Climate-Resilient Agriculture (CRA) and Agricultural Innovation Systems (AIS)

Ann Waters-Bayer (ann.waters-bayer@etcnl.nl)

PROLINNOVA (Promoting Local Innovation in ecologically oriented agriculture and natural resource management)

www.prolinnova.net
Conventional approach to climate-smart agriculture

- Focus on technologies:
  - to reduce GHG emission (mitigation)
  - to cope with climate variability or uncertainty (adaptation)
  - to increase production (growth)

- Linear transfer-of-technology

- Opportunity of CC-related interest & funding:
  “climate-smart” label to promote uniform technologies that are scalable and marketable

- Knowledge of “experts” in research and agro-business regarded as supreme
AIS perspective on CRA

- Inclusive processes of creating and sharing knowledge by diverse actors who develop and apply appropriate solutions for diverse areas that experience CC in different ways.

- Leading to site-specific techniques & organisational forms that:
  - Contribute to mitigation and adaptation, yet also
  - Meet current requirements for food security, in ways that
  - Maintain system capacities to weather shocks and adjust to uncertain future

- Innovation (successfully applying new ways of doing things): outcome of interactive learning & negotiation among diverse actors
Development of CRA requires:

- Combining technological & organisational improvements in production, processing and distribution
- Policies that create incentives for low-carbon-emissions pathways
- Institutions that can catalyse and facilitate relevant change
- Approaches that support continuous, decentralised and equitable processes of generating, applying and adapting climate-smart solutions
Key to climate-resilient agriculture:

Resilient communities practising forms of farming that reduce / handle risk and can adapt

Communities can do so more quickly if:

- They are part of vibrant AIS encompassing all necessary actors, and

- All actors are aware of CC risks and opportunities, and of implications of these for their choices.
Climate smartness as added value

- Avoid too narrow focus on generating and disseminating specifically “climate-smart” technologies
- In “resource-poor” areas, AI processes functioning not primarily because of CC but more immediate pressures
- Outcomes may be climate-smart as added value, if using local resources wisely and flexible in application
- Supporting these local initiatives and improving local actors’ linkages with others in broader AIS can enhance adaptive capacity, even if AI processes not focused on CC
Focus on resilience

- To thrive under changing conditions, farmers must innovate continuously and efficiently
- Resilience is outcome not of particular technologies but of increased capacity of AIS to adapt
- Well-functioning AIS recognises and links contributions of all actors
- PROLINNOVA therefore encourages researchers and advisors to recognise how farmers innovate in the face of change and to strengthen local initiatives
- Improves linkages between farmers, researchers and advisors on more equitable basis than in conventional approaches to R&D
- Makes them better able to interact further in adapting to new pressures and opportunities
More than production

- AIS for CRA not confined to interactions between farmers, researchers and advisors
- Must include attention to:
  - land-tenure arrangements
  - risk-management strategies
  - effective communication systems
  - nimble agro-services that allow flexibility and choice
Issues for this session

- How can an AIS perspective be applied in developing CRA?
- What key issues in terms of technologies, processes, institutions and policies need attention if one approaches CRA from an AIS perspective?
- What examples do participants have about on-the-ground experiences in applying an AIS perspective to CRA?
- What are the challenges / gaps and opportunities?
Expected outcomes of this session

- Better understanding of how AIS perspective can be applied in developing CRA
- Recommendations for people trying to apply it
- 10-minute summary for Friday plenary
- Possibly more elaborated “think-piece” on applying AIS perspective to CRA