



CLIMATE  
CHANGE  
AGRICULTURE AND  
FOOD SECURITY

# Climate Change Agriculture and Food Security planning workshop

## *Building Food Security in the Face of Climate Change*

*Held at the Sarova Stanley Hotel, Nairobi 5<sup>th</sup> -7<sup>th</sup> May, 2010*



### *Workshop Documentation*

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**This report documents the CCAFS Planning Workshop held on May 5-7, 2010 in Nairobi, Kenya. This report is not finally synthesised, but tries to capture the workshop output in a non-interpreted way.**

**THIS DOCUMENTATION IS MEANT TO BE A REFERENCE DOCUMENT for all participants and is intended to provide details of what transpired. Almost all results of the working groups and plenary sessions are documented.**

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## Foreword by the facilitators

For every assignment we engage in, we take it as a learning process. This workshop was therefore very enlightening for us and we have broadened our knowledge on issues about climate change and food security, specifically the perspectives of the two communities, ESSP and CGIAR.

We would like to thank all the participants for their active participation and dedication throughout the workshop. It was really interesting to note that despite the time limitation and the large size of the group key issues and modalities necessary for the implantation of the MP7 were discussed and a consensus reached on the way forward. We would like to thank all the members of the synthesis group who volunteered to work late into the evening so as to synthesis the outcome outcomes of the discussions for further deliberations by the participants.

Our special thanks also goes to the process steering group, which spent sometimes in reflecting with us the daily proceedings as well as jointly planning with us the next day's process. Without their 'steering and ideas' it would have been difficult for us to navigate through the process and make the 'loose ends meet'. We would like to express our gratitude also to the participants who came when called upon to synthesis the outcomes and helped in categorizing of issues. You have done a wonderful job of bringing together the process that led to the identification of priority areas for CCAFS.

We also like to thank the logistics team who worked in the background in making everything a success. You have made our work very easy and more exciting.

We have really enjoyed working with you all and we wish you all the best as you get ready in developing the MP7 for CCAFS.

Dr. Jürgen Hagmann

Judith Odhiambo



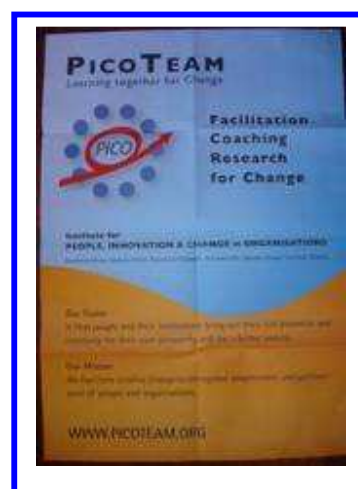
**PICO**TEAM  
Institute for People, Innovation and Change in Organisations  
facilitation - coaching - research for change

# 1 Opening of the Workshop and ‘Setting the Scene’

Bruce Campbell, Director of CCAFS opened the meeting. He thanked the participants for coming to the conference and subsequently attending the workshop in such a large magnitude. He expressed enthusiasm in the workshops successfully achieving its objectives and the anticipated outcome. He then welcomed Jurgen, the facilitator to officially begin the workshop process.

## 1.1 Introduction of the facilitation team and their approach

Jürgen introduced himself and PICOTeam, the organization within which he operates. PICOTeam works on facilitation, change management and organisational development, mainly in the field of rural development, research, extension and natural resource management. He introduced Judith Odhiambo, PICOTeam member who was to support the documentation of the meeting. To enhance effective deliberation and interaction during the meeting, the following core principles and rules were presented as the basis of operation.



### Process steering group

After the introduction of the facilitation team, Jürgen introduced the process steering group (PSG) which is constituted of a cross-section of participants and organizers and will take responsibility in the co-management of the workshop. The PSG will meet at the end of the day to review the process and progress and together plan for the following day. This will harness the best energy of the group and be able to provide room for flexibility to accommodate the interests of the participants as best as possible.

He emphasized that this group is not representing actors but is about co-planning and steering the process, recognizing the different interests of the main stakeholders and adequately represent those in the programme and the content of the workshop. The process-oriented procedure allowed the participants to take an active role, responsibility for success of the workshop and ownership of the outcomes. After introducing the names of the people in the PSG (see the box), he urged the participants to give feedback to the PSG about anything they would like to be discussed.

### Process steering group

Is a mechanism for co-management of the workshop by the participants?

#### Task:

- To obtain feedback from the participants on the content and process
- To plan together with the facilitator the next day in the evening

#### Members:

- |          |          |        |
|----------|----------|--------|
| - Bruce  | Abdullai | John   |
| - Sonja  | Gemma    | Belule |
| - Lim    | Cynthia  | Rani   |
| - Jurgen | Mamadou  | PK     |

## 1.2 Facilitation principles

These three days were meant to be highly interactive and therefore Jürgen introduced to the participants some key facilitation principles that would ensure an atmosphere that allow free interaction by the participants and the facilitators. These principles comprise the core values and some rules for table interaction:

### The core values

**Informality-(relaxed atmosphere with discipline)** Feel at home and relaxed. It means doing away with hierarchies and positions in the organization so as to make everyone equal. If we want a productive but relaxed informal meeting, we should first agree to call each other by first name and drop the titles. Informality also means that we are free to stand up when we feel tired. Discipline basically means keeping time.

**Inclusiveness-** Emphasis was made in fostering the participation of everybody, thus giving priority to the quiet ones to speak up in order to avoid domination by the more articulate participants. This should apply also in the table groups. Always encourage the quiet ones to participate and give their personal perspective.

**Openness, transparency and accountability-** He indicated that there should be no hidden agendas, so he urged the participants to open up and bring everything on the table- it is about open engagement.

**Controversy and confusion for**

**convergence:** you may sometime get confused by design. When we engage confusion may come up, it is ok to get confused. Without confusion one does not seriously search for new ways

**Appreciate the difference in thinking:** We are from different communities with diverse background hence the need to appreciate each other. We might have different level of understanding of the program. There is no stupid question. Participants are encouraged to ask any question, so that at the end of the meeting no one goes home with unanswered questions.

**No defensiveness-** It is not about defending what we do or what we have been doing, but about exploring the issues in depth. The more we do that, the more we will move forward and reach consensus.

**No Jargon-**Use simple words that everybody can easily understand. Feel free to ask questions on what you do not understand.

**Minimal Institutional agenda:** Take a distance from the institutional agenda and focus on the program but useful issues from the institutions can be considered.

**Creativity-thinking out of the box-** Creative and wild ideas are welcomed. We have not managed so far to solve many problems with the way we are doing things. Participants were therefore encouraged to think outside the box- He challenged them to continuously re-assess their perceptions in order to see if there could have new thinking or new way of seeing things,



which will be very useful in bringing new ideas. He also challenged them to challenge and provoke each other at the tables.

**Honesty and Political incorrectness** –People tend to be polite especially when real sensitive issues are discussed. This often makes them articulate issues so coded that one can no longer recognize what is meant. Ultimately the real issues are put under the carpet. Jürgen then encouraged the participants to be ‘political incorrect’ and bring out things on the table, without hiding the real issues. He encouraged them to call a spade a spade and deal with it, rather than being nice and use words that are sweet, but in the end we do not know what it really means and go home frustrated.

### **Rules for the interaction at tables are:**

After the facilitation principles (above), some of the rules for interaction at the table were presented to the participants.

- Sit on a new table every half day with new people (make sure you interact with all the participants). After lunch sit at a different table with new people and find new people. This is much more interesting than to sit next to the same neighbour for 3 days
- Listen much more than you talk
- Only present once. Give everyone a chance to present and express themselves. There should be no professional presenters.
- Encourage the quiet ones; sometimes the quiet ones may have very productive ideas
- Think first individually, then discuss when given group work
- No speeches, be to the point; be short to make a point, make your contributions short so that many people can get a chance to give their points.
- No computers during sessions



## 1.3 Introduction of the Participants

In order to create an atmosphere for free interaction, it was necessary for the participants to get to know each other beyond names and where they come from. To do the introduction exercise, the facilitator requested the participants to sit at the table with people whom they do not work with everyday or do not know very well, and follow the guidelines in the box:

### Participant's introduction

1. **Make sure you sit at a table with people whom you know least!**
2. **Find out from each other:**
  - a) Who are you and where your roots are
  - b) What were the most exciting moments in your personal and professional life in the last six months?
  - c) What excites you most in CCAFs and MP7
3. **Agree together: (3 cards Maximum)**
  - a) What you would like to see happening in this meeting?
  - b) What should NOT happen in this meeting? (5 mins)

## 1.4 Differentiation and 'stand point' on provocative statements

The differentiation exercise is for two purposes. First, it enables participants to visualize the stakeholder representation and its implications on the workshop outcomes as well as implementation of those outcomes. Second, it is used to explore views and opinions of the participants/stakeholders on some otherwise controversial issues related to the theme of the workshop. This sets the platform for discussions with a broader view of the different opinions and feelings among the participants represented. It may also bring out some issues that require more in-depth discussion to reach consensus.

### Differentiation: Who is present?

To get a feel of who is represented in this meeting and how this may have implications on the discussions, the participants were asked to move and stand at a large open space in the room and group themselves according to the different categories, as indicated below:

### Institutional representation

In the table below is what the exercise revealed:

Category	Numbers
CGIAR	± 23
ESSP	07
CCAFS	06

National Systems	03
university	12
NGO	05
Development partners	05
Regional organizations	07
Others (private sector)	4

### **Some observations**

- *Lack of business sector e.g. insurance*
- *Evidence on the lack of RECS*
- *Lack of gender focused organizations*
- *Very few national systems*

### **Implications**

- *National systems are missing*
- *Someone should take the position and provocatively represent gender*

### **CCAFS Development**

This tried to show in terms of numbers those participants who had actively participated in the development of CCAFs to those who had no involvement at all.

Involved                      50%

Not involved                50%

*The differentiation showed a balance in the participants involvement in the CCAFS development which meant that during the session's participants could easily interact at the tables by striking a good balance and learning from each other.*

### **Scientist**

Social                        17

Natural                      Majority

Middle ground            minority (interdisciplinary, systems)

*It is important to look at the representation of the participants at the table in terms of science as it has great impact on what is being discussed.*

### **Observations:**

*By taking away the economists the social scientists are few.*

### **Standpoint on provocative statements**

After getting to know who is represented, some provocative statements were read as a means of initiating debate on some issues related to CCAFS. The statements were read one at a time, and each participant was asked to position him/herself (take a standpoint) in terms of whether

s/he (fully agree; agree a bit, indifferent; disagree a bit or completely disagree). This exercise was used to explore the diversity of opinions with regard to various issues around climate change, and to set the basis for open discussion throughout the entire workshop.

**The statements were read as follows:**

**Statement 1: The mega programs are in danger to produce products which are of scientific credibility but of very little practical use.**

**Fully agree:** Four participants were in favour of the statement citing the following reasons.

- *There is a danger hence the need to think carefully when it comes to producing nice science without concrete examples on the ground.*
- *The fact that developing countries are less represented, there will be a risk of not having contextualized results*

**Agree a bit:** Majority of the participants partly agreed with the statements giving these insights;

- *There is a danger of all the energy being absorbed in inter-institutional relationships rather than beginning from the farmers needs. Need to strike a balance between working together and creating impacts in the farmer lives.*
- *Lack of a convincing case between outreach and implementation hence the need of a clear link to the end user*

**Indifferent:** 10 Of the participants were indifferent because

- *Rate of getting lost in illustrative case studies is very high*

**Disagree a bit:** Reasonably large number participants gave the following reasons for not fully disagreeing with the participants

- *It will produce results of very high credibility that will have practical value*
- *Many stakeholders were involved and their views taken into consideration*

**Disagree completely:** 11 participants were not supportive of that statement giving these reasons

- *Range of partnerships already involved which will cover knowledge generation from much more upstream global modelling scenarios way down to interaction with farmers to research on their perceptions and realities of climate in the future covering the entire spectrum. This will produce knowledge of profound use to a whole range of different communities and its design as a knowledge sharing component*
- *Mindset should be in listening to the end-users' voices and delivering results addressing the end-users' concerns*

**Statement 2: The mega programs not about working with farmers but about working with regional organizations**

**Fully agree:** 2 participants agreed with this statement giving these reasons

Climate Change Agriculture and Food Security Planning Workshop, Nairobi, May 5<sup>th</sup>-7<sup>th</sup>, 2010.

- *Not all issues can be addressed by only working with the farmers but also by bring regional issues on board hence the need to involve regional organizations*
- *In terms of outreach, it is important to work with other aggregate organizations rather than the programme working directing with the farmers*

**Agree a bit:** *An average number of participants agreed a bit with the participants because*

- *Great advantage with putting all the efforts with regional organizations but with representations from farmer organizations rather than focusing on individual farmers*

**Disagree completely:** *Majority of the participants disagreed with the participants giving the following reasons*

- *Need to generate impact that is demonstrated through pilot projects at the local level.*
- *The not in the statement was not favoured because of the importance of working with both the local farmers as well as the regional organizations*
- *Least common denominator is farmers hence the need to work with both parties*
- *Food security goes beyond farmers hence need to look more deeply what food security entails*

**Statement 3: MP7 is primarily science driven and not stakeholder driven**

**Fully agree: 13 participants agreed with this statement citing the following reasons**

- *Being involved in developing the concept were scientists*
- *CCAFS is dominated with science hence it is science driven*
- *Science link is missing hence the need to bridge the gaps*
- *There is a risk in stakeholders to endorse a science dominated scenario*

**Disagree completely:** *Majority of the stakeholders disagreed with this statement giving the following reasons*

- *It is important that science is driving the water base and the stakeholder process has been very imperfect hence the need to work more.*
- *For a strong trans-disciplinary approach, you have to work with stakeholders to articulate different questions and also take a scientific approach to address these questions and continue by setting up a dialogue to look at some of the questions. The questions are society-stakeholders driven but the tools used are scientific*
- *Scientists are stakeholders too*

## **1.5 Understanding agenda and process**

After getting to know each other better; knowing people's stand points on the provocative statements and knowing what participants expectations were in terms of what should and not happen in this workshop, Jürgen presented the anticipated outputs of the workshop and the program overview as discussed and agreed upon by some of the process steering group in the previous day.

### 1.5.1 Participants' expectations and fears

This section explores what the participants' expectation was in terms of what should and should not happen in this meeting. This was part of the introduction exercise where they were requested (per table) to agree and write on cards what should and should not happen. A representative from each table presented these cards in plenary.

What Should happen	What should not happen	
<ul style="list-style-type: none"> <li>• Identify partners not represented in the workshop for future inclusions</li> <li>• Thinking about innovative new ways of working and making research</li> <li>• Identify the gaps of MP7</li> <li>• Converge on what we want to focus on and expectations</li> <li>• Realistic targets</li> <li>• Broke up partners through deadlines with conflicts</li> <li>• Clear plan of linking to the end-user especially farmers but not the civil society, NGO, government.</li> <li>• Productive partnership</li> <li>• Integration of different communities</li> <li>• Include government mechanisms</li> <li>• Define partnerships</li> <li>• Explore networking potential and opportunities</li> <li>• Process for real stakeholder collaboration and ownership</li> </ul>	<ul style="list-style-type: none"> <li>• Have people lose interest and commitment to MP7</li> <li>• Limit partnership to those at this workshop</li> <li>• Discuss substance and avoid institutional positioning</li> <li>• Define research agenda in detail and wait for regional follow-up will small holders</li> <li>• Not knowing what MP7 is not going to do</li> <li>• Leaving unknowns as to the links between MP7 and other MPs</li> </ul>	
<ul style="list-style-type: none"> <li>• Shares Bruce's positive outlook and have the same common understanding about the way forward</li> </ul>		
<ul style="list-style-type: none"> <li>• Clearly defining the borders to cross the boundaries</li> <li>• Acknowledge identify and use research methodologies that exist to facilitate knowledge transfer and identify the end users</li> </ul>		<ul style="list-style-type: none"> <li>• Become too diluted</li> <li>• Repackage everything as climate change</li> <li>• Not turf wars</li> <li>• No reinvention of the wheel</li> <li>• Not just another workshop</li> <li>• Avoiding déjà vu but</li> </ul>
<ul style="list-style-type: none"> <li>• New ideas (out of box) from what currently exists</li> </ul>		
<ul style="list-style-type: none"> <li>• identify major concerns from the regional point of view</li> </ul>		
<ul style="list-style-type: none"> <li>• Good clarity on how thematic and regional organizations is to work and be managed</li> <li>• Clarity about what, where and with whom for getting started with activities</li> </ul>		
<ul style="list-style-type: none"> <li>• Take a step further</li> </ul>		

<ul style="list-style-type: none"> <li>• Alignment of purposes</li> <li>• Define objectives clearly</li> <li>• Define impact pathways</li> <li>• What do we want to deliver</li> <li>• Do be clear on results sought</li> <li>• Concentrate on strategic impact and objectives not on detail planning</li> </ul>	cover some ground
<ul style="list-style-type: none"> <li>• Do want to help get a good document out by Monday</li> <li>• Tangible link and deliverables</li> </ul>	

### 1.5.2 Workshop Objectives

The workshop aims to develop the ingredients for the strategic plan

#### Specific Objectives

1. A common understanding of the framework and approach of CCAFS and MP7
2. Clarity on the value addition of themes in each region and globally
3. Scenario development in each region
4. Agreement on criteria for country/site selection and initial list of sites
5. Vision of impact and impact strategies
6. Strategies for capacity development
7. Mechanisms and processes for decision making
8. Roadmap for follow-up

### 1.5.3 Workshop flow

To attain the output of the strategic planning press, the following steps were presented by the facilitator for discussion and outlined in a logical framework where the process will lead to. The figure below presented the workshop process flow in details

1. What is the conceptual framework?
2. What work is on-going in the region?
3. What are the incentives in the region in term of scenarios?
4. What are then the knowledge gaps, opportunities and priorities for the MP's intervention in view to value additions both regionally and globally?
5. What is the vision and strategy impact?
6. What are then the criteria for selection of sites and actors and how?
7. Who are then the key actors?
8. What are then the capacity requirements and gaps to be addressed?
9. What are the modalities and decision making processes: values and principles?
10. Roadmap for operationalization?

## 1.6 Programme Overview

The programme overview was presented and was emphasized that it will be managed flexibly and adaptively to accommodate the interests of the group and to make maximum use of the time and energy of the participants. In case there is other priority area coming up during the workshop, changes were to be taken into consideration or small task groups can work on such issues. If no major changes occur, the following overview programme will be the basis for the workshop management and facilitation.

