**Adaptive Management of Rural Land Use Systems: the Common Agricultural Policy**

**Key Messages**

- Adaptive management is the process of regularly adapting policy responses in view of new knowledge and experience. Policy measures can, in some cases, stimulate adaptive responses to climate change risks and strengthen overall resilience.

- Key elements to strengthen adaptive management include: (1) polycentricity of governance structures, (2) functional networks and cooperation, (3) access to information and elicitation, and (4) opportunities for learning.

- The regionalised arrangements observed with regards to regulatory-organisational agricultural policy structures are shown to be effective first steps towards effective agricultural adaptation, but sometimes measures are still implemented in way that they do not reach farmers.

**Context**

Adaptive management refers to the process of continuously re-evaluating and assessing management in light of new information and experience. It is a central concept in climate change adaptation as it provides a structured approach to promote learning, co-decision making and flexible approaches in light of high uncertainties. Adaptive management can lead to better responses to climate change impacts and build resilience in society.

Adaptive management can be strengthened through policy action and appropriate governance. Key dimensions include: (1) polycentricity of governance structures, (2) functional networks and cooperation, (3) access to information and elicitation, and (4) opportunities for learning.

This Insight presents briefly these four dimensions and an application to land use management in the East Midlands (UK) to illustrate how they can be used to evaluate the capacity of existing institutional arrangements to promote adaptive management.

**Policy and methodological developments**

**Overview of the four dimensions for promoting adaptive management**

**Polycentricity** refers to the diversity of agents and interactions which contribute to a network structure with various nodes that signify authority and leadership. For cooperation to be successfully realised across different but interconnected networks, the role of leaders needs to be clear, in order to deal with power issues and potential conflicts. The people involved in such collaborative efforts need be able to communicate a common vision. In this case, agricultural adaptation to climate change is thought of as the common goal. Both the relative risk perception and the individual’s perceived capacity to adapt play a role with regard to adaptation activities (Grothmann & Patt 2005). Farmers need information on climate risks, the risk probability as well as the costs of such an event in order to assess their individual need to adapt. Access to information is the first step in the individual process of capacity building with regard to adaptation. **Elicitation** refers to the process of providing occasions and incentives for stakeholders to provide information such as interviews, questionnaires or agenda points with lead questions (Newig et al. 2013). **Establishing a context for knowledge** sharing is paramount when aiming for successively building up adaptation to climate change at the regional and local level. Therefore, it is necessary to ensure sufficient resources to institutionalise learning and set incentives that enable people to network and create communities of practice.

**Application to European rural land use systems**

The main European policy for rural land use management - the Common Agricultural Policy (CAP) -
has started to encourage adaptation to climate change by encouraging mainstreaming of adaptation in the financing of rural development programme (the so-called 2nd pillar of the CAP). However, it is unclear how far institutional arrangements of the 2nd pillar of the CAP promote adaptive management. The analysis below presents an assessment of how far governance arrangements of rural development programming in the East Midlands promote adaptive management.

**Polycentricity in the East Midland**

A Regional Implementation Programme (RIP), effective from 2007 to 2013, has been set-up to deliver the Rural Development Programme for England (RDPE). The Regional Programme Management Group (PMG) governs the RIP and is accompanied by meetings of a Regional Consultative Group (RCG) (Ibid.).

Decisions on agricultural planning in the East Midlands have been impacted by newly established networks and groups, for example by the Local Action Groups and Rural Farming Networks, institutionalised by the EU CAP. Rural Networks, a form of technical assistance to improve governance and effectiveness of Rural Development Programmes, are in place to “spread good practice” and encourage wider stakeholder participation and involvement beyond the region (Marquard 2010: 8). The implementation is characterised not just by a horizontal network of farmers and their respective municipalities, but also involves regional and national authorities, which makes it both multilevel and polycentric (Naustdalslid 2014).

Decisions that are part of the RIP are discussed in these different forums and meeting constellations, with a wide range of actors.

In addition, the structures of decision-making are open to changes, as both the PMG and the RCG are arrangements under on-going review and can be adjusted if that is considered necessary (RDPE 2010). Leadership roles are thus clear, but not overpowering the exchange of ideas and approaches to decisions that are made in the context of the regional CAP implementation.

**Networks and cooperation**

Networking structures have been institutionalised and funded by the EU and the national government. Cooperation and networking in the East Midlands is visible in several publicly funded formats, such as “Climate East Midlands”. A look at its partners reveals a very broad association of participants (public authorities, local councils, businesses, health sector). Farmers in the East Midlands can also engage in workshops organised by the partnership. Thus, implementation is a cooperative effort that involves stakeholders from different backgrounds and establishes a strategy that reflects EU objectives. Furthermore, the strategy responds to and integrates regional features and needs by means of participatory negotiation meetings and additional projects. While it is not always clear who is chosen to participate and whether this is on equal term, the ‘learning by doing’-attitude seems to be prominent.

**Information access and elicitation**

Targeted information on agriculture and climate change is provided online. However, the information provided is often not instructive, but only informatively-descriptive to the point where one knows that such cases of agricultural adaptation exist. Also, local data is not aggregated to inform regional planning, let alone national planning. Furthermore, regional and national information on climate change activities does not highlight the impact of the CAP on climate change adaptation, merely listing it as a tool for funding. The link between the CAP as a regulatory framework that can set incentives for agricultural adaptation to climate change is not explicit. Not surprisingly, agricultural adaptation to climate change with regard to policy planning and implementation is subsequently not yet monitored explicitly.

**Opportunities for learning**

The consultation of experts is institutionalised by means of advisory services. These have been
increasingly made use of during the implementation of the 2007-2013 CAP (ADAS 2009). Stakeholders can participate in Local Action Groups, Rural Networks as well as in the decision-making meetings on the RIP. Unfortunately, the material under review neither indicates if the discussions can be characterised as ‘fair discourse’ nor does it allow for comments on trust relationships. This indicates that the CAP stimulates loci of knowledge exchange and that financial incentives exist that further promote information exchange. However, individual-level responses and effects need to be tested in greater depth in order to account for a build-up of individual adaptive capacity.

Main implications and recommendations

The four-pronged assessment framework allows for a rapid screening of institutional arrangements and their capacity to promote adaptive management. Specific focus is given on social and political factors as described by the level of interaction, learning and influence of different actors on decision-making.

The assessment of implementation of CAP in the East Midlands has highlighted first steps towards increasing farmers’ ability to change and adapt in relation to climate change. Decision-making with regard to regional agricultural planning allows for structural reinventions and a targeted approach to land management in a collaborative effort. The preconditions to perform constant re-invention and co-evolution in accordance with dynamic exterior effects while maintaining institutional and regulatory stability exist.

The assessment framework is more limited when it comes to evaluating the impact of institutional arrangements on adaptation at individual level. It was for example not possible to evaluate the level of individual learning. For that the framework should better consider socio-cognitive factors of agricultural adaptation.

Bibliography

ADAS, Central Science Laboratory, Countryside and Community Research Institute (2009), Evaluation of Cross Compliance.


