, and collection of unstructured but Big Data. This revolution is particularly relevant in agriculture because it has a particular larger incidence on remote areas that before had less information collected and worse access. This is a big opportunity for agricultural risk management. For the insurance industry to develop new products and fill information gaps; for the financial institutions to be able to manage the risks from the agricultural sector; for farmers to improve their resilience and enhance their investments in the farm and in the household; for governments to better design their policies.

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.

The Platform plays the role of facilitator in bundling the know-how of participating donors for the

development of methodologies for risk analysis and the adoption of risk management strategies, integrating risk management instruments and approaches in public policies, private sector practices and agricultural investment programmes.

The overall objective of PARM is to contribute to sustainable agricultural growth, reduce food insecurity, and improve livelihoods of rural and poor farming households in developing countries.

3. The Study

To respond to the Government demands, PARM has committed a study on “**Informational Assessment of Agricultural Risk Management Information Systems (ARM-IS)**” in 7 Africa Countries: Cabo Verde, Cameroon, Ethiopia, Mozambique, Niger, Senegal and Uganda. The purpose of the study is to investigate the availability and quality of information for agricultural risk management purposes and the timely and useful access by stakeholders at micro-meso-macro¹ level. At country level, the scenario reflects often information systems thematic-focused and not integrated and harmonized in a more holistic system. There are significant gaps in information collection and access that often occur in a systematic manner across countries. These gaps create asymmetries and inefficiencies in the management of risks in the agriculture sector.

4. The Workshop

As part of the broader objective of PARM to strengthen the creation and sharing of knowledge among stakeholders and raising awareness on ARM, the Platform, following Government demands, has identified information systems as a main limiting factors to assess and manage risks and therefore make informed decisions and investments in agriculture to develop ARM tools in several sub-Saharan African countries.

The publication of the ARM-IS report is a good occasion for PARM to organize a knowledge sharing event to bring together practitioners from public sector, private sector, the farming community, and the development community together to share experiences and innovations on information systems for agricultural risk management, through panels and group sessions to draw recommendations on how to make accessible information and develop harmonized information systems to enhance investments in agriculture.

For this reason, the main objective of the workshop is to lead collaborative dialogue and knowledge-sharing among the different thematic experts and facilitate the collection of recommendations on how to make accessible information and develop harmonized information systems to enhance investments in agriculture.

Objectives

- Identify the specific information needs for agricultural risk management such as the type of information and sources, and the characteristics of the information in terms of time series availability and geographical disaggregation.
- Identify the main information gaps for agricultural risk management in terms of availability, accessibility and quality. Accessibility is understood as usability of the information by final users (farmers, governments, private sector...) for risk management purposes.
- Share knowledge and specific experiences on how information and communication technologies are already covering gaps in terms of information collection, sharing, analysis and accessibility.
- Share experiences on how different types of partnerships or institutional arrangement between different stakeholders and initiatives from the public and private sector and from national and international agencies, can create opportunities for access and use of information for agricultural risk management.

¹ Micro level refers to farmers, households and local communities; meso level refers to firms and supply chain actors; macro level refers to governments.

Outcomes

- Facilitate knowledge sharing, peer-to-peer, south-south cooperation on ARM
- Facilitate building partnership among practitioners
- Provide practitioners with the results from recently carried out analysis on ARM related information systems;
- Jointly develop recommendations on priorities and activities needed for improvements in ARM related information systems.

NOTE TO THE PARTICIPANTS

The workshop focusses on agricultural risk management in developing countries, in particular in Africa, and has a particular emphasis on innovation and accessibility. Participants have very different backgrounds and it is encouraged to avoid very technical aspects of IS and to concentrate discussions on the synergies and complementarities between different systems and tools, and how to enhance the efficiency in managing risks by the end users.

5. The Approach

The workshop will be structured into four sessions:

Session 1. Setting the scene: information systems for agricultural risk management

Session 2. Information Systems: sources, tools and accessibility

Session 3. Applications and innovations to inform agricultural risk management

Session 4. Integration of information systems in decision-making

Session 1. Setting the scene: information systems for agricultural risk management

Plenary panel (See Annex I - Facilitating Session 1)

This plenary panel will set the scene with experts and key selected speakers from partners in the sector. Experts and the facilitator will discuss in a form of a talk show on the following topics:

- Information needs for ARM: Why are they so intensive?
- The set of available information systems tools: quality, harmonization and institutional setting
- How ensure accessibility and use by different types of users?

The discussion will bring out experiences from countries, challenges and innovations in the three key thematic areas.

Session 2. Information Systems: sources, tools and accessibility

World Café group discussion

The plenary panel will be followed by a World Café group discussions, where the different expert will engage in an open dialogue and address specific questions related to each of the below blocks of information and rotate among the tables. This will facilitate a participative dialogue and allow each participant to share his/her respective knowledge and identify synergies.

Thematic Block 1 – Meteorological and climate information (inclusive of Satellite image information)

Thematic Block 2 – Market and price information

Thematic Block 3 – Information on Plant and Animal production and health

Wrap-up plenary

As an outcome, each group will present its recommendations on how to put accessibility at the core of information systems and present it to the plenary as the final wrap-up.

Session 3. Information Systems: applications and innovation for risk management

Information Market Showcase

The second session will go more in depth into the application and specific innovative information systems for agricultural risk management and selected key partners will showcase their concrete experiences on information system tools and partnerships. Innovations can refer to the following areas:

- Technology and data for information gathering and analysis
- ITC tools for information sharing, access and distribution
- Institutional partnerships and financial arrangements for information systems

The showcase will be organized in two rounds. For each round there will be presented 9 initiatives distributed among three parallel sessions grouped by thematic topics. Participants will be free to move around the information market to attend the selected session. The identified thematic topics by round are:

ROUND 1

1. Holistic IS-ARM at country-level
2. Beyond climate
3. From Insurance to social protection

ROUND 2

4. Global holistic IS-ARM
5. From Global market to Farmer gate
6. Getting information from the crowd

As an outcome of the session, participants will have a better overview of new potential tools and knowledge on the weaknesses and strengths of each presented tool or initiative.

