

Platform
for Agricultural
Risk Management

Managing risks
to improve farmers'
livelihoods

Capacity Development



Liberia

Capacity Development Training
(CD1)

Main Report
Vol. 1

April 2017





PARM
PLATFORM FOR
AGRICULTURAL RISK
MANAGEMENT

Platform
for Agricultural
Risk Management

Managing risks
to improve farmers'
livelihoods

Liberia



Agricultural Risk Management Capacity Development Seminar (CD1)

Volume I

MAIN REPORT

20-21 April, 2017

In collaboration with:



Ministry of Agriculture

Foreword

This report is drawn from the implementation of the Capacity Development Seminar (CD1) on Agriculture Risk Management, organized by PARM/IFAD and held in Monrovia on 20-21 April 2017. The training has been carried out as part of the partnership between the Ministry of Agriculture and PARM. PARM team would like to thank Dr Moses Zinnah, Minister of Agriculture, for opening the seminar and for acknowledging the importance of the PARM process in Liberia. Our gratitude goes also to Patrick Worzie, Assistant Minister for Planning & Development, and D. Musu B. Flomo Bendah, Director for Planning & Policy of Ministry of Agriculture for preparing and organizing this event. The training also greatly benefitted from the guidance by Jesus Anton and Massimo Giovanola, as well as the technical support by Karima Cherif and Manuela Zingales. PARM training team was composed by Ilaria Tedesco (mission leader), Imaine Abada and Jallah Kennedy.

Table of Contents

Introduction	4
Learning process	4
Participants	5
Evaluation	6
Annex	7
Annex 1. Agenda of the seminar.....	8
Annex 2. Detailed outcomes of second group work	9
Annex 3. List of participants	11

Introduction

Agriculture is well known to be a risky business. Risks related to extreme weather, natural disasters, biological and environmental issues, markets, logistics and infrastructures, institutions and politics are likely to affect agricultural production and therefore the livelihood of many people within the country. Farmers, in particular smallholders, face a whole range of risks and some of these risks have become even more severe in recent years due to climate change and the volatility of food prices. Consumers, especially the poor, are exposed to risks concerning availability and affordability of food. Developing countries with higher shares of subsistence farming and smallholders, and high poverty levels are most likely to be affected by these risks. Increased knowledge is key for improved agricultural risk management.

NEPAD has expressed a strong interest in strengthening the role of Agriculture Risk Management (ARM) within the CAADP process and in integrating agriculture and food security risk management policy instruments into CAADP investment plans. Government representative from sub-Saharan Africa acknowledged the need for integrating a risk management strategy in their national investment plans. NEPAD representatives expressed their commitment to support these countries in this exercise of integrating risk management in CAADP design and/or investment plans.

In this context, the Platform for Agricultural Risk Management (PARM), a multi-donor initiative hosted by IFAD, works in strategic partnership with NEPAD/CAADP in several sub-Saharan African countries, including Liberia, to mainstream agricultural risk management into the national agricultural policy and investment plans.

Capacity development activities are among the major components of PARM engagement in Sub-Saharan African countries.

The main purpose of the seminar held in Monrovia (20-21 April 2017) was to create general capacities and awareness on ARM among the participants and beyond. Participants included officials from Government agencies, farmers and farmers' organizations, and other stakeholders.

In details, ARM training aimed at:

- Strengthening the knowledge of national stakeholders on agricultural risks and risk management;
- Discuss tools and strategies to manage agricultural risks with an holistic approach, beyond a humanitarian intervention to disasters;
- Sharing experiences on ARM in Liberia

The seminar was conducted with presentations, open discussions, group works and exercises, also using PARM video and game tool.

The seminar was used to pilot test the newly-developed PARM training materials ("Managing risk at farm level: a farmers' workbook") that was widely used and consulted during the training. The training received good feedback from the participants who welcomed the interactive and trainees-centred approach. On average, participants rated the training contents with 4.47 (on a scale from 1 to 5).

The participants were very active and appreciated all the topics, in particular risk assessment and prioritization and the group works. Few of them evaluated the training as too short and they wished to have more seminars on ARM in the country.

Learning process

The seminar was structured in the following manner:

- Day 1: Understanding and assessing risk
- Day 2: Managing risk with ARM tools

The detailed agenda is presented in Annex 1. The Seminar was designed with presentations that left space for simultaneous interactive discussions, and group works were organized to enable participants to apply the lessons learned. PARM video and ARM-Aware game tool were used to provide other ways to explain and evaluate the understanding of the ARM topics, respectively. The group works and discussions produced interesting results linked to agricultural risks in Liberia.

During the introduction sections on General Concept of Agricultural Risk Management, most severe risks were discussed. During the first group work, pest and diseases, low quality inputs, and climate related risks emerged as main risks; the crops most affected resulted rice and cassava (Table 1).

