

HOW WILL EU CLIMATE ADAPTATION STRATEGIES AFFECT EU AGRICULTURAL POLICIES

Paper presented at Science for the Environment, Aarhus,
October 4, 2013

**Helle Ørsted Nielsen, Eleni Karali, Sergio Castellari, Anders
Branth Pedersen**

OUTLINE

1. Climate change and agriculture: the challenge
2. Analytical framework: policy integration
3. EU adaptation strategy
4. Integration of climate adaptation into agricultural policies
5. Conclusion: how will adaptation strategy affect agricultural policy?

Climate change: The challenge

Changes

- Longer term changes in precipitation and temperatures
- Year-to-year variability and extreme events

Impacts

- Volume, quality and stability of food production
 - Risks: decreased crop productivity, water scarcity and increased irrigation needs, flooding; soil quality degradation; desertification, livestock production
 - Opportunities: increased crop productivity, water abundance, livestock production
- Indirect effects on natural environment

Regional variation

Climate adaptation in agriculture

- Adapting food production to changing climate
 - Farm-level: Adjustment of farm management
 - Sector level: policy, planning and research
- Providing ecosystem services
 - Efficient use and management of water
 - Prevent biodiversity loss, ensure connectivity
 - Contribute to multifunctional landscapes

Our question

- How will the EU adaptation strategy affect agricultural policies?

Analytical framework

4.3. Climate-proofing EU action: promoting adaptation in key vulnerable sectors

One priority and responsibility for the Commission is to mainstream adaptation measures into EU policies and programmes, as the way to ‘climate-proof’ EU action.

10

- FROM: An EU strategy on Adaptation to climate change COM (2013)216 Final

Policy integration

- Inclusion, consistency and weighting (Brouwer et al. 2013)
- (Reporting)
- Instruments

Analytical strategy

Content analysis of

- Main EU agricultural policies, CAP
- Directives relevant for environmental impact and delivery of ecosystem services:
 - Water framework directive
 - Nitrate directive
 - Habitat directive

EU CLIMATE ADAPTATION STRATEGY

- Action 6: Facilitate the climate-proofing of the Common Agricultural Policy (CAP)
- Four broad types of instruments
 1. Improved framework for sustainable management of resources
 2. Financial support through rural development fund for targeted measures
 3. Research and innovation: EIP on agricultural productivity and sustainability
 4. Knowledge transfer
- Partnership agreements: reporting

Proposed CAP

- Inclusion of climate adaptation as objective
 - *Objective 2: Sustainable management of natural resources and climate action* includes climate adaptation
 - In the direct payment regulation
 - In the rural development programme
 - Two of six priorities relate to climate adaptation
 - Cross cutting objectives to be pursued horizontally include climate change adaptation

Ecosystem impacts 1

- Water Framework Directive (2000/60)
 - Objective: to promote sustainable water use ...to contribute to mitigating the effects of floods and droughts
 - Consistent with adaptation objectives
 - Ensure efficient water management
 - Ensure water quality through water management practices

Ecosystem impacts II

- Nitrate directive (91/676/ECC)
 - Objective: to reduce water pollution from nitrates coming from agricultural sources.
 - Consistent with adaptation objectives
 - Efficient use of resources
 - water management, preventing runoff

Ecosystem impacts III

- Habitat directive, 92/43/EEC
 - Objective: to promote the maintenance of biodiversity
 - Consistent with adaptation objectives
 - preventing biodiversity loss through multifunctional landscapes with connectivity
 - Improved pest management through crop rotation, monitoring etc.
 - Consistent with agricultural production?

Policy consistency?

- Consistency with other policy objectives
 - Viable food production: farm income and limiting variability ✓
 - Water management and biodiversity policies ✓
- Consistency not explicitly addressed
- No weighting of policy objectives

Adaptation in CAP - Instruments

- **Single payment (income support):**
 - Greening: 30 percent of income support
 - Cross compliance to include climate actions
- **Rural development fund**
 - Targeted support to large array of adaptation measures

Conclusion: policy integration

- Adaptation is included in CAP
- No major policy inconsistencies
- But no weighting of multiple policy objectives

So: does this mean adaptation strategy was effective?

Conclusion: policy effectiveness?

- Consistent objectives, but competing for attention and distribution of funding?
- Compulsory measures vs. voluntary measures
- Farmers: attention and motivation?
 - Perception of adaptation: supporting production (adapting to weather variability, business as usual)?
 - Broader ecosystem services