Where feasible, other short inputs can be accommodated if they contribute to inform the discussion

<b>Overview Programme</b>				
	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>
<b>8:30</b> <b>Session 1</b> <b>10:30</b>	<b>Opening &amp; 'setting the scene'</b>	<b>Scenario analysis ( regions)</b>	<b>Criteria for site selection and actors</b>	<b>Synthesis and writing</b>
<b>11:00</b> <b>Session 2</b> <b>13:00</b>	<b>Understanding MP7 framework.</b>	<b>Knowledge gaps, opportunities actors</b>	<b>Capacity development</b>	
<b>14:00</b> <b>Session 3</b> <b>15:30</b>	<b>Inventory of on-going work in region</b>	<b>Priority development vision of impact</b>	<b>Modalities Roadmap</b>	
<b>16:00</b> <b>Session 4</b> <b>17:30</b>	<b>Towards building regional scenarios</b>	<b>Vision and strategy for impact cont'd</b>	<b>Next steps Workshop evaluation Closing</b>	
<b>Evening Program</b>	<b>Open Space Discussions</b>	<b>Open Space Discussions</b>	<b>Open space discussions</b>	

## **2 Conceptual framework of the Mega program (MP)**

### **2.1 Overview Presentations on the conceptual Framework**

#### **2.1.1 Proposed CGIAR Mega Program on Climate Change, Agriculture and Food Security**

The following recap was presented by Bruce Campbell, Phil Thornton and Lini Wollenberg

##### **Outline**

- Some history
- Why work on Climate Change, Agriculture and Food Security?
- Proposed R for D program

##### **1. Some history**

- 2002-2003 – Inter-centre working group on climate change → Nairobi meeting; Challenge Program proposal
- 2006-2007 – ESSP-CGIAR prepared new proposal → Stakeholder meetings, regional input → Bali COP announced
- 2009
  - Funds: EU, CIDA, WB, Danida
  - Hired staff
  - Planning/implementation

##### **The New CGIAR**

- Major reforms
- All work to be conducted in “Mega Programs” (MPs)
- Climate Change MP proposed (“MP7”)
- CCAFS asked to lead development
- CP likely to be rolled into MP

##### **Our strategy**

- Make everything we do relevant to the new realities in the CGIAR
  - E.g. High-level meeting with private sector (don't even mention CP – focus on climate change and food security)
- Use on-going implementation to “test” the proposals in the MP concept

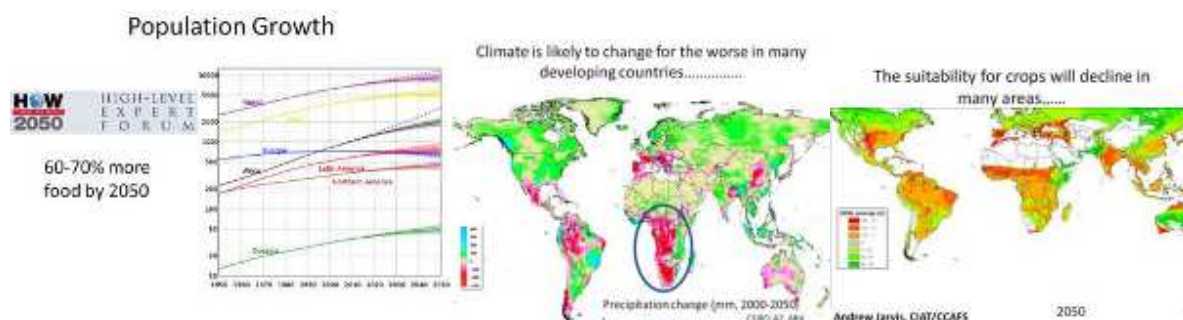
##### **MP proposal development process**

- CCAFS Management Team meet (March)
- GCARD – MP presented to diverse stakeholders (April)
- CGIAR Contact Point Meeting (April)



- Nairobi meeting (May)
  - What are the priorities?
  - Inputs into the implementation in the target regions

## Why a program on Climate Change, Agriculture and Food Security



*“Unchecked climate change will result in a 20 percent increase in malnourished children by 2050”*

## We need

- Agriculture and food systems that are climate-resilient
- Enhanced adaptive capacity

*At the level of households, at the level of landscapes, national levels, regional systems in terms of Policies, technologies, practices, capacity development*



*We don't only need a climate-resilient agriculture; we also need a climate-friendly agriculture*

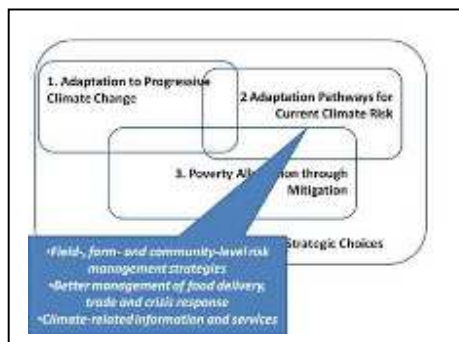
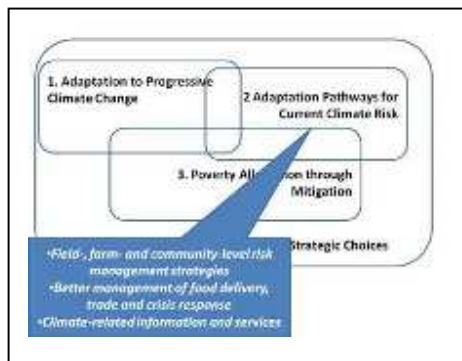
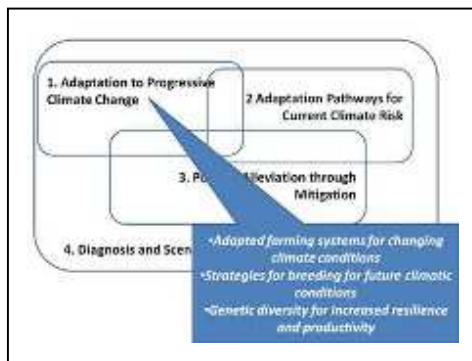
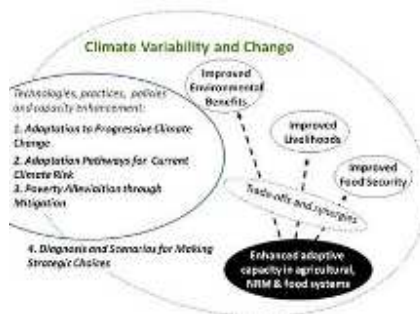
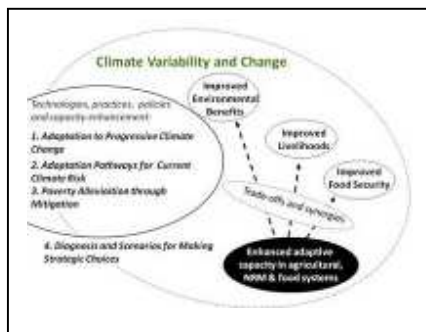
*Agriculture is a major source of GHGs – some 14% of the world's emissions*

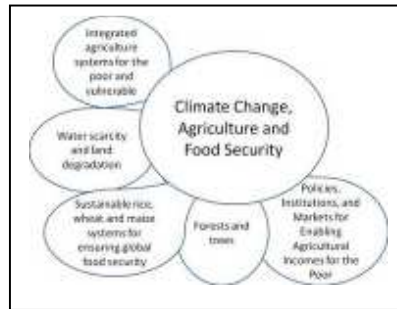
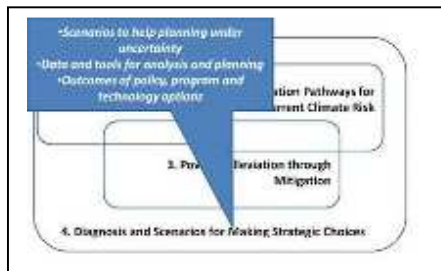
*This brings some threats to developing country agriculture as developed countries turn to products with lower carbon foot-prints; as conversion to agriculture from forest lands is halted, or attempted to be halted*



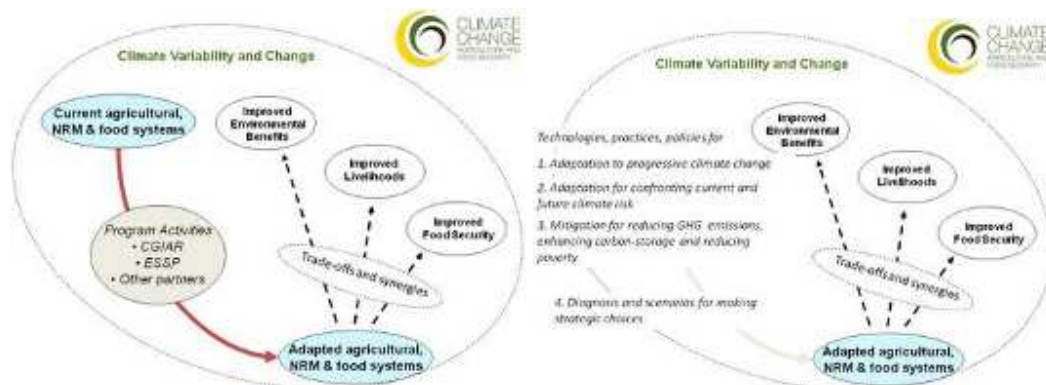
### Proposed R4D program

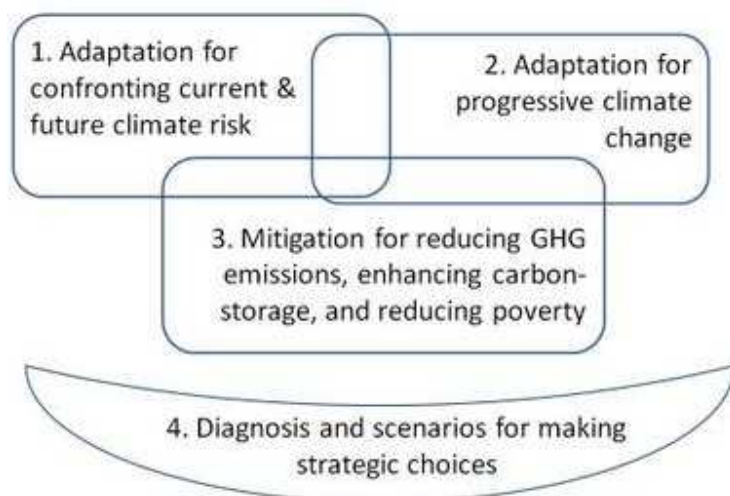
- Objectives
- Beneficiaries
- Thematic focus
- Regional implementation
- Partnerships
- Capacity development





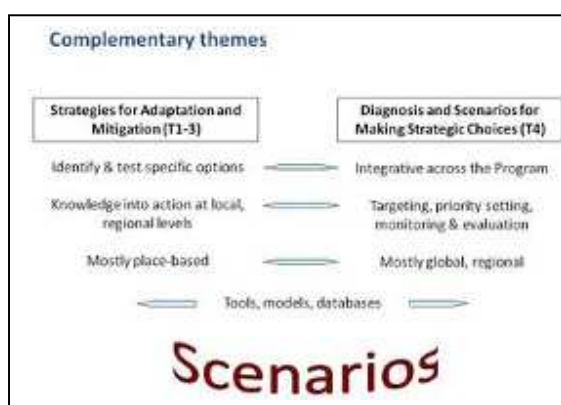
## 2.1.2 Diagnosis and scenarios for making strategic choices





#### **Theme 4: Diagnosis and scenarios for making strategic choices**

- **Provides the analytical and diagnostic framework for MP7 +**
  - Scenarios, vulnerability assessments, integrative assessment tools
  - Baseline diagnosis, monitoring and evaluation
- **Ensures effective engagement of rural communities and institutional and policy stakeholders**
  - Applies principles for linking knowledge with action and strengthening local innovation capacity
- **Grounds MP7 in the policy context**
  - Identifies and evaluates appropriate policy and technology interventions, improving decision-making and information flows



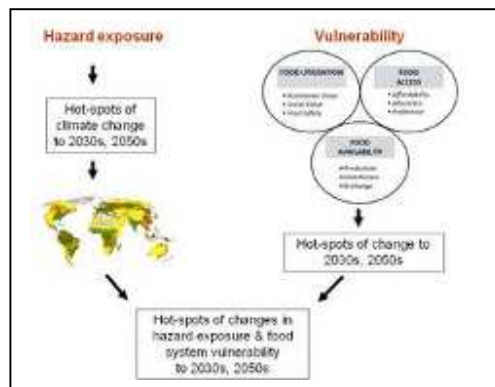
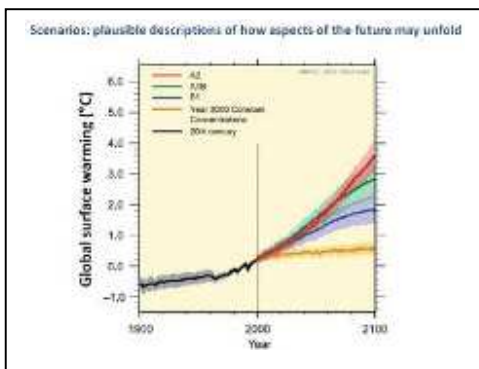
#### **Objective 1: Develop scenarios to help planning under uncertainty**

- **Scenarios** to 2030 and beyond for each target region that reflect plausible agriculture and food security development pathways under changing climate at local and regional levels
- Understand key factors like **vulnerability** of agricultural and food systems with respect to climate change and climate variability, and how it may change in the future

- Teams of **regional and national stakeholders** identified and mobilized to undertake MP7+ adaptation and mitigation research
- **Outputs** to engage other themes, other MPs, other initiatives, in research design, delivery, analysis

**What will the farmers of tomorrow look like?**

- Range of plausible futures
  - Raise awareness of key issues
  - What are key drivers of change
  - Develop stakeholder platforms
- Multi-scale vulnerability assessments
  - Who is vulnerable and why
  - How may vulnerability change
  - Bounded by scenarios
  - Who should be targeted

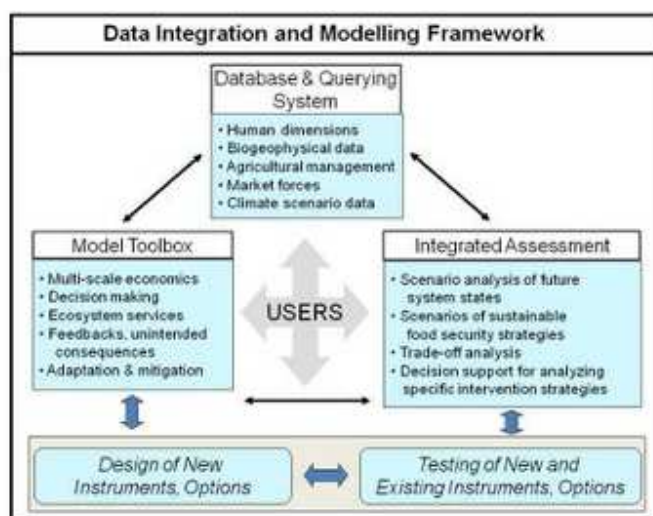


**Objective 2: Assemble, create and build capacity in data and tools for analysis and planning**

- Need a **comprehensive framework** to analyze implications of human responses to the climate challenge → food security, ecosystem services
- Much exists but there are **key gaps** in knowledge of some processes, in model capacity, in high-resolution databases
- Help assemble the **modelling tools and databases** that can be utilized in MP7+ and by national agencies and other stakeholders

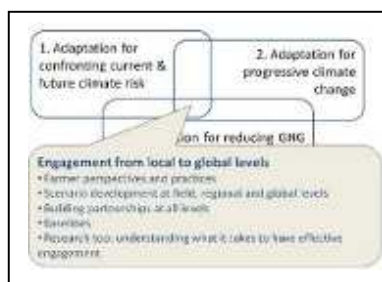
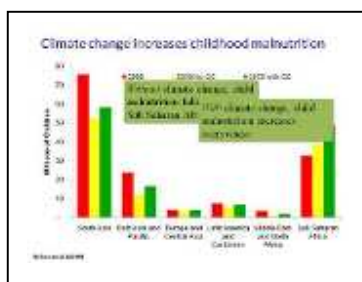
**What's needed to assess trade-offs?**

- Inventories of existing datasets, tools, methods; identify critical gaps
- Bring cutting-edge climate science to bear
- Site characterization and baseline data collation (build on existing information)
- Improve biophysical and socio-economic models and their interactions



**Objective 3: Evaluate outcomes of international, national and local policy, program and technology options**

- Need to evaluate the trade-offs and synergies among environmental benefits, livelihoods, food security for technology and policy options related to risk management, adaptation and mitigation
- Systematic analyses of the interactions + strategic engagement with partners + investments in communication efforts to share the results = better policy and program choices
- Building on the plausible futures in each region, identify promising policy and program options to support adaptation and mitigation, and provide appropriate information products to stakeholders
- Ex-ante analyses of technology and policy options to evaluate trade-offs and synergies
- Present outputs and uncertainties to reflect information needs of different stakeholders
- Integrate socioeconomic, biophysical and technological responses to global, regional, and local consequences of policy choices



**The problem**

- Missing knowledge?
- Or knowledge not linking to actions that tackle our nexus of issues...*(Well, both)*

## The challenge

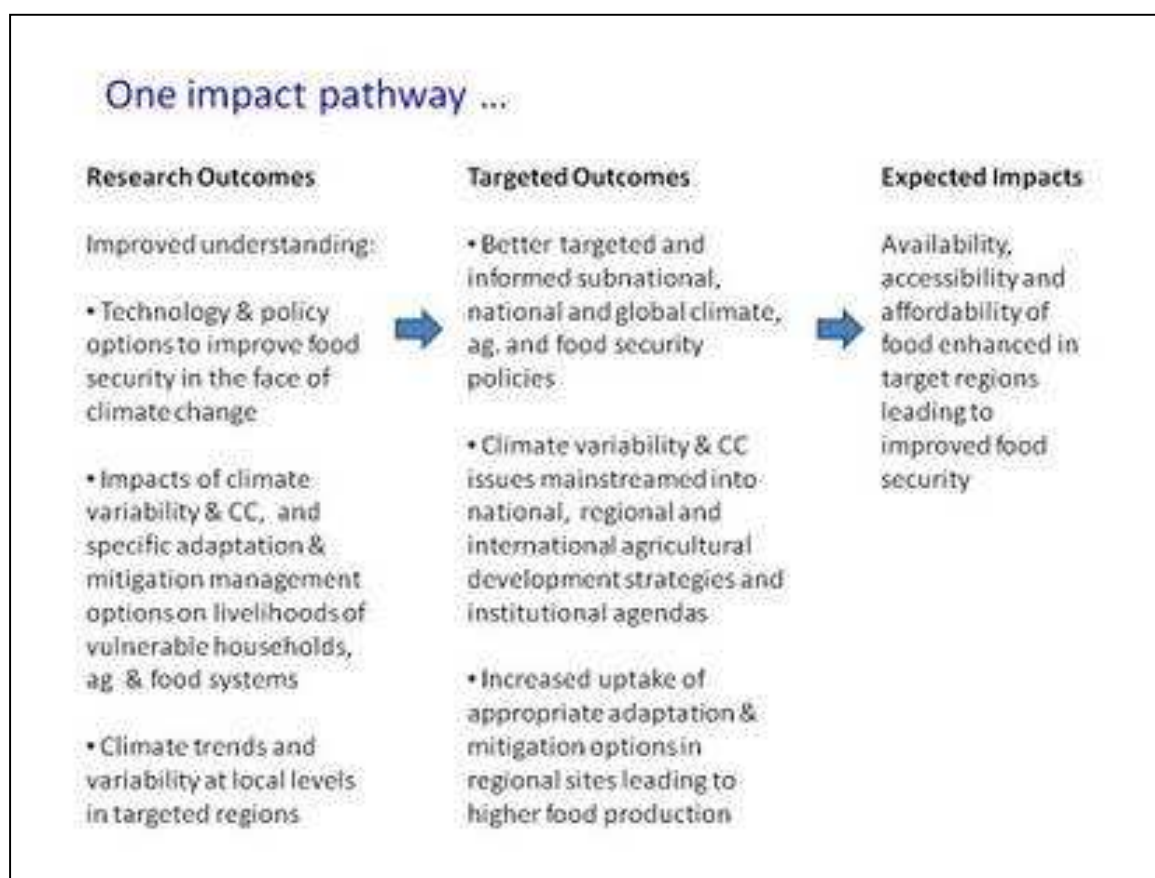
- How do we help increase the likelihood that the knowledge we are 'co-producing' leads to actions that contribute to sustainable poverty reduction?

