APPLICATION OF NON-PROJECT MEASURE OF THE RURAL DEVELOPMENT PROGRAMME 2014-2020 - MULTIFUNCTIONAL FIELD MARGINS (BIOSTRIPS ON ARABLE LAND) IN 2015

APLIKÁCIA NEPROJEKTOVÝCH OPATRENÍ V PROGRAME ROZVOJA VIDIEKA 2014- 2020 – – MULTIFUNKČNÉ OKRAJE POLÍ (BIOPÁSY NA ORNEJ PÔDE) V ROKU 2015

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I. Introduction

From the perspective of the European Commission, agri-environmental measures are regarded as an important element for integration of environment into the Common Agricultural Policy.

Agri-environmental measures were introduced into the Common Agricultural Policy for the first time in 1985 (Regulation (EC) No. 797/85 on agricultural structures), and the Member States had the opportunity of choice; in 1992 (EU Regulation No. 2078/92), agri-environmental measures become a binding part of rural development plans of all of the EU Member States, although they remained a voluntary instrument for farmers.

Agri-environmental measures are currently implemented not only by all of the EU Member States, but also by Switzerland and Norway. The measures may be designed at national, regional and local level so that they can be adapted to farming systems and environmental conditions of particular areas⁽¹⁾. Therefore agri-environmental measures have the potential to be an important tool for achieving environmental goals of the European Union. Agri-environmental measures

⁽¹⁾ European Commission. Agriculture and rural development. Agri-environment measures. [cit. 2015-10-24] Available online at http://ec.europa.eu/agriculture/envir/measures/index_en.htm

Abstract (EN)

Agri-environmental measures are a key element for the integration of environmental concerns into the Common Agricultural Policy. They are designed to encourage farmers to protect and enhance the environment on their farmland by paying them for the provision of environmental services. Farmers commit themselves, for a minimum period of at least five years, to adopt environmentally friendly farming techniques that go beyond legal obligations. In return, farmers receive payments that provide compensation for additional costs and losses of income resulting from applying those environmentally friendly farming practices in line with the stipulations of agri-environmental contracts. Agri-environmental measures may be designed at national, regional or local level so that they can be adapted to the particular farming systems and environmental conditions, which vary greatly throughout the EU. This makes agri-environment a potentially precise tool for achieving environmental goals.

Keywords (EN)

agri-environmental measures, Common Agricultural Policy, farmer, multifunctional field margins, Rural Development Program 2014–2020

Abstrakt (SK)

Agroenvironmentálne opatrenia sú kľúčovým elementom pre integráciu environmentálnych otázok do Spoločnej poľnohospodárskej politiky. Sú navrhnuté tak, aby podporili poľnohospodárov k ochrane a zlepšeniu životného prostredia na ich poľnohospodárskej pôde predovšetkým tým, že sa im vypláca kompenzačná platba za poskytovanie služieb v oblasti životného prostredia. Poľnohospodári sa zaväzujú, najmenej po dobu najmenej piatich rokov, aby prijali šetrné k životnému prostrediu poľnohospodárskej techniky, ktoré idú nad rámec zákonných povinností. Na oplátku, dostávajú poľnohospodári platby, ktoré poskytujú kompenzáciu za dodatočné náklady a ušlé príjmy vyplývajúce z použitia týchto ekologicky šetrných poľnohospodárskych postupov v súlade s ustanovením zmlúv agroenvironmentálne. Agroenvironmentálne opatrenia môžu byť navrhnuté tak na národnej, regionálnej alebo miestnej úrovni tak, aby mohli byť prispôbené konkrétnej poľnohospodárske systémy a podmienky životného prostredia, ktoré sa veľmi líšia v celej EÚ. Tým agro-environmentálne potenciálne precízny nástroj na dosiahnutie cieľov ochrany životného prostredia.

Kľúčové slová (SK)

agroenvironmentálne opatrenia, Spoločná poľnohospodárska politika, poľnohospodár, multifunkčné okraje polí, Program rozvoja vidieka 2014-2020

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are diverse, but broadly speaking, each measure has at least one of two broad objectives: reducing environmental risks associated with modern farming or preserving nature and cultivated landscapes⁽²⁾.