Session 4. Integration of information systems in decision-making: the way forward

Plenary panel

This closing session will be structured in a panel followed by a plenary discussion on experiences of information systems and how to integrate information in decision-making and informing investments.

The panel will be formed by key actors in the policy sector who will take stock of the main recommendations of the previous discussions to think about the way forward. Each rapporteur will centralize information and reports from all plenaries and group sessions and will focus in one of the following five topics:

Policy interlinks. What are the Information links between different policies related to ARM? What are the links between information and knowledge on ARM policies?

Enhance investment decisions. Good information on risks and equal access can facilitate the management and transfer of the risks and boost investment in agriculture.

Open information networks and accessibility. Agencies gather information for their own purposes, but ISs need to be designed to ensure interconnectivity with users and other information sets and usability to facilitate symmetric and timely access to information.

Sustainability of information systems. How to ensure the sustainability and financing of information systems?

Innovation and technology. ICT and innovative applications allow gathering and disseminating information easily and allow better access from global to micro level.

Institutions and partnerships. Information is gathered and used by many actors and there is a scope for innovative partnerships and institutional arrangements.

The role of private sector. How public and private sectors can work together to address the challenges of affordability, quality, and availability and equal accessibility of information.

6. Publication of the Study and Exhibition

Lunch with the Author: official publication of the study

At the end of the Session 2 participants are invited to “Lunch with the Authors”, in which occasion PARM will officially publish his study on “Informational Assessment of Agricultural Risk Management Information Systems in Africa”. Participants can ‘meet the authors’ and directly be briefed about the main finding of the study.

Closing cocktail ceremony and exhibition

The workshop will end with a closing cocktail ceremony, during which an exhibition area will be set up to give participants the opportunity to network and share their knowledge products and activities on the topic.




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Session 1. Setting the scene: information systems for agricultural risk management

PANEL DISCUSSIONS' GUIDELINES



SESSION 1

Setting the scene: Information Systems for Agricultural Risk Management

Time	Description	Presenter
Session 1. Setting the scene: information systems for agricultural risk management		
09:20 - 10:15	Plenary Panel Discussion <ul style="list-style-type: none"> Assessment of Agricultural Risk Management Information Systems in Africa Remote sensing for ARM ICT at the service of ARM Big Data for ARM 	Facilitator: <i>Jesús Antón, PARM</i> <i>Alberto Garrido, CEIGRAM</i> <i>François Kayitakire, JRC/EU</i> <i>Carlos Arce, World Bank</i> <i>Jawoo Koo, CGIAR/IFPRI</i>
10:15 - 10:30	Panel Discussion Q&A	Facilitator: <i>Ute Eberhardt</i>
10:30 - 10:45	Coffee Break	

1. How it works?

This plenary panel will set the scene with experts and key selected speakers from partners in the sector. Experts and the facilitator will discuss in a form of a talk show.

The discussion will bring out experiences from countries, challenges and innovations with four main speakers with a focus on:

- Specific information needs for risk management purposes, that is for assessing variability and manage risks and shocks ex ante and ex post
- Accessibility and usability of information for ARM for different users, including farmers.

Panel Questions (50 min):

1. Information needs for ARM: Why are they so intensive?
2. What is “remote sensing” and “big data” and how they can respond to some of these needs?
3. What are the current information systems for ARM in developing countries? Strengths and weaknesses.
4. Can ICT be a powerful tool for gathering and delivering ARM information? Potentialities and limitations.
5. What are the specific ARM thematic areas and applications of remote sensing for ARM?
6. How can we connect very different information sources for ARM tools, including information from satellite, crowdsources, statistical institutes, surveys and policies (e.g. social policy)?

Panel Discussion Q&A (15 min):

The session will follow a Q&A plenary session.

2. Discussion Topics & Panelists

Assessment of IS-ARM in Africa

Speaker: Alberto Garrido, CEIGRAM

Following CEIGRAM's experience in assessing IS-ARM in Africa, the presenter will define the main information needs for ARM, the thematic areas to be covered, the quality of existing information systems in Africa, the information gaps and the potential of innovative ICT and institutional settings to overcome some of these gaps.

ICT at the service of holistic ARM

Speaker: Carlos Arce, World Bank

Based on the work by the ARMT of the World Bank, the presenter will focus on the dense information needs for a rigorous risk assessment needed by governments and other stakeholder to assess and manage their risks; the main information gaps for ARM (on gathering, sustaining and delivering) and the potential of ICT innovations to respond to these gaps.

Remote sensing for ARM

Speaker: François Kayitakire, Joint Research Centre of the European Commission

Building on the experience of the JRC of the EC as a leading institution on remote sensing initiatives, the presenter will explain the specific potential of these tools and technologies for managing agricultural risks of different types (weather related, diseases, market, disasters...) by different stakeholders.

Remote sensing for ARM

Speaker: Jawoo Woo, CGIAR/IFPRI

Following the CGIAR experience on building a platform for agricultural big data, and IFPRI policy background, the presenter will explain what big data is about, what is its potential to cover specific information gaps for ARM and how different agencies and initiatives can coordinate to use other's information, make its information available and ensure final users can benefit.




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Session 2. Information Systems: sources, tools and accessibility

GROUP DISCUSSIONS' GUIDELINES



SESSION 2

Information Systems: sources, tools and accessibility

Time	Description	Presenter
Session 2. Information Systems: sources, tools and accessibility		
10:45 - 12:15	<p>World Café Group Discussion</p> <p>Thematic Block 1 Meteorological and climate information (inclusive of Satellite image information)</p> <p>Thematic Block 2 Market and price information</p> <p>Thematic Block 3 Information on Plant and Animal production and health</p>	<p>Facilitator: <i>Ute Eberhardt</i></p> <p>Discussant Leaders TB1: <i>Rogério Bonifacio, WFP</i> <i>Paxina Chileshe, ECD/IFAD</i></p> <p>Discussion Leaders TB2: <i>Hélène David-Benz, CIRAD</i> <i>Abdolreza Abbassian, AMIS/FAO</i></p> <p>Discussion Leaders TB3: <i>Fairouz Larfaoui, EMPRES/FAO</i> <i>Dannie Romney, CABI</i></p>
12:15 - 12:45	Report Back from Groups: recommendations	<p>Facilitator: <i>Ute Eberhardt</i></p> <p>Discussant Leaders: <i>TB1, TB2, TB3</i></p>
12:45 - 13:45	<p>DINING ROOM</p> <p>"Lunch with the Authors"</p> <p>Official release of PARM's study on "Informational Assessment of Agricultural Risk Management Information Systems in Africa"</p>	<p><i>José Maria Sumpsi, CEIGRAM</i> <i>Alberto Garrido, CEIGRAM</i></p>

1. How it works?

The group discussion session will be divided in two rounds:

ROUND 1

Group discussion by thematic block (40 min + 5 min intro, group composition)

Six groups will be organized composed by experts from the same thematic block:

Thematic Block 1: Meteorological and Climate information (2 groups)

Thematic Block 2: Market and price information (2 groups)

Thematic Block 3: Plant and animal health information (2 groups)

Under each thematic block there will be two sub-groups for which it will be assigned a Discussant Leader whose role will be to lead the discussion focusing on:

Group 1: Characteristics of ARM information and how it is collected

Group 2: Accessibility issues and tools

ROUND 2

Group discussion across thematic blocks (35 min)

For this second round participants will be requested to change table and form other six heterogeneous groups across thematic blocks. Discussant Leaders will remain seated and maintain their role of facilitator with the new group formed on the following topics:

- Common needs and complementarities among thematic blocks
- Converging different informations into single tools

Report back from group discussion leaders to the plenary (30 min)

The discussion leaders from the three groups will report back to the plenary with the main findings on:

ROUND 1

- Characteristics of ARM information in their respective thematic block
- Existing and needed tools for gathering information in their respective thematic block
- Needs and complementarities in common with another thematic block

ROUND 2

- Accessibility challenges in their respective thematic block
- Accessibility challenges in common with one other thematic block
- Existing tools for disseminating information in their respective thematic block
- Tools for converging holistic information to policy makers, Market Players, Farmers

2. Discussion Topics

ROUND 1

In order to achieve global development objective of reducing poverty, increasing nutrition and food security in developing countries, efforts are required to help farmers manage risks that affect their livelihoods and the agricultural sector, in general.

The primary step towards managing risk is to have access to quality, reliable, long-term, disaggregated information on the various risks that affects farmers. Good information may help farmers, governments and investors to design pro-active policies and strategies to manage risks.

In each group the following topics will be discussed facilitated by discussion leader:

Characteristics of ARM information and how it is collected. What type of information is needed to manage climate risks? What level of aggregation, time series and quality? Which are the main variables that are needed to assess the risks in this thematic block? Which are the main information gaps? Which tools or systems are or could be useful for gathering the information for ARM on this thematic block? What is the role of the actors (governments, farmers, market players other stakeholders) in helping to gathering risk related information?

Accessibility issues and tools. What are the main accessibility challenges? Are the existing initiatives and institutional frameworks (local, national and international levels) able to enhance access to information for Policy makers, Market players and Farmers? Which ICT or institutional innovations are already improving the usability of good information for ARM in this thematic block? Which tools are or could be used to disseminate the information to help the various actors (governments, farmers and market players) to use the information to manage risks?

ROUND 2

Risks that affect farmers' livelihoods are connected to each other. For instance, seasonal dryness of farmland may increase crops susceptibility to pests and diseases, and may also expose farmers to periodic commodity price volatilities in the market. An efficient management of these risks requires a holistic approach, combining information from climate, crop and animal health, market and other thematic areas. The three groups will mixed with each other and combine in each group experts from two or more thematic block to identify the linkages between different thematic information systems. The discussion leaders from each group will stay to facilitate the cross theme discussions on the following questions:

Common needs and complementarities. Are there information needs in common between the different thematic blocks climate, crop/animal health and market? Are there significant information complementarities? How can information from others (e.g. crop/animal health and market) help manage risks related to one thematic block (e.g. climate) related?

Convergence into single tools. By which specific tool(s) is it possible to converge information from one thematic block (e.g. climate) and other information (e.g. crop/animal health and market) in order to disseminate holistic information to Policy makers, Market players and Farmers?



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Session 3. Information Systems: applications and innovation for risk management

SHOWCASE'S GUIDELINES



SESSION 3

Information Systems: sources, tools and accessibility

Time	Description	Presenter
Session 3. Information Systems: applications and innovation for risk management		
13:45 - 15:15	<p>Information Market Showcase</p> <p>Round 1 (parallel sessions) Holistic IS-ARM at Country-level</p> <p>Beyond Climate</p> <p>From Insurance to Social Protection</p> <p>Round 2 (parallel sessions) Global Holistic IS-ARM</p> <p>From Global Market to Farmer Gate</p> <p>Getting Information from the Crowd</p>	<p>Facilitator: <i>Ute Eberhardt</i></p> <p><i>Jaime ter Linden, FIRM</i> <i>Ben Addom, CTA</i> <i>Roger Day and Dannie Romney, CABI</i></p> <p><i>Michel Deshayes, GEOGLAM</i> <i>Tristan d'Orgeval, PREMISE</i> <i>Moussa Mama, ECOAGRIS/AGRHYMET</i></p> <p><i>Federica Carfagna, ARC</i> <i>Laurent Tits, WRMF/VITO</i> <i>Natalia WinderRossi, FAO</i></p> <p><i>Rogério Bonifacio, WFP</i> <i>Bruce Isaacson, FEWSNET/USAID</i> <i>Fairouz Larfaoui, EMPRES/FAO</i></p> <p><i>Abdolreza Abbassian, AMIS/FAO</i> <i>Gerald Masila, RATIN/EAGC</i> <i>Semou Diouf, PAFA/IFAD</i></p> <p><i>Gloria Solano-Hermosilla, Gunter Zeug and Conrad Bielski, JRC</i> <i>Alexander Kennepohl, PEAT</i> <i>James Nguo, FARMIS/ALIN</i></p>
15:15 - 15:45	Panel Discussion Q&A	Facilitator: <i>Ute Eberhardt</i>
15:45 - 16:00	Coffee Break	