## The research: Some activities

- Identification and implementation of approaches and tools that improve the functioning and effectiveness of climate- and agriculture-related platforms / networks
- Improved understanding of how vulnerable groups access and use climate-related information and benefit from interventions (e.g. carbon payments), and how their access and use can be improved

## How we do it matters – a lot!

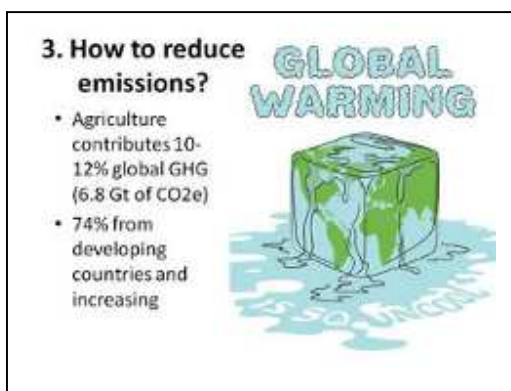
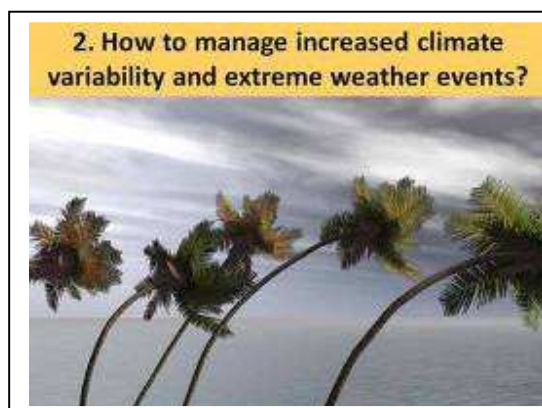
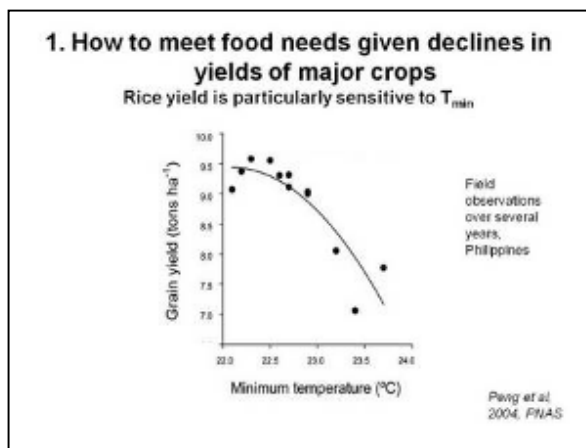
- Outcome mapping/impact pathways exercises with regional partners for integrated engagement and communication plans, and for coming up with strategies for achieving outcomes (particularly joint, higher-level outcomes)
- Dialogues, scenarios and interactive workshops for platform development and building researcher-private-public partnerships
- Students / post-docs across sites – standardized research protocols



## 2.1.3 Towards solutions: Strategies for adaptation and mitigation

### Agriculture, food and climate change:

#### Three challenges



### CCAFS Strategy Themes: Development pathways

1. Adaptation to progressive
2. climate change
3. Adaptation through managing
4. climate risk
5. Poverty alleviation through
6. mitigation

#### Theme 1 Adaptation under progressive climate change

Identify strategies, from household to landscape level, to enhance adaptation to climate change by 2030.

#### Objectives



- Design **adapted farming systems** through the development of improved crops, livestock and natural resources management
- Develop **strategies for breeding** for future climatic conditions, variability and extremes, including novel climates
- Identify and enhance deployment and conservation of **species and genetic diversity** (crops, livestock, fish, trees)
- Integrate the resulting science into National Adaptation Plans (**NAPAS**)

### **Theme 1 Adaptation Sample Activities**

- Develop technologies that enhance adaptive capacity in farming systems
- Identify the potential application domains for agricultural practice and how to best transfer them
- Develop crop-by-crop strategies for crop improvement that ensure future crops are adapted
- Use models to assess crop production constraints and design virtual crops
- Develop methods and tools to identify in and ex situ germplasm with useful traits
- Select adaptive germplasm, for future climate conditions, based on response and farmer preferences

### **Theme 2 Adaptation through Managing Climate Risk**

#### ***Horn of Africa Risk Transfer for Adaptation (HARITA)***

Oxfam, Swiss Re, Relief Society of Tigray, Int. Research Institute for Climate and Society,, Nyala Insurance, and others

Oxfam America (OA) has convened Ethiopian farmers, Swiss Re, the Relief Society of Tigray (REST), the International Research Institute for Climate and Society (IRI), Nyala Insurance, and over a half dozen other organizations to launch an innovative climate change resiliency project

called —Horn of Africa Risk Transfer for Adaptation|| (HARITA). Together, over the last year

and a half, we have worked on designing a risk management package for farmers in the village of Adi Ha, located in Ethiopia's northernmost state of Tigray. The project has broken new ground in the field of climate change resiliency and microinsurance by addressing the needs of smallholder producers through an unusual mix of risk reduction, drought insurance, and credit. Under the HARITA risk management package, insurance complements disaster risk reduction and long-term, sustainable investments in agriculture.

#### **Insurance institutions**

#### **Local and regional strategic food reserves**

### **Theme 2 Adaptation Pathways for Managing Climate Variability**

Develop innovations in climate risk management to protect and enhance food security and rural livelihoods.

#### **Objectives**

- Develop field-, farm- and community-level **risk management strategies** that buffer against climate shocks
- Develop tools and strategies to use advance information to better manage climate risk through **food delivery, trade and crisis response**
- Provide knowledge, tools and evidence to **enhance climate information and services** to meet needs of farmers and other agricultural decision-makers

### **Theme 2 Managing RiskSample Activities**

- Characterize current use, unmet demand and bottlenecks to use of climate-related information
- Work with stakeholders to demonstrate improved local risk management strategies
- Work with food security organizations to develop new response strategies
- Analyze impacts of post-crisis recovery strategies
- Evaluate ICT and institutional information delivery models and create investment strategy
- Develop methods and platform for forecasting of crop and forage production

### **Theme 3 Poverty alleviation through mitigation**

#### **Theme 3 Poverty alleviation through mitigation**

Identify trade-offs and synergies among mitigation, food security and poverty alleviation, while ensuring ecosystem health.

#### **Objectives**

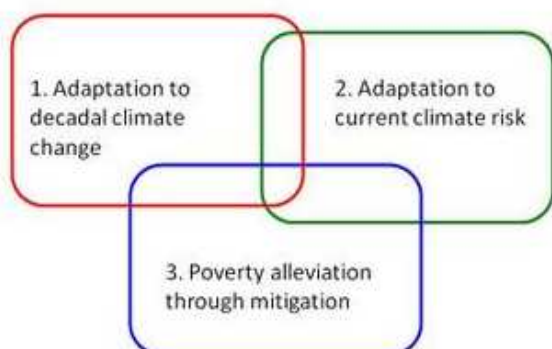
- Inform decision makers about **low C agricultural** development pathways and options for low carbon livelihoods.
- Test **on-farm mitigation** and landscape level implications
- Test **institutions and incentives** that enable smallholder farmers to participate effectively in carbon markets.

### **Theme 3 Sample Activities**

- Model the mitigation implications of
  - Adaptation strategies
  - Agricultural intensification
  - Measure GHG fluxes and develop MRV for smallholders, including landscape level
- Create clearinghouse for emissions data and land use practices
- Identify institutional arrangements enabling collective action among smallholders to participate in C market



## Development Pathways for a Changing Climate

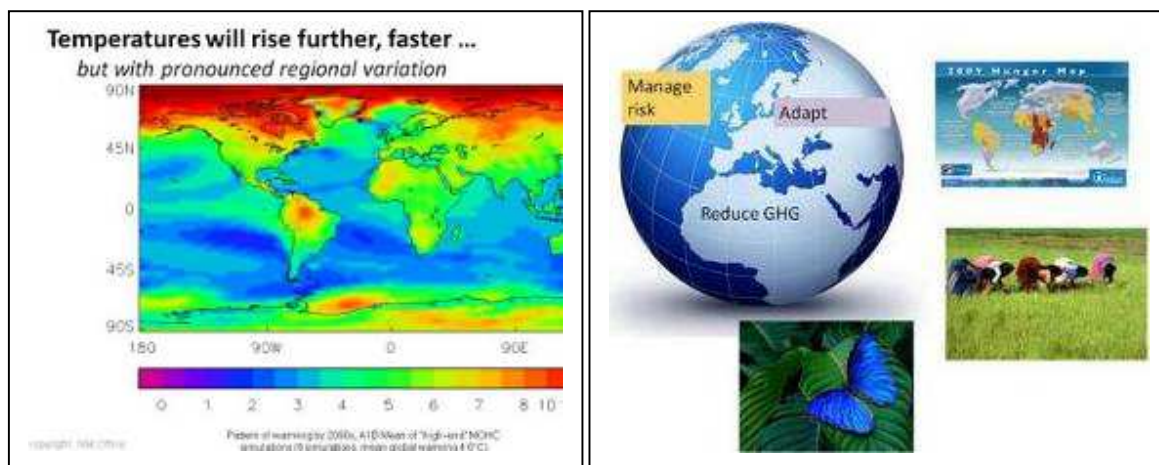


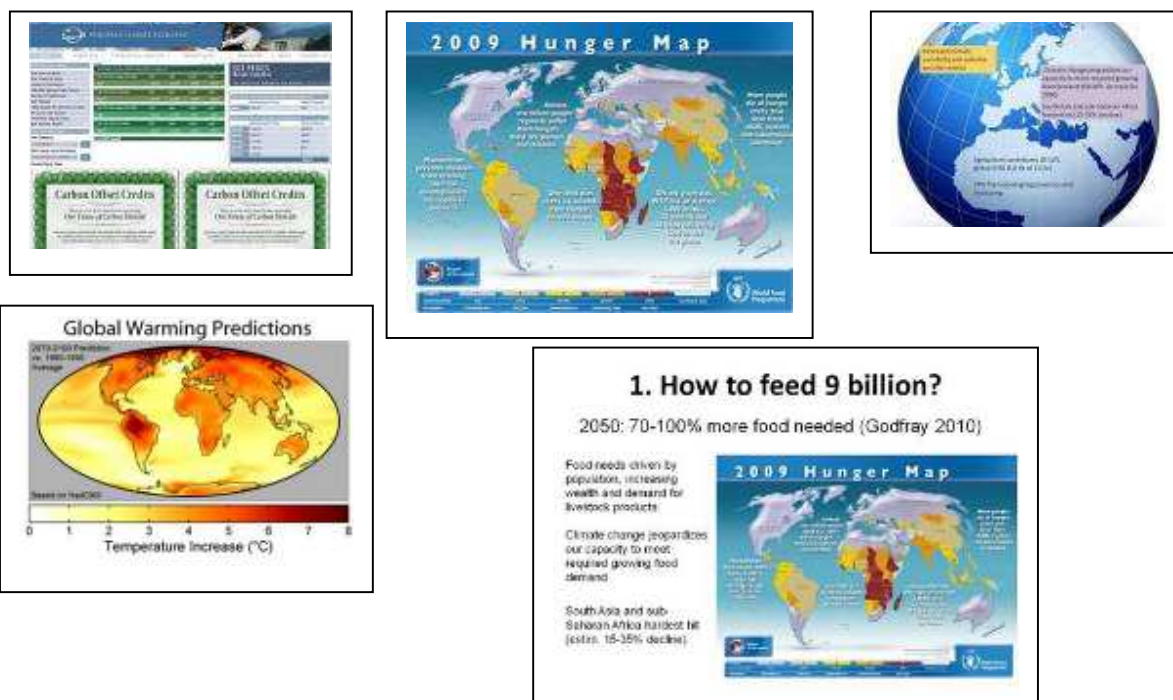
### Synergies among Pathways

- Jointly identify potential development pathways (e.g., intensification, resilience, low C)
- Jointly test hypotheses about long-term impacts, tradeoffs, synergies (e.g., mitigation-based finance for adaptation)
- Common locations, baselines, partners

### Major Outcomes

- Improved National Adaptation Plans
- Improved farming systems at the community level
- Enhanced rural climate information services
- Technical and policy support for innovative agriculture risk management
- Development **investment in low carbon agriculture**
- Carbon market instruments, policies and institutions which can benefit the rural poor, including women
- National capacities and methods for analysis of trade-offs and synergies between adaptation and mitigation.





There are about 800 million poor smallholders farmers in the developing world

### Issues arising from the presentation

**Questions:** How to link with what is already being done?

**Responses:** identify the existing programs with similar agenda and collaboratively pick and continue with what is already going on.

**Questions:** what mechanisms can be incorporated to measure impacts in terms of research outcome?

**Response:** Find what the objective related are to the research outcomes have been met.

- Scenarios being targeted at the regional programmes of where the MP7 is working are Part of the scenario process to help people developing the MAP to innovatively think.

**Question:** What idea do you have in scaling up existing community based adaption?

Idea on

**Response:**

- Need for continuous collection of data that provide information needed.
- We should not focus mostly in poverty alleviation or mitigation but find ways to interlink the two.
- Need to build strong adaptation by knowing the vulnerability of economic scenarios. Emissions come from small scale farmers.
- We are missing the objective of what we really want.

**Questions:** What criteria is there to address the issue of overlapping programmes that are creating other mega programs?

**Response:**

- *Theme 2 is highly subjective to climate risks. The activities are issues that will be addressed even in the absence of Climate Change. It is important to articulate the adding value being given to the activities.*
- *A Monitoring system between the global and the local and a global scenario analysis should be developed to facilitate looking forward in time to address issues. It is important to integrate analysis from other centres e.g. ILRI and also work with national partners to take up the scenario analysis and integrate how they think about climate change issues without starting from scratch. Integration is important in expanding the scenarios in climate and natural resource specific.*
- *Community based adaptation process should good constitute good practice that understand what is existing outside and designing a model to incorporate those issues. Synergy between communities is key in addressing the climate change issues and food security*
- *Market access trial attributes could be used in the improvement of crop models and used to improve the work better*

## **2.2 Analysis of presentations on the framework**

In this session, the participants in the table groups went through the presentations on the framework internalising each theme and analyzed obvious gaps for incorporation into the themes. The table group discussions were guided by the task box below.

Looking at the framework presented, please internalise each theme and analyse if there are obvious gaps you feel need to be added for each theme.

Please write your suggestions on cards (1 point per card) **Max 3-5 cards**



The results of the plenary discussions are highlighted in the table below.

THEME 1
<ul style="list-style-type: none"> <li>• Think more of transformative adaptation e.g. planned migration</li> <li>• Cross regional analogues beyond EA, WA and IGP</li> <li>• Low hanging fruits capture existing international experience and adaptation</li> <li>• Rephrase as adaptation to multiple drivers of change (to lift overlaps with them 2)</li> </ul>
<ul style="list-style-type: none"> <li>• Make water explicit in them 1 and soil management</li> <li>• MP&amp; requests component solutions (e.g. varieties) from other MPs for future scenarios</li> <li>• Emphasis on farming systems beyond breeding (IPM, SWC)</li> <li>• Rural livelihood diversification at farm/ national level</li> <li>• Changing landscape and linked managed and non-managed systems</li> </ul>
<ul style="list-style-type: none"> <li>• Bridging the gap between theme 1 which focuses on future climate change and theme 2 (current CV)</li> </ul>
THEME 2
<ul style="list-style-type: none"> <li>• What is the role of social society networks in managing long term risks to agriculture</li> <li>• Not sufficient focus on new information exchange and knowledge generation systems (E.g. crowd sourcing)</li> <li>• Insurance and forecast based decision aids</li> <li>• Target only systems that are ready for markets and does not work for subsistence systems</li> </ul>

<ul style="list-style-type: none"> <li>• Can MP7 work with and inform disaster management and humanitarian community</li> <li>• Progressive climate risk management and adaptation pathways that addresses adaptation deficit to current climate risks</li> <li>• Climate risk communication missing from information and services. Climate risk communication critical for motivating and educating farmers and others</li> </ul>
<p><b>THEME 3</b></p>
<ul style="list-style-type: none"> <li>• Who wins and who loses fro different mitigation strategies</li> <li>• Not happy with poverty alleviation in front of Theme 3 hence suggestion on the term pro-poor</li> <li>• PA through ecosystem service rather than exclusive mitigation. Ecosystems service co-benefits for mitigation would be more relevant, resilient or sustainability than mitigate above</li> <li>• Gender differentiated analysis of adaptation and mitigation technologies</li> <li>• Mitigation focusing on which parts of farming systems, food systems and future practices is changing the world e.g. bio fuels</li> <li>• We must have power analysis of opportunities but also real threats to smallholders of opening up carbon markets in agriculture in the face of international carbon investors' smallholders' risks being marginalized.</li> </ul>
<p><b>THEME 4</b></p>
<ul style="list-style-type: none"> <li>• Improving uptake and identify impediments of research outputs</li> <li>• Not coherent enough hence the need for clearer functions</li> <li>• Targeting evaluation of impact</li> <li>• It must embrace theme 1-3.</li> <li>• The integration of the themes must be improved and made explicit, this will be the only way to understand all.</li> <li>• How will M7 communicate to and influence UNFCCC, adaptation fund and national adaptation plans</li> </ul>
<ul style="list-style-type: none"> <li>• Modelling early warning, shift, EIDs and livelihoods</li> <li>• Breeding for future climate</li> <li>• Acknowledge importance and establish linkages with other MPs</li> </ul>
<p><b>OTHER CROSS CUTTING ISSUES</b></p>
<ul style="list-style-type: none"> <li>• Outputs vs. outcomes responsibility</li> <li>• Lacking process to make research demand driven</li> <li>• Focus more on crosscutting issues and outputs</li> </ul>
<ul style="list-style-type: none"> <li>• Gender capacity building not reflected in objectives and outcomes</li> <li>• Who will integrate players and managers across sectors and scales? What do we know of the relied successful efforts to do this?</li> </ul>
<ul style="list-style-type: none"> <li>• Food security, livelihood security, poverty alleviation and malnutrition should be used interchangeably</li> <li>• Gene bank equivalent for characterization. Data should be shared among M&amp;E, data quality, stakeholders and teams</li> </ul>

## **Issues arising from the group presentations**

**Questions:** *Based on the basic document, what comments have been taken on board so far?*

**Response:** *most of them have already been taken on board*

*Theme leaders to report back what comments have been taken on board and explain the reasons why some issues have not been incorporated and also look more at the crosscutting issues.*

**Questions:** *Basic research should be of high priority, to what extent does it strategically link to the mega programmes in relation to knowledge generated?*

**Response:** *focusing on the boundaries between mega programs is confusing. It is important to understand that they are overlapping and emphasis on the inputs that are important and give clarity on the level of importance. Need for collaboration between stakeholders and identification of the common denominator that links the mega programmes.*

### **Jurgen Inputs**

*There is no model illustrating how mega programmes operate hence the need to look deeply on the crosscutting issues.*

*The group agreed that the comments will be integrated by the theme leaders.*



### **3 Towards an Inventory of Regional and Global Climate Change Work**

In this step an inventory of the type of Climate Change work in the three regions was developed as basis for identifying complementary and value adding work of the MP at a later stage.