Within the framework of the measures, farmers voluntarily commit themselves to adopt environmentally friendly farming techniques that go beyond legal obligations for a minimum period of at least five years. In return, farmers receive payments that provide compensation for additional costs and losses of income resulting from applying the environmentally friendly farming practices in line with the stipulations of agri-environmental contracts.

II. Material and Methods

The main objective of this paper was assessment of implementation of the agri-environmental and climate measure – multifunctional field margins (biostrips on arable land) in conditions of Slovakia in 2015. Both primary and secondary information sources were used in elaboration of this paper.

Primary information sources were provided by the total number of applicants for this agri-environmental measure and its scope in terms of the size of the area, on which the agri-environmental measure should be carried out. The request for the provision of information was sent to the Agricultural Paying Agency in accordance with Act No. 211/2000 Coll. on free access to information, as amended. The letter informed us that our request for the provision of information was rejected because the Agricultural Paying Agency did not have the demanded data on that date due to the data not having been processed until that time.

Based on that, we used the method of interrogation and contacted the regional offices of the Agricultural Paying Agency directly (Trnava, Dunajská Streda, Nitra, Komárno, Levice, Nové Zámky, Trenčín, Zvolen, Rimavská Sobota, Lučenec, Košice, Michalovce, Trebišov, Prešov and Poprad). They provided us with data about the number of applicants and the size of the area required for the commitment of the agri-environmental measure – multifunctional field margins (biostrips on arable land). Subsequently, we used the method of direct communication when we contacted three farmers who inquired about the implementation of multifunctional strip at APA Regional Office in Nitra in 2015 in order to identify the factors that caused them not to apply for the agri-environmental commitment. Information related to the calculation of the support provided to the multifunctional field margins was also obtained from the Ministry of Agriculture and Rural Development of the Slovak Republic, Rural Development Section, Department of Environmental Activities.

Secondary information sources involved the Rural Development Programme of the SR 2007–2013 and the Rural Development Programme of the SR 2014–2020, related legislation, expert opinions and journal literature.

⁽²⁾ European Commission. [cit. 2015-10-24]
Available online at http://ec.europa.eu/agriculture/public-ports/agrienv/rep_en.pdf

When processing the primary and secondary sources of information, methods of analysis, synthesis, induction, deduction and scientific abstraction were used.

Results of the paper are based on the research tasks of the Jean Monnet Centre of Excellence, no. 54260O-LLP-1-2013-1-SK-AJM-P “EU Land Policy – Pathway towards Sustainable Europe” and Jean Monnet Networks project No. 564651-EPP-1-2015-1-SK-EPPJMO-NETWORK “Sustainable Land Management Network”

III. Results

Protection of agricultural land belongs to key areas of current environmental policy of both the European Union and Slovakia. Therefore, the European Union tries to eliminate the influence of agricultural activities considered as being the most crucial pollutant of agricultural land through its legislative, economic and voluntary instruments.

The intersection of environmental protection measures is most effectively achieved by means of economic instruments and it is through the subsidy policy of the Common Agricultural Policy (hereinafter referred to as CAP) at the level of the European Union. In the 2014–2020 programming period, there was a number of measures significantly enhancing the improvement in the area of protection of agricultural land implemented within the CAP pillars I and II. In the current programming period, the CAP pillar II is regulated by Regulation of the European Parliament and of the Council (EU) No. 1305/2013 dated 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and repealing Council Regulation (EC) No. 1698/2005. The Regulation controls agri-environmental measures related to climate in art. 28 et seq., while in comparison with the previous programming period, it also involves regulation of measures that have an impact on the climate. As stated in point 22 of the Regulation No. 1305/2013, agri-environmental payments related to the climate should continue to play a prominent role in supporting the sustainable development of rural areas and in responding to society’s increasing demand for environmental services. They should further encourage farmers and other land managers to serve society as a whole by introducing or continuing to apply agricultural practices contributing to the mitigation of climate change and adaptation to it and compatible with the protection and improvement of the environment, landscape and its features, natural resources, soil and genetic diversity.