Table 1: Results of first group work on major risks in Liberia

General country risks	Major crops and risks	Description of a major risk occurred in Liberia in the past and consequences
a) Flooding b) Prolonged dry spell c) Pest and disease outbreaks d) Low quality input for crop and livestock e) Price uncertainty	a) Rice i) Pest (insects and rodents); ii) Climate change iii) Poor harvesting methods iv) Wrong fertilizer application b) Cassava i) Cassava mosaic disease ii) Marketing risks (no price controls) iii) Transportation iv) Lack of access to credit	Caterpillar infestation (2009) i) Crops defoliated ii) Reduced yields iii) Creeks and wells affected/polluted iv) Community resident compelled to relocate with no belonging v) Normal farming activities disrupted.

A second group work on risks for selected value chains that included identification of root causes and prioritization of risks was organized and the groups presented the outcomes in plenary (see Annex 2 for the complete outcomes of the group work exercise).

Four groups were formed with 7-10 participants and each group was assigned a value chain (rice, cassava, rubber and poultry). The participants were very engaged in the group work and used different approaches to examine the issues proposed (i.e. evaluation of risks for the entire crop production and/or identification of the value chains activities most prone to risks).

During the exercise on risk assessment for the value chain, all groups identified a broad range of risks that affect farming business, starting from low quality inputs (for crop and livestock), pest and disease, animal damage, climate change. Participants also discussed the lack of knowledge and technology, difficult access to good inputs for crops and livestock, and the absence/bad conditions of infrastructures, such as storage facilities.

Participants

The training was delivered to 35-37 participants. Most of the participants came from Monrovia, and few others from Bong, Nimba, Lofa, Maryland, and Margibi (Table 2). The majority of participants were government officials and also farmers; there was a good representation of farmer leaders or representatives from farmer organizations. Few representatives of academia (University of Liberia and Cuttington University) also attended the seminar (Table 3). The complete list of participants is in Annex 3.

Table 2: Geographical areas represented by the participants

District	No. of participants
Monrovia	23
Lofa	3
Maryland	1
Bong	5
Margibi	2
Nimba	3
Total	37

Table 3: Area of expertise/work of the participants

District	No. of participants
Research & Extension (MoA)	6
Planning & Development (MoA)	6
Technical Service	4
Specialists on selected crops	2
Farmers' associations	8
Academia	3
Other	8
Total	37

Evaluation

The seminar served its purpose to provide the participants with practical guidance to identify and assess, to prioritize, and to manage risks. Through this training farmers and local government officers have learned about the holistic ARM approach, which emphasizes the necessity to make farm investment decision based on a solid analysis of risk factors.

The seminar strongly focused on discussions and group work, and practical guidance on how to apply the concepts taught during the course of the training days. The participation was active showing interest and relevance of the ARM contents for farming businesses.

The seminar received very good feedback from participants; the average score for all areas assessed by participants is 4.47 (on a scale from 1 to 5). The highest score was for the recap session of general concept of ARM (4.69), the overall CD seminar (4.59) and the session on risk assessment and prioritization (4.57). PARM video and ARM game received also a good score.

Table 4: Evaluation of single session

Session	Name	AVG	
1	General Concept of ARM 1	4.32	
1	Video ARM/PARM	4.50	
1	General Concept of ARM 2	4.69	*
1	Group work on Agricultural Risks	4.52	
1	Highlights on agricultural risks in Liberia	4.36	
2	Risk assessment and prioritization	4.57	***
2	Group work on Risk Assessment and Prioritization	4.30	
3	ARM tool 1	4.46	
3	ARM tool 2	4.41	
3	ARM game	4.42	
	Overall ARM CD seminar	4.59	**

The participants judged the seminar as eye opener to better manage and assess risks at farm level. They wished to have more training on similar topics and some of them would have preferred a longer CD seminar, to give also space to more group work. Many participants stated that they had learned a lot about assessment and prioritization risks. Participants learned that managing risks implies improving livelihood at farm level, and to have a look at risks from a holistic perspective. The audience recognized that managing risks implies to have more information and help to process the knowledge.

Participants were keen to apply the knowledge received during that training and share it with other farmers. Many of the tools presented were unfortunately not applicable to Liberian context. For this reason, it would have been better if the tools presentations would have been more adapted to the country context in order to improve the understanding of the tools themselves and avoiding proposing tools that do not exist in the country due to major constraints.

Providing basic knowledge and raising awareness on ARM topics, CD1 has successfully prepared the ground for the Risk Assessment (RA) workshop to be held in June 2017.

