Determination of High Nature Value Farmland Areas in Slovakia

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Introduction

The High Nature Value (HNV) concept first emerged in 1993 and recognises the causality between certain types of farming activity and 'natural values' [1].

HNV Farmland Areas and Farming
"High Nature Value farmland comprises those areas in Europe where agriculture is a major (usually the dominant) land use and where that agriculture supports or is associated with either a high species and habitat diversity, or the presence of species of European, and/or national, and/or regional conservation concern, or both." [2, 3]

HNV Forests
"High Nature Value forests are all natural forests and those semi-natural forests in Europe where the management (historical or present) supports a high diversity of native species and habitats, and/or those forests which support the presence of species of European, and/or national, and/or regional conservation concern." [2, 3]

HNV Farmland Features
"An HNV farmland feature supports the presence of habitats and species of European, and/or national, and/or regional conservation concern whose survival depends on the maintenance or continued existence of the feature." [2, 3]

The objective of the task

Evaluation of available databases of land cover (in agriculture) and through the multidisciplinary expertise to identify the main types of HNV farmland - a description of key agronomic, economic characteristics and also the characