

Platform  
for Agricultural  
Risk Management

Managing risks  
to improve farmers'  
livelihoods

Capacity Development



# Uganda

Capacity Development Seminar  
for Farmers' Organisations  
(CD1)

Report  
Vol. I  
December 2015





PARM  
PLATFORM FOR  
AGRICULTURAL RISK  
MANAGEMENT

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for Agricultural  
Risk Management

Managing risks  
to improve farmers'  
livelihoods

# Uganda



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## Capacity Development Seminar (CD1) on Agricultural Risk Management

PARM learning event for farmers' organisations

### Volume I

### MAIN REPORT

Mbale | 9<sup>th</sup> – 10<sup>th</sup> December 2015

Report prepared by:

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In collaboration with:



**The Ministry of Agriculture  
Animal Industry and Fisheries (MAAIF)**



# Foreword

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This report is drawn from the implementation of the Capacity Development Seminar on Agriculture Risk Management, organized by PARM/IFAD and held in Mbale on 8-9 December 2015. The training has been carried out as part of the partnership between the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) and PARM. Many thanks to Charles Mukama, the officer responsible for agricultural risk management, 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 Emanuela Berti and Karima Cherif.



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# 1. Background and objectives

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The Platform for Agricultural Risk Management (PARM) is a multi-donor partnership between developing nations and development partners to make risk management an integral part of policy planning and implementation in the agricultural sector. To this end, PARM aims to “enhanced institutional capacities and synergies between stakeholders” (Result 4) through the implementation of a programme on Capacity Development (CD) in nine targeted countries.

A first capacity development seminar on ARM was successfully held on 1-2 July, 2015, in Kampala. The seminar brought together more than 50 participants, mainly from government institutions at national level. The audience also included farmers, farmers’ organizations and local government representatives from 6 districts (namely Bududa, Kisoro, Katakwi, Kasese, Agago, Arua).

An important feedback from the first seminar was to increase capacity of stakeholders at the local level, in particular farmers' organization. Therefore, this seminar brought together 45 participants from Eastern Uganda (including representatives from drought sensitive areas in Karamoja, North-Eastern Uganda). The majority of participants were from farmer organization from many different commodities relevant in Eastern Uganda (e.g. maize, coffee, livestock, potatoes, sorghum, citrus). Local MAAIF staff attended as well as did head of the Eastern Region government and the Mbale district government.

The seminar aimed at teaching participants' skills and knowledge

- to analyze and understand their risk exposure,
- to understand the influence of risk on their business and the consequences (e.g. for accessing agricultural credit),
- to understand the need for information and know-how on where to get ARM relevant information
- to understand the different ARM tools available and select the most suitable instruments aimed at reducing, transferring, and coping with risks.

The seminar was used to pilot test the training materials in order to develop a larger capacity development strategy for 2016. The training received good feedback from the participants who welcomed the practical advice given and the interactive methodology used.

The training was also used to receive feedback from farmers on their most pressing needs in terms of ARM tools. The most frequently mentioned problem is related to pest and diseases: farmers do not have sufficient information on plant pests/diseases and the treatment, and on reliable sources of buying quality inputs (pesticides, etc.). Access to markets, access to finance, weather irregularities, and storage were other hotly debated topics during the seminar.

## 2. Learning process

The seminar was structured in the following manner:

- **Day 1: Understanding and analyzing risk**
- **Day 2: Managing risk**

Each day contained three sections which looked at the various aspects of risk management. The sections are:

- Section 1: Introduction to risk management
- Section 2: Risks in smallholder farming
- Section 3: Methods and tools for risk assessment
- Section 4: Access to finance
- Section 5: Information systems in ARM
- Section 6: Risk management instruments

The Seminar was designed according to adult learning principles with brief content presentations followed by open discussions and group work to enable participants to apply the lessons learned to realistic case studies. The two facilitators used a broad range of approaches and techniques to make the training as interactive as possible: open discussion, group work, presentation of own experience by participants, short movies. The group work and discussions produced interesting results and showed the real-life challenges that farmers face in a complex environment with multiple risks.

During the introduction section the expectations and most severe risks were discussed. As emerged also during the group work, pest and diseases, access to inputs, and lack of storage were hotly debated. The full lists of expectations from the training and the risks to be tackled are listed hereafter:

Expectations	Risks
- Knowledge in handling risk	- Fake inputs
- Linkage with reliable input sources	- Lack of storage
- Reduction of post-harvest losses	- Weather variability
- Access to information sources	- Fire
	- Pest and diseases
	- Price volatility
	- Market access/lack of transport
	- Theft

The majority of exercises (i.e. value chain mapping and identification of root causes of risk, prioritizing risk, developing business plans and accessing finance) were structured as a series of group works that built up on the group work of the previous section. For the first exercise on risk mapping, five groups were formed with 8-9 members and farmers were randomly placed in the groups. Each group was assigned a value chain (banana, citrus, coffee, maize, and potatoes). This approach was selected as the group was too heterogeneous to build groups of 8-9 farmers with same farming background. Nevertheless, farmers were very engaged in the group work even if the selected crop was not grown by them.

During the exercise on risk assessment for the value chain, all groups identified a broad range of risks that affect farming business, starting from bad quality inputs, to weather and diseases, and to storage and marketing. Farmers also discussed the difficulties to access information, either due to absence of extension services or lack of knowledge on trustworthy sources.

During the business planning exercise, participants tried to identify those 2 to 3 risks that pose the greatest danger to their cash flow. The groups mostly focused on inputs, weather (mainly rain), diseases, and price/market fluctuations. The results of the group work are presented in Annex 3.

The training also allowed for participants to present their experience with risk management. Robert Ogalo from Serere used this opportunity to present his farming business. For future trainings, this type of experience sharing among participants is highly recommended.



## **ARM experience with orange farming in Serere**

Robert Ogalo of Serere district presented his experience with risk management during the workshop. He showed pictures and presented a short movie about his farm. He used to be a taxi driver but believed in the potential of agriculture as a profitable business. He is now an orange farmer in Orupe where he cultivates his six-and-a-half acre farm. He first planted two acres of oranges of the Hemline variety, which are often in demand in the Kenyan market that he was targeting. This was important to reduce market risk for Mr. Ogalo. After six years of orange farming, Ogalo has built a permanent house of six bedrooms, a sitting room and a garage in Orupe, his home village. He also constructed a concrete underground tank that has a capacity of 125,000 liters of water. He build the tank as a reaction to the problem of water availability. While he takes home UGX 20 to 30 million (5,755 USD to 8633 USD) from his farm, when the weather conditions are favorable, income is less in drier years. By constructing a tank he has managed to manage his water resources better. He currently collects rainwater with the tank, but his plan is to have a borehole drilled to back up the underground tank, so that he can start drip irrigation. Mr. Ogalo pointed out that growing oranges seems tedious but it pays; all one needs to do is to ensure that he or she attends to his plantation every day, have traps for white flies, and carries out bi-weekly spraying to curb pests and diseases. In addition to that, he uses chicken droppings as fertilizers for his orange trees, which enable him to have two healthy harvests annually.

## 3. Participants

### Trainees

The training was delivered to 45 trainee participants. The majority of participants (23) were farmers, often farmer leaders or representatives from farmer organizations (chairperson, treasurer, etc.). 13 participants were local government officers, for example district production officers (DPO). 9 participants from MAAIF in Entebbe attended as well.

The training was held in Mbale, Eastern Region of Uganda. The attendance was therefore mainly from districts in the Eastern region with the exception of some participants from Moroto and Kotido from the Northern region.

District	No. of participants
Bugiri	5
Entebbe	6
Hoima	1
Kampala	2
Kamuli	5
Kapchorwa	5
Kotido	4
Mbale	6
Moroto	5
Serere	5
Wakiso	1
<b>Total</b>	<b>45</b>

### Trainers/Facilitators/Presenters

The training was held by Jan Kerer and Herbert Talwana who co-authored the (Agricultural) Risk Assessment Uganda. Jan Kerer is a consultant for PARM and has a wealth of experience in rural finance, agricultural insurance, and agricultural risk management. Herbert Talwana is Professor of Applied Entomology and Nematology at Makerere University, Uganda, and has variously worked as a biological efficacy evaluator of agrochemicals, an organic crop production systems specialist, an agricultural management advisor and an agricultural sanitary and phytosanitary Inspector.

Due to their different backgrounds (economic and financial sector, and agronomy/farm management, respectively), the trainers were able to respond to the many questions posed by the lively audience. The sections were divided between the trainers based on their respective experience:

- Jan Kerer:
  - holistic ARM approach;
  - assessing and quantifying risk;
  - access to finance;
  - agricultural insurance.
- Herbert Talwana:
  - risks in smallholder farming;
  - access to information;
  - on farm risk management (pest management, storage, marketing, etc.)

## 4. 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 group discussions and work, and practical guidance on how to apply the concepts taught during the course of the two days. The active participation of participants during the seminar showed their engagement and the relevance of the content for their farming businesses.

The seminar received good to very good feedback from participants; the average score for all areas assessed by participants is 5.2 (on a scale from 1 to 6). The highest score was for the trainers (5.8) but also the training content and the training method (i.e. interactive with many discussions and group work) received good scores.

The lowest score was achieved for training materials; this is largely due to non-availability of handouts during most of the sessions caused by the inability of the training facility to print sufficient copies. The training materials were sent to participants after the workshop. For future trainings the materials will have to be printed in advance to avoid this shortcoming.

The timing of the training was rated positively, referring mainly to the trainers keeping track of time and allowing sufficient time for discussions and group work. In the feedback session a number of participants wished for a longer training (3-day to week-long courses).

### Scale from 1 (poor) to 6 (excellent)

Area	Score
Training content	5.1
Training method	5.3
Training material	4.6
Timing of training	5.1
Trainers	5.8
Facilities	5.4

Many participants stated that they had learned a lot about analysis and assessing risks. In particular, participants learned to look at their farm in a commercial manner, to analyze their business based on cash flows, and the impact of risk on their income. Some members of the audience learned most about the impact of risk on their credit appraisal and the use of insurance in farming.

Topics that participants wanted to learn more about were: agricultural insurance, early warning systems, value addition and market, access to information and weather forecasts, and warehousing. Some farmers also wished for more training on business planning and cash flows.

Participants vowed to apply the knowledge received during that training. Many participants stated that they intend to share their knowledge with fellow farmers and provide trainings for their farmer organizations. Some participants want to use the newly acquired skills to apply for loans and/or insurance. Others stated that they want to improve pest management and storage, or to seek information on weather, markets, etc. more actively.

## 5. Next Steps

The (proposed) next steps are to develop the current set of materials into a training of trainers manual. With this training manual PARM can start to train new trainers in 2016. Currently, the extension system of MAAIF is undergoing major transformation and has stopped worked for some time now; improvements cannot be expected in the near future. Therefore, PARM's capacity development strategy will tap into existing development programmes that can ensure outreach to many farmers, such as the country programs of IFAD, FAO, and WFP.



## 6. Annexes

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**Annex 1: Agenda**

**Annex 2: List of participants**

**Annex 3: Group work**

## Annex 1: Agenda

### Day 1: Identifying and assessing risk

Day 1	<b>Section 1: Introduction</b>	
8:30 - 9:00	Introduction of the event	Opening remarks
9:00 - 9:30	Objectives, agenda, evaluation test	Review of training objectives, agenda and test
<b>Day 1</b>		
<b>Section 2: Risks in smallholder farming</b>		
9:30 - 10:00	Overview of the risks in smallholder farming	Overview of the type and characteristics of risks in smallholder farming Variability and relationships btw different risks (with specific case study and examples in Uganda)
10:00 - 10:30	Group work on agricultural risk	Key questions for participants: What is your experience on risks to agriculture/ Which are the main risks?
10:30 - 11:00	Rethinking risks in smallholder farming through a holistic approach	How to understand farming risks through a holistic approach perspective?
11:00 - 11:30	<i>Coffee break</i>	
11:30 - 12:15	Group work on holistic risk management	Teams attribution, each team will work on a specific topic
12:15 - 13:00	Group work presentation	Each team will present the results of the group discussion/work
13:00 - 14:00	<i>Lunch</i>	
<b>Day 1</b>		
<b>Section 3: Methods and tools for risk assessment</b>		
14:00 - 15:00	Methods	Risk assessment and tools in complex and diverse contexts
	Estimation/Measuring of risks	Example: RAS Uganda at the national level Key questions for participants: How do you estimate your risks? Do you quantify them?
15:00 - 16:00	Group work on risk assessment	Teams attribution, each team will work on a specific value chain/geographical area
16:00 - 16:30	<i>Coffee break</i>	
16:30 - 17:30	Group work presentation	Each team will present the results of the group discussion/work
17.30	Closing Remarks	Day Evaluation, wrap up



## Day 2: Managing risk

Day 2		
<b>Section 4: Access to finance</b>		
8:30 - 9:00	Agricultural risk and access to finance	How do banks assess loan appraisal? How do banks assess risk? Why is information so important?
9:00 - 10:00	Group work on loan appraisal and risk assessment	Each team will analyze the credit appraisal from a farmer with a risk perspective
10:00 - 11:00	Group work presentation	Each team will present the results of the group discussion/work
11:00 - 11:30	<i>Coffee break</i>	
<b>Day 2</b>		
<b>Section 5: Information systems for ARM</b>		
11:30 - 12:00	Main sources of information	Information systems (with a focus on micro-meso level) Access, dissemination and use of information on risks
12:00 - 12:30	Group work on information systems	Key questions for participants: which sources information do you use to assess your risks? Are they useful? Are they used by all farmers?
12:30 - 13:30	<i>Lunch</i>	
<b>Day 2</b>		
<b>Section 6: Risk management instruments</b>		
13:30 - 14:45	Overview on main ARM instruments	Overview on ARM instruments such as: Contract farming; Conservation and Climate Smart Agriculture; Warehouse receipt systems; Small scale storage Insurance
14:45 - 15:30	Group work on ARM instruments	Based on risk assessment from Day 1, which instruments are most relevant? What needs to be done to improve use of ARM tools?
15:30 - 16:00	Agricultural Insurance	What is the role of insurance? How does agricultural insurance work?
16:00 - 16:30	Evaluation	Were the training goals achieved?
16:30	Closing : training wrap up and way forward	training evaluation, wrap up and conclusions

## Annex 2: List of participants

	Name	Organization	Designation	District
1	Makaka Moses		Farmer leader	Bugiri
2	Isiko Paul Moses	Bugiri administration	APO	Bugiri
3	Nemethubu Hamdan		Farmer leader	Bugiri
4	Mukone David Nantamu	BTFCLS Bugiri	Chairman	Bugiri
5	Etonu Ben		Farmer	Bugiri
6	Ahabwe Davis	MAAIF	M&E	Entebbe
7	Obbo James	MAAIF		Entebbe
8	Ssekitoleno Germina	MAAIF	MRO	Entebbe
9	Lufafa Robinson	MAAIF	Statistician	Entebbe
10	Kanoga Ronald	MAAIF		Entebbe
11	Josephine Nansereko	MAAIF		Entebbe
12	Magezi Godfrey	MAAIF	Director	Hoima
13	Brian Ssali Brian	MAAIF	M&E	Kampala
14	Okala Simon	MAAIF		Kampala
15	Jahwiny Siwmani	Kamuli administration	DCAO	Kamuli
16	Kato Johnson Tibatya		Farmer	Kamuli
17	Tigawalana Betty		Farmer	Kamuli
18	Mtala Johnson		Farmer	Kamuli
19	Oweikanga James Kuunya	Kamuli administration	DPO	Kamuli
20	Mubani Arapkissa	KACOFA	Farmer	Kapchorwa
21	Chepsikor David	Kapchorwa administration	DAO	Kapchorwa
22	Adonko Lucy		Farmer	Kapchorwa
23	Cherotich Judith		Farmer	Kapchorwa
24	Mangusho Basil	Mutwager Sebei Ltd.	Farmer	Kapchorwa
25	Obin Benaro Eriya	Kotido administration	DAO	Kotido
26	Amadi Leo Abumach		Farmer	Kotido
27	Kamakech Davis		Farmer	Kotido
28	Watuna Julius		Farmer	Kotido
29	Khaukua Mutwabili Magolofa	Tubama Farmers	Chairman FO	Mbale
30	Namakhola Rajab	Mbale administration	DPMO	Mbale
31	Mabonga Nathan	Bugiso Cooperation	Treasurer FO	Mbale
32	Walaleira Paul	Mbale administration	CAO	Mbale
33	Wamimbi Damian		Farmer	Mbale
34	Shiondo George		Farmer	Mbale
35	Nyangan Joyce		Farmer	Moroto
36	Okwii Francis	Moroto administration	DPMO	Moroto
37	Okono Willian		Farmer	Moroto
38	Obwama Pins		Farmer	Moroto
39	Koryan David		Chairperson FO	Moroto
40	Ogalo Robert		Farmer	Serere
41	Dokor Szeveni		Farmer	Serere
42	Ogiro Vincent	Serere administration	DPMO	Serere
43	Okwi Dormen	Serere administration	DAO	Serere
44	Asekenye Carol	Serere administration	DAO	Serere
45	Ben Kiwanuka	MAAIF	MRO	Wakiso

## Annex 3: Group work

### Business planning exercise

#### Coffee

##### CASH FLOW ANALYSIS

Seedlings	120,000
Planting	200,000
Weeding	460,000
Harvesting	80,000
Pulping, drying, storage	20,000
TOTAL Farm expenses	1,380,000
Harvest (kgs)	200
Price	8000
TOTAL Farm revenue	1,600,000
School fees	1,500,000
Food	5,760,000
TOTAL Household expenses	7,260,000
TOTAL Non-farm income (salary)	28,800,000
TOTAL CASH FLOW	23,010,000

It is interesting to note that the net cash flow for the farm business presented by the group shows a small profit only. In the event of a reduced yield or price, the farm business would quickly generate a loss.

Cash flow is most sensitive to the following risks:

1. Diseases (coffee wilt)
2. Unfavorable weather (hailstorm during flowering)
3. Price decline

The main risk mitigation tools for the two most severe risks are:

Disease	Stump affected plants to avoid spreading of disease
Hailstorm	Plant more trees in the plantation to reduce impact
Price decline	Join cooperative Adhere to quality to attract prices and markets

**COFFEE Enterprise**  
Mbale Happy Farmers Bank

Farm Expenses	
1. Procurement of Inputs (Seedlings)	120,000=
2. Planting and Planting	200,000=
3. Weeding (4 persons x 60,000 x 4 yrs)	960,000=
4. Harvesting	80,000
5. Pulping, Drying & Storage	20,000=
<b>Total Farm Expenses</b>	<b>1,380,000</b>
Farm Income	1,600,000
Quantity	200 kgs
Price	8000
Revenue	1,600,000 = 200 x 8000
Cash flow farm business (Revenue - Exp)	1,600,000 - 1,380,000 = 220,000
<b>Household Expenses</b>	
Food	1,449,000 x 4 = 5,760,000
School fees	1,500,000=
Total household Expenses	6,019,000
Cash flow Non-farm Income	28,800,000
1. Salary	28,800,000=
Cash flow household (Revenue - Exp)	28,800,000 - 6,019,000 = 22,799,000
<b>TOTAL (Cash flow household + 220,000)</b>	<b>23,019,000=</b>

Risks & Mitigation Approaches	
Risks	Possible mitigation approaches
01. Outbreak of disease like coffee wilt.	- Stump affected plants to reduce disease spread
02. Unfavourable weather like hail storms during blossoming	- Plant more trees in the plantation to reduce shocks from hail storms.
03. Price of fluctuation - Decline.	- Join Cooperatives - Adherence to Quality to attract Prices and Markets.