Annexes

Annex 1. Agenda of the seminar

Annex 2. Detailed outcomes of second group work

Annex 3. List of participants

Annex 1. Agenda of the seminar

Day	Time	Content	Elements	Instructor
20 April	h. 8.30 h. 9.00	Registration of the participants Opening remarks		Imaine Abada, Ilaria Tedesco, Jallah Kennedy (PARM, IFAD) Dr. Moses Zinnah (Minister of Agriculture), Patrick Tarnue Worzie (Ministry of Agriculture), Ilaria Tedesco, Jallah Kennedy (PARM, IFAD)
20 April	h.9.30- 10.30	General Concept of Agricultural Risk Management	<ul style="list-style-type: none"> • Agriculture as risky business • Definition of risks • Type of agricultural risks for different stakeholders Plus Practical exercise/working in groups	Imaine Abada (PARM, IFAD)
20 April	h.10.30- 11.00	Coffee break		
20 April	h.11.00- 12.30	General Concept of Agricultural Risk Management (continued) Liberia Risk Profile	<ul style="list-style-type: none"> • Main ARM concepts • Highlights on risks for agricultural sector in Liberia 	Ilaria Tedesco (PARM, IFAD) Jallah Kennedy (PARM, Liberia)
20 April	h.12.30- 14.00	Lunch break		
20 April	h.14.00- 15.30	Risk Assessment and Prioritization	<ul style="list-style-type: none"> • Assessing and measuring risks and risk effects/impact on production and income for different stakeholders; • How to prioritize agricultural risks • Layers of responsibility Plus Practical exercise/working in groups	Ilaria Tedesco (PARM, IFAD)
20 April	h.15.30- 16.00	Coffee break		
20 April	h.16.30- 17.30	Risk Assessment/Prioritization (continued)	Presentation of group work	Ilaria Tedesco (PARM, IFAD)
21 April	h.9.00- 10.30	Agricultural Risk Management Tools and Strategy	<ul style="list-style-type: none"> • On-farm tools • Finance tools • Market related tools • Government-based tools Plus Practical exercise/working in groups	Ilaria Tedesco (PARM, IFAD)
21 April	h.10.30- 11.00	Coffee break		
21 April	h.11.00- 12.30	Agricultural Risk Management Tools and Strategy (continued) Closing remarks	<ul style="list-style-type: none"> • Presentation of group work • ARM game 	Ilaria Tedesco, Imaine Abada (PARM, IFAD) Jallah Kennedy (PARM, Liberia)
21 April	h.12.30- 14.00	Lunch break		

Annex 2- Detailed outcomes of second group work

RICE						
Risks associated with rice production <ul style="list-style-type: none"> - Low seed germination; - Pest and disease; - Climate change; - Poor quality inputs; - Unsuitable soil; - Untimely harvest; - Animal/rodent damage; - Security; - Post-harvest losses; - Price uncertainty. 	Table 5a. Risk prioritization matrix					
	Frequency (vert.)/ Severity (horiz.)	<i>Very High</i>	<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Very Low</i>
	<i>Very High</i>	- Post-harvest losses - Price uncertainty				- Pest and disease - Animal damage
	<i>High</i>			Rodent damage		Security
	<i>Medium</i>					
	<i>Low</i>	Unsuitable soil				
	<i>Very Low</i>		- Low seed germination - Climate variation	Untimely harvest	Poor quality tools	
Table 5b. Causes and ARM tools of major risks						
Major risks	Root causes		ARM tools			
Unsuitable soil	Lack of knowledge on soil nutrient composition		Soil testing and plan nutrient analysis			
Post-harvest losses	Improper handling		More knowledge and technology for handling			
Rodents damage	Unprotected storage		Proper storage practices			
CASSAVA						
Risks associated with cassava production <ul style="list-style-type: none"> - Post-harvest losses - Pest and disease - Marketing risks (no price controls) - Transportation - Lack of access to credit 	Table 6a. Risk prioritization matrix (major risks and risky VC activities)					
	Frequency (vert.)/ Severity (horiz.)	<i>Very High</i>	<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Very Low</i>
	<i>Very High</i>			Post-harvest losses		
	<i>High</i>				Planting	
	<i>Medium</i>			Pest management		
	<i>Low</i>					Planting material
<i>Very Low</i>	Land preparation		Weed infestation	Harvesting		
Table 6b. Causes and ARM tools of major risk						
Major risks	Causes		ARM tools			
Post-harvest losses	Bad road conditions Poor transportation Lack of storage infrastructures		Improved infrastructures Technology adoption			
RUBBER						
Risks associated with rubber production <ul style="list-style-type: none"> - Unsuitable soil; - Land ownership or lease; - Lack of Access to finance; - Lack of Technical knowledge/unavailability of skilled manpower; - Weed infestation 	Table 7a. Risk prioritization matrix (major risks and risky VC activities)					
	Frequency (vert.)/ Severity (horiz.)	<i>Very High</i>	<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Very Low</i>
	<i>Very High</i>	Weed infestation				
	<i>High</i>				Lack of access to finance	Unsuitable soil
	<i>Medium</i>					
	<i>Low</i>					
<i>Very Low</i>		Land ownership or lease				

