NATIONAL AGRI-ENVIRONMENTAL PROGRAMME 2004-2006 FOR POLAND: EVALUATION BY AGRICULTURAL EXPERTS, AGRI-ENVIRONMENTAL ADVISORS AND FARMERS

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In the paper an evaluation of the National Agri-environmental Programme 2004-2006 in the first membership period of Poland in the European Union (EU) is presented. Due to the short membership in the EU there are few empirical studies on agri-environmental measures in Poland. The aim of the paper is, thus, to reveal the importance of the National Agri-environmental Programme 2004-2006 in Poland by means of a primary research and evaluate consequently agri-environmental measures after the accession to the European Union. The evaluation is based on an explorative case study conducted in the voivodship Subcarpathia including interviews with three stakeholder groups: agricultural experts, agri-environmental advisors and farmers. Based on their estimations, different economic and ecological aspects of the implementation of agri-environmental measures as well as of the participation in the National Agri-environmental Programme 2004-2006 are revealed and discussed. The results confirm a positive notion of the National Agri-environmental Programme on the one hand and cautious acting of farmers resulting from the missing experience concerning agri-environmental measures in Poland. On the other hand the findings of the study can be helpful in solving existing problems and more effective designing of agri-environmental measures in Poland according to regional preferences with regard to environmental protection in rural areas.

Keywords: Agri-environmental measures, evaluation, environmental protection, Poland.

JEL classification: Q18, Q50.

Introduction

Since the accession of Poland to the European Union (EU) in May 2004 and the implementation of the “acquis communautaire” agri-environmental measures is obligatory for the policy of rural areas according to the EU regulation 1257/99 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF) (Europäische Kommission, 1999). In the first membership period in the EU the agri-environmental measures were realised within the National Agri-environmental Programme 2004-2006 and co-financed by 80 % from the European Agricultural Guidance and Guarantee Fund and by 20 % from the Polish state budget.

The budget available for agri-environmental measures amounted to 348.9 million € for the time period 2004-2006 and was stepwise extended in the respective years as follows: 70.5 million € in 2004, 116.2 million € in 2005, and 157.7 million € in 2006 (MRiRW, 2004, pp.129). The budget expenditures for agri-environmental measures can...
be spent according to the rule “n+2” during two following years after the Programme termination date. Afterwards, the budget not used for the approved objectives has to be repaid to the European Union (Europäische Kommission, 2004). Therefore, due to a low interest of farmers in agri-environmental measures in Poland in the first membership period in the EU, on 23.11.2006 the Committee for Monitoring of the Plan for Development of Rural Areas decided to shorten the budget for the National Agri-environmental Programme by 37 % down to 218.9 million € (MRiRW, 2007). The National Agri-environmental Programme is defined, planned and coordinated by the Polish Ministry of Agriculture and Development of Rural Areas. The competences regarding the preparation, realisation and control processes rest on the national and regional offices of the Agency for Restructuring and Modernisation of Agriculture. However, regional stakeholders have no impact on political decision-making processes and designing of the agri-environmental policy. In order to reveal preferences of the regional stakeholders with regard to the agri-environmental measures we conducted an explorative case study in the voivodship Subcarpathia in South-eastern Poland (Ziol-kowska, 2007a). Based on the results, the paper reveals several aspects of the implementation of agri-environmental measures from the perspective of experts and practitioners. Thus, the findings can be helpful to more effectively and problem-oriented solve existing problems of the agri-environmental measures in Poland in the following years.

The paper is structured as follows. First, the methodology of the case study is presented. Next, the evaluation results of the agri-environmental measures from the point of view of agricultural experts, agri-environmental advisors and farmers in the voivodship Subcarpathia are discussed. Further, problematic issues with regard to inputs and outputs related with the implementation of agri-environmental measures are analysed. Finally, conclusions for the future evaluation of agri-environmental measures are drawn.