1. How it works?

The session will start with a 5 minutes introduction and a brief description of the activity by the workshop facilitator. Afterwards, each presenter will be given 1 minute to present him/herself, the tool/initiative to be showcased to the audience.

The showcase will be organized in two rounds. For each round there will be presented 9 initiatives distributed among three parallel sessions grouped by thematic topics. 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)

1. Holistic IS-ARM at country-level
2. Beyond climate
3. From Insurance to social protection

ROUND 2 - Parallel Sessions (40min)

4. Global holistic IS-ARM
5. From Global market to Farmer gate
6. Getting information from the crowd

2. Information Market Topics and Initiatives

(see Annex I for full list and brief of initiatives)

Access and use of information is the input component for ARM. For smallholders, access to information may help them to project and analyse the nature of likely and unlikely risks that may affect their agricultural activities. Research agencies and information management institutions may also need reliable ways to collect the required information on agricultural risks. This can only be possible through well-designed applicative tools that can communicate information to and from smallholder farmers. This session seeks to showcase the various tools in the following areas of risk management:

Topic 1: Holistic IS-ARM at country-level

This group brings together forecast/monitoring initiatives that have concrete examples at country level, integrating the three type of information systems: climate, market and plant and animal health. It seeks to provide an holistic overview of possible integrated information systems for a better agricultural risk management and open discussion on possible ways to merge both health/disease issues with market, particularly during monitoring and data management phases of ARM.

Presenter 1: Jaime ter Linden, FIRM

Presenter 2: Ben Addom, CTA

Presenter 3: Roger Day and Dannie Romney, CABI

Topic 2: Beyond climate

Weather and market are two connected sources of risks in the agricultural sector. Solutions to each area usually disconnect the other. Each of the three presenters under this topic will showcase how their tool/application combines/merges information from climate and market sources, makes meanings into them for extensive agricultural sector risk management, beyond the climate-induced risks like drought, flooding etc.

Presenter 1: Michel Deshayes, GEOGLAM

Presenter 2: Tristan d'Orgeval, PREMISE

Presenter 3: Moussa Mama, ECOAGRIS/AGRHYMET

Topic 3: From Insurance to social protection

Early warning systems form main inputs for proper assessments, forecasting and monitoring of risks. They play important roles for food security, health/disease monitoring, and crop/plant production management. International institutions rely on early warning systems to formulate insurance and social protection tools for assisting vulnerable agricultural households to manage risks. Presenters in this group will showcase how their tools/initiatives work to communicate information for better agricultural risk solutions either at the policy, market or farmer-level.

Presenter 1: Federica Carfagna, ARC

Presenter 2: Laurent Tits, WRMF/VITO

Presenter 3: Natalia WinderRossi, FAO

Topic 4: Global holistic IS-ARM

Global holistic IS-ARM group consists of presenters from different areas of risk themes: market, diseases and weather that play a leading role at global level. Showcases in this group would present to the audience the possibilities to collect, maintain and disseminate comprehensive package of risk information in a holistic manner.

Presenter 1: Rogerio Bonifacio, WFP

Presenter 2: Bruce Isaacson, FEWSNET/USAID

Presenter 3: Fairouz Larfaoui, EMPRES/FAO

Topic 5: From Global market to Farmer gate

The idea behind this group is to understand how different levels of market information for risk management could reach users from government to farmers. It combines presenters of tools that work at the global, regional and country level.

Presenter 1: Abdolreza Abbassian, AMIS/FAO

Presenter 2: Gerald Masila, RATIN/EAGC

Presenter 3: Semou Diouf, PAFA/IFAD

Topic 6: Getting information from the crowd

To maintain reliable information, one requires credible and direct/point source for empirical facts about the happenings on the ground. Initiatives/tools in this group focus mainly on crowdsourcing. Presenters seeks to showcase initiatives that are used in gathering, maintaining and processing direct information from sources and to disseminate the processed information to the receiving clients.

Presenter 1: Gloria Solano-Hermosilla, Gunter Zeug and Conrad Bielski, JRC/EU

Presenter 2: Alexander Kennepohl, PEAT

Presenter 3: James Nguo, FARMIS/ALIN




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Session 4. Integration of information systems in decision-making: the way forward

PANEL DISCUSSIONS' GUIDELINES



SESSION 4

Integration of information systems in decision-making: the way forward

Time	Description	Presenter
Session 4. Integration of information systems in decision-making: the way forward		
16:00 - 16:10	Wrap up Summary of Session 1, 2 and 3	<i>José María Sumpsi</i> , CEIGRAM
16:10 - 17:00	Plenary Panel Discussion <ul style="list-style-type: none"> • Policy interlinks • Enhance investment decisions • Open information networks and accessibility • Sustainability of information systems • Innovation and technology • Institutions and partnerships • The role of private sector 	Facilitator: <i>Jesús Antón</i> , PARM <i>Paul Winters</i> , IFAD <i>Kenn Crossley</i> , WFP <i>Rob Vos</i> , FAO <i>Ministry of Agriculture of Uganda</i> (tbc) <i>Mariam Soumare</i> , NEPAD/AU <i>Tuga Alaskary</i> , ARC <i>Fatma Ben Rejeb</i> , PAFO <i>Alexa Mayer-Bosse</i> , Munich-Re
17:00 - 17:30	Panel Discussion Q&A	Facilitator: <i>Ute Eberhardt</i>

1. How it works?

This closing session will be structured in a panel that brings key actors in the policy sector to discuss on experiences on how to better integrate information for decision-making and investments.