POULTRY

Table 8a. Risk prioritization matrix (major risks and risky VC activities)

Frequency (vert.)/ Severity (horiz.)	<i>Very High</i>	<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Very Low</i>
<i>Very High</i>		Feeding	Managem ent		
<i>High</i>	Medication				
<i>Medium</i>		Procurement	Marketing		
<i>Low</i>				Constru ction	Site identification
<i>Very Low</i>					

Table 8b. Causes and ARM tools of major risk

Major risks	Causes	
Medication	Disease outbreak Irregular treatment Wrong dosage Expired drugs	Routine vaccine Improved poultry management practices
Feeding	Contaminated feeds Under-feeding Undiversified feeding Limited access to feeding	Enhance feeding Improved poultry management practices
Procurement	Pedigree Transportation/distance	Diversified breeds Improved poultry management practices

Annex 3. List of participants

	Name	Area of specialty	Affiliation	City/County
1	Edward B. Perry	Agronomy	Regional Development, Research & Extension	Monrovia
2	Oliver B. Teekpeh	Plant pathology	Regional Development, Research & Extension	Monrovia
3	Alaric N. Mienwipia	Crop Agronomy	Regional Development, Research & Extension	Monrovia
4	Theophilus Baah	Crop Agronomy (CAC) –County Agriculture Coordinator	Regional Development, Research & Extension	Lofa
5	Jerome Karnwea	Crop Agronomy (CAC) County Agr. Coord.	Regional Development, Research & Extension	Maryland
6	Monica K. Honore	Agriculture	Regional Development, Research & Extension	Bong
7	Henry S. Bundor	Economics	Planning and Development	Monrovia
8	Musu Flomo Bendah	Agricultural Administration	Planning and Development	Monrovia
9	Francilia N. Marah	Public Administration	Planning and Development	Monrovia
10	Augustine S. Dweh	Statistics	Planning and Development	Monrovia
11	Dennis Wiagbe	Economics	Planning and Development	Monrovia
12	Yoko Nyanbeanquoi Aagon	Agricultural Economics	Planning and Development	Monrovia
13	Ruth N. Bondo	Agriculture	Agriculture Technician (Nimba)	Nimba
14	James Morlu	Agriculture	Technical Services	Monrovia
15	Garmony A. Sam	Entomology	Technical Services	Monrovia
16	Roland Varkpeh	Animal science	Technical Services	Nimba
17	Dwedor Freeman	Food processing Technology	Cassava sector	Monrovia
18	Alfred David	Food processing Technology	Cassava sector	Monrovia
19	E.Musu Tuah Younn	Agriculture	CAC	Margibi
20	Harris B. Wennie	N/A	CDA	Monrovia
21	Dominic Mombal	Agriculture	LPMC	Monrovia
22	James Yeawolee	Farming	Livestock Farmers' Association	Lofa
23	Francis Taliwoe	Farming	Kwapagei Farmers' Association	Bong
24	Patrick Sama	Farming	Voinjama Farmers' Cooperative Society	Lofa
25	Maxim Kumeh	Geography	Civil Society organization	Monrovia
26	Ruth Myers	Program Management	NARDA (NGO)	Monrovia
27	Hannah M. Farr	Animal Science	Cuttington University	Bong
28	William K. Massaquoi	Rice Agronomy	Private sector	Monrovia
29	Lorpu Gizzie	Farmer	Progressive Women farming Group	Margibi
30	Prispilia Nabil	Farmer	Winners' Women Farming Group	Bong
31	Morris Ceah	Farmer	Dokodan Farmers' Coop.	Bong
32	Anthony Kpadeh	Agriculture/Climatology	University of Liberia/Hydrological Service	Monrovia
33	Dr. Kpadeh Koikoi	Veterinary Medicine	College of Agriculture & Forestry U.of Liberia	Monrovia
34	Nancy Jackson	Agriculture	Dokodan Farmers' Cooperative Society	Nimba
35	Keturah Woods			Monrovia
36	Barbara Zquie			Monrovia
37	Elisabeth Mulbah			Monrovia



Contacts

PARM Secretariat

**International Fund
for Agricultural Development (IFAD)**

📍 Via Paolo di Dono 44 - 00142 Rome (Italy)

✉️ parm@ifad.org

🌐 www.p4arm.org

🐦 [@parminfo](https://twitter.com/parminfo)