



## Regional Integrated Assessments of Farming Systems in Sub-Saharan Africa and South Asia

Safari Park Hotel, Nairobi, Kenya  
January 30 – February 3, 2017





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AgMIP also thanks the numerous Institutions hosting research team members for their ongoing support and in-kind contributions to AgMIP research and outreach. AgMIP has benefited greatly from the partnerships with each of these Institutions, on which the overall advancement of teams rely. We also thank the USDA-ARS, the United States Agency for International Development, CGIAR Research Program on Climate Change, and the Bill & Melinda Gates Foundation for support to AgMIP programs that have benefited researchers in the regions directly or indirectly.

AgMIP further acknowledges support from the Institutions hosting its Leaders and Resource Persons, and the members of the AgMIP Steering Council for their ongoing interest in advancing the most relevant and important work in the regions, as well as at the global scale.

AgMIP extends a thank-you to the leaders and staff at ICRISAT Patancheru, India and ICRISAT Nairobi, Kenya for their support in planning, coordination, logistics, and hosting of this meeting, with special thanks to A. Whitbread and J. Nalini of ICRISAT Patancheru and L. Claessens, L. Bwire, and K. Njoki of ICRISAT Nairobi.

The AgMIP Coordination wishes to thank the Leaders, Resource Persons, Researchers, and Stakeholder Liaisons for their interest, patience, commitment, and effort that make AgMIP such a great community.



For the last five years, the Agricultural Model Intercomparison and Improvement Project (AgMIP) has worked with researchers and stakeholders around the world to develop a better understanding of the impacts of climate change on the agricultural sector and global food security. With support from the UK Department for International Development (DFID), AgMIP formed Regional Research Teams (RRTs) in Sub-Saharan Africa and South Asia, who combine model simulations with expert knowledge to assess the vulnerability of complex agricultural systems and test adaptations to improve farmers' livelihoods. In January 2017, AgMIP held the final workshop of the DFID project at the Safari Park Hotel in Nairobi, Kenya: the AgMIP Phase 2 Winners Circle Workshop.

Participants included members from all seven AgMIP RRTs, as well as AgMIP Leaders and Advisers from America, Europe, and Australia. The goal of the meeting was for the Regional Teams to present their latest results on the AgMIP Regional Integrated Assessment (RIA) methodology and receive feedback to ensure the successful completion of

all project deliverables, including the data that will serve the AgMIP Impacts Explorer.

The AgMIP RIA methodology implements a transdisciplinary, systems-based approach for regional-scale (local to national) assessments of agricultural systems under future climate, biophysical, and socio-economic conditions. The methodology is designed to quantify the impacts of climate change on agricultural systems and identifies four core research questions that allow important indicators to be quantified in ways that support informed decision-making by various stakeholders:

- Core Question 1: What is the sensitivity of current agricultural production systems to climate change? This question addresses the isolated impacts of climate changes assuming that the production system does not change from its current state.
- Core Question 2: What are the benefits of adaptation in current agricultural systems? This question addresses the benefit (e.g., economic and food security resilience) of potential adaptation options to





current agricultural systems given current climate.

- Core Question 3: What is the impact of climate change on future agricultural production systems? Assessment of climate impacts on the future production system, which will differ from the current production system due to development in the agricultural sector.
- Core Question 4: What are the benefits of climate change adaptations? Assessment of the benefits of potential adaptation options in the future production system.

During the 5-day workshop, participants met with expertise leaders (in climate, crop, livestock, economics, and stakeholder engagement) to evaluate advancement of the on-going work and make concrete plans for completing the study. Additionally, each of the seven RRTs met as a team to assess the current status of research in their region and developed plans for collaboration and project completion.

Day 1 started with a plenary presentation on integration and interpretation of RIA results; followed by a brief demonstration of the AgMIP Impacts Explorer, an interactive multi-dimensional data visualization tool. This day also provided an opportunity for RRT members from West Africa, East Africa, Southern Africa, Southeastern Africa, Pakistan, Indo-Gangetic Basin, and Southern India to present on key

findings and messages, stakeholder interactions, data uploads, status of each deliverable, and issues for resolution for their specific region.

At the start of Day 2, AgMIP leaders gave presentations on understanding uncertainty in climate models and crop model responses to CO<sub>2</sub>, temperature, water, and nitrogen (CTWN). This was followed by breakout meetings by discipline to refine the Teams' interpretation and presentation of key findings. Day 3 was similarly structured with a plenary presentation on communicating science with stories followed by breakout sessions by regional team, which continued through the end of Day 4.