Wrap up Summary of Session 1, 2 and 3 (10 min)

Brief report back on the main issues from previous discussions to the plenary panel.

Plenary panel discussion (50 min):

Based on their experience and on the outcomes from the previous discussions, this panel of international experts and policy decision makers will provide lessons and examples, and define priorities for the way forward to improve information systems for agricultural risk management.

The overarching question is: **How better and more integrated information can help to design risk management related policies and to make agricultural investment decisions?**

The panel will respond in two rounds of questions:

ROUND 1

- 1. Information Gaps.** From your experience, what are the information and accessibility gaps for decision makers on ARM, for policy and investment decisions, from governments and IOs to farmers and private sector?

ROUND 2

- 1. Policy interlinks.** What are the Information links between different policies related to ARM? What are the links between information and knowledge on ARM policies?
- 2. Enhance investment decisions.** Good information on risks and equal access can facilitate the management and transfer of the risks and boost investment in agriculture.
- 3. Open information networks and accessibility.** Agencies gather information for their own purposes, but ISs need to be designed to ensure interconnectivity with users and other information sets and usability to facilitate symmetric and timely access to information.

4. **Sustainability of information systems.** How to ensure the sustainability and financing of information systems?
5. **Innovation and technology.** ICT and innovative applications allow gathering and disseminating information easily and allow better access from global to micro level.
6. **Institutions and partnerships.** Information is gathered and used by many actors and there is a scope for innovative partnerships and institutional arrangements.
7. **The role of private sector.** How public and private sectors can work together to address the challenges of affordability, quality, and availability and equal accessibility of information.

Panel Discussion Q&A (30 min.):

The session will follow a Q&A plenary session.

2. Discussion Topics & Panelists

While information is important for Agricultural Risk Management (ARM), there are little efforts on the ground to integrate information to facilitate policy and investment decisions and opportunities. The ARM related policy areas are broad such as humanitarian assistance, social protection, productivity, insurance, extension, risk reduction, climate change adaptation. The investment decisions facilitated by a good information and policy environment go from farmers to private companies in the value chain, but also governments and development agencies. Symmetric information has a public good dimension that deserves pro-active efforts to make information available and interconnected from the global to the micro level. There are innovations on technology such as ICT and on partnerships such as between institutions and private sector that can help to build better and more usable information systems to manage agricultural risks.

Each speaker will make one intervention touching on some of the following topics:

Information and risk management tools for investment

Speaker: Paul Winters, IFAD

Information is the main input for risk management and managing risks can be a main bottle neck for investment in agriculture. How information systems are dealt with in a development fund like IFAD that invests on poor rural areas? First, for IFAD investment decisions, but also for farmers and the private sector from the whole value chain. Does it make sense to invest on information as a way to crowd in private investment in Agriculture? How can we cover the gap between information and knowledge on ARM?

Information at the service of farmers' resilience and livelihoods

Speaker: Fatma Ben Rejeb, PAFO

Daily decision making at farm level is increasingly linked with global information systems. Are global information systems useful and usable for decisions at farm level? What kind of disaggregation or delivery mechanisms are more effective to link farmers with the information they need to improve their resilience to agricultural risks? What can farmers do or are already doing on information systems for ARM?

Broad policy interlinks on information

Speaker: Rob Vos, FAO

The information needs for different policies related to ARM are intense, but often have commonalities and multiple uses. How are the information systems for and from humanitarian assistance, social protection, productivity, insurance, extension, CC adaptation connected? How can government integrate different policy areas for risk management in an efficient and complementary manner? For example using indexes and insurance tools to trigger humanitarian assistance, or using social protection policy information networks for targeting disaster assistance or other risk management tools.

Policy mainstreaming and sustainability of information systems

Speaker: Mariam Soumare, NEPAD

How can information systems and ARM be mainstreamed in policy at government and regional level? How to ensure the sustainability and financing of information systems? ISs are often financed

and managed by international or regional organizations. Can Governments and the private sector be engaged on investing of IS for ARM?

Information constraints for policy making at country level and experience from PARM process

Speaker: Ministry of Agriculture of Uganda

What is the experience of Uganda on Agricultural Risk Management and how the partnership with PARM / IFAD has contributed to ARM mainstreaming? What are the main information and knowledge shortcomings when taking ARM policy decisions?

From humanitarian assistance to risk management

Speaker: Kenn Crossley, WFP

Humanitarian assistance for food security requires very timely and sophisticated information and WFP is gathering this information for its own needs and consumption. How can innovation and open and interconnected information systems from different sources help to manage risks? Is the role of gathering and producing information linked to the specific uses of WFP and IFAD? How are you doing it open and part of a global network?

Policy partnership to link technology with finance

Speaker: Tuga Alaskary, ARC

Sophisticated indexes and remote sensing can be combined for policy design and triggering to provide timely financial resources after disasters. Why a policy partnership can help to facilitate rapid access to financial resources? What type of information system is needed to create the trust of governments, re-insurers and development partners? How policy information and contingency plans need to be combined with satellite and other sources of information? What is the role of national governments and international agencies on sustaining the information system?

The role and needs of private sector

Speaker: Alexa Mayer-Bosse, Munich-Re

Throughout the developing world, most information systems are characterized by mixed public and private partnerships. Greater quality and access calls for further thinking on the role of the private sector into information systems and a broader systems perspective on how public and private sectors can work together to address the challenges of affordability, quality, and availability and equal accessibility of information.