The participants in the regional and national table groups took stock of the regional climate change work building on what has worked, networks involved and persons responsible of various activities. The discussions was guided the questions in the task box below.

#### **Inventory of regional cc work**

What are the major climate change initiatives /work?

- At the regional level: what work, which network is involved, who is in charge?
- Major work at national level: what work, which network, who is in charge

Please limit it ot really important and bigger initiatives and networks

Draw a network map if you feel it helps the thinking process!

#### **3.1 West Africa Group**

##### **INVENTORY OF REGIONAL CLIMATE CHANGE WORK – WEST AFRICA**

The 'West Africa Group' identified major climate change (CC) initiatives/networks at both regional and national levels. For each initiative/network, the type of work and the structure in charge were also identified.

This list may not include initiatives indicated on the one provided by the CGIAR Centers.

No.	Initiative	Description of work	Leading institution	Contact details
1	AMMA ('Analyse Multifonctionnelle de la Mousson Africaine').	Climatology, crop/water modeling, impact assessment in collaboration with 17 African NARES	CIRAD	Thierry Lebel <a href="mailto:Thierry.lebel@hgm.l???.fr">Thierry.lebel@hgm.l???.fr</a>
2	RIPIECSA ('Impact de la variabilité climatique sur les ressources en eau')	Updating the agro-climatic atlas of West Africa	AGRHYMET	Seydou Traore <a href="mailto:s.traore@agrhymet.ne">s.traore@agrhymet.ne</a>
3	ClimDev (ACMAD)		ACMAD	Leonard Njau <a href="mailto:njogunjau@yahoo.com">njogunjau@yahoo.com</a>
4	RANET (ACMAD)		ACMAD	Leonard Njau <a href="mailto:njogunjau@yahoo.com">njogunjau@yahoo.com</a>
5	'DHC' (Crop-water diagnostic)	Water balances under cropping systems in the Sahel	AGRHYMET	Seydou Traore <a href="mailto:s.traore@agrhymet.ne">s.traore@agrhymet.ne</a>
6	Capacity building in climate change curricula	Assisting 35 NARES in 14 African countries	ANAFE	Assétou Dramé Yayé <a href="mailto:a.yaye@cgiar.org">a.yaye@cgiar.org</a>
7	Africa Adapt		FARA	Florence Flint
8	Community Adaptation Program	Community-based adaptation actions in several African countries	FARA - ENDA TM	Florence Flint
9	NARES Adapt		FARA	Nathalie
10	W. Africa Adaptation Climate Network	Capacity building in W. Africa	FARA – World Bank	Mathieu Badolo
11	Carbo Africa	Carbon balances in West African soils	University of Tussah	<a href="mailto:Bombelli@unitis.it">Bombelli@unitis.it</a>
12	Insurance for Cereal crops			

13	Climate BMZ		ICRISAT	Pierre Sibiry Traore <a href="mailto:p.s.traore@cgiar.org">p.s.traore@cgiar.org</a>
14	CC Sustainable Land Management – IFPRI		ICRISAT	Pierre Sibiry Traore <a href="mailto:p.s.traore@cgiar.org">p.s.traore@cgiar.org</a>
15	START – Sibiry		ICRISAT	Pierre Sibiry Traore <a href="mailto:p.s.traore@cgiar.org">p.s.traore@cgiar.org</a>
16	Land Use Land Cover		ICRISAT	Pierre Sibiry Traore <a href="mailto:p.s.traore@cgiar.org">p.s.traore@cgiar.org</a>
17	Carbon Sequestration in soils under cropping		ICRISAT	Pierre Sibiry Traore <a href="mailto:p.s.traore@cgiar.org">p.s.traore@cgiar.org</a>
18	CC Network		ICRISAT	Pierre Sibiry Traore <a href="mailto:p.s.traore@cgiar.org">p.s.traore@cgiar.org</a>
20	ROSELT			
21	OSS ('Observatoire Sahel Sahara')			
22	CP Water and Food			
23	NAPA (National Adaptation Plan of Action)	Assisting in developing and implementing in 16 W. A. countries	CORAF	Abdulai Jalloh <a href="mailto:Abdulai.jalloh@coraf.org">Abdulai.jalloh@coraf.org</a>
24	FFEM-II ('Fonds Français de l'Environnement Mondial').	On-farm management of agrobiodiversity of cereal crops in Mali. CIRAD is the team leader	CIRAD	Thierry Leroy
25	<i>Acacia senegal</i> Initiative for 5000 ha near Niamey (Niger).	Private plantation funded by the Bio-Carbon Fund (Clear Development Mechanism – World Bank).	Brehima Wancoye	Brehima Wancoye
26	<i>Acacia senegal</i> Initiative for 5000 ha	Private plantation funded by the Bio-	DEGUESSI VERT	Baba Siby

	near Nara (Mali).	Carbon Fund (Clear Development Mechanism – World Bank).		
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### 3.2 East Africa Group

No.	Institution	Description of work in Climate Change	Contact person	Contact details
1	East African Community (EAC)	Development of Climate change policy	Dr. N.C. Weggoro Director, Productive and Social Sectors	EAC Secretariat Arusha <a href="http://www.eac.int">www.eac.int</a>
2	Common Market for Eastern and Southern Africa (COMESA) <sup>1</sup>	Policy work under the Alliance for Commodity Trade for Eastern and Southern Africa (ACTESA)	Dr. Cris Muyunda, CEO	COMESA Secretariat, Lusaka
3	Eastern Africa Farmers Federation <sup>2</sup>	Climate Change Policy	Steven Muchiri, CEO (smuchiri@eaffu.org) Mainza Mugoya, Policy Officer (mmainza@eaffu.org)	Tel/Fax: +254 20 4451691 E-mail: <a href="mailto:info@eaffu.org">info@eaffu.org</a> <a href="http://www.eaffu.org">www.eaffu.org</a>
4	Climate Change Adaptation for Africa	Climate change research and development projects, funded by IDRC and DFIF	CCAA Officer at the IDRC office	
5	Institute of Resource Assessment, University of Dar es Salaam, Tanzania	Capacity building and training in Climate change		<a href="mailto:pass@ira.udsm.ac.tz">pass@ira.udsm.ac.tz</a> <a href="mailto:mubayacp@yahoo.com">mubayacp@yahoo.com</a>

<sup>1</sup> The EAFF President is the Chair of the board of ACTESA

<sup>2</sup> EAFF was recently granted observer status by the East African Community, meaning the organization is officially recognized as the lobby voice for farmers at the regional level.

Climate Change Agriculture and Food Security Planning Workshop, Nairobi, May 5<sup>th</sup>-7<sup>th</sup>, 2010.

6	Institute for Meteorological Training and Research (IMTR)	WMO-recognized training department under the Kenya Meteorological Department	Kenya Meteorological Department	
7	Eastern and Southern Africa Regional Meteorological Officer	Conducts an e-learning course on Statistics and Applied Climatology. Hosted by IMTR, and conducted by the University of Reading (UK)	Roger Stern, University of Reading	<a href="mailto:r.d.stern@reading.ac.uk">r.d.stern@reading.ac.uk</a>
8	Government of Kenya Climate Adaptation Initiative under Ministry of Environment		Permanent Secretary	
9	IGAD Climate Prediction and Application Center (ICPAC)	Climate forecasting and community level initiatives. Coverage is the seven IGAD countries + Rwanda, Burundi and Tanzania. Based in Nairobi and hosted by the Kenya Meteorological Department	Director ICPAC, Prof. Laban Ogallo	
10	Cornell University Biochar Project in Western Kenya		Johanes Holfman	
11	RUFORUM Forum of Universities in Eastern Africa	Climate Change capacity building and training	Prof. Adipala, Makerere University, Kampala, Uganda	
12	Adaptation of African Agriculture to Climate Change	Funding organization based in Bonn, German with several programs across the region	Kirtsen	
13	Nile Basin Initiative		NBI Secretariat in Entebbe, Uganda	

14	Columbia University Early Warning System for health			
15	Famine Early Warning System (FEWSNET)		Gideon Galo	
16	CARE International	Regional Africa Adaptation Program. Conducted in the 5 EAC countries – Uganda, Kenya, Tanzania, Rwanda and Burundi	Phil Frank	
17	Arid Lands Resources Management Project under the Ministry of Northern Kenya		Permanent Secretary	
18	USAID Regional Enhanced Livelihoods for Pastoral Areas	Based in Mandera Triangle in Ethiopia.	Walter Knausenberger	<a href="mailto:waknausenberger@usaid.gov">waknausenberger@usaid.gov</a>
19	Livestock Emergency Guidelines and Standards (LEGS)		<a href="mailto:coordinator@livestock-emergency.net">coordinator@livestock-emergency.net</a>	<a href="http://www.livestock-emergency.net">www.livestock-emergency.net</a>
20	National Agricultural Research Organization (NARO) Uganda, based at the Kawanda Agricultural Research Institute (KARI)		Evelyn Komutunga	
21	University of Sokoine, Tanzania			
22	Sphere Project	Steering Committee for Humanitarian		<a href="mailto:info@sphereproject.org">info@sphereproject.org</a>

		Response (SCHR)		<a href="http://www.sphereproject.org">www.sphereproject.org</a>
23	Tegemeo Institute and Egerton University		Director, Tegemeo Institute	
24	African Economic Research Consortium (AERC), based in Nairobi	Initiating a project on Climate Change capacity building		
25	Kenya Irrigation Board, under the Ministry of Water	Irrigation and water management projects	Director	
26	Bill and Melinda Gates Foundation Agriculture Water Management in Ethiopia project			
27	Kenya Private Sector Alliance (KEPSA)	A private sector platform that dialogues with the Kenya government. The Agriculture Sector Working Group is chaired by the Kenya National Federation of Agricultural Producers (KENFAP). KENFAP is engaged in climate change policy and adaptation activities with farmers	Dr. John Mutunga, CEO	<a href="mailto:producers@kenfap.org">producers@kenfap.org</a> <a href="mailto:jmutunga@kenfap.org">jmutunga@kenfap.org</a>
28	KENCALL call center	A private sector initiative. A Kenya farmer helpline, in collaboration with ICPAC.	Anne Kiama	
29	Green Resources	A private sector initiative in Uganda and Tanzania that promotes agro-forestry systems	Office in Dar-es-Salaam, Tanzania	
30	Conflict Early Warning Response Mechanism	Project on Early warning systems that focuses on the Karamoja cluster in		<a href="http://www.cewarn.org">www.cewarn.org</a>

	(CEWARN)	Northern Uganda, Southern Sudan and Somalia		
31	Green Belt Movement		Dr. Wangaari Mathai, Based in Nairobi	
32	Seed company associations;  Uganda Seed Traders Association (USTA), and Seed Traders Association of Kenya (STAK)		Dr. Ruth Sebuliba, Executive Secretary USTA  Obongo Nyachae, Executive Secretary of STAK	
33	IFDC Catalyst Project	Climate change work with farmers in Rwanda, Burundi and Democratic Republic of Congo	Dr. Henk Bremen, Director	<a href="mailto:h.bremen@ifdc.org">h.bremen@ifdc.org</a>
34	Pan African Climate Justice Alliance (PACJA), based in Nairobi	Climate change policy and advocacy work across Africa, with special focus on the Eastern Africa region	Mithika Mwenda, Coordinator	<a href="mailto:mwemithika@yahoo.com">mwemithika@yahoo.com</a>  Tel: +254725756855
35	International Centre for Insect Physiology and Ecology (ICIPE), based in Nairobi	Validation and diffusion of Pro-poor and Pro-Environment Tse-Tse Fly Repellent Technology	Caroline Muya	<a href="mailto:cmuya@icipe.org">cmuya@icipe.org</a>
36	African Union CAADP Africa Forum 2010, organized by NEPAD	Theme of the forum is Climate Change, and the event is scheduled for Ougadougou, Burkina Faso in October 2010.	Ousmane Djibo, Coordinator	OusmaneD@nepad.org



### **3.3 IGP Group**

#### **REGIONAL EFFORTS/ REGIONAL ORGANIZATIONS**

South Asia Association of Regional Cooperation (SAARC)

Three relevant institutions have been set up:

- SAARC Agriculture Centre (SAC) – based in Dhaka, Bangladesh
- SAARC Meteorological Research Centre (SMRC) – based in Dhaka, Bangladesh
- SAARC Centre for Disaster Management (SCDM) – based in New Delhi, India

Rice Wheat Consortium (RWC) has been working on crop development; recently taken up activities towards adaptation to climate change for RW systems

ICIMOD has been engaged in regional programmes including climate change; a few documents available

There have been at least two studies under GECAFS programme

- (i) Characterization of Food Systems in all five IGP regions. And
- (ii) Decision Support System analysis on Food Systems in all five IGP regions (almost completed) – in collaboration with APN

Basin Focal Project for Indo-Gangetic Basin

There have been a number of projects/studies in the past under APN

- (iii) Water Resources and Climate Change in South Asia
- (iv) Agriculture and climate change in South Asia
- (v) Decision Support System analysis on Food Systems in IGP

APN also helped develop regional capacity under CAPaBLE programme on Climate Modelling (Reg CM)

START took initiative to develop regional capacity on Climate Modelling (PRECIS) under its AIACC project

START-led Monsoon Asia programme: a new anthology is now available (December 2009) published from the National Physical Laboratory, New Delhi

#### **BANGLADESH**

- Bangladesh has submitted NAPA in 2006
- A good number of studies available, mostly done by research NGOs
- Bangladesh has developed its Climate Change Strategy and Action Plan (BCCSAP) in 2009
- Working on Second National Communication
- CC has been integrated into the Sixth Five Year Plan (longer term perspective planning)

#### Started Adaptation Financing

- (i) a national committee to look after financing
- (ii) Allocation of US\$100M for 2009-2010 fiscal year
- (iii) A multi-Donor Trust Fund (MDTF) is established, UK government has provided with GBP63M new fund for five years
  - Ministry of Environment and Forest (MOEF) is the focal national organization
  - (contact point: Dr. Mihir Kanti Majumder)
  - Ministry of Planning has been given charge to integrate CC concerns in development planning
  - Research NGOs on Climate Change issues
  - Centre for Global Change (CGC) (CC modeling, adaptation, contact: Ahsan Uddin Ahmed, <[ahsan.us@gmail.com](mailto:ahsan.us@gmail.com)>; <[cgc.bangladesh@gmail.com](mailto:cgc.bangladesh@gmail.com)>
  - CEGIS (Adaptation, contact point: Giasuddin Ahmed Chowdhury)
  - BCAS (Adaptation, mitigation, Contact: Atiq Rahman)
  - IUCN Bangladesh (Adaptation, contact point: Ms Rimeen Firoz)
  - A large number of NGOs have been trying community based adaptation
  - CARE (contact point: Selim Reza Hassan),
  - Oxfam (contact point: Ziaul Haque Mukta)
  - Practical Action (contact point: Ms Veena Khaleque, Country Director),
  - Uttaran,
  - Shushilan,
  - CDP,
  - GUK, ]

#### Two networks:

- Gender network on Climate change (GenderCC) the Asian Focal Point is housed in Bangladesh [contact point: Ms. Sharmind Neelormi, [neelormi1@yahoo.com](mailto:neelormi1@yahoo.com)]
- Campaign for Sustainable Rural Livelihoods (CSRL): A coalition of over 200 NGOs, advocacy on farmers' rights, climate change policy and so on.

#### INDIA

- ICAR network on CC and Agriculture
- 25 partners/members, a number of research programmes (contact point: PK Aggarwal)
- NATCOM programme completed (agriculture is a part of the analysis)
- National Adaptation Action Plan: 8 missions, one involving Agriculture, one on Water Resources
- Low Carbon Development Option looking at mitigation potential
- Strong financing from the GOI: US\$50M in 2009-2010 fiscal year for CC research

#### Institutions:

- Meteorology: IMD and IITM
- Research: ICAR, NDMI, NDMA, NAARM (contact point: PK Joshi)
- NGOs: CSE, TERI on research, PRADAN for adaptation
- Regional research bodies: IWMI, IRRI, CYMMT,....

## **NEPAL**

- NAPA is being developed under the Ministry of Environment (the focal point on CC)
- National Centre for Climate Change has just been initiated
- MOE, MOA, National Planning Commission, NARC, DHM
- ICIMOD is a regional organization, active in research on CC/DRR in the Himalayan region
- WESC
- Adaptation [research/implementation]:
- ISET-Nepal (contact point: Marcus Moench)
- Practical Action (contact point: Mr. Gehendra Gurung)
- NWCF (contact point: Dr. Ajaya Dixit)
- Red Crescent Society
- PCDF (contact point: Benup Aryal, bbaryal@gmail.com>
- Donors involved: WB with its PPCR, ADB with US\$25M, DFID

## **PAKISTAN**

- NAPA is being developed
- GCISC is the national research institution, took part in regional studies [GECAFS studies, APN studies involving water resources, agriculture, food security, ...]
- (Contact point: Dr. Arshad M. Khan; Mr Mohsin Khan for Agriculture and Food Security)
- Ministry of Environment is the focal point and Ministry of Science and Technology is involved on CC issues

## **Issues arising from the discussions**

- *Lack of knowledge on how to have access to the donors' funds to address agriculture and food security projects. It is important to address this at the nation level*
- *Climate change working groups are being taught how to set up stations at national levels*
- *National development bank is as source of loans/grants*
- *Eastern Africa should work more with the green belt movement*
- *CAADP should get on board and organise climate change forum*

### 3.4 Global Group I

Our group began by listing all potentially relevant global organizations or alliances that CCAFS might find relevant.

We then listed 5 types of institutional relationships CCAFS might have with these organizations:

1. Inform and Influence
2. Demand for research
3. Collaboration
4. Use research
5. Getting Funding from

We only had time to identify which of these organizations would be most appropriate for

- 1) Inform and influence and
- 2) Collaboration.

Please use the red and green # for our top choices for influence and collaboration:

Influence #

Collaboration #

UNFCC

- IPCC AR5 2013 (WGII, WGIII) # #
- UN REDD #
- Negotiating process #
- SBSTA ag program

Ada Funds

- AF
- GEF- CDCF, SCCF
- WB: PRCR --> future Copenhagen Green Fund #

G8/G20

- L'Aguila Process → donor principles, foundations (Rockefeller, Ford....)

