

Feedback Session on L.2.1 to L.2.5: "Climate-smart strategies"

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Feedback from Parallel sessions L2

« Climate-smart Strategies »

Parallel session L2.1: Developing and

evaluating climate-smart practices

Parallel session L2.2: Facing climatic

variability and extremes

Parallel session L2.3: Combining mitigation,

adaptation and sustainable intensification

Parallel session L2.4: Breeding and protecting crops and livestock

Parallel session L2.5: Overcoming barriers: policies and institutional arrangements to support CSA

Chair: Munyaradzi Chitakira

Chair: Arona Diedhiou

Chair: Ken Cassman

Chair: Louise Jackson

Chair: Allison M. Chatrchyan



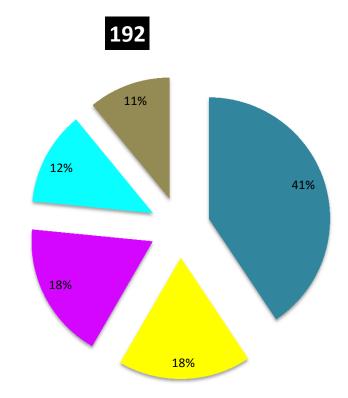
Key figures from Posters sessions



Total number for Session "Climate-smart strategies"

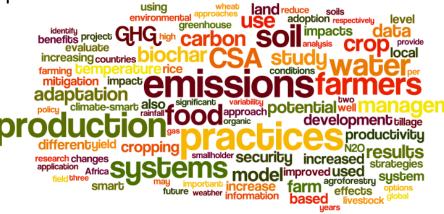
Distribution within the 5 subsessions

- L2.1 Developing and evaluating climate smart practices
- L2.2 Facing climatic variability and extremes
- L2.3 Combining mitigation, adaptation and sustainable intensification
- L2.4 Breeding and protecting crops and livestock



L2.5 Overcoming barriers: policies and institutional arrangements to support CSA

L2.1 Developing & evaluating climate smart practices



L2.3 Combining mitigation, adaptation & sustainable intensification effect However strategies stakeholders



L2.2 Facing climatic variability & extremes



L2.4 Breeding & protecting crops & livestock



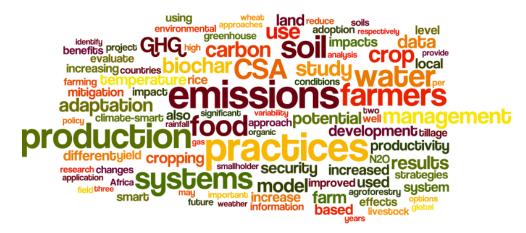
L2.5 Overcoming barriers: policies and institutional arrangements to support CSA



ALL POSTERS IN L2

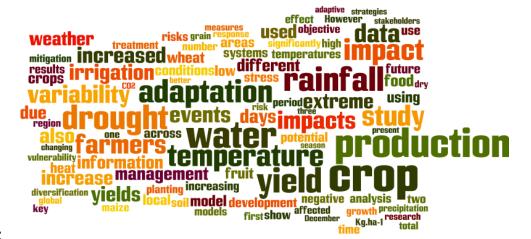
- 1. Key scientific and societal issues
 - Mixed approaches for analysis of impacts; either adaptation or mitigation
- 2. Major trends
 - Risk of transition as a challenge. Many options, which ones? Which barriers?
- 3. Knowledge gaps and research needs
 - How to deal with the transition CSA creatively
 - Effective spatial & temporal framework; info needed to scale up or down for a specific context or place; heat stress + CO2 + drought complexity
- 4. Any missing topic
 - How to set CSA priorities in different contexts, sharing across sectors
 - Explicit ecosystem services framework societal issues
- 5. Divergent views
 - Should we focus more on under-utilized crops; should we focus more on systems or landscapes... Recycling old themes under CSA umbrella