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Annex I

List of Initiatives and Participants



List of Initiatives

ROUND 1

1.1 Holistic IS-ARM at country-level

Agri Risk Analyzer

Presenter: Jaime ter Linden, FIRM

Agri Risk Analyzer is a tool that collates FIRM-Infotrade data to analyse the risk exposure of farmers, including systematic risks like weather related, market related and pest/disease risks. The output information provides comprehensive farmer profile, including a risk profile and transaction data, which is shared with financial institutions, insurance companies, extension services and NGOs, working with farmers in areas such as improved seeds, irrigation equipment, social protection and others. For instance, the tool calculates the ROI of risk mitigation (like irrigation) to support farmers' and bankers' decisions on how to apply their funds.

Market-led, User-owned ICT4Ag-enabled Information Service (MUIIS), Uganda

Presenter: Benjamin Kwasi Addom, CTA

MUIIS is an innovative, demand-driven, market-led, and user-owned approach that uses satellite information to provide extension and advisory service on weather forecasting, crop management and financial services to crop farmers in Uganda. The bundled information products are expected to reach over 350, 000 maize, soya bean and sesame farmers in Central, Eastern, Northern, and Western Uganda. The main distribution channels are the Ensibuuko's Mobile Banking and Information Software (MOBIS), in collaboration with Mercy Corps. The platform is being supported by about 200 ground agents (farmer leaders) equipped with smartphones loaded with content. Revenue streams will include subscriptions by groups (via farmer organisations), third party international development partners, and individual farmers; farmer profiling; sale of data products; data collection; index-based insurance.

Plantwise by CABI

Presenter: Dannie Romney and Roger Day, CABI

Plantwise is a CABI-led global programme, introduced to 34 countries worldwide. The Plantwise approach is a framework for action aims to build the capacity of agricultural institutions and organisations to strengthen plant health systems. This is achieved by establishing sustainable networks of local plant clinics, run by trained plant doctors, where farmers can find practical plant health advice. Plant clinics are reinforced by key stakeholders, such as diagnostic experts and researchers, as well as by the Plantwise knowledge bank, a gateway to plant health information, including diagnostic resources, pest management advice and front-line pest data. ICT tools are integrated into the PW approach to facilitate data collection and management, support social networking and diagnosis, improve access to information and support plant doctor development. The approach links advisory services on the ground to digital data and information exchange to inform pest risk management actions.

1.2 Beyond Climate

GEOGLAM Crop Monitor for Early Warning

Presenter: Michael Deshayes , GEOGLAM

The GEOGLAM Crop Monitor for Early Warning (CM4EW) builds on the successful Crop Monitor for the G20 AMIS to monitor and produce subnational crop assessments for a number of national and regional agencies. The output assessments are based on remotely sensed and meteorological data, ground-based observations, model outputs and expert analysis on crop growth and conditions throughout the season. Output information communicated through monthly bulletin which reflects an international consensus. CM4EW bulletin currently presents information on about 80 countries.

PremiseData

Presenter: Paolo Lucchino, Premise

Premise Data provides an integrated data collection and analysis platform designed to support and streamline decisional processes. The core components of the Premise platform are: (1) mobile data collection system that empowers a distributed network of local staff and partners to submit data from the field in a structured manner, (2) Central architecture to integrate and analyse multiple data streams in real-time, and drive food security, agricultural risk assessments and forecasts, and (3) rapid and dynamic early warning dissemination platform. By allowing for multi-tiered user groups, trigger events and configurable rules, the platform streamlines the clearance and distribution of alerts and information to stakeholders at all levels through mobile phones.

The platform can collect data on farm production levels and on price dynamics across the chain - from farm-gate to wholesale and retail levels. Premise can expose supply chain bottlenecks and generate timely, accurate and efficient early warning of food price and/or scarcity at the market-level. By combining this streaming data with meteorological, remote-sensing and other secondary data sources, the platform can provide live assessments of current and future food insecurity risk at a granular geographic level, and drive decisions on how and when to escalate alerts and/or the appropriate modality of intervention.

ECOWAS Agriculture Regional Integrated Information System (ECOAGRIS)

Presenter: Moussa Mama, Centre Regional AGRHYMET

ECO-AGRIS is a regional information platform to manage the food crisis in the Sahel and West Africa through twelve sub-systems including early warning, inputs, livestock, natural resources and climate, food security stock, agro-weather and disaster risk management. The ECOAGRIS also provides information that permit to trigger the food security regional reserve and an integrated regional platform in the 17 CILSS / ECOWAS countries and the Intergovernmental Organizations (ECOWAS, UEMOA, CILSS), and regional partners (Save the Children, Oxfam, RESIMAO, RESAACK, RESOGEST, FEG, Africa rice , Networks of Peasant Organization, etc.);

1.3 From Insurance to Social Protection

ARC RiskView

Presenter: Federica Carfagna, African Risk Capacity (ARC)

The African Risk Capacity (ARC) is a specialised agency of the African Union that leads a development finance to provide financial tools and infrastructure for countries to manage/adapt and respond to natural disaster risks. ARC has a ground-breaking weather insurance tool - ARC RiskView (ARV) - designed to help African countries to pool their natural disasters risk and transfer it to the international market. The ARV is software, which enables the ARC to analyse disaster occurrences, impact on population, resilience, and insurance pay out to participating countries, mainly through technical support from the WFP. It enhances timely estimations of the impact of disasters on vulnerable populations and allows for quicker estimation of costs required to respond before a season begins.