FAO Committee on Food Security

- Potentially setting up body on food security similar to IPCC #?

GAFSP Global Food Security Program

- Gates Foundation

Private Sector Alliance #

- CROPLIFE
- Sungenta

UN-MDG Review for 2015

UNEP, WFP, IFAD, UNDP # → Global Donor Platform on Rural Dev #

Global Research Alliance on Agriculture GHGs (20 countries)

AGRA Alliance for a Green Revolution in Africa

NGOs

- Oxfam → campaign on food security and climate change 2011 #
- CARE
- Tearful
- Action Aid
- Christian Aid
- Practical Action
- Via Campesina
- Jeff Sachs, Bill Gates etc

### **3.5 Global Group II: Initiatives of Importance to MP7**

Policy Processes: What are the key processes and how can they be influenced?

- UNFCCC-SBSTA work program on agriculture
- Nairobi Work Program for Impacts, Vulnerability, and Adaptation
- REDD, REDD+, and REDD ++
- Agricultural GHG Emissions (Wellington outcome)
- UNCCD
- UNCB
- Adaptation Fund of the UNFCCC

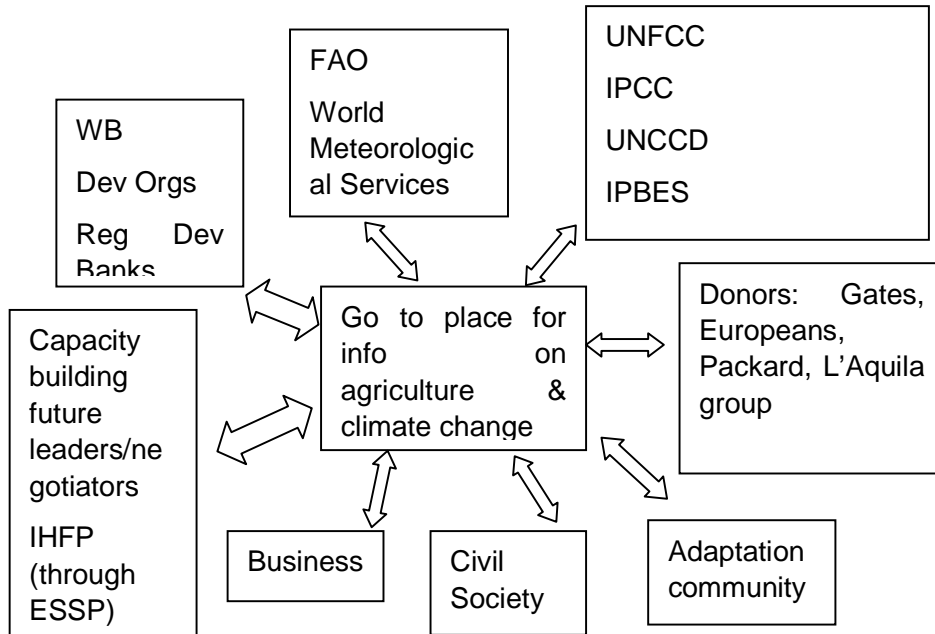
Key question: Should MP7 be a knowledge broker for policy processes?

- This could be very time-consuming. Need to be strategic.
- a) Science Networks:
  - GFAR, CGIAR
  - Earth Science System Partnership (World Climate Research Program, International Geosphere-Biosphere Program, International Human Dimensions Program, Diversitas)
  - Regional science networks (START, Asia-Pacific Network, Inter American Institute)
  - Informal science networks created by projects (e.g. Assessment of Impacts and Adaptation to Climate Change [AIACC])
- b) Knowledge consumers – What are the key questions to answer for major actors?
  - Who is demanding knowledge, what kind of knowledge?
  - (World Bank, Development Organizations, Regional Development Banks)
  - (Others?)

Need to become the “go to” place for information on agriculture and climate change

- Need to communicate in many ways/media
- Need to find sources of knowledge that can inform MP7 efforts (the ‘adaptation community’)

**How could we inspire others to do work on our agenda? Whom?**



## 4 Scenario Analysis within CCAFS

This step focused on the identification of regional uncertainties and analysis of opportunities and knowledge gaps. The Keynote presentation on the scenario concept was an input towards the identification of the regional and global opportunities and knowledge gaps.

### 4.1 Presentation on Scenarios in CCAFSs

**What are scenarios and how can they be helpful for thinking about agriculture and food security in the future?**

*Presentation by John Ingram & Andrew Ainslie*

#### **Agricultural development and food security in the future**

- Over 1 billion people go to bed hungry every day.
- What are the key drivers for future food security?
  - Population growth
  - Economic growth and available income
  - Technologies/practices to produce food
  - Food system governance
  - Climate change and other environmental changes
  - Trade policies
  - Diets and cultural practices around food
  - ...

#### **Why look into the future of agriculture and food security?**

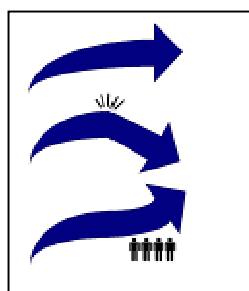
- For strategic planning and decision-making based on expected outcomes and the trade-offs they imply
  - For directing scientific exploration and research
  - For raising awareness among policy-makers and other stakeholders of future climate and food security issues
  - But we need to consider both the sources and level of uncertainty in future drivers, and the causality of changes.

#### **Sources of uncertainty when thinking about the future**

**Ignorance:** Understanding is limited

**Surprise:** The unexpected and the novel can  
Alter directions and feedbacks

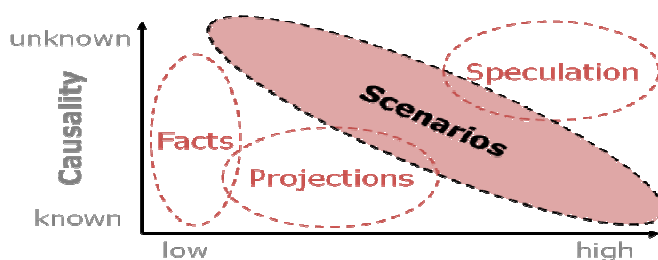
**Volition:** Human choice matters



## How to address uncertainty of future agriculture and food security?

Depends on:

- what we know about **causalities** in a system, and
- the **level of (un)certainty** about future driving forces.



Source: Sweddon-EBR (2005)

## What are Scenarios?

**Scenario development and analysis is an approach** to have a structured discussion / assessment of an uncertain future at a specified spatial and temporal level(s)

**Scenarios are plausible and often simplified descriptions** of how the future may develop, based on:

- An internally consistent set of assumptions about key driving forces and relationships
- Incorporating new factors and alternative human choices
- Analyses using both words and numbers.

**Scenarios are not** predictions, forecasts or projections.

## How do scenarios analyses help?

### Strategic Planning / Decision Support

- To gather different views and to identify issues
- To frame strategic issues and to identify alternatives to support policy development

### Science / Research (quantitative and qualitative)

- To integrate information from different fields, scales and levels
- To explore plausible developments

### Engagement

- To raise awareness among policy-makers and other stakeholders of future climate and food security issues
- To engage civil society, organisations and citizens

## Successful scenarios analyses

- Use an appropriate combination of qualitative (e.g. storylines) and quantitative (e.g. modelling) approaches
- Combine scientific rigour with creativity



- Enhance research and policy agendas
- Are tailor-made to meet the goals of the scenario exercise!

### **CCAFS Goal**

*To promote a food-secure world through the provision of science-based efforts that support sustainable agriculture and enhance livelihoods while adapting to climate change and conserving natural resources and environmental services.*

### **CCAFS scenarios help address this goal by:**

- Improving communication between stakeholders
- Setting boundaries for analyses
- Identifying commonality between CCAFS regions

### **CCAFS Regional Scenarios**

#### **Questions**

- What are the plausible future changes in environmental and socioeconomic conditions that will affect agriculture and food security?
- What elements of global scenarios are most important for regional-level food security analyses?
- How can local actors' best be heard at regional and international levels?

### **Important considerations in the CCAFS regional scenarios exercise**

- Who are the key stakeholders => participation
- How to maximize stakeholder engagement => buy-in
- What are the main areas of uncertainty => focal questions
- What are the main drivers of change => nature of storylines
- What is the optimum qual/quant combination => degree of quantification
- What are the scenario implications => adaptation options
- How to optimize communication and learning => impact

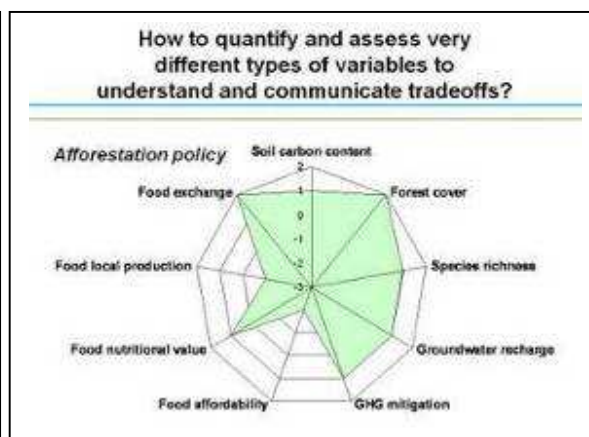
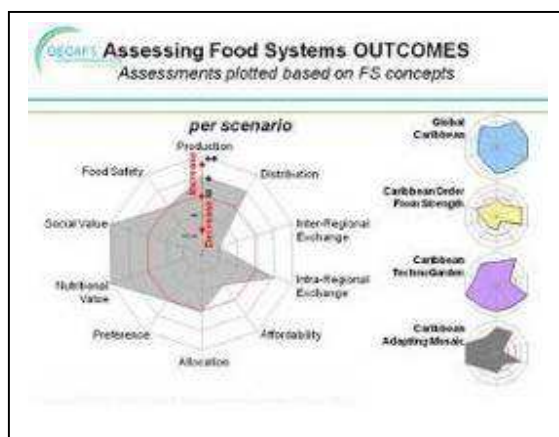
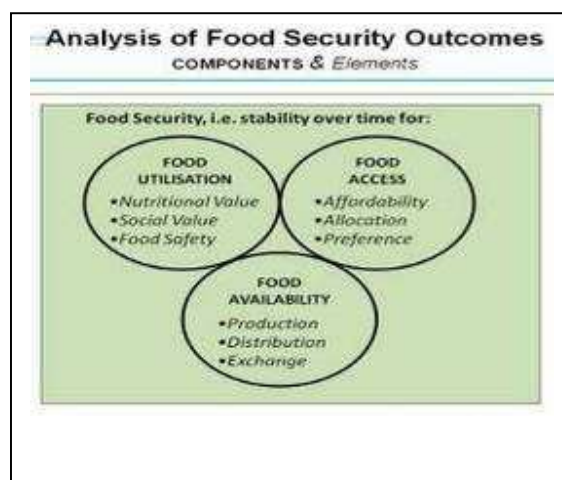
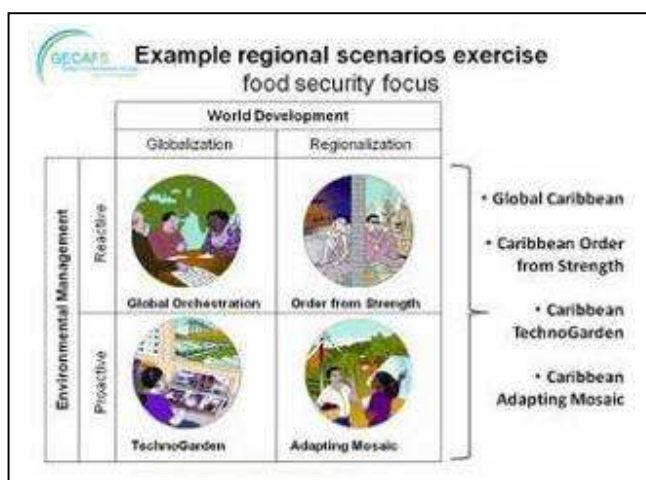
### **Proposed steps**

#### **(Year 1)**

- **Step 1: Identify key regional technical and policy issues** through stakeholder consultation workshops involving CCAFS researchers and other regional stakeholders including policymakers, the private sector and civil society.
- **Step 2: Engage in strategic conversation(s) with stakeholders** in each region to refine the range of questions which the scenarios exercises need to address by consultancies; 1-to-1s:
- **Step 3: Assemble regional teams** to draft sets of regional storylines, based on agreed global drivers exercise, but allowing for regional deviation as needed.

#### **(Years 2-3)**

- **Step 4: Describe, systematically assess, plot and compare developments** per scenario for key agriculture and food security outcomes in expert workshops.
- **Step 5: Quantify developments** per scenario for key agriculture and food security outcomes in modelling workshops.
- **Step 6: Facilitate interactions and learning** between the three regional scenarios teams and explore links to global through interregional workshops.
- **Step 7: Institute procedures to evaluate and learn** from the scenarios activity by commissioning review and assessment of the scenario process.



## Outputs

- **Sets of scenarios that are coherent with global assumptions to ca. 2030 for each target region**, and which reflect plausible agriculture and food security development pathways under changing climate at local and regional levels.
- **Teams of regional and national stakeholders identified and mobilized** to undertake Program adaptation and mitigation research.
- **Concepts and methods, reports, maps and policy briefs, major events at global level** and other interactive activities that can be used to engage the other themes of the

Program, other Programs of the CGIAR, and other stakeholders in research design, delivery and analysis.

### **Anticipated Outcomes**

- Boundaries for regional adaptation analyses
- Conditions within which adaptation strategies can be devised
- Shared vision, understanding and trust within multi-stakeholder regional teams
- Science-practice-policy understanding and communication
- Comparisons between CCAFS regions
- Interactions across CCAFS Themes
- Refined scenarios methodology.

### **Types of scenarios**

- Exploratory or anticipatory scenarios
- Baseline and/or alternative policy scenarios
- Qualitative and/or quantitative scenarios, or a combination

### **Exploratory or Anticipatory Scenarios**

#### **Exploratory scenarios**

- Present -> future
- To explore uncertainties/driving forces/developments
- To test impacts of implementing specific policies

#### **Anticipatory scenarios** (also 'normative' scenarios)

- Present <- future
- To investigate how specific end state can be reached
- To show how to achieve environmental targets

### **Baseline vs. Alternative Scenarios**

#### **Baseline scenarios** (also 'business-as-usual' scenarios)

- Describe a future development / state in which no new policies or measures are implemented apart from those already adopted or agreed upon

#### **Alternative scenarios** (also 'policy' scenarios)

- Take into account new policies or measures additional to those already adopted or agreed upon and/or that assumption on key driving forces diverge from those depicted in a baseline scenario.

### **Qualitative vs. Quantitative Scenarios**

#### **Qualitative scenarios**

- Are narrative descriptions of future developments (i.e. presented as storylines, diagrams, images, etc.).

#### **Quantitative scenarios**

- Are numerical estimates of future developments (i.e. presented as tables, graphs, maps, etc?)
- Usually based on available data, past trends and/or mathematical models.

### **When use what?**

#### **Qualitative scenarios**

- Can build a consistent set of assumptions.
- Allows creativity (not bounded by formal models)
- Can fill in areas where modelling does not exist
- Stories allow for easy XXXX

#### **Quantitative scenarios**

- Brings in quantitative information in areas where knowledge exists [covers complex interactions]
- Restricts outcomes to a possible realm
- Can illustrate messages / communicates well

### **CCAFS Regional Scenarios**

#### **Objectives**

- Improve assessment of the spatial and temporal vulnerability of agric and food systems to CC at regional level
- Improve decision support to address stakeholder needs by
  - Helping identify potential policy and technical interventions for adaptation options to reduce vulnerability to GEC
  - Analysing potential environmental and socioeconomic feedbacks from different adaptation options
- Improve food security and natural resource governance from enhanced awareness and decision making

#### ***A cross-cutting research activity***

##### **Subthemes**

1. Communicating uncertainty
2. Describing plausible futures
3. Framing analyses of adaptation options

## 4.2 Group Work on scenarios and major uncertainties

The working group sessions gave the participants a chance of bringing out key issues in each region and at the global level and gave accountability on individual responsibility in scenario development within the region. The task boxes below guided the discussions.

### Scenario Analysis for the Regions (first session)

1. What are the major uncertainties in drivers in each region? (→ scenario analysis)
2. What are the major knowledge gaps for improving food security in your region?
3. For a detailed scenario analysis in the regions, whom do you need to involve?

BE SPECIFIC AND CONCRETE as much as possible!

Please nominate a rapporteur who writes a [2-3 page summary report](#) for the documentation.

**A short input was provided before the working groups:**

**What are the key drivers for future food security?**

- Population growth
- Economic growth and available income
- Technologies/practices to produce food
- Food system governance
- Climate change and other environmental changes
- Trade policies
- Diets and cultural practices around food
- ...?

**Sources of uncertainty when thinking about the future**

**Ignorance:** Understanding is limited

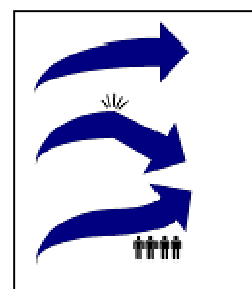
**Surprise:** The unexpected and the novel can alter directions and feedbacks

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**Scenarios are plausible and often simplified descriptions** of how the future may develop, based on:



- An internally consistent set of assumptions about key driving forces and relationships
- Incorporating new factors and alternative human choices
- Analyses using both words and numbers.

### **Successful scenarios analyses...**

- Use an appropriate combination of qualitative (e.g. storylines) and quantitative (e.g. modelling) approaches
- Combine scientific rigour with creativity
- Enhance research and policy agendas
- Are tailor-made to meet the goals of the scenario exercise!
- Scenarios are not predictions, forecasts or projections.

### **Issues arising from the presentation**

#### **Question:**

1. *Does the scenario incorporate the flexibility of new regions coming on board?*
2. *What is the possible use of facts and projects if possible and achievable scenarios are not achieved?*
3. *How do you link up new scenarios developed?*

#### **Response:**

- *Road of CCAFS scenario is different and what is important is building of a team and sharing of information. Like stories they are based on imaginations and this does not mean ignoring what is known but using the scenarios as a guideline.*
- *The scenario does not address the goals of CCAFS if it lacks the engagement of key stakeholders. It is important to identify the users of the scenarios.*

## 4.2.1 Group on East Africa (ASARECA region)

### Report from Polly Ericksen

The group first had a brainstorming session to identify a range of drivers.

We then organized them as follows (this is not a prioritization, just a first effort at aggregating and characterizing uncertainty).

Driver	Uncertainty	Reason for Uncertainty (or lack of)
Increasing temperature	Low	Can model well
Land and financial policy	High	Human volition
Population (number and composition)	Low	Can model well
Migration (? By type)	High	Human volition and policy
Fuel prices (trend, spikes)	Medium	Ignorance (?) Human volition
Economic growth: Food prices, income (poverty, food preferences)	Medium High	Ignorance, human volition, policy Depends on other variables
Infrastructure	Medium	Human volition, surprises
International policy	High	Human volition
Ecosystem services: Water declining Soil fertility decline	Medium Medium	Policy, investment, monitoring, human volition
Political stability	High/ medium	Human volition
Agricultural technology (access and investment)	Low	Current trends
Market development (local, regional, global)	Low	Model; current trends

The group also had a lively discussion about climate change impact out to 2030 versus ongoing climate variability. We agreed that temperature increases were relatively easier to model than precipitation. The lessons we can learn are that managing extreme events is really difficult; these have high impacts on agriculture and food security. Societal adaptive capacity to manage variability is eroding, which is a concern for adaptation to long term climate change. Environmental resilience is also declining, raising concern about tipping points. We also agreed that the impact of climate change depends upon the characteristics of the system and the other stresses/ driving factors.