### Potatoes

#### CASH FLOW ANALYSIS

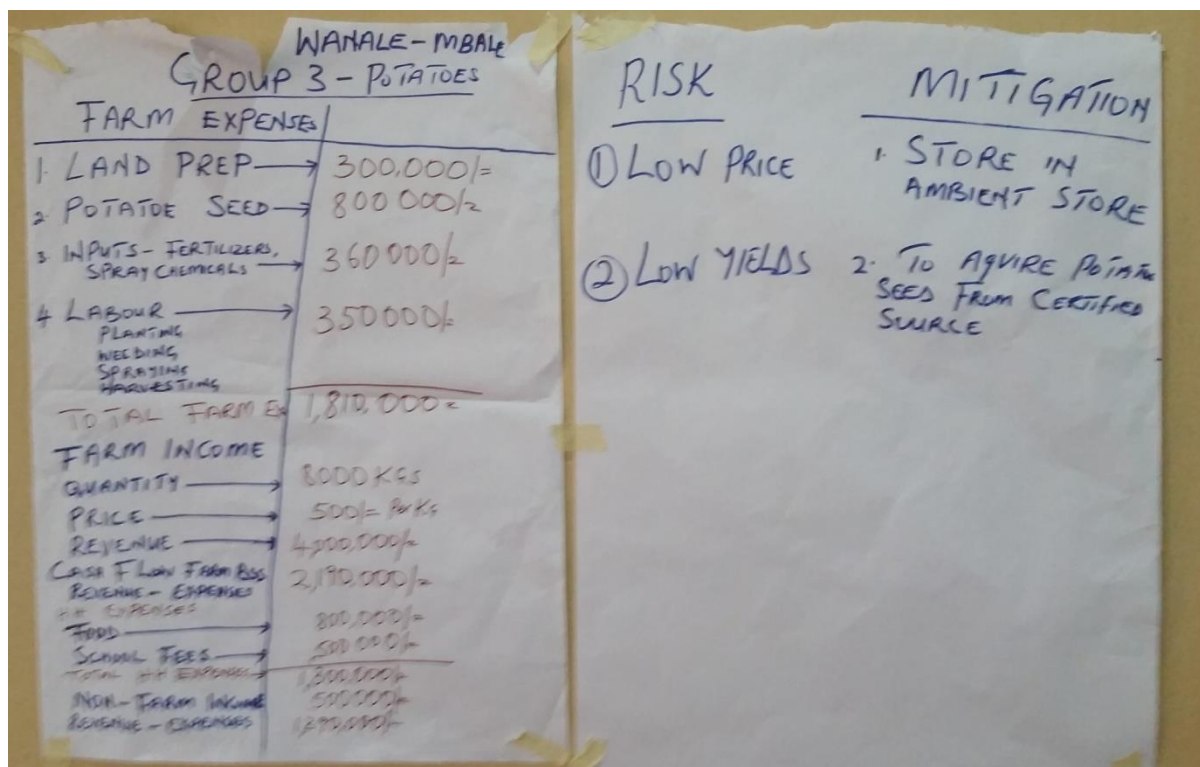
Land preparation	300,000
Seeds	800,000
Fertilizers	360,000
Labour	350,000
<b>TOTAL Farm expenses</b>	<b>1,810,000</b>
Harvest (kgs)	8000
Price	500
<b>TOTAL Farm revenue</b>	<b>2,190,000</b>
School fees	500,000
Food	800,000
<b>TOTAL Household expenses</b>	<b>1,300,000</b>
<b>TOTAL Non-farm income</b>	<b>500,000</b>
<b>TOTAL CASH FLOW</b>	<b>1,390,000</b>