The final day of the workshop was the opportunity for the Regional Teams to present on all the progress achieved during the meeting. All seven RRTs gave plenary presentations on the state of their projects after a week of hard work and continuous interactions with the AgMIP Leaders and Advisers. Each presentation was followed by questions, not only from the Leadership Group but also the other RRTs, who were able to learn from each other and give each other advice. The day ended with a closing plenary on the path forward for the project and a toast to AgMIP.

Participants felt energized at the end of the workshop and look forward to the next phase of AgMIP.





# Regional Research Teams Winners Circle Workshop

January 30 – February 3, 2017 | Safari Park Hotel, Nairobi, Kenya

## Workshop Objectives

1. Share integrated assessments with key messages
2. Improve Impacts Explorer and use to share results and key messages.
3. Ensure all project deliverables will be completed

## Day 1 – Monday 30 January

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### Day 1 Goals:

1. Set workshop expectations and goals
2. Present updated AgMIP Impacts Explorer
3. Share results of regional integrated assessments
4. Provide comprehensive team status with respect to final deliverables

**8:00am:** *Check-in and Packet Pickup*

### Morning Plenary – Interpreting and Communicating Results

**8:30am:** Welcome and Workshop Goals (Cynthia) - Recap of Deliverables

**9:00am:** Integration and Interpretation of RIA Results (John)

**9:30am:** Demonstration of the Impacts Explorer as a discussion tool (Sander and Alex) Priorities for the finalization of the Impacts Explorer (Hugo and Inge)

**10:10am:** Stakeholder Unit – overview of RRT/SL meetings

**10:30am:** *Coffee Break*

## Parallel Sessions: Sub-Saharan Africa and South Asia

11:00am: **African RIA Results and discussion in Plenary room African Teams and AgMIP Leaders**

Present on: Findings, key messages, stakeholder interaction, data uploads, status of each deliverable, issues for resolution, etc.

11:00am: East Africa

11:45am: SAAMIIP

**12:30pm: Lunch**

1:30pm African RIA Results and discussion (continued)

1:30pm: CLIP

2:15pm: CIWARA

**3:00pm: Coffee Break**

3:30pm: **South Asian RIA Results and discussion in Plenary room South Asian Teams and AgMIP Leaders**

Present on: Findings, key messages, stakeholder interaction, data uploads, status of each deliverable

3:30pm: IGB

4:15pm: Pakistan

5:00pm: South India

**South Asian Teams in Breakout rooms**

**RRT Round-robin sessions with:**

Data/Impacts Explorer Teams

Communications

Stakeholder Engagement Session (1 hour per team)

A) Pakistan

B) South India

C) IGB

South Asian Teams in Breakout rooms (continued)

**African Teams in Breakout rooms**

RRT Round-robin sessions with:

Data/Impacts Explorer Teams

Communications

Stakeholder Engagement Session (1 hour per team)

A) East Africa

B) SAAMIIP

C) CLIP

D) CIWARA

## Afternoon Plenary – Findings and Priorities for the Week

6:00pm: Day 1 Findings and Priorities for the Week

**6:30pm: Leaders (only) Check-In (without RRT Pls or ARPs)**

## Day 2 – Tuesday 31 January

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### Day 2 Goals:

1. Refine interpretation and presentation of key findings
2. Provide remaining data and inputs for Impacts Explorer
3. Pls meet with each RRT PI, ARP & Economist on work packages (by appointment)

### Morning Plenary – Interpretation and Distillation of Key Messages

- 8:30am: Day 2 Goals
- 8:45am: Finding and Communicating Key Messages (Wendy-Lin and Amy)
- 9:45am: Cross-RRT Article brainstorming (5 minute synopsis/introduction)
- A) CTWN (Ken, John Dimes, and Alex)
  - B) Lessons from Stakeholder Engagement (Wendy-Lin and Amy)
  - C) RAPs development (Roberto and John)

**10:30am:** *Coffee Break*

### Parallel Sessions: PI Meetings & Discipline Breakouts

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| 11:00am: <b>PI meetings (RRT PI, Economist, ARP)</b> | <b>Discipline Breakouts</b> to discuss results and data sharing, integration, interpretation, and key messages |
| 11:00am: East Africa                                 |  |
| 11:30am: SAAMIP                                      |  |
| 12:00pm: CLIP  | A) Climate   |
| <b>12:30pm: Lunch</b>                                | B) Crop  |
| 2:00pm: CIWARA                                       | C) Livestock   |
| 2:30pm: IGB  | D) Economics   |
| <b>3:00pm: Coffee Break</b>                          | E) Stakeholder Engagement  |
| 3:30pm: Pakistan                                     | F) Impacts Explorer  |
| 4:00pm: South India                                  |  |