The Rural Development Programme 2014 – 2020 includes agri-environmental measures related to climate into non-project measures M10 – Agri-environment-climate measures. Agri-environment-climate measures will address the following identified priority needs through its actions:

- Conservation of biodiversity and increasing the environmental efficiency of support for the protection of biodiversity;
- Ensuring the protection of soil against degradation;
- Elimination of impacts and adaptation of agriculture to climate change.

The following actions were incorporated into the Rural Development Programme 2014–2020 within the agri-environmental measures related to climate:

1. Protection of habitats of natural and semi-natural grassland;
Protection of habitats of European Ground Squirrel (permanent grassland);
Breeding and conservation of endangered animal species.
2. Multifunctional field margins (biostrips on arable land);
Protection of habitats of Great Bustard (arable land);
3. Integrated production in orchards, vineyards, and vegetable sector;
4. Protection of protected water management area of Žitný ostrov.

IV. Multifunctional field margins (biostrips on arable land)

The main objective of the multifunctional field margins (hereinafter referred to as MFM) measure is to create conditions and place for nesting of relevant bird species, place for the protection of small animals and conditions for vegetation activity of pollinators in agricultural land through the creation of multifunctional field margins sown with perennial flower mixture consisting of certified species of plant seeds without any chemical treatment. The abovementioned procedures contribute not only to the protection and increase of biodiversity by means of expansion of perennial flower multifunctional field margins, but also to the protection of fundamental elements of the environment (water, soil) and, moreover, they are also involved in the mitigation of climate change by reducing greenhouse gas emissions and increasing the number of sinks of greenhouse gases.

The measure is intended for the most fertile areas of Slovakia, which are: Danubian Lowland, Trnava Plain, Eastern Slovak Lowland and Záhorská Lowland (Picture 1). The reason is that those areas are dominated by intensive agriculture through large-scale farming system that leads to decrease in biodiversity and limits the area that should offer the necessities of life to populations of birds, pollinators, etc. Based on that, the MFM measure may have a significant impact on the restoration of natural biodiversity near the most fertile agricultural land, which will have a positive influence for example on the quality of pollination, restoration of natural pest destroyers, protection of birds, etc.

The MFM measure contributes to the following focus areas and cross-cutting objectives:

- **4A** Restoration and conservation of biological diversity, including areas of Natura 2000 system and agricultural activities with high natural value and the state of landscape areas in Europe
 - Multifunctional field margins create place for the protection of birds, small animals, as well as good conditions for the activity of pollinators.

Fig 1: Areas intended for the implementation of multifunctional field margins

Source: Ministry of Agriculture and Rural Development, 2015

- **4B** Improvement of water management
 - Actions such as protection of grassland habitats, multifunctional field margins, protection of European Ground Squirrel with a total ban on the use of mineral fertilisers and plant protection products dominantly contribute to the improvement of water quality.
- **4C** Improvement of land management
 - Lower intensity of farming and defined management procedures have a positive influence on both water and soil. Crop rotation, compliance with practices used on arable land, as well as conditions provided by the scheme of multifunctional field margins support the conservation of favourable soil characteristics.
- **5E** Promotion of conservation and sequestration of carbon dioxide in agriculture and forestry
 - Supporting habitats of natural and semi-natural grassland, habitats of endangered species and multifunctional field margins contributes to carbon fixation in agricultural land. Those types of actions have an impact on reduction of release, or sequestration, of carbon dioxide as well.

Subsidy beneficiaries can be natural or legal persons engaged in agricultural primary production with their agricultural land situated in specified areas (Figure 1) and entering agri-environmental measures with a minimum of 3 hectares of arable land classified as LPIS land parcels. The agri-environmental commitment lasts for 5 years with the possibility of prolongation for another year. Applicants had the opportunity to apply for it for the first time in 2015.

Conditions for obtaining the subsidy are defined by cumulative requirements:

- to sow perennial flower mixtures in multifunctional strips of arable land having the minimum width of 5 meters (maximum width of 10 meters) and the length of 200 meters, which will be placed either on the margins or inside of the arable land parcel between two different grown crops;
- sowing of multifunctional strips must be realized by the end of April of the respective year;
- not to use any chemical plant protection products or mineral fertilizers on the established multifunctional strips all year round;

- to prevent crossing over and rotation of mechanisms on those areas;
- not to cut the multifunctional strips.

