



Practical research for climate protection in organic agriculture
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Experiences from the MERCATOR Adaptation Project

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Global review and conceptual work plus a project region in Mali

- Focus: wider context for practical research
- Adaptation to climate change



Three key points for this presentation

- › A) What do we look at when we address adaptation to climate change – or: what is adaptation?
- › B) What determines the adoption of adaptation measures?
- › C) What exactly are we doing, when we support adaptation to climate change in farming systems?

A) “What is adaptation” can be addressed on three levels:

1) Livelihood basis:

«save the crop»

2) Livelihoods

«save the farm»

3) Livelihood context:

«save the
community/people»

Example: increased water scarcity

1) Use **simple indicators** that correlate highly with improved performance of different practices, etc.:

water use efficiency; soil carbon levels; etc.

2) Use **performance indicators** to compare practices / farming systems (e.g. for different irrigation schemes; different crop rotations; etc.):

farm income; total calories; total protein; etc.

3) Address the **institutional context** that supports improved performance:

provision of irrigation infrastructure; market access; alternative income sources; etc.

What about transformational adaptation?

Farm level adaptation practices: Meta-analyses/reviews plus practical research

- › Good overlap in the project region, but
- › some practices from the literature are not adopted (tillage),
- › other practices are applied but under-researched on a review-level (agro-forestry).
- › Address promising but challenging combinations of practices (organic and conservation agriculture)

B) Most important determinants for the adoption of adaptation measures

Literature:

› age	28	not sign./highly sign. younger
› sex	27	not sign./highly sign. male
› education	25	positive trend
› experience	23	positive trend
› household size	32	slightly positive trend
› farm Size	23	no trend
› credit	11	positive trend
› information	7	no trend
› extension services	16	very clear positive trend
› farm income	18	positive trend
› off-farm income	10	slightly positive trend
› perception of climate change		

In the field:

- › Farmer-researcher approach and networks

C) What are we doing when we support adaptation?

In a context such as in Mali:

- › For assuring long-term success, practical farm research needs to be complemented with institutional development
- › We shape structural change in the agricultural sector
- › We do work that is traditionally part of agricultural policy

Concluding remarks

- › A) What is adaptation?
 - › Plot – farm – community level, and it goes as far as «transformation of livelihoods»

- › B) Adoption of adaptation measures?
 - › Farmer-researcher interaction; extension services; institutional setting

Concluding remarks

- › C) When working on adaptation - what are we doing?
 - › Classical policy tasks: Agricultural policy and institutional development
 - › Structural change

What does this mean for the business case?

- › It is not only doing business in a given policy and institutional context,
 - › but also about developing and shaping this context
- › Just as practical research develops agronomic solutions, we need a practical research approach for the institutional aspects



Thank you for your attention