### Afternoon Plenary

- 5:00pm: Check-in
- 6:00pm: Leaders Check-In (with RRT Pls and ARPs)**

## Day 3 – Wednesday 1 February

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### Day 3 Goals:

1. RRTs meet together on integration and interpretation
2. Continue to document results and messages

### Morning Plenary – Constructing Communications

8:30am: Day 3 Goals

8:45am: Constructing Communications Products (Shari Lifson)

### RRT Breakouts for Integration and Documentation

- RRT work sessions in own breakout areas
- Emphasis on interpretation and writing
- Each team will be visited by Impacts Explorer Team for work on text contributions and interpretations
- Leaders rotate in support of RRTs

9:15am: Regional Research Teams Breakouts

A) East Africa

B) CIWARA

C) SAAMIP

D) CLIP

E) Pakistan

F) South India

G) IGB

**10:00am: Coffee/Tea/Snacks Available**

**12:30pm: Lunch**

1:30pm: Breakout Groups Continue (May be free-form or use designated rooms)

**3:00pm: Coffee/Tea/Snacks Available**

### Afternoon Plenary

5:00pm: Check-in

**6:00pm: Leaders Check-In (with RRT Pls and ARPs)**

**7:00pm: Conference Dinner – Nyama Choma Ranch (Safari Park Hotel)**



## Day 4 – Thursday 2 February

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### Day 4 Goals:

1. Distill messages for each core question
2. Develop cross-RRT papers

### Morning Plenary – Emerging Cross-Regional Findings

- 8:30am: Day 4 Goals
- 8:40am: Emerging cross-regional findings for Vulnerability (Core Questions 1 and 3) (Sonali and Alex) Discussion
- 9:10am: Emerging cross-regional findings for Adaptation (Core Questions 2 and 4) (Ken and Roberto) Discussion

### RRT Writing and Deliverables Breakouts

- RRT work sessions in own breakout areas
- Emphasis on interpretation and writing
- Each team will be visited by Impacts Explorer Team for work on text contributions and interpretations
- Leaders rotate in support of RRTs

9:15am: Regional Research Teams Breakouts

**10:30am: Coffee/Tea/Snacks Available**

**12:30pm: Lunch**

### Parallel Sessions on Cross-RRT Papers

- Planning for publications - preliminary outline, abstract, figure list and target journal
- Post project communication / writing strategy

**1:30pm:** A) CTWN (Ken, John Dimes, and Alex)  
B) Lessons from Stakeholder Engagement (Wendy-Lin and Amy)  
C) RAPs development (Roberto and John)  
D) Others?

**3:30pm: Coffee Break**

### RRT Writing and Deliverables Breakouts

- RRT work sessions in own breakout areas
- AgMIP Impacts Explorer also working in its own breakout area
- Emphasis on updating all drafts and deliverables
- Leaders rotate in support of RRTs

4:00pm: Regional Research Teams Breakouts & Impacts Explorer Breakout

## Day 5 – Friday 3 February

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### Final Presentations

#### Day 5 Goals:

1. Document workshop advances
2. Finalize integrated assessments with main messages
3. Ensure Impacts Explorer and data archive are complete
4. Establish clear and practical plan to produce all deliverables
5. Final Presentations and check out

8:30am: Self-organized workgroups

**9:30am: Tea/Coffee Break**

### **Morning Plenary: RRT Presentations & Discussion, Handover Draft Final Reports, Schedule for all remaining deliverables**

- 7-9 slides with main messages, plus RRT presenters also utilize Impacts Explorer for at least an element of presentation
- Impacts Explorer and AgMIP Data Team reports on data and information archive and remaining commitments for completion of Phase 2 deliverables
- RRT PIs deliver improved drafts of reports and other deliverables before departing

10:00am: Southeastern Africa (CLIP)

10:30am: Southern Africa (SAAMIIP)