## 4.2.2 Group on West Africa

### Notes by Mamadou Doumbia

1. The task was facilitated was Andrew Ainslie. The task was to discuss three questions in the group comprised on about ten people from the region and those who are interested in/knowledgeable about the region. It was to
  - (i) Explore the major uncertainties in drivers in the region
  - (ii) To ask ourselves what are the major knowledge gaps for improving food security in the region?

(iii) Who should we involve in a detailed scenario analysis in West Africa?

**2. The group set about this task with enthusiasm. They decided to list the drivers in the region in no particular order as follows:**

- Conflicts over resources, including land and water; also political conflict
- Access to water for human consumption and for irrigation
- Pest and diseases – in relation to both crops and livestock (discussion about whether this should be included under environmental change?)
- Land and tree tenure policies, laws and governance
- Farm sizes are small and decreasing
- Literacy levels that are low and not improving
- Infrastructure: communications (mobiles); markets and roads
- Availability of arable farm land
- Health issues (malaria, HIV)
- Catalytic developmental effect of growing cash crops such as cotton
- Decentralization in governance
- Access to credit
- Resource ownership
- Competing land use/grabbing, including for bio-fuels development
- Soil fertility and land degradation
- Institutional culture, for e.g. top down governance and the distance/disconnect between the ruling elites and the rural poor
- Institutional diversity and the lack of co-ordination among institutions
- Rural people's market access, esp. distance from towns
- The loss of Agro-biodiversity
- Agricultural policies (subsidies, food movement, etc) as a driver
- The growing urban footprint – e.g. the cutting down of trees for firewood to be brought into towns and cities for sale
- Weak governance structures (the lack of political stability in some countries)
- The project of economic integration in West Africa is a driver in the food system
- The generally weak technical capacity of governments in the region
- Population mobility and esp. remittances from immigrants who are working elsewhere
- UN adaptation fund and REDD as a driver in the food system
- Donor agendas are a driver in the agricultural sector and the food system
- The rural exodus/outmigration is affecting farming
- Monetary policy is a factor, esp. in respect of the (artificial) currency strength in those countries linked via the CFA to the Euro
- CAP policy and global energy policies/prices
- Biotech policies – in respect of transferring germplasm between countries
- World food prices
- Safety nets- insurance, bank accounts, government policies and programmes



- Adaptive capacity of livelihood strategies
  - Relatively level of private sector development, esp. in the seed industry and in respect of agric inputs
  - Climate variability
  - Gender inequality
  - Extent of diversification in the economies of the region
3. Some people in the group wanted to spend time on aggregating and clustering the drivers identified. As facilitator, Andrew was reluctant to do so, as it was likely to lead to unhelpfully abstracted 'drivers' such as 'economic', 'governance' and similar drivers. A discussion ensued as to how to prioritize this long list. It was proposed and agreed by the group that some of the 'drivers' listed above were actually just factors. As a group we decided, in the interests of time, not to go through the list to differentiate between drivers and factors. Instead we began to prioritize the drivers. Each person wrote down what for them, based on their knowledge of the admittedly complex and varied nature of West Africa, what the five key drivers are. They then read their choices out and, for the purposes of the exercise, the drivers that got the most votes were designated the key drivers.
4. Following this prioritization of drivers (see table 1), the next step was to rank the **level of uncertainty in our knowledge of the future impact of each driver**:

**Table 1: Key drivers and their ranking by frequency of mention**

*It	KEY DRIVERS	RANKING*		
		H	M	L
	Soil fertility/land degradation	8	3	
	Climate variability specifically around rainfall	9	1	1
	Market access and credit (endogenous economic driver)	2	8	1
	Demography – growth and migration	2	4	5
	Governance (conflict – civil wars, political instability)	8	3	
	Infrastructure (ICT, transport and irrigation)	3	6	2
	<b>OTHER IMPORTANT DRIVERS (not ranked)</b>			
	Availability and access to inputs (include. agric subsidies)			
	Pests and diseases			
	Quality of the science products			
	Technical capacity delivery of knowledge to users			

emerged afterwards that although this definition of uncertainty was carefully explained and the facilitator and one participant gave a total of five examples of what was meant, there was still ambiguity in the way that a few participants responded to the task. The findings of the ranking exercise are thus indicative only.

5. Our group took a more time than expected to complete the ranking exercise, but some good discussion was held, with everyone contributing well. There was much discussion about what exactly 'uncertainty' meant, with trend and impact of drivers being suggested as an accepted way to ascribe uncertainty.

6. The time taken here meant that we were unable to map out what the knowledge gaps are. Nevertheless, the group felt that the ranking of uncertainty (as defined by the group) of the key drivers – despite the shortcomings mentioned above – gave some guidance as to what these knowledge gaps might be.
7. Because the time allocated for the exercise was virtually over, it was not possible to introduce the notion of a major shock (such as a long-term drought) to get participants to think about what this would mean for food security in the region.
8. The final part of the session was taken up with people **identifying institutions and individuals in the region who should be involved in the scenarios work**. These included:
  - Climate science community – Agrhymet, ACMAD, DHNMs, universities
  - “Club du Sahel” – CORAF (West & Central African Council for Agricultural Research and Development)
  - ECOWAS
  - Farmer organisations in the countries of West Africa
  - IRD, CIRAD, European universities
  - ICRISAT, AfricaRice, IITA
  - ANNA (Africa Network)
  - National focal points for the IPCC and the UNFCCC
  - Private sector – commodity organisations
  - National climate change committees, where they exist
  - Key NGOs for disaster reduction, rural development, etc
  - Ministerial representatives and parliamentarians, but have to choose carefully.

**9. Lessons from the exercise:**

- a) It is critical to keep big variations between and within countries in the region in agro-ecological systems and drivers.
- b) Because of this variability, trying to aggregate drivers proved difficult for our group. Also, the task of differentiating between ultimate and proximate drivers was not attempted.
- c) Scale is clearly a factor for some drivers: external (global) and internal (regional or even national) drivers. In general, the group did not do well in identifying what global driver’s impact on West Africa now and in the future.
- d) A discussion revealed that participants do not always find it easy to distinguish between drivers of change and contextual factors. A few participants felt that climate to 2030 was not a driver in the region, but a contextual factor.
- e) Some participants were not keen to isolate single drivers, feeling instead that it is the way that different drivers interact with each other that is
  - (i) Important and
  - (ii) Complex and difficult to model.

It was clear that participants in the group had different understandings of terms and concepts that are in fairly common use.

With regard to the ranking exercise, it emerged that a few participants had confused the notions of 'importance' of a driver and the level of uncertainty about that driver's impact.

### **4.2.3 Group on IGP**

The regional scenarios groups were charged with addressing two major content issues and also asked to identify stakeholder groups to be invited to join the scenarios activities.

#### **Specific questions were:**

- What are the main issues (major uncertainties) for each region in relation to future CC, agriculture and food security up to ca. 2030?
- What are the major knowledge gaps for improving food security in your regions?
- Who (organizations & individuals) should be involved in scenario development within each region?

The group started by noting the major gradients across the IGP, with productivity and economic growth, seasonal water availability, land holding size generally increasing from East to West; and poverty and population increasing from West to East.

#### **Major food security drivers**

These include:

- Population growth
- Economic growth and available income
- Technologies/practices to produce food
- Food system governance
- Climate change and other environmental changes
- Trade policies

It was noted that these are likely to be generic across all regions but that in the case of the IGP all these drivers are increasing in intensity and the interactions between them are of critical importance.

It was also noted that across the region as a whole, economic growth, urbanization (and urban waste) and inequity is increasing while the production environment is decreasing. Despite a large dependence on agriculture, it is stagnant. This is despite the fact that fertilizer use is increasing (which is leading to water pollution and greenhouse gas emissions) and agribusiness is growing rapidly. There are however marked differences locally and due to the gradients across the region.

Looking forward over the next few decades, key drivers (and thereby food security challenges) are likely to include changes in climate mean and variation, continued decreases in the production environment, population demand, deepening urban/rural economic divide but incomes generally rising. Changes in the consumption basket are anticipated to move towards more animal and dairy products.

The food security challenges include land degradation and water, climate change, urbanization and urban waste.

Food security in the future may therefore have to be based on a shift from agriculture to non-agriculture incomes, exploring global markets more effectively, promoting equity, diversification to more fruit and vegetables and enhanced environmental management.

**Key drivers of food security** were assessed for current trends (increasing, decreasing, and level) and (ii) how CC is anticipated to effect current trends. Confidence markings were assigned: H = high; M = medium; L = low? Uncertain. Trends in the governance of food systems were not discussed due to time constraints.

Key driver		Current Trend/Confidence	Effect of CC on Trend/Confidence
Demand	Population	↑/H	H/?
	Ag-related Incomes	↑/M	↓/L
	Non Ag-Incomes	↑/H	?
Trade	Intra-regional	↑/H	?
	Extra-regional	↑/M	~/?
Access to food	Affordability	↑/M	↑/L
	Physical	↑/M	↓/L
Agro-Technology	Development	↑/H	↑/H
	Adoption	↑/L	↑/L
Market Infrastructure		↑/M	↑/M
Energy cost		↑/H	↑/L
Water cost		↑/H	↑/M

Key agric factor		Current Trend	Impact of CC on Trend
Cereals	Wheat	↑/H	↓/M
	Rice	↑/L	↓/L
Other crops		↑/M	↓/L
Dairy & L/Stock		↑/L	?
Productivity in High potential areas		↓/M	↓/L
Productivity in low potential areas		↑/M	↓/L

**Key uncertainties** relating to how climate change will affect the current trends concerned Non Ag-Incomes, and Intra-regional and Extra-regional trade.

A wide **range of food system actors** were identified as being necessary for a full discussion on food security into the future:

- Farmer organizations
- Local government
- Extension agencies
- Marketing/food chain business sector
- Researchers
- Research organizations
- Federations of commerce and industry
- NGOs
- National Government
- ICT industry
- Media
- Journalists/story writers
- Fertilizer and agrichemical industries
- Irrigation sector
- Met services

Priority actors will need to be identified, at least for initial interactions and scenarios design.

## 5 Towards possible impact and strategies for the regions

This second step, building on the scenario work in the morning, developed a vision of the desired impacts of the MP at global, regional, national and field level by assessing possible impact and strategies. The guidelines in the box below were used to for the assessment of core impact areas and prioritize strategies to reach impact.

### **Vision of impact and strategies for the Regions (second session)**

**First a scenario of a '2 degree world' was provided to each group in order to really see the differences, then the groups were to work on the following questions:**

1. Building on the scenario discussion, what are the major opportunities for MP7 impact in the region in view to value addition (come up with the major impact areas you envisage)
  - a. What do you really want to achieve in your region with this programme?
  - b. What are then the key indicators for success in your region for the MP7
2. Whom do you need to influence strategically to make this difference?
  - a. Who are the most critical actors / networks to influence in your region level?
  - b. What would these actors be doing or doing differently if you are successful? (please be very concrete in what they would be DOING differently)
3. How: what are the most promising influence / impact strategies to reach these aims?
4. With / through whom:
  - a. How would you implement these influence strategies: with whom to work, through whom /which networks?
  - b. Who would play which role, and what would be the role and direct contribution of MP 7? (come up with a clear 'vision' on how this would work out)
5. What products do you require to foster this influence?
  - a. Which innovative products do you require in the next five years and you can realistically deliver on – within the MP7 mandate and value addition?
  - b. Which innovative products do you envision to deliver in a time frame of 5-10 years if things go really well?
6. What is then the real value addition by and strategic advantage of this programme?

**BE SPECIFIC AND CONCRETE** as much as possible!

## 5.1 East Africa Group

### We considered three systems:

- Highland perennial
- Lowland mixed cereal-based/mixed – most closely linked to food security at an aggregate scale, but not necessarily the most vulnerable to the assumed climate change
- Pastoral

### Assumptions:

- Climate scenario: +3°C, +25% precipitation
- Population increase 2.5-fold
- Significant rural-urban migration

### Challenges:

- Increasing food demand / declining per-capita landholdings
- Increasing pest pressure
- Changing cultivar adaptation



Given the objective of reaching plausible impact pathways within the time constraint, we decided to focus on the lowland cereal-based system, and cereal germplasm selection and delivery under a variable and changing climate.

### Further assumptions for this system:

- Significant urbanization
- Average farm size reduces
- Addressing increasing food demand requires a pathway toward intensification:
  - Increased production input access and use
  - Improved seed systems
  - Investment in transportation infrastructure
  - Improved pest-disease control

### MP7 can inform germ-plasm targeting, breeding, foster adaptive seed delivery systems

#### Target outcomes:

- Selection of best-adapted cultivars on-farm.
- Responsive local seed distribution.
- Process for matching germplasm to changing climate adopted by seed producers/suppliers.
- Climate-informed breeding for future stresses.

#### Critical actors for seed systems

- Seed supply system:
  - Distributors
  - Producers
- Farmers: Help evaluate/identify preferred cultivars, e.g., through seed fairs, trials
- Farmer intermediaries (NGOs, agricultural extension, private sector):

- Testing
- Distribution
- Need capacity-building
- Climate information providers (NMS, RCCs, RCOF, communication intermediaries)
- COMESA: to address restrictions on moving germplasm between countries.

### **MP7 interventions:**

- Research and capacity-building on climate information products, services, delivery
- Tools and analyses for matching cultivars to variable and changing climate impacts
- Framework and tools for decision-making under uncertainty
- Pilot testing with farmers, other local actors
- Research and decision support on climate-resilient portfolios of cultivars
- Develop framework for analog location research:
  - Modeling
  - Collection, testing of materials
  - Extrapolation
- Evidence base for advocacy

### **Following up on evidence base for advocacy in the context of adaptation funds:**

1. Adaptation funds have technical/scientific advisory committees. Need to focus on them. Also, lobby the World Bank VP who is responsible for CGIAR, as WB is responsible for adaptation funds.
2. Need to link global/national/regional, i.e. NAMAS and other processes that will influence the deployment of adaptation funds
3. Need a way to provide a check on gender: of 30 adaptation funds checked (pages available on web), only 2 mentioned gender. Both the national processes for development of products and the criteria for evaluation need to include a check against gender.

## **5.2 West Africa Group**

**The group first recapped the results of the morning sessions and then moved on to the second round, based on the scenario:**

### **KEY DRIVERS FOR CHANGE**

Selected drivers were suggested for their potential impacts on future food security. These drivers included:

- Population growth
- Economic growth and available income
- Technologies/practices to produce food
- Food system governance



- Climate change and other environmental changes
- Trade practices
- Diets and cultural practices around food

Additional drivers were included by the West Africa Group:

- Land tenure and farm size
- Land availability, accessibility and affordability
- Health issues (malaria and HIV)
- Land use and land grabbing
- Resource ownership and decentralization
- Access to water (irrigation and drinking)
- Land degradation
- Access to credit
- Infrastructures and ICT's
- Distance to major cities
- Technical capacity of extension services
- Political stability
- Adaptation funds (REDD, AFOLU, etc.)
- Donor's agenda
- Rural exodus/migration
- Value addition and transformation of agricultural products
- Degree of private sector development
- Climate variability
- Gender empowerment
- Economic integration (regional)
- Monetary/currency policies
- Biotechnology policies
- World food/energy crisis
- Ag subsidies
- Remittance and income from immigrants
- Resilience (based on climatic gradient)
- Local diversity of germplasm (agro biodiversity)
- Common Agricultural Policies

## **PRIORITIZATION OF DRIVERS**

The above drivers were ranked in terms importance (the magnitude of their impacts). The selected drivers were ranked in terms uncertainty (Low, Medium, High), as indicated in the following table.

<b>Key driver</b>	<b>Uncertainty level</b>
Soil fertility/degradation	Low

Climate variability/water availability	High
Market access/credit	Medium
Demography/migration/immigration	Low
Governance/policies/conflicts	High
Infrastructures/ICT's/roads	Medium

## **ANTICIPATED CHANGES**

**The 'West Africa Group' identified key drivers for food security for Year 2050, given the following changes:**

- Temperature: + 4o C
- Available water: - 30%
- Soil fertility: - 30%
- Governance impact: High
- Infrastructure: Low
- Urbanization: 80%

**The potential impacts of the above changes were evaluated as follows:**

- Losses of crop and livestock
- Civil strife
- Increased pests and diseases
- Losses of agro-biodiversity
- Shifts in production systems
- Changes in eating habits
- Regional conflicts over NRM
- Increased food supply to urban areas
- Rural labor shortage
- Persistence of subsistence agriculture
- Intensification of urban agriculture
- Increased food import/aid
- Rise in immigration
- Increased poverty
- Increased malnutrition
- Losses in forest areas
- Abandonment of agriculture in some areas

## **OBJECTIVES AND EXPECTED OUTPUTS**

To offset these impacts objectives were sets as:

1. Maintaining NR base
2. Increasing the productivity of available NR
3. Improving food supply system
4. Set safeguard for disaster years
5. Improving livelihood

Expected outputs of each objective were estimated:

### **Objective 1: Maintaining NR base**

- Reduced runoff and increased infiltration by 30%
- Increased water storage by 30%
- Maintained biodiversity
- Restoration of SOM by 40% in 5 years
- Increased tree density by 5%
- Reduced rate of deforestation
- Increased energy substitute by 30%.

### **Objective 2: Increasing the productivity of available NR**

- Increased system level of water use efficiency by 30%
- Improved tactical decision making (50% of producers will be using agroclimatical information)
- Increased mechanization of farm operations (doubling output per capita)
- Increased nutrient use efficiency by 10%
- Increased rate of adoption of agricultural technologies by 25%

### **Objective 3: Improving food supply system**

- Increased regional trade (reduced barriers)
- Increased food processing chains (strengthened agribusinesses)
- Improved market information system

### **Objective 4: Set safeguard for disaster years**

- Insurance extended to agricultural production (climate index based)
- Increased grain reserve and effective distribution system
- Strengthened early warning system (lead time and accuracy)
- Production diversified

### **Objective 5: Improving livelihood**

- Increased ecosystem facilities and handicrafts by 300%
- Increased renewable energy enterprises
- Increased literacy rate by 25%
- Increased employments in industries/services (non agricultural).