Cash flow is most sensitive to the following risks:

4. Market risk (prices)
5. Low yields due to bad quality inputs

The main risk mitigation tools for the two most severe risks are:

Price risk	Store in ambient store
Weather	Acquire potato seeds from certified supplier



### Citrus

#### CASH FLOW ANALYSIS

Weeding (3 times)	300,000
Pesticides	540,000
Labour	300,000
Harvesting	400,000
Storage	100,000
Communication	50,000
<b>TOTAL Farm expenses</b>	<b>1,690,000</b>
Harvest (bags)	356
Price	40,000
<b>TOTAL Farm revenue</b>	<b>14,240,000</b>
Household expenses	1,200,000
School fees	3,500,000
Food	2,500,000
<b>TOTAL Household expenses</b>	<b>7,200,000</b>
<b>TOTAL CASH FLOW</b>	<b>5,350,000</b>

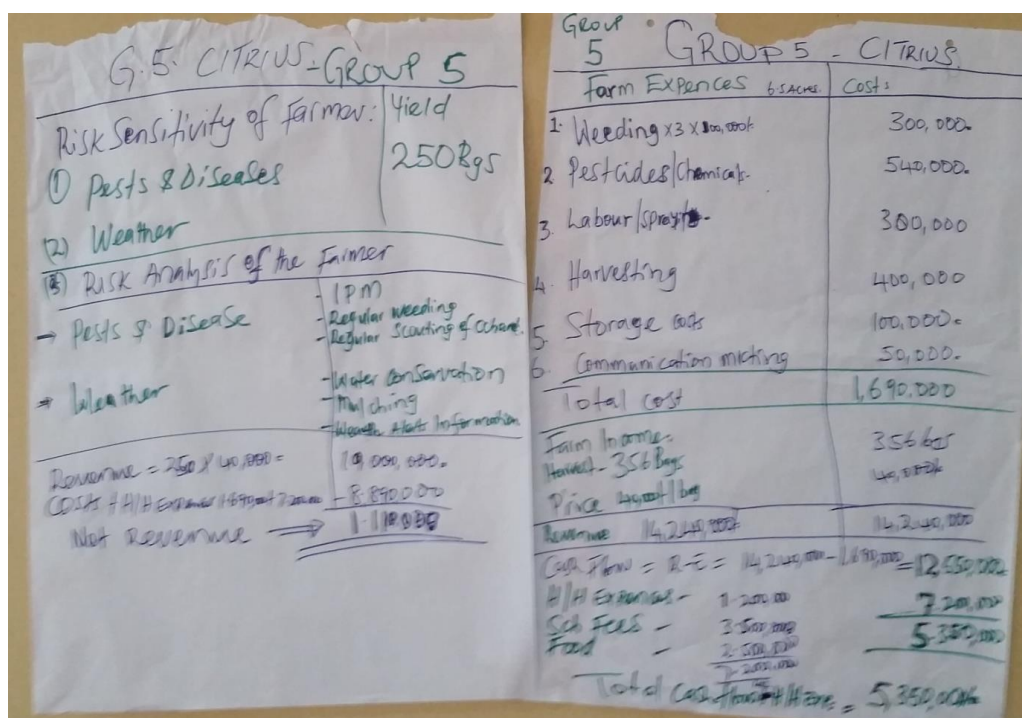
Cash flow is most sensitive to the following risks:

1. Pest and diseases
2. Weather irregularities

The group calculated a drop in harvest to 250 bags (instead of 356). For the farm business in their example, the farmer would still be able to make a small profit even if yields drop.

The main risk mitigation tools for the two most severe risks are:

Pest and diseases	IPM Regular weeding Regular scouting
Weather	Water conservation Mulching Weather alerts/information



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**NOTE**

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