Remote Sensing as support for Agricultural Management: WRMIF and FAO-ASIS

Presenter: Laurent Tits, VITO

Over the past decades Remote Sensing has been used for agricultural monitoring and management. Since the late 1990s, VITO works to monitor agriculture sector activities, through remote sensing projects of the EC-JRC. Major projects are the FAO-ASIS, FAO-FRAME, BELSPO-IPOT, and WRMF-insurance projects to monitor global and national drought, water use efficiency, yield in Africa and many regions. Particularly in the case of the Weather Risk Management Facility (WRMF) index insurance project, it tests different remote sensing products as a basis for index insurance in Senegal. The WRMF index insurance project addresses information gap and scaling up constraint for index insurance. It based on extensive research works, development and tests of seven innovative remote sensing technologies to improve index insurance products. The project is currently piloted in Senegal, where seasonal field monitoring of crops is conducted in three identified Regions of Interest (ROIs) to help analyse performances. Monitoring is also supplemented by official government yield statistics starting from the year 2002.

Social protection as a tool for risk management and promotion of sustainable agriculture practices

Presenter: Natalia WinderRossi, FAO

FAO recognizes social protection's role in prevention: minimizing coping negative strategies, while strengthening resilience capacity at national, subnational and community levels; response: protecting the loss of agriculture assets while mitigating the negative impacts of crises; and promotion: facilitating investments in innovative solutions promoting sustainable agricultural practices. The organisation is supporting national states in building risk-informed and shock-responsive social protection systems through different delivery mechanisms, bringing together evidence generation ("From Protection to Production project"), policy dialogue, direct implementation of innovative approaches, south-south cooperation and capacity development using interactive tools and peer-to-peer learning.

ROUND 2

2.1 Global Holistic IS-ARM

Seasonal Monitor / Seasonal Explorer

Presenter: Rogerio Bonifacio, WFP

Seasonal Monitor and Seasonal Explorer are two components of WFP's Early Warning system. They both provide global level indicative data, analytical narratives and scenarios on growing seasons. For instance, in times of disaster such as drought, these tools provide food security implications. Information considered include: climate averages, longer term trends and inter-annual variability, specifically to support for the WFP and IFAD's food security analysis. Innovativeness of these tools lies in the large volumes of raw data that are assimilated, digested and made available for easy use diverse platforms. They also have long term record, near global coverage and fine level of geographic detail.

Famine Early Warning Systems Network (FEWSNET)

Presenter: Bruce Isaacson, FEWSNET/USAID

FEWS NET was created in 1985 by the USAID after devastating famines in East and West Africa to assist government, decision-makers and relief agencies in planning and responding to humanitarian crises through evidence-based analysis. At the moment FEWSNET is one of the leading provider of early warning and analysis on acute food insecurity. Products published on FEWSNET our website, include: monthly reports and maps detailing current and projected food insecurity, timely alerts on emerging or likely crises, and specialized reports on weather and climate, markets and trade, agricultural production, livelihoods, nutrition, and food assistance. Information contained in these products are weather forecasts and seasonal outlooks

highlighting trends, hazards, and anomalies, as well as geospatial data and mapping related to vegetation, rainfall, and water use. FEWS NET relies on credible information sources for its systems: it synthesizes and collates its data from climate, weather, and crop production information provided by the National Aeronautics and Space Administration (NASA), National Oceanic and Atmospheric Administration (NOAA), US Department of Agriculture (USDA), and US Geological Survey (USGS).

Event Mobile Application (EMA-i) by FAO for animal disease reporting

Presenter: Fairouz Larfaoui, EMPRES/FAO

EMA-i is a mobile application developed by FAO for data collection and to facilitate real-time disease reporting to support veterinary services capacities in disease surveillance and early warning at country level. The purpose of this digital tool is to improve the timing and quality of disease reporting from the field to central government. Epidemiological information on animal diseases is collected with EMA-i app from the field. These data are sent in real-time to the FAO's Global Animal Disease Information System (EMPRES-i) database. In addition, through EMA-i/EMPRES-i, an early warning notification system is in place for informing users and decision makers on a disease event. EMA-i has been implemented at country level in target districts in Uganda (since 2013), Mali (2015), Zanzibar, United Republic of Tanzania (2016) where it has clearly demonstrated major improvements in disease reporting and communication (i.e. from monthly to real-time) from targeted districts and will be extended to other regions and countries to enhance global capacities in disease reporting, surveillance and early warning.

2.2 From Global Market to Farmers' Gate

Agricultural Market Information Systems (AMIS)

Presenter: Abdolreza Abbassian, Denis Drechsler and Mr. Philippe Paquette, FAO

Hosted at the FAO, AMIS is an inter-agency platform for food market transparency and food security policy response. It was launched in 2011 by the G20 Ministers of Agriculture following the global food price hikes in 2007/08 and 2010. Some of the important aspects of the AMIS platform are the market monitor, indicator and database components providing relevant information on four of the world's major commodities; wheat, soya beans, maize and rice. The market monitor component provides synopsis of the major development in international commodity market including the demand and supply, crop monitoring, international prices, policy development and fertilizer outlook. Indicative changes of commodities as well as signal policy actions and stock regimes of the commodities are also provided through the indicator component. The database component however provides a statistical glance to the production, supply, utilization, trade and closing stocks of commodities for some countries. An interesting feature about the AMIS is that it gathers information on both international trade and domestic measures. The design of the database also allows for comparisons across different countries, commodities and policies for selected periods of time.

Electronic platform to disseminate market information via SMS: YEGLE Platform

Presenter: Sémou Diouf, PAFA-E/IFAD

Small-scale farmers in the Senegal groundnut basin have limited access to, and understanding of market and rainfall forecast information. This situation limits their capacity to bargain with market operators and to take well informed decision to properly manage their agricultural activities. To facilitate the access to market and weather information, the Agricultural Value Chain Support Project (PAFA), has therefore supported the setting up of an electronic platform, called YEGLE. The platform is managed by the inter-professional value chain committees who send SMSs to all value chain actors with information about prices, inputs, stocks and the weather conditions. The meteorological services share the rainfall forecasts with the inter-professional value chain committees and the extension services. Afterwards a working group, composed of facilitators selected within the producer organisations (POs) and the extension services, provides the agronomic interpretation and disseminates the information to the farmers. Concerning the information on prevailing market prices, the contact persons selected by the POs, collect the price information from different reference markets and forward the information to the inter-professional value chain committees. In fact the Platform disseminates the information to all stakeholders (committee members, producers' organisations, producers, market operators, and partners) via SMS.

