

## SF18 BREAKOUT SESSIONS SESSION OUTLINE

### Synergies and tradeoffs among SDGs: the climate dimension

#### 1. Session day and time

Thursday, October 11, 1400-1700

#### 2. Session coordinator(s) and affiliations: Virgilio Viana, Director of the Sustainable Amazon Foundation (FAS) Phil Thornton, Flagship Program Leader, CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)

#### 3. Summary

##### *Background*

Climate change can be considered as the ultimate “game changer” in the AR4D world, implying a need for radical changes in agricultural and food systems, and the research to support it. Because of lags in the climate system we are already locked into a temperature rise of 1.4-2.0 C, whatever happens to GHG emissions in the future.

Humankind needs to ensure that this temperature rise is only temporary, by redoubling mitigation efforts as soon as possible, and scaling up countries’ commitments under the Paris Agreement. Stepping up adaptation efforts in agriculture is equally necessary, with smallholder farmers in the tropics and subtropics exposed to some of the worst impacts of climate change – and these are the most vulnerable to food insecurity. In some of these places, planetary boundaries with respect to the nitrogen and phosphorus cycles, land-use change and freshwater use are already in danger of being exceeded, and these will be compounded by climate change effects. According to FAO, the inclusion of adaptation measures in the fisheries and aquaculture sector is currently hampered by a widespread lack of targeted analyses of the sector’s vulnerabilities to climate change and associated risks, as well as the opportunities and responses available. In all agricultural<sup>1</sup> activities the interaction between ecosystem changes and management responses is crucial to minimize the threats and maximize the opportunities emerging from climate change. The focus of this session will be on changes in land and water ecosystem resources in response to climate change and the implications they may have for tradeoffs with other SDGs – particularly food security.

##### *Objectives*

- Analyze how climate change is affecting the tradeoffs between the use of land and water resource and food security
- Identify barriers to reducing climate change induced barriers to reducing tradeoffs that agricultural research can address
- Provide inputs to developing actions to enhance effective integration of climate change issues in the AR4D agenda.

##### *Expected outcomes*

- Recommendations for actions that can lead to effective integration of climate change into agricultural research
- Recommendations to ongoing development of the CGIAR 2-degree initiative for agriculture and food systems

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<sup>1</sup> Includes crops, livestock, fishery and forestry

4. **Rapporteur** (for brief report back to plenary on Friday, 12 October; ~10 min) **and affiliation:** TBC

5. **Session structure:**

*Chair: Sonja Vermeulen WWF*

**Part I – Climate change impacts on tradeoffs (1 hr 15 minutes)**

- Intro: the CGIAR climate change initiative - initial thinking and key tradeoffs considered (15 mins)  
Philip Thornton (CCAFS)
- Climate change and the tradeoffs between land use and food production – a major shift (15 mins)  
Virgilio Viana (FAS)
- Climate change and the tradeoffs between water resources (oceans, inland waterways), fisheries/aquaculture and food security (15 mins)  
Manuel Barange (FAO)

*Discussants:* 3 minute interventions on the following: Building on the three presentations

- Are there other key climate change induced tradeoffs that CGIAR should be focusing on?
- What are the key barriers to reducing tradeoffs and enhancing synergies?

Leslie Lipper (ISPC), Sue Walker (ARC) Weiping Hao (CAAS) TBC

*Group discussion*

*Break (30 mins)*

**Part 2 – What should AR4D be doing about climate change?**

Panel discussion about specific actions needed in CGIAR to address the issue (50 mins)

What is the specific role of agricultural research in reducing tradeoffs, enhancing synergies?

- Shifting our priorities
- Changing the way we measure success
- Changing the way we design and implement research (methods, tools, data)
- Changing the way we communicate research

Panel: Ana Paula Aguiar (SRI) TBC, Juergen Kropp (PIK), Jacques Wery (ICARDA), Holger Meinke (ISPC)

*Summing up (10 mins)*