

The role and significance of voluntary agri-environmental advisory services in minimising water pollution from the agricultural sector

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Background

As European agriculture is extremely diverse, ranging from large, highly intensive and specialised commercial holdings to subsistence and semi-subsistence farming using mainly traditional practices, the impacts on the environment vary in scale and intensity and can be either positive or negative.

However, pollution from different agricultural sources represents one of the key impacts on water bodies. In the national synthesis of the submitted Article 5 reports of the EU Member States, nutrient inputs and eutrophication in all categories of surface water are listed as the second most important pressure (WRc, 2005). In the past this pollution was mainly linked to food production, but due to the increasing demand of bioenergy a new driver exists (Dworak, et al, 2007).

Command-and-control approaches such as the EU Nitrate Directive have achieved only limited success in controlling pollution from agriculture. New governance approaches are emerging that involve voluntary co-operation between water suppliers, farmers and public authorities responsible for the sustainable management of water resources (Brouwer et al., 2003). Agri-environmental advisory services (AES) can represent such a new approach, which also has the advantage of allowing for tailor made solutions, considering, for example, type/size of farm or region.

Legal framework

There are several possibilities to set up AES on the EU level; however, there is no limit at the national level to limit the activities to the legislation mentioned below:

- The implementation of the cross-compliance requirements and standards under Reg. 1782/2003 is a challenging task that needs to be supported via farm advisory systems. Member States had to set up advisory systems by 1 January 2007. According to Article 13.2, the “*advisory activity shall cover at least the statutory management requirements and the good agricultural and environmental conditions*”.
- Under the Rural development Directive (Art 24) AES shall cover at a minimum the requirements set out in Regulation 1782/2003. Based on these requirements, such advisory service could focus on water resources management.
- The Water Framework Directive (WFD) requires setting up programs of measures which have to include cost effective measures to reduce water. AES could be included.
- The upcoming EU Marine Strategy will provide also programs of measures similar to those mentioned under the WFD.

Depending on the pressure, the content of such a service should be adopted specifically for each region or (local) river basin catchment.

AES in the Member States

According to the CIFAs Study (EEA, 2006) in 2005, AES can be classified as follows:

- In some MSs enough advisers to provide advice (AT, DK, GE, SE, SI, UK).
- Not enough advisers (CZ, EE, ES, GR, HU, IT, PL).
- Not enough advisers with training in environmental protection (EE, GR, HU, IT, PL, SI, ES).
- Not enough advisers for nature protection (AT, CZ, DK, EE, FR, GE, ES, GR, HU, IT).

However, it should be noted that due to the legal requirement to set up AES, the situation has significantly changed, especially during 2006, because massive training and staff recruitment took place in several Member States.

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AES and water protection

It is widely reported that AES can have a positive impact on water protection and AES are recommended often. However, currently only some detailed case studies exist that clearly indicate an improvement of the water state due to these services. Furthermore, the cost-effectiveness of such services is often mentioned, yet no detailed study was identified when compiling this paper. In order to close these knowledge gaps a more detailed EU wide assessment is recommended.

Success factors for AES

When designing and setting up AES several issues should be considered to ensure a high uptake by the farmer's community. Main issues are:

- Ensure easy access for farmers. This also includes the issue of funding these services.
- The design of a scheme has to reflect both the requirements that science demands and the practicability of the actual measure taken.
- Individual advice is the most effective but the most expensive.
- Develop tailor made solutions (e.g. type/size of farm, region).
- A combination of AES and other tools (demonstration farms, help-lines, websites, booklets, field walks) is recommended. This is especially important in cases where such services are voluntary. So, if a farmer is not willing to participate in a AES, he at least can use other tools.

Furthermore, farmers have various environmental obligations which are sometime confusing and difficult to meet. Therefore, the advisory service should be designed as an "all-round service" including more than only advisory talks (Keufer, and van Elsen, 2003):

- Design of AES should follow an integrated approach (water, soil, biodiversity).
- Advice for financial support activities.
- Communication-support if there are problems with environmentalists.
- Organizing actions together with nature-conservationists and other groups.

Further Work

When compiling this short paper, it became obvious that no detailed assessment of AES with a focus on water protection is currently available on the EU. With the growing importance such services, it is recommended to carry out a study that could:

- Identify "best practice";
- Clarify cost effectiveness;
- Improve administration; and
- Optimize existing services by exchange various AES approaches.

Literature

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