11:00am: E Africa

11:30am: W Africa

**12:00pm: Lunch**

### **Afternoon Plenary**

1:30pm: Data Repository Update, Impacts Explorer Demo

2:00pm: IGB

2:30pm: Pakistan

3:00pm: S India

**3:30pm: Tea/Coffee Break**

4:00pm: Results from Publications and other remaining Items

5:00pm: Path Forward – comments from ALL PIs

- What comes next
- Concluding comments
- A toast to AgMIP

**6:00pm: Adjourn Workshop**

# AgMIP Winners Circle Workshop - Safari Park Hotel, Nairobi, Kenya

January 30 – February 3, 2017

## PARTICIPANT LIST

### Regional Research Teams

#### Sub-Saharan Africa Region

##### West Africa Team

Dilys S. MacCarthy	University of Ghana
Ibrahima Hathie	Initiative Prospective Agricole et Rurale
Bright S. Freduah	University of Ghana
Andree Nenkam	ICRISAT
Mouhamed Ly	Agrhymet
Pierre CST Traore	ICRISAT
Jonathan Anaglo	University of Ghana
Ahmadou Ly	Initiative Prospective Agricole et Rurale
Joseph Clotley	University of Ghana

##### East Africa Team

Lieven Claessens	ICRISAT
Sridhar Gummadi	ICRISAT
Mary Kilavi	KMD
Sixbert Maurice	Sokoine University
Caroline Mwongera	CIAT

##### Southern Africa Team

Wiltrud Durand	Agricultural Research Council
Olivier Crespo	University of Cape Town
Hlami Ngwenya	Facilitation of Systemic Change Consulting
Thembeke Mpuisang	Botswana College of Agriculture
Andries Fourie	Department of Agriculture

##### Southeastern Africa Team

Sabine Homann-Kee Tui	ICRISAT
Patricia Masikati	ICRAF
Buhle Francis	NUST/IDS
Givious Sisito	Matopos Research Institute
Trinity Senda	Matopos Research Institute

#### South Asia Region

##### Pakistan Team

Ashfaq Ahmad	University of Agriculture, Faisalabad
Muhammad Ashfaq	University of Agriculture, Faisalabad
Shakeel Ahmad	University of Agriculture, Faisalabad
Tasneem Khaliq	University of Agriculture, Faisalabad
Javaria Nasir	University of Agriculture, Faisalabad
Ishfaq Ahmad	University of Agriculture, Faisalabad
Farah Riaz	University of Agriculture, Faisalabad

### **Indo-Gangetic Basin Team**

Nataraja Subash	ICAR
Harbir Singh	ICAR
Balwinder Singh	CIMMYT
Gokul Prasad Padul	CIMMYT
Mohar Singh Meena	ICAR
Sohan Vir Singh	ICAR

### **South India Team**

Nedumaran Swamikannu	ICRISAT
Kadiyala Dakshinamurthy	ICRISAT

### **Coordination**

Carolyn Mutter	Columbia University
Shari Lifson	Columbia University
Erik Mencos Contreras	Columbia University

### **Expertise Leaders**

John Antle	Oregon State University
Alexander Ruane	NASA GISS
Sonali McDermid	New York University
Kenneth Boote	University of Florida
John Dimes	Consultant
Gerrit Hoogenboom	University of Florida
Roberto Valdivia	Oregon State University
Cheryl Porter	University of Florida
Sander Janssen	Wageningen University
Amy Sullivan	Bridgewater Consulting
Wendy-Lin Bartels	University of Florida
Katrien Descheemaeker	Wageningen University
Anthony Whitbread	ICRISAT

### **Resource Persons**

Davide Cammarano	The James Hutton Institute
Myriam Adam	CIRAD
Caleb Dickson	Oregon State University

### **Advisers**

Chris Villalobos	University of Florida
Inge La Riviere	Wageningen University
Hugo de Groot	Wageningen University
Joske Houtkamp	Wageningen University
Delphine Deryng	Climate Analytics



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## PRESENTATIONS



Day 1 [https://drive.google.com/drive/folders/0B\\_zLs-\\_YJHvUmINymZ4V3VsMk0?usp=sharing](https://drive.google.com/drive/folders/0B_zLs-_YJHvUmINymZ4V3VsMk0?usp=sharing)

Day 2 [https://drive.google.com/drive/folders/0B\\_zLs-\\_YJHvTXFLanJmY0JMTXc?usp=sharing](https://drive.google.com/drive/folders/0B_zLs-_YJHvTXFLanJmY0JMTXc?usp=sharing)

Day 3 [https://drive.google.com/drive/folders/0B\\_zLs-\\_YJHvbEdyV3psdDBWb1k?usp=sharing](https://drive.google.com/drive/folders/0B_zLs-_YJHvbEdyV3psdDBWb1k?usp=sharing)

Day 4 All-day Breakout Group Meetings

Day 5 [https://drive.google.com/drive/folders/0B\\_zLs-\\_YJHvMTJYXzF3YzVlams?usp=sharing](https://drive.google.com/drive/folders/0B_zLs-_YJHvMTJYXzF3YzVlams?usp=sharing)