

Designing Efficient Agri-environmental Schemes Under Consideration of the Common Agricultural Policy (CAP) in Europe

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Agri-environmental measures in Europe have gained an increasing relevance over the last few years, not least due to the payments made available through the so-called second pillar of the CAP. By means of agri-environmental measures farmers are rewarded with an additional premium, when they voluntarily commit themselves to environment-friendly methods of agriculture or to measures of landscape maintenance. Agri-environmental measures are a mandatory component of rural development programs. However, systematic evaluations conducted in recent years have shown that the measures fail to achieve the desired results to some extent. The lack of spatial equivalence, in particular, is one of the main causes of deficits in reaching effectiveness as well as inefficiencies, and is related to the problem of “imperfect mapping”.

Based on a perennial ex-post evaluation process of the current agri-environmental program in the federal state of Brandenburg (Germany) we developed two approaches to implement more efficient agri-environmental schemes (AES). These two approaches refer to two crucial

environmental issues: the maintenance of biodiversity in the context of the Convention on Biological Diversity (CBD); and the improvement of water quality through the implementation of the European Water Framework Directive (WFD), one of the most important directives in the European environmental policy.

The majority of agri-environmental measures in Europe is explicitly action-oriented. Farmers abandon farming methods other than that defined in contracts between them and the executive. For the maintenance of biodiversity we suggest a so called result-oriented approach. In this approach the payment correlates directly to specific environmental conditions, i.e. certain types of plants. However, the most important fact is, that under the result-oriented AES, the farmer is able to decide in what way he produces in order to achieve the environmental goal . With such an approach the diversity of site conditions can be considered by each individual farmer. He may decide where there are adequate areas for special schemes and he can develop and apply a site-specific management. We will give an example for designing and implementing such result-oriented schemes for grassland using plant species as indicators.

In the second approach we took advantage of the new development in the European Integrated Administration and Control System (IACS) for certain Community aid schemes. Since 2005 the IACS has been linked to geographic information systems at the level of “agricultural parcels”. These spatial units can be used to assess the site potential for environmental sensitivity at a very detailed level for several AES.

Additionally, the new IACS makes it easier to introduce electronic tools to administrate site-specific aid. We will give an example how to use this approach to design efficient agri-environmental schemes reducing the nitrogen leaching. Such agri-environmental measures are most important for the successful implementation of the WFD.