Methodology

Due to a short membership of Poland in the European Union few empirical studies are known assessing the importance of the National Agri-environmental Programme from the point of view of regional stakeholders, especially farmers. In order to extend the knowledge in this term, an explorative case study was conducted in the voivodship Subcarpathia in September 2005. Within this study, 8 agricultural experts from the Marshalamt in Rzeszów (regional governmental administration), 26 agri-environmental advisors from all Agricultural Advisory Centres in the voivodship, and 100 farmers from the voivodship realising agri-environmental measures were interviewed. The farmers were interviewed by agri-environmental advisors in order to secure the reliability of the results and also due to the fact that personal interviews were not possible because of the personal data security. The choice of the interviewees was determined by the fact to include both political representatives (agricultural experts) and practitioners (agri-environmental advisors and farmers). The interviews of farmers have a particular importance as several studies suggest not to underestimate an active role of farmers in the participation process in agri-environmental programmes (Wilson, 1997; Wilson and Hart, 2001) and to perceive them as actors (Willock et al, 1999). According to Ward and Lowe (1994) as well as to Battershill and Gilg (1997) farmers should be appreciated as individual decision-makers whose decisions are influenced by external factors which are very seldom profit-oriented. Social values such as prestige and traditions, intrinsic values such as work satisfaction and independence, or expressive values such as pride of ownership and meeting a challenge are usually much more relevant for their decision-making. Also earlier studies proved that farmers’ decisions are not always or ever necessarily aimed at the profit (Herath et al, 1982; Turvey, 1991; Wise and Brannen, 1983). According to Wilson (1997) the engagement of farmers in the case study creates a chance for practitioners to evaluate political measures. The case study in the voivodship Subcarpathia had the following objectives:

1. Assessment of the economic and ecological issues and problems in the implementation process of agri-environmental measures in the first membership period of Poland in the European Union.

2. Assessment of the importance of the respective agri-environmental measures with regard to the environmental objectives by means of several methodical approaches such as Analytic Hierarchy Process, cost-benefit analysis, and Linear Programming (Ziolkowska, 2007b; Ziolkowska and Kirschke, 2007; see also: Kirschke et al, 2004, 2007). The following questions formed the basis of this research: estimation of the objective-oriented financing strategies for agri-environmental measures in Poland and analysis of the use of the available budget to effectively achieve the objectives of environmental protection in rural areas.

The focus of this paper is on the first issue. Using the Statistical Data Analysis Programme SPSS we analyse different aspects of the implementation of agri-environmental measures in Poland after the accession to the European Union.

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1 Voivodship – regional administrative unit in Poland
Evaluation of the agri-environmental measures

Evaluation by agricultural experts, agri-environmental advisors and farmers

The evaluation of the National Agri-environmental Programme 2004-2006 by agricultural experts, agri-environmental advisors and farmers makes it possible to compare environmental priorities and to identify the perspectives of the development of agri-environmental measures, the problematic issues to be solved, and the need for action in order to make the agri-environmental measures more effective and efficient both for farmers and the environment.

The evaluation given by all stakeholder groups with regard to general interest of farmers in the agri-environmental measures shows several similarities (fig. 1).

According to the results, all interviewed stakeholders assessed the interest of farmers in the participation in the National Agri-environmental Programme as “average” (50 % - agricultural experts and agri-environmental advisors, 53 % - farmers) and “high”. Differences in the statements between the respective groups are visible for the response “very high” and “low”. Hence, 25 % of the experts assessed farmers’ interest as “low”, followed by farmers (14 %) and agri-environmental advisors (7 %). Only agri-environmental advisors (7 %) and farmers (4 %) assessed the interest as “very high”.

As a correlated variable, the access to information on the agri-environmental measures can be defined. The results indicate that the evaluation of the information access is differentiated between the respective stakeholder groups. 50 % of the experts estimated the information access as “average” and 25 % as “good” and “insufficient” respectively. Different evaluation was given by agri-environmental advisors. 81 % estimated the information access as “good”, 11 % as “average” and 8 % as “very good”. As agri-environmental advisors are responsible for the information dissemination, the responses can be biased depending on the engagement in the information delivery by the respective advisors. Farmers evaluated the information access more positively than experts. 55 % of farmers assessed the information as “good”, 22 % as “very good”, 18 % as “average” and only 5 % as “insufficient” (Fig. 2).

Apart from the agri-environmental measures, the stakeholders (87.5 % of experts, 84.6 % of agri-environmental advisors, and 67 % of farmers) emphasized the necessity to invest additionally in other environmental-friendly measures which are only indirectly combined with the National Agri-environmental Programme. Thus, positive ecological perception of the interviewed stakeholders can be noted.