## **ACTORS NEEDED FOR IMPLEMENTATION**

The following stakeholders groups' need to collaborate for implementation:

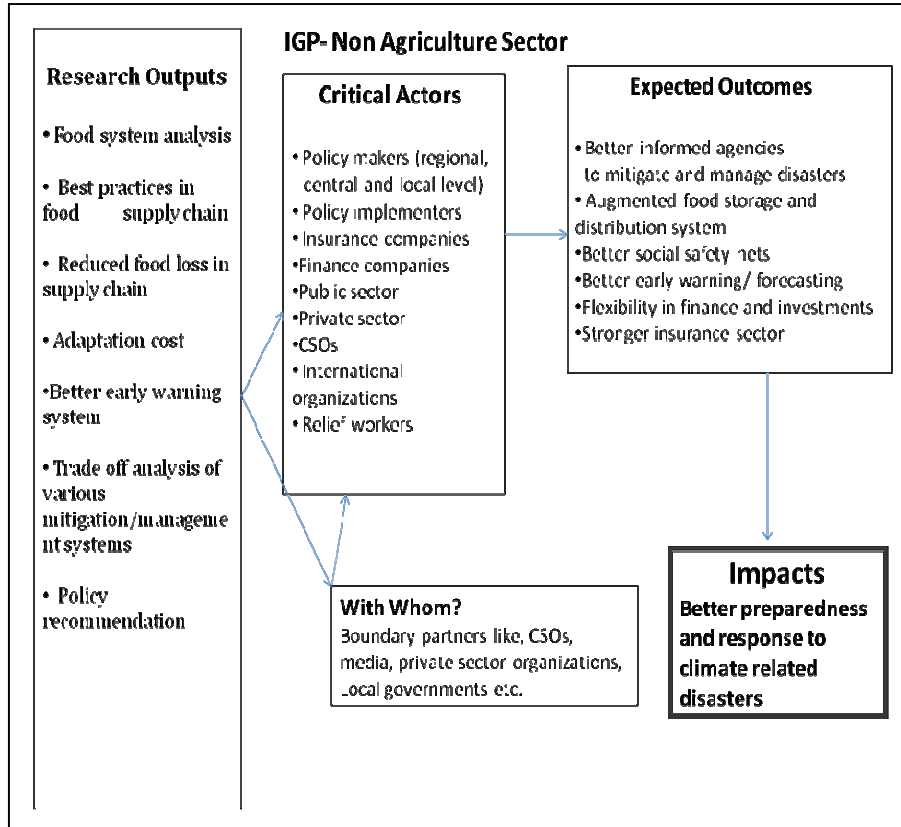
- Government branches
- Technical services for teaching, research, and extension
- Private sector for extension, supply and buying
- Producers (including non agricultural sector)

## **CONCLUSIONS**

Major observations were made the key drivers produced during the plenary session. These comments included:

- The objectives and outputs described were found to be too general and not yet concrete. The West Africa Group should have selected few objectives and had addressed them in more details.
- The carbon market was not included in the key drivers in any of the regional groups. However, it seems clear that carbon market will be more a reality.
- Common factors were found in the outputs from the regional groups. Yet, as the impacts of these factors vary different per region, they were addressed differently within each group.

### 5.3 IGP Group: Non Agriculture Sector



## 5.4 IGP Group: rural sector

### Notes by Holger Meinke

*Scenario: Improve food security across the IGP from a rural perspective in a world that is 4 deg warmer, 30% drier, incomes have doubled and labour costs have quadrupled*

Assuming continued population growth, water will be the most important and constraining factor in such a world. To maintain or even increase production will require substantial (water use) efficiency increases. The group considered four key innovation strategies that need to be implemented concurrently. The first strategy addresses the major blockages that need to be removed before the more technologically focused strategies 2 to 4 can take effect. Each strategy must be underpinned by a range of enabling and transformational technologies (including knowledge-based technologies).



#### 1) Improved Human Capital: Creating an enabling environment through knowledge systems

The biggest issue that currently impedes innovation pathways is a lack of public and policy support to implement available managerial and policy instruments needed to achieve substantial increases water use efficiencies. Water is currently freely available and electricity for water pumping (for irrigation) is either subsidised or free. Hence, there are no incentives in place that encourage good water management or create an environment for investment in new irrigation technologies. This is largely a political issue outside the realm of science. Often such issues are best addressed through education campaigns that enable civil society and the farming community to engage in debates about policy implementation strategies and reform energy and water pricing policies.

#### 2) Increasing water use efficiency

Crops and animals require water. With 30% less water available for irrigation, production can only be maintained or improved if the available water is used much more efficiently. This requires a systems approach, whereby water use efficiency gains must be achieved at all scales: from river-basin to catchments, communities, farms and fields. Only such an integrated approach is likely to deliver efficiency gains in the order of 50 to 100% which are feasible at least in some parts of the IGP. Many of the required technologies are readily available but need to be deployed (see 1 above); in this context the group considered it useful to distinguish between enabling (E) and transformational (T) technologies; below are some examples:

- Transparent monitoring and reporting of water use (T)
- Equitable water allocation policies (T)
- Improved water management systems at catchment levels that minimise evaporative losses and leakages (E)

- New irrigation systems (e.g. moving from flood irrigation to trickle irrigation systems) (E)
- Changes in cropping systems, e.g. AWD rice (T)

3) Diversification as a risk management strategy

Diversification is one of the key strategies for dealing with variability and risk. Considerable scope exists throughout the IGP to, for instance

- Convert or reduce rice areas to other crops
- Introduce the production of fish in water bodies used for irrigation as an additional source of income and protein
- Increasing the off-farm income for farmers, thereby mobilising additional capital for on-farm investments in efficient technologies

4) Intensification as a means to increase partial factor productivities

There is need to improve current systems through the introduction of a wide range of innovations such as more stress tolerant crop varieties, mechanisation, minimization of post-harvest losses, soil fertility maintenance and knowledge-based technologies e.g. seasonal climate forecasts. Such intensification will require good access to input-output markets.

**Critical Actors needed for implementation pathways**

WHO needs to deliver	WHAT
Farmers and other water users	Awareness and commitment to the issue of water saving and water conservation design of trans-boundary water sharing policies de-politicisation of water polices
Water resource managers and politicians	Commitment to and implementation of improved water policies
Agro-technology companies	Delivery of efficient and affordable technologies at relevant scales
Extension services	'water-wise' training programs
????	????

- creation of a supportive policy environment, supported by good, quantitative science
- serious investments in water infrastructure improvements
- efficient water monitoring systems
- early warning systems and effective seasonal climate forecasts
- improved farm-level risk management systems
- emphasis on research that supports resource use efficient technology development
- .....

## 6 Strategies and criteria for Selecting Regions and Sites

This section was designed for the identification of major criteria for selection of the intended additional regions and sites and also elaborated the process for site selection in terms of steps and who to be involved in the MP7. The task box below guided the selections process of the table groups.

**Criteria for selection of Regions and sites**

1. What are the 5 major criteria for selection of additional regions in the MP7?
2. What are the 5 most critical criteria for selection of sites in the region?
3. What should be the process for site selection: steps, who to be involved etc

**Please write cards for 1+2 no 3 on flipcharts**

The outcomes below clearly outlined the possible criteria for selection of regions and sites

<b>1. Regions</b>
<ul style="list-style-type: none"> <li>• High exposure to climate change</li> <li>• Climate related problems and opportunities</li> <li>• Climate change hotspot (Vulnerability)</li> <li>• Climate coverage potential</li> <li>• Climate scenario uncertainty</li> </ul>
<ul style="list-style-type: none"> <li>• Food systems venerable to climate change</li> <li>• Poverty vulnerability</li> <li>• Current social vulnerability and poverty</li> <li>• Systems with high poverty incidence</li> <li>• Temporal prioritization</li> </ul>
<ul style="list-style-type: none"> <li>• Representative and lessons applicable else where</li> <li>• Social, cultural and institutional context</li> <li>• Representativeness (up scaling potential)</li> <li>• Micro and Macroeconomic policy (people are moving from rural to urban areas)</li> <li>• Potential impacts of climate change on social-ecological systems</li> </ul>
<ul style="list-style-type: none"> <li>• External linkages (to other systems) Integration potential</li> </ul>
<ul style="list-style-type: none"> <li>• Security for capacity favour funding</li> </ul>
<ul style="list-style-type: none"> <li>• Pre-existing infrastructure, partnership and resources (Jump start potential)</li> </ul>
<ul style="list-style-type: none"> <li>• Portfolio of regions maximises learning</li> <li>• Systems and geographical complementarities (duplication potential)</li> <li>• Region for high potential for innovation and adoption</li> </ul>



<ul style="list-style-type: none"> <li>• Global relevance of the region to food security and the environment</li> <li>• Highland lowland initiatives</li> <li>• Biodiversity hotspots</li> </ul>
<ul style="list-style-type: none"> <li>• Mitigation potential</li> </ul>
<ul style="list-style-type: none"> <li>• CG mandate regions</li> </ul>
<p><b>2. Sites</b></p>
<ul style="list-style-type: none"> <li>• Opportunity to build upon comparative advantage of MP7 and partners</li> <li>• Issue of high importance and core objectives that is soluble and researchable</li> </ul>
<ul style="list-style-type: none"> <li>• Learning opportunity from bright spots of adaptation</li> </ul>
<ul style="list-style-type: none"> <li>• Relevance of the sites to national and regional food security</li> </ul>
<ul style="list-style-type: none"> <li>• Good partnerships with local and district governing institutions</li> <li>• Available local partners and champions</li> <li>• Presence of potential, partnership network and political will</li> <li>• Diverse partners both public and private partners enabling impact pathways</li> <li>• Potential for impact (existence of enabling conditions)</li> <li>• Latent potential capacity</li> </ul>
<ul style="list-style-type: none"> <li>• Physical and political accessibility</li> <li>• Pre-existing information infrastructure and accessibility/security (logistical potential)</li> </ul>
<ul style="list-style-type: none"> <li>• Good research partners available</li> <li>• Existing information data and research</li> <li>• Areas having information (historical data and institutional context)</li> <li>• Minimal existing capacities and opportunities to strengthen capacities</li> <li>• Existing data and opportunities to fill gaps</li> <li>• Partners collaboration through available partner initiatives and strengthening existing collaborations</li> </ul>
<ul style="list-style-type: none"> <li>• Maximises potential for cross-level synthesis</li> </ul>
<ul style="list-style-type: none"> <li>• Gradient of conditions</li> <li>• Collectively capture important climatic agro-ecological and socio-economic gradients</li> <li>• Spatial and systems connectivity's- offsite effects and impacts ('linkage potential)</li> <li>• Spatial-temporal representatively (trading space for time potential) that is relevance for climate change</li> </ul>
<ul style="list-style-type: none"> <li>• Intrinsic granularity (contrast potential) bio fuels and socioeconomic</li> <li>• Good representative of diversity of the livelihood</li> <li>• Areas where there is highest variability</li> <li>• Identification of site where peri-urban and urban food production contributes to food security</li> <li>• Sites represents the diversity of farming and food systems in the region</li> </ul>

<ul style="list-style-type: none"><li>• Representativeness to agro-ecosystems and agro climatic zones</li></ul>
<ul style="list-style-type: none"><li>• Criteria based on research</li><li>• Links to previous research</li><li>• Analogues sites through on-going research and knowledge to locate new sites (transferability)</li><li>• Avoid over used sites</li></ul>
<ul style="list-style-type: none"><li>• Representativeness within regions by up scaling potential with exceptions</li></ul>

### **Question 3. Process for site selection**

#### **Group 1**

- Geo-spatial analysis defining the sites
- Review of existing data and literature to identify gaps and revisions needed
- Sub regional and organizations consultation
- Institutional engagement mechanisms to define the how

#### **Group 2: Steps**

- Finalising the criteria and having the consensus
- Identifying the data required for analysis
- Organize workshops involving project people and other related people ( research institutions, NGO and Farmers)

#### **Group 3**

- Regional workshop

#### **Group 4: Steps**

- Agree on criteria for selection in terms of theme leaders, regional facilitators and key partners
- Indicators for criteria taking into account information about the sites, regional partners and researchers (leading questions)
- Choose sites using criteria that are relevant to then and regional leaders, facilitators and endorsement from regional partners.

#### **Group 5**

- Targeting through criteria
- Grouping of key stakeholders
- Engagement of regional organization and co-investment with regional organizations
- Host meeting with key stakeholders

#### **Group 6**

*It is important to stick criteria as far as possible!*

- Confirm questions to address and agree with team leaders and regional facilitators
- Invite regional bodies to inquire sites e.g. CORAF, ASERECA, ICPAC and farmer organizations
- Analyse with matrix of criteria and sites through pragmatic decision by team and regional leaders.
- Invite representatives of sites to compare individuals' sites in context to the whole sites
- Adjourn and negotiate changes for individual sites to allow regional facilitators and representatives to be better set for integration.
- A more global evaluation of related sites of MP7 with sites related to other MP's to identify possible gaps and level of ignorance.

### **Issues arising from the presentations**

- *There is need to brand a new research and characterize them in the subsequent years and also pay attention to partnership which is equally important. The principles should take into account*
  - *Value addition*
  - *Linkage across regions*
  - *Spills over of goods*
- *The MP activities should show clear integration of tasks across the themes*

**Questions:** *what do you have in terms of research statics to show the policy makers?*

**Answers:** *The active minorities should be the drivers of change. The farmer's voice is what matters and sending of information should follow a bottom to up mechanisms. There is need for activeness at the grassroots level*

- *It is also important to integrate themed and find the common thread linking them together,*
- *There is also need for a conceptual framework showing scenarios that are important and integrating them together.*
- *Clear performance indicators that can be assessed overtime should be developed e.g. MP can be evaluated by other MP to avoid criticism coming from each MP.*
- *It is essential to produce materials that would be immediately adopted and produces by somebody else.*
- *It is a very critical factor to set up tasks or standards for ourselves with clear indicators that defines the quality of products at the end of the year and the impact of the programs in terms of quantity.*
- *There is need of a common thread to act as an integral part and synergise different regions and themes*
- *There should be plan to pull partners from other centres and other coalitions as a fundamental operationalization part of CCAFS.*
- *It is also essential to link with existing climate monitoring programmes at the regional level with agricultural monitoring programmes at the local level*
- *Sites should represent an agro system that can be up scaled across similar physical and socioeconomic conditions*

- *Mega programmes should try out CVs in the regions in other regions i.e. look across climate space.*
- *It is important for the sites to take time and see what the farmers are actively doing*
- *There is need to collect standard data to be used in the programmes both at district and national level*

**Question:** *when will site selection happen, will it be immediate?*

**Response:** *It will begin immediately by getting a suited criteria then sitting down with regional partners to agree on the sites*

- *There is need of a nested set of sites that can scale up different impact pathways at different levels*
- *Some sites are based on history of research and others need a clean sheet hence the need of some infrastructure.*
- *There is also need of a set of good systems to be integrated with elaborate management policy where data management can take place.*
- *It is important for each team to explain it's up scaling strategy*
- *Ways should be defined on how to integrate e.g. water shed and river basin with other programmes and consider temporal dimensions too*

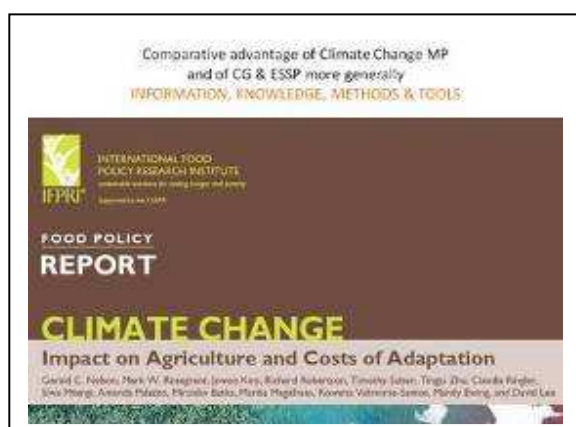
## 7 Other Key Aspects of the Programme

### 7.1 Approach to capacity development

#### 7.1.1 Presentation on capacity development ideas so far, by Sonja Vermeulen

Stakeholder engagement communications (for outcomes) knowledge into action impact pathways

What is capacity? How is it built?



#### Some principles:

- Recognise and enhance current capacities
- Enable self-development of capacity
- Responding to needs

#### Some further principles:

- Weave capacity building into theme work for a co-learning approach
- Add value rather than setting up new capacity building programs



### **Examples of capacity work in Theme One (adaptation)**

- **Knowledge demand:** Shared critical analysis of NAPAs to identify key knowledge gaps towards improving plans & implementation
- **Knowledge generation:** Facilitation of cross-disciplinary research & training among mid-career hydrologists, agronomists, soil scientists, breeders and biotechnologists
- **Knowledge use:** Learning visits for farmer groups and service providers to analogue sites to explore practices

### **Examples of capacity work in Theme Two (variability)**

- **Knowledge demand:** Awareness raising with relief agencies to identify knowledge needs for improved climate-based responses
- **Knowledge generation:** Linking of climate, agriculture and ICT researchers & companies to understand opportunities for better climate information sharing
- **Knowledge use:** Work at local level with local groups to demonstrate enhanced risk management strategies

### **Examples of capacity work in Theme Three (mitigation)**

- **Knowledge demand:** South-south analysis by policy-makers of mitigation implications of agricultural pathways
- **Knowledge generation:** Network of PhD students collecting common data set on GHG emissions
- **Knowledge use:** Series of regional workshops on technical and institutional design for carbon market access

### **Examples of capacity work in Theme Four (policy, vulnerability, scenarios)**

- **Knowledge demand:** Scenario exercises to assist decision-makers frame options and questions
- **Knowledge generation:** Training and placements for scientists in economic policy analysis & vulnerability mapping
- **Knowledge use:** Structured policy dialogues at regional and global levels to make critical contributions of science into strategy & implementation

### **Capacity development based on**

- Adding value that goes beyond stakeholder engagement?
- Building on current capacities plus what science can provide?
- Incremental change or transformative change?
- Future decision makers? Delivering equity for women?

## 7.1.2 Group work on capacity development

### Group work on capacity development

1. Whose capacity is to be built for effective running of the programme
2. Which capacity, to do what is required?
3. How to build these capacities within CCAFS

### The group discussed the three broad questions on capacity development (CD)

- Whose capacity?
- Capacity to do what?
- How- some ideas on how CCAFS can build these capacities?

### To address the above questions, we identified and considered the following key principles-

- CD should be a two way process, where while information flow to the stakeholders at the grass roots level is important, it is equally important to establish information from grass roots level towards the scientific interventions.
- The focus shall be on individual and institutional capacities.
- Identifying, recognizing and building on existing capacities rather than building new capacities should be emphasized.
- Different regions and sites would have variation in the levels of capacities- therefore the capacity building efforts will have to be tailored to respond to location specificity.
- MP-7 will have limitations in reaching out to farmers/stakeholders at a micro-level. Working with boundary partners, who can play a facilitating role will be important.

### Whose capacities and in what?

The Actors	Specific Capacity Development Needs
Negotiators	Skills to lead and negotiate on behalf of their region/country/community, awareness about the CC issues, leadership ability
Policy Makers (international, regional, national, local level)	Awareness, skills to lead, authoritativeness, analytical ability, skills to lobby, communication/management skills
Extension Networks (public, private, NGOs)	Training of Trainers (most individuals/trainers involved in extension systems have limited capacities to talk about CC issues)
Researchers/research institutes	Trade off analysis, communication skills (to communicate with boundary partners, media etc on CC issues), awareness about the issues, priorities of the grass roots level,
Private Sector	To partner with public sector, strengthened investments
CSO sector	Awareness about the CC issues, capacities to act as a link between technology development and it's applications,

	advocacy
Farmer organizations	Ability to understand the CC issues/messages. Ability to translate these messages to effectively to the farmers, networking-communication capacities to be able to exchange information with other boundary partners.
Media	Awareness, capacities to do evidence based reporting
Academic Institutions	Training of faculties on CC issues, curriculum design-integration of CC in curriculums

## HOW?

The group discussed some ideas on how to build capacities/reach out to the boundary partners.