L2.1 Developing & evaluating climate smart practices



- 1. Key scientific and societal issues
 - Need for a "CSA-Plan": Tool, with stakeholder engagement and steps
 - Studies range from modeling to evaluating effectiveness of CSA
- 2. Major trends across oral presentations
 - Focus on case studies including both crop and livestock farming systems
 - Importance of stakeholder-based methodologies
- 3. Knowledge gaps and research needs
 - Deep engagement in implementation initiatives
 - CSA and gender dynamics
- 4. Any missing topic (based on your expertise)
 - Large scale commercial farming sector neglected, but also needs CSA

L2.2 Facing climatic variability and extremes



1. Key scientific and societal issues

- Impact of climate changes (climate variability, extremes) on crop production and yield (adaptation).
- Increasingly adverse role of higher temperatures on yield

2. Major trends across oral presentations

- Evidence of climate changes at different scales (in historical data and climate projections)
- Collaborative efforts in the agricultural modelling community (ISI-MIP and AGMIP projects)

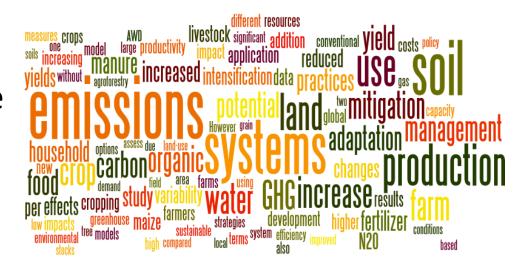
3. Knowledge gaps and research needs

- Setup and enhance integrated observing and monitoring systems (lack of data)
- 4. Any missing topic (based on your expertise)
 - What metrics for CSA at what scales? How to define a baseline integrating both component of CSA?

5. Divergent views, if any

Potential for under-utilized crops to improve food security

L2.3 Combining mitigation, adaptation and sustainable intensification



1. Key scientific and societal issues

- Need for good local weather and soil data to predict impacts of climate change and help farmers to adapt to it
- Radical innovations at large scale to meet SI goals
- What can CSA learn from REDD+

2. Major trends across oral presentations

- Drastic innovations are needed to meet mitigation goals
- Solutions have to look beyond field or animal level

3. Knowledge gaps and research needs

- Importance of scale: from plot to farm, community, landscape. Interventions are needed at each level.
- Potential trade offs with food security smart effort sharing across sectors and locations
- Constraints at landscape level or at policy level may prevent adoption of CSA

L2.4 Breeding and protecting crops and livestock



1. Key scientific and societal issues

- Importance of genetic variation and knowledge of env.-genetic interactions
- Building geographic and climatic variation data sets related to genetic variation

2. Major trends across oral presentations

- Rich and abundant genetic and genomic data; high-through put phenotyping
- Analogs for climate change based on spatial and temporal data sets

3. Knowledge gaps and research needs

- Loss of ecotypes due to climate change, incl. wild relatives
- How to use existing ecotypes most wisely

4. Any missing topic (based on your expertise)

- Using genotypic differences in global crop modeling to portray adaptation potential
- Participatory plant breeding
- How to breed for complex populations and crop mixtures

5. Divergent views, if any

How open should data sets be esp. with private companies?

L2.5 Overcoming barriers: policies and institutional arrangements to support CSA



1. Key scientific and societal issues

 Adoption of CSA practices remains low; Need for stronger institutions; Systematic analysis of barriers to adoption

2. Major trends across oral presentations

- Institutional barriers include ag specific and societal (lack of investment in research, education, training, infrastructure, land use planning)
- Specific barriers include lack of CSA Info, high adoption risk, supply and technology issues, open data, research & extension capacity

3. Knowledge gaps and research needs

- Appropriate Scaling of Intl/Natl Priorities down to Farm-level, scaling up practical needs to research and Policy.
- What is Extension Capacity in each country; Capacity building

4. Any missing topic (based on your expertise)

- Systematic definition of CSA adaptation practices
- How to fully engage stakeholders