Within the case study, also potential environmental risks which should be minimised by means of the agri-environmental measures were analysed. The findings indicate that some issues defined in the National Agri-environmental Programme 2004-2006 as problems to be solved, such as overproportional intensification of meadow and pasture farming, changes in agrarian systems (extension of farming areas and simultaneous abolishment of natural valuable areas) or intensification of agricultural production which can cause erosion and water pollution, were assessed by most of the stakeholders as “very low” or “not existing” in the voivodship.

The objective of agri-environmental measures is to improve the environmental quality or else to minimise the existing environmental dangers. These objectives can be achieved in the regions where the problems exist. The obtained results show that potential “spillover effects” can be predicted in the voivodship Subcarpathia. “Spillover effects” can emerge in situations when due to “advantageous” natural conditions farmers do not need to perform high inputs to achieve a given level of environmental benefit and get the financial support. The financial support for the implementation of agri-environmental measures is, thus, higher than the costs resulting from the realisation of the measures. Hence, the situations can emerge when the implementation of agri-environmental measures does not bring any visible improvement in the environmental quality.

In order to prove this hypothesis the stakeholders were asked about the costs and efforts resulting from the
implementation of agri-environmental measures. The results reveal that most of the stakeholders assess the costs and efforts as “average”. The evaluation is displayed in figure 3 and 4.

![Figure 3](image3.png)

**Fig. 3.** Investment costs for agri-environmental measures as evaluated by experts, agri-environmental advisors, and farmers  
*Source: Personal calculation*

![Figure 4](image4.png)

**Fig. 4.** Work efforts for agri-environmental measures as evaluated by experts, agri-environmental advisors, and farmers  
*Source: Personal calculation*

The results indicate that 50 % of the experts assessed investment costs and 62.5 % the work effort as “average”. 65.4 % of the agri-environmental advisors and 50 % of the farmers assessed both investment costs and work effort as “average”.

Simultaneously, the stakeholders assessed potential benefits of the agri-environmental measures very positively. About 58 % of the agri-environmental advisors and 42 % of the farmers assessed the environmental effects as “high” while 75 % of the experts as “average” (fig. 5).

![Figure 5](image5.png)

**Fig. 5.** Awaited environmental benefits of the National Agri-environmental Programme 2004-2006 as evaluated by experts, agri-environmental advisors, and farmers  
*Source: Personal calculation*

As the awaited environmental benefits were assessed positively and costs and work efforts as average, potential spillover effects can be presumed.

The results also show that in terms of motives and reasons for the participation in the National Agri-environmental Programme the financial aspects are decisive (90 % of all interviewed farmers). The decisions on the participation in the National Agri-environmental Programme are additionally determined by environmental aspects (36 %) and the wish to alter production systems (16 %). The agri-environmental measures have, thus, a double function – on the one hand the measures are political instruments to improve the environmental protection in agriculture and to maintain valuable natural and cultural resources in rural areas, and on the other hand they can have unplanned side-effects and can be seen by farmers as a source to improve financial situation of their farms.

**Detailed evaluation by farmers**

Farmers were chosen for the case study in order to more precisely reflect the situation in agriculture and the implementation of the agri-environmental measures from the practical point of view. Additionally, farmers are also directly concerned by political regulations with regard to the agri-environmental policy. Thus, farmers’ perception and estimations can be helpful for political decision-making processes.

According to the results, 94 % of the interviewed farmers wish to continue realising the agri-environmental measures after the completion of the running contracts. The preferences with regard to the measures are displayed in figure 6.

![Figure 6](image6.png)

**Fig. 6.** Realisation of the agri-environmental measures in 2005 and interest in continuing  
*Source: Personal calculation*

The results show visible differences between the current implementation of the agri-environmental measures in the voivodship in 2005 and the interest of farmers to continue the measures. Thus, no interviewed farmer wishes to realise the measure ‘Sustainable agriculture’, which is by 9 % lower than the number of farmers who realised this measure in 2005. 34 % of farmers declared the wish to
continue ‘Organic farming’ which is by approximately 10 % more than in 2005 in the voivodship Subcarpathia. The interest in the realisation of the measure ‘Extensive meadow farming’ is by about 10 % lower than in 2005. The interest in the other measures is comparable with the structure of the contracts in 2005. The presented number of current contracts and the interest of farmers in continuing the agri-environmental measures can not be absolutely compared as the interviewed farmers denote solely a random sample of all farmers in the voivodship. However, the displayed comparison is a kind of reflection of the real preferences with regard to agri-environmental measures in the voivodship Subcarpathia.