The amount of subsidy is 350 EUR/hectare of area of created multifunctional strip on arable land, while the aim is to support the multifunctional strips on 12,000 hectares of arable land. The MFM support is intended as a compensation payment; its calculation is based on the following assumptions:

1. Multifunctional margin areas are not included in the areas of ecological interest.
2. Based on the fact that support for this type of action is directed towards the most fertile areas, the loss will be incurred on the most lucrative crops (corn, wheat, rape). The minimum size of the area of a biostrip is 1,000 m², which is 10% of a hectare. The loss in production represents the loss of 10% of the crops (see the calculation for the Great Bustard) – 76.24·ha⁻¹·year⁻¹.
3. In order to establish the multifunctional field margins that are created every year, it is necessary to buy certified seed mixtures – calculation of costs made from documents of relevant institutions is 200 €·ha⁻¹·year⁻¹.
4. During the preparation of land for the establishment of multifunctional field margins, additional costs are required in order to prepare the soil and to incorporate seeds into it – calculated as the amount of 73.76 €·ha⁻¹ per year.

V. Implementation of the MFM measure in Slovakia in 2015

The MFM measure contributes to the protection of the quality of the most fertile agricultural land in Slovakia, and therefore farmers engaged in agricultural primary production should be motivated in those areas in order to conclude the MFM agri-environmental commitment contract.

Results of the inquiry showed that no farmer applied for the conclusion of the MFM agri-environment commitment for a period of five years at the APA regional offices in 2015. In several cases, personnel of the APA regional offices did not even know what kind of non-project measure it was.

The reason why the selected farmers did not apply for the agri-environmental commitment involved two facts:

- farmers did not have insufficient information about the financial compensation for the agri-environmental commitment, because they received the information that the compensation MFM payment is granted per hectare of sown multifunctional strip;
- it was not impossible to obtain perennial flower mixtures requested by the APA from the Slovak seed suppliers in 2015.

We contacted the Ministry of Agriculture and Rural Development of the SR, Rural Development Section, Department of Environmental Activities, by telephone and were told that the financial compensation, i.e. 350 EUR·hectare⁻¹ is granted per hectare of sown multifunctional strip and not per hectare of arable land, on which the strip is established. However, it

is not possible to agree with that, since the compensation payment should compensate for the loss in farmer's profit, which according to the methodology of National Agricultural and Food Centre, Soil Science and Conservation Research Institute, is formed by the compensation for 10% of the loss per hectare of crops grown on the most fertile arable land.

Introduction of agri-environmental measures is naturally connected with the loss of farmer's income, moreover, the MFM measure is intended for farmers conducting business on the most profitable land. If there is the interest for the Slovak farmers to undertake to fulfil the agri-environmental commitment, the APA and the Ministry of Agriculture and Rural Development of the SR should ensure the support especially in the form of more thorough provision of information about MFM through regional workplaces, training, etc., and to either control or ensure the availability of seed mixtures for the MFM. Otherwise it may happen that the agri-environmental MFM measure will not fulfil its objective that was defined in the Rural Development Programme 2014 – 2020.

VI. Conclusions

The Rural Development Programme 2014 – 2020 has supported the implementation of agri-environmental commitments for farmers mainly through non-project measures M10 – Agri-environmental-climate action. The main objective of this paper was to assess the implementation of the agri-environmental and climate measure – multifunctional field margins (biostrips on arable land) in conditions of Slovakia in 2015. Despite the fact that the measure aims to establish multifunctional field margins, which will create the conditions and place for nesting of relevant bird species, place for the protection of small animals and conditions for vegetation activity of pollinators in agricultural land, the measure was not introduced in 2015 due to both lack of awareness about the possibility of implementation of such measure and unavailability of seed mixtures required by the measure – multifunctional field margins. For the year 2016, we propose that the Ministry of Agriculture and Rural Development of the SR and the Agricultural Paying Agency ensure more thorough provision of information about possibilities of agri-environmental commitments for farmers.

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