- The various mechanisms and approaches of capacity development will depend upon the specific region, country and local situations.
- There has to be 'multi mode' dissemination channels. Spanning web based learning, workshops, interventions in media, policy dialogues, one-on-one meetings/trainings...
- Establishing 'nodal points' at different regional levels may be one effective way. Here, several focal points (institutions/individuals) can be identifies at various locations within the regions. The focal points can play a linking role between CCAFS regional hub/coordinator and the local stakeholders. I (Purvi) am happy to explain this design and feasibility in detail- if needed.
- Scoping study for MP-7 and beyond.

## 7.2 Engendering Agricultural Research

### 7.2.1 Presentation on gender, by Kate

#### Why pay attention to gender in agriculture?

- To improve agricultural productivity & profitability
- Women are essential to planting, weeding, harvesting, processing, marketing, food preparation etc.
  - *SE Asia: women up to 90 percent of the labor involved in rice cultivation (FAO 2007).*
  - *SS Africa: women produce up to 80 percent of basic foodstuffs for household consumption and sale (FAO 2007).*

#### Women have fewer resources to work with:

- **LAND**
  - Women are disadvantaged in customary & statutory land tenure systems (Kevane 2004)
- **HUMAN CAPITAL**
  - Women in S. Asia and SS Africa routinely have less access to extension than males (WB & IFPRI 2010)
- **TECHNOLOGICAL RESOURCES**



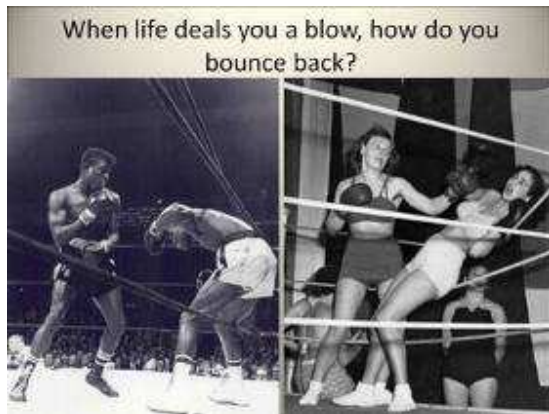
- o Women throughout the globe have less access to essential agricultural inputs (Peterman et al 2009)

*So imagine these resources like the ropes round a boxing ring. If life gives you a blow, you had better have strong ropes to bounce back off. Eg all of a family's savings are stolen, they'd better have:*

- *natural resources like land and water to crop food*
- *Human resources, like education so they are skilled and can get a job*
- *Physical resources, like cattle or furniture they could sell*
- *Social resources, like family or neighbours who trust them and will lend money.*



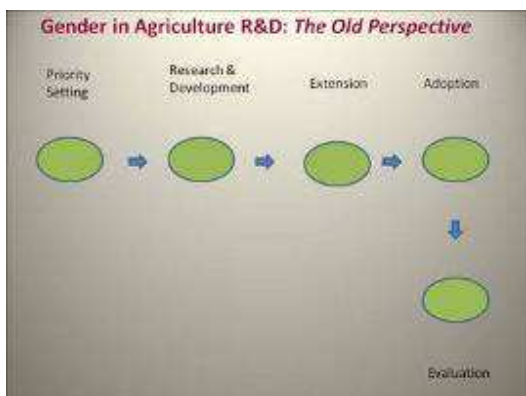
*This makes sense, but it's too quick to assume that one roof over one household means one shared set of resources for bouncing back....that's why we have to do a gender-disaggregated analysis.*



*When a boxer gets hit, the ropes are their greatest friend – they bounce back into the ring. If the ropes were weak, they'd be knocked out of the ring altogether.*

**Basic Questions for Gender Integration**

1. What different roles and resources do women and men have in ensuring food security?
2. What research would make most difference to building women's and men's resilience?
3. How should research be designed to recognize both women's and men's circumstances?
4. How could the research contribute to gender equity?
5. How will we know if the research has made a difference for women and for men?



*When to address gender in Ag R&D?*

*The process is often talked of as a "pipeline" (go through the steps)*

## Transformative agricultural research

- Identifying strategic priorities for gender-equitable agricultural research, e.g. foods contributing to diverse and nutritious diets, underlying gender inequalities in access to resources—in order to unleash the full productivity of millions of female agricultural producers.
- Fully integrating gender into the agricultural R&D system, from priority setting and the conducting of research to extension, adoption, and evaluation of outcomes.
- Transforming the enabling conditions, including institutional structures and policies, to allow gender-equitable agricultural research to flourish.
- Necessary partnerships

### 7.2.2 Group work on gender in MP 7

**How to integrate gender in a meaningful way in the operations of CCAFS / MP7?**

*Gender analysis is deep, subtle, rigorous – and vital for CCAFS.*

How can it meaningfully be integrated throughout MP7?

Stages of MP7	Action to integrate gender analysis
Overarching	<ul style="list-style-type: none"> <li>• <b>Identify a “gender champion” in the CCAFS team</b> who will ensure that CCAFS fulfils its goal of strong gender analysis and impact.</li> <li>• <b>Create indicators and/or checks to monitor</b> whether this goal is fulfilled throughout the process</li> </ul>
Developing the proposal	<ul style="list-style-type: none"> <li>• <b>Make a gendered review of the current proposal</b> and ensure that the issues are well represented</li> <li>• <b>Ensure a shared understanding of gender analysis among the MP7 leads</b> – conduct a gender workshop with the leads, sharing good examples of existing research in this field that had a strong gendered analysis. Come up with a common paradigm / framework / approach to analysing gender under CCAFS.</li> </ul>
Planning implementation	<ul style="list-style-type: none"> <li>• <b>Ensure research partners share CCAFS’s gendered analysis</b>, through mutual learning and also provide capacity building in gender analysis where needed</li> <li>• <b>Conduct gender analysis at the regional, and specifically the site level</b>, and ensure a political and cultural understanding of the community.</li> <li>• <b>Be demand-driven in identifying gendered research questions</b> – work with women and men in the community</li> <li>• Plan both <b>targeted gender research</b> (specifically focused on gender issues) and also a <b>checklist on gender issues</b> for mainstream research</li> </ul>

<b>Conducting research activities</b>	<ul style="list-style-type: none"> <li>• <b>Collect and analyse gender-disaggregated data</b></li> <li>• <b>Ensure the research team has local women and men</b> so will be able to work well with the community</li> <li>• <b>Don't focus only on women</b> – men are key to gender transformation too.</li> </ul>
<b>Impact assessment and evaluation</b>	<ul style="list-style-type: none"> <li>• <b>Make gendered impact assessments:</b> have women and men's livelihoods, food security and environmental resources improved?</li> </ul>
<b>Communication of results and outcomes</b>	<ul style="list-style-type: none"> <li>• <b>Communicate the results and outcome back to the community,</b> to the women and men.</li> <li>• <b>Ensure that public communications of CCAFS's findings and impacts are clear</b> in how women and men have been involved and affected – and keep it jargon free!</li> </ul>

### 7.3 Value addition of the Programme to other work

1. **What is the value addition to on-going initiatives/activities the programme has to offer or exploit? (Why would they want to work with you?)**
2. **What is the strategy to maximize the value additions?**

#### Group outcome on value addition'

##### Background:

The group consisted mostly of members of the CGIAR centers who participated in the April 2010 meeting in Copenhagen to discuss the change from CCAFS challenge program to MP7.

The question on value addition of MP7 was discussed during this Copenhagen meeting. In this meeting, the following things were recognized as being 'value addition' provided by MP7:

Value addition listed during Copenhagen meeting

1. New types of partnerships leading to new research areas and agendas
2. Ability to synthesize across regions and mega-programs
3. Focal point (facilitator) of engagement with global/regional policy arenas (e.g. UNFCCC)
4. Keep global focus while analyzing local problems
5. Coordination and coherence of the CC work
6. Ability to provide strategic directions (incl. tools, methods) to agricultural research of other MPs in view of CC and food security
7. Synergy with ESSP and enhancing their work through CG network
8. Enhancing impact of CC research through making available from CG-ESSP research and refocusing ESSP agenda

Additional value addition for local partners identified in Nairobi meeting

9. High quality climate change modelling and projections for their locations
10. Link to disaster management

Thereafter, the group discussed what strategies are needed to maximize the above-identified value addition. The following points were listed:

- Develop and operationalize platforms for allowing and enhancing dialogue between ESSP, CG, and other partners
- CGIAR centre contact points need to represent not only their centre but other MPs in which their centre is involved
- Develop research ideas capitalizing on synergies between MP7 and other key MPs (1,2,3,5,6) in a collaborative way
- An independent governance structure is required

Another discussion that occurred in the group was that some CGIAR centres were afraid that the new MP7 would not fund some of their climate change related research that occurred outside the currently selected MP7 regions. Bruce argued that some of these activities could be funded through the activities available at the global level (e.g. synthesis reports). It was therefore questioned what 'value' MP7 would really bring to some of the ongoing climate change research within the CGIAR. It was mentioned that 2011 funding would still be largely used to fund ongoing activities but that in subsequent years the funding would increasingly follow the MP7 agenda.

## **7.4 'Integration' within MP7**

- 1. What need to be integrated in the programme and for what?**
- 2. How do we ensure that these issues/ things are being integrated and which mechanisms, processes and procedures are being used?**

The implementation of the MP7 required several questions. Key questions asked included:

1. Which issues need to be integrated in the program? What for?
2. How to ensure that these issues are integrated? Which mechanisms, processes and procedures?

### **KEY ISSUES TO INTEGRATE**

Key issues have been identified as necessary to the successful implementation of the CCAFS program:

- The first integrative product should be the motivation for site selection. Site selection would integrate aspects such as vulnerabilities, stakeholders' interests, etc.
- Short-term integrative products would include aspects such as policy assessment, vulnerability assessment, methodology papers, and working partners

- Long-term integrative products would include aspects such as Meta datasets, tools & applications, and integrates assessment models.
- Structuring of all examples of activities in climate change, agriculture & food security in MP7: the recognition of CCAFS.

## **MECHANISMS OF INTEGRATION**

The strongly needed integration will be achieved through the followings mechanisms, processes or procedures:

- Define tangible short-term outcomes.
- Having integrative products would guarantee integration in implementation.
- Cross-theme assessment of the plausible development patterns.
- Integrative products input to capacity building.
- Early guidelines and lessons learned: no wheel reinvention!
- As in a GANTT Diagram, there should be an 'Integration Police' such as the Director of CCAFS.
- The Steering Committee needs to be guarantying integration.

## **CONCLUSIONS**

Integration is a key factor to the successful implementation of the CCAFS program. Key issues of integration, mechanisms, processes and procedures of integration should be not only supervised by the 'Integration Police' (the Director of CCAFS), but also guaranteed by the Steering Committee.

## **7.5 Engagement and advocacy in MP 7**

**What is the strategy to engage, influence and communicate policy areas, which is a key area of impact of MP7?**

### **Working Group on MP7 Influencing and Communication Strategy**

1. Experience exists already within CG (e.g. CIFOR and IFPRI) and other partner networks (e.g. IFPRI South Asia Economists forum); ODI's RAPID programme; need to draw lessons from this
2. MP7 needs to invest in a strategy and internal communications unit; communications capacity would be at various levels across the programme; timely and appropriate communications are key
3. Broad communications strategy:
  - Proactive and agreed programme strategy
  - Set out rationale and legitimacy
  - Draw on lessons
  - Set out principles – i.e. transparency and open access to data

- Define limits to influencing and advocacy (e.g. not campaigning)
  - Build relationships and credibility (issue of MP7 Brand arises)
  - Need for training and awareness raising
  - Identify allies and targets
  - Media engagement important
  - Designed to manage risk and quality control (is anything required beyond centre peer review?)
  - Leadership team (including Regional Facilitators) must own and take collective responsibility for communicating whole programme
4. Communication to be done in multiple form with others or by MP7 depending on context such as :
- Media
  - Blogs and website
  - Policy briefs
  - Meeting with change makers (could be various – farmer organisations, business leaders, government)
  - Translating science into policy products;
  - Case studies and human stories important
5. Influencing strategy
- With public and private sector
  - Targeted
  - Proactive (e.g. Press Release) or reactive (e.g. going to see a Minister)
6. IT capacity: needed to underpin communication externally and internally including database management

## 7.6 Roadmap towards implementation of capacity development and gender strategies

### Task for group work

1. What are the steps towards operationalizing and starting up the actions after this workshop?
2. What are the deliverables and achievements of each of the steps?
3. When and who should be in the lead?
4. What are the inputs and contributions?

Step	Activity	Deliverable	When	Who	Inputs
Design Conceptual CCAFS F/work	WS	Conceptual FW	May-June	TLs	CCASF plans
Appoint RFs		RFs in post	By mid-June	SC	-
Compile prelim list of "sites"	Discussions led by RF + TLs + regional partners	Draft set of proposed sites	July-Aug	RFs + TLs + regional partners	
Commission state of art papers on Registrations structured on Ts	Consultancy	White papers	Jun-Oct	consultants	
Cap Building	?	?	?	All	
Undertake global products	?	Platform for global products	?	TLs	
Undertake Scenario fast-track	Interviews	Initial scenarios outputs	July-Aug	Scen + RFs + key s/holders	
Launch Regional activity to agree sites and activities	WSs (1/region)	Partners ID'ed consensus on reg activities reached	Sep-Oct	RFs + Reg partners + TLs	
Clarify legal aspects with "sites"	RF	MoUs etc as needed	As possible after WS	RFs	
Convene Scenarios WSs	WS	Initial storylines and analyses	Sep-Oct	Scen team + RFs + Registration partners	
Plan field work for 2011	WS + corres		Oct-Nov	Mgmt Team + partners	
Call for proposals	Call	?	?	?	?

## 8 Next Steps

This section highlights the short term activities which must be implemented immediately to carry through the planning process to the next level. The details of these are included in the table below:

What	When	Who
Hand in proposal	10/05	
Revise proposal	Early June	
Revise proposal after donor implementation	Late July	
Plan for implementation in 6 months	August	Management team
Start operationalising	September	
Ongoing work plan for CCAFS		
Workshop documentation	15/05	Jurgen/ Judith

## 9 Workshop evaluation and closing

### 9.1 Workshop evaluation

The workshop evaluation was done in table groups. Each group discussed and agreed on three issues; what they liked in the workshop, what they did not like in the workshop and the key take home message. One person reported what had been agreed in the groups. The responses received are highlighted in the section below in their respective clusters.

#### What I/we liked in this workshop was....

- Changing tables and meeting new people
- Small group discussion
- Diverse culture
- Impact pathways through PM
- Workshop process and facilitation
- Interactive aspect and group discussion
- Many insightful contributions

#### What I/we did not like in this was.....

- Intensive and tight schedule
- Absence of private sector



- Lack of more diverse stakeholders (mostly scientist)
- Lack of methodologies

**The key messages we take home from here are.....**

- Complexity of implementing this MP in mind bogging
- Without CCAFS the development of the MP could not be done
- Work on impact pathways
- ESSP-CGIAR partnership

## **9.2 Closure**

### ***The facilitator – Jürgen Hagmann***

Juergen thanked the organizing team for their continuous support during the workshop. He also acknowledged the commitment shown by the participants towards a successful Climate Change, Agriculture and Food Security planning workshop. Finally he thanked Judith Odhiambo for documenting the workshop process.

### ***Bruce Campell***

Thanked PICOTeam in managing the whole process. Finally he thanked the process steering group for their support and commitment in guiding the workshop to the right direction and the participants for their commitment and contribution towards the success of the workshop.

## 10 Annex

### 10.1 List of participants

No.	Name	Organisation
1	Leonard Njau	ACMAD
2	Michael Misiko	Africa Rice Center (AfricaRice)
3	Seydou Traoré	AGRHYMET
4	James Ateker	ASARECA
5	Laura Snook	Bioversity International
6	Cynthia B. Awuor	CARE
7	George Onyango	CARE
8	Rashid Hassan	Centre for Environmental Economics and Policy in Africa (CEEPA)
9	Ahsan Uddin Ahmed	Centre for Global Change, Bangladesh
10	Roberto Quiroz	Centro Internacional de la Papa - CIP
11	Bruno Locatelli	CIFOR
12	Markku Kanninen	CIFOR
13	Bekele Shiferaw	CIMMYT
14	Jonathan Hellin	CIMMYT
15	Patrick Wall	CIMMYT
16	Michael Dingkuhn	CIRAD
17	Abdulai Jalloh	CORAF
18	Mark Stafford-Smith	CSIRO
19	Holger Meinke	Department of Plant Sciences, Wageningen University and Research Centre (WUR), the Netherlands
20	Gemma Tanner	DFID
21	Sam Bickersteth	DFID
22	David Howlett	DFID/Leeds University
23	David Radcliffe	European Commission
24	Felix Rembold	European Commission
25	Olivier Leo	European Commission
26	Lindiwe Sibanda	FANRPAN
27	Michel Laverdière	FAO Eastern Africa
28	Jacqueline Nnam	Forum for Agricultural Research in Africa (FARA)
29	Silvestre Garcia Kerstin	GTZ
30	William Clark	Harvard University
31	Mohammed Karrou	ICARDA
32	Henry Neufeldt	ICRAF
33	Johannes Dietz	ICRAF
34	Peter Cooper	ICRISAT
35	Pierre Sibiry Traore	ICRISAT
36	Peter Craufurd	ICRISAT-IN

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39	Polly Eriksen	ILRI
40	Purvi Mehta	ILRI
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42	Mamadou Doumbia	Institut d'Economie Rurale
43	Pramod Aggarwal	Indian Agricultural Research Institute
44	Serge Savary	IRRI
45	Reiner Wassman	IRRI
46	J K Ladha	IRRI-South Asia
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48	Bharat Sharma	IWMI- New Delhi
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55	Christoph Mueller	PIK
56	Tamali Kundu	PRADAN
57	Jon Padgham	START
58	Ravi Prabhu	UNEP
59	Marty Luckert	University of Alberta
60	Sepo Hachigonta	University of Cape Town
61	Svend Christensen	University of Copenhagen
62	Gilbert Ouma	University of Nairobi
63	Mary Scholes	University of the Witwatersrand
64	Rik Leemans	Wageningen University, the Netherlands
65	Edward Hugh Allison	WorldFish
66	Stephen J. Hall	WorldFish
67	Randall Purcell	World Food Programme
68	Stefan Sieber	ZALF
<b>Tentative</b>		
*	G A Choudhury	Centre for Environment and Geographic Information Services
*	August Temu	ICRAF
*	Dennis Garity	ICRAF
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*	Carlos Sere	ILRI
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3	Ratih Septivita	CCAFS
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