Farmers’ perception of the National Agri-environmental Programme is positive, however, 61 % of all interviewed farmers are not willing to extend the farming area for agri-environmental measures which is determined by far distances to the farming plots, changes in the farm ownership or other regulations of tenant contracts.

With regard to supporting institutions, the Agricultural Advisory Centres and agri-environmental advisors mostly motivated farmers to participate in agri-environmental measures. Only 10 % of the farmers participated in the National Agri-environmental Programme on their own initiative. Neighbours and family had again no influence on the decision on the implementation of agri-environmental measures. Regarding the information sources, agri-environmental advisors, training courses, and media sources were of the highest importance. The used information sources on the National Agri-environmental Programme in the voivodship Subcarpathia are displayed in table 1.

Table 1. Sources of information on agri-environmental measures in the voivodship Subcarpathia in 2005

<table>
<thead>
<tr>
<th>Source of information</th>
<th>Number of statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agri-environmental advisors</td>
<td>99</td>
</tr>
<tr>
<td>Training courses</td>
<td>94</td>
</tr>
<tr>
<td>Professional journals</td>
<td>43</td>
</tr>
<tr>
<td>Radio</td>
<td>42</td>
</tr>
<tr>
<td>TV</td>
<td>42</td>
</tr>
<tr>
<td>Information brochures</td>
<td>42</td>
</tr>
<tr>
<td>Internet</td>
<td>41</td>
</tr>
<tr>
<td>Neighbours/ Family</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Personal calculation

Moreover, 59 % of the interviewed farmers declared to be interested in participation in decision-making processes in order to help in designing agri-environmental measures in future. Their help could be related to information and experience exchange (50 %) and engagement in research analyses (12 %).

The presented results confirm relatively high interest of farmers in the participation and active engagement in evaluation and design of the agri-environmental measures.

Discussion and Conclusions

In this paper results on an evaluation of the National Agri-environmental Programme 2004-2006 were presented as subject to statements of agricultural experts, agri-environmental advisors and farmers in the voivodship Subcarpathia. Since the accession of Poland to the European Union the National Agri-environmental Programme is a new political instrument to improve environmental protection in rural areas. Due to the short membership in the EU, no empirical evaluation has been undertaken so far. The paper reveals, thus, new findings in terms of the agri-environmental measures considering regional evaluation. With respect to different stakeholders in the evaluation processes the necessity for more precise and complete estimation of the existing problems in the implementation of agri-environmental measures, was established.

The results prove that in most questions the responses given by agricultural experts, agri-environmental advisors, and farmers are similar. Hence, all stakeholders assessed the interest of farmers in the participation in the National Agri-environmental Programme as “average”. This can be explained by the fact that the implementation of agri-environmental measures required additional investments (“non-productive investments”). So, not each formally “eligible” farmer was able to cover these costs. Moreover, due to the missing experience with agri-environmental measures in Poland, many farmers tend to be prudent and cautious.

The results also show relations between inputs and outputs of the National Agri-environmental Programme – investment costs and work effort resulting from the implementation of agri-environmental measures as well as awaited environmental benefit. All stakeholders assessed investment costs and work effort as “average”. The environmental effects which can be achieved with agri-environmental measures were evaluated mostly as “high” by agri-environmental advisors and farmers and as “average” by agricultural experts. Thus, from the point of view of the interviewed stakeholders the implementation of agri-environmental measures principally does not require overproportional investments. Hence, spillover effects can be potentially predicted.

According to the farmers’ evaluation, most of them are interested in the realisation of the measures ‘Organic farming’ and ‘Extensive meadow farming’ in the voivodship Subcarpathia. However, most of farmers name “financial aspects” as the main reasons for the participation in the National Agri-environmental Programme followed by “environmental aspects” and “the wish to change production systems”. Thus, in this term, measures should be undertaken to sensitisate farmers for environmental problems and to teach them to understand agri-environmental measures as not only
financially supported activities but also as services for the environment and society. This idea is already widely promoted by the European Commission.

The results of the study can be helpful in designing the measures in the National Agri-environmental Programme according to regional environmental priorities.

References