Regional Agricultural Trade Intelligence Network (RATIN)

Presenter: Gerald Makau Masila, Eastern Africa Grain Council (EAGC)

EAGC-RATIN is a Market Information System covering 8 countries in the Eastern Africa region. It provides market prices (spot markets wholesale and retail) and cross border trade flows and volumes for selected grain and cereals commodities. EAGC RATIN has a network of market and border monitors who observe the market prices and cross border volumes and submit the data through a mobile application to the RATIN server where the information is processed and disseminated to members and stakeholders through a web portal and mobile SMS system. Daily, weekly and monthly reports are generated and distributed to subscribers. Historical data is also provided to interested persons on sale as data set bundles, or as live feeds. The users of RATIN include farmers and farmer groups, grain traders, processors and millers and government officials for policy and regulatory purposes, bankers/financial services providers for valuation of warehoused commodities for credit processing purposes. Detailed information about the initiative and services is available at www.ratin.net.

2.3 Getting Information from the Crowd

Plantix by PEAT start-up

Presenter: Charlotte Schuhmann and Alexander Kennepohl, PEAT

PEAT is a start-up that supports agroecology, big data and artificial intelligence for the automatic recognition of plant diseases developed algorithms which are able to automatically identify plant damages based on a photo bringing the benefits of smart agriculture to billions of farmers worldwide. PEAT's Plantix application is a tool that supports smallholder farmers with plant diseases and pests control management. It is a simple diagnostic and monitoring tool for plant diseases, based on smart and self-learning algorithms that automatically identify plant damages on a photo. The tool is currently in use in Germany, Austria, Switzerland, and there is a plan to rollout in India by April.

“Innovative food price collection methods in developing countries: approaching crowdsourcing through new technologies in Africa. Experiences and lessons learned from a methodological study and a food price collection pilot”

Presenters: Gloria Solano Hermosilla, JRC; Gunter Zeug, Terranea; Conrad Bielski, EOXPLORE

The presentation is based on a study titled “Innovative food price collection methods in developing countries: approaching crowdsourcing through new technologies in Africa. Experiences and lessons learned from a methodological study and a food price collection pilot”.

Food prices are a key indicator of changes in food supply and demand, as they signal the availability and affordability of food. They are, therefore, key determinants of households' access to food and especially important in countries where people spend a high proportion of income on food. In contrast to developed countries, where food price data are often captured comprehensively, frequently and accurately, in many less developed countries, especially in Africa and remote and food insecure areas, timely and accurate food price data are sparse.

New mobile technologies and crowdsourcing, which uses contributions from citizens (“crowd”) to gather different types of data, are increasingly researched as a means of obtaining timely, frequent and accurate information. The methodological study provides a literature review on a relatively new and booming concept, crowdsourcing through new technologies in developing countries and an overview and insights in previous and current initiatives of innovative food price collection in developing countries. The food price collection activity implemented in several African countries contributed to the development of an innovative method for data collection. Main learnings had to do with the identification of challenges and implementation of adequate solutions where possible.

FARMIS

Presenter: James Nguo, Arid Lands Information Network

FARMIS is a record keeping system that enables farmers to become professional and systematic in archiving information they need when engaging with financial institutions, input and other service providers. It tracks farm operations and identifies gaps in knowledge or practice, using ICTs for data management and engages youth to drive agriculture transformation. The FARMIS is more innovative in helping maintain accurate production, marketing and operational data in agriculture: it enhances information required to access to finance and other services, and guides decision-making for optimal production.



List of Participants

1. AFD	Philippe Roudier
2. AGHYMET	Moussa Mama
3. AGRINATURA	Hélène David-Benz
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14. CTA	Ben Addom
15. CTA	Chris Addison
16. EAGC (RATIN)	Gerald Masila
17. ECOWAS	Ernest Aubee
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19. FAO	Rob Vos
20. FAO	Sophie Chotard
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22. FAO	Hideki Kanamaru
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24. FAO	Denis Drechsler
25. FAO	Philippe Paquotte
26. FAO	Natalia Winder Rossi
27. FAO	Solomon Asfaw
28. FAO	Federico Spano
29. FAO	Ana Ocampo
30. FAO	Sophie VonLoeben
31. FEWSNET	Bruce Isaacson
32. GEOGLAM	Michel Deshayes
33. IFAD	Perin Saint Ange
34. IFAD	Adolfo Brizzi
35. IFAD	Paul Winter
36. IFAD	Michael Hamp

37. IFAD	Paxina Chileshe
38. IFAD/PAFA	Semou Diouf
39. FIRM/AgriRisk Analyzer	Jaime ter Linden
40. Italian Cooperation	Marco Platzer
41. Italian Cooperation	Andrea Di Vecchia
42. Italian Cooperation	Vieri Tarchiani
43. JRC/EU	Francois Kayitakire
44. JRC/EU	Gloria Solano
45. MUNICH RE	Alexa Mayer-Bosse
46. NEPAD	Mariam Soumare
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48. PAFO	Fatma Ben Rejeb
49. PEAT	Charlotte Schumann
50. PEAT	Alexander Kennepohl
51. PREMISE	Paolo Lucchino
52. Terranea	Gunter Zeug
53. USAID	Fabrizio Moscatelli
54. VITO	Laurent Tits
55. WFP	Kenn Crossley
56. WFP	Rogério Bonificatio
57. World Bank	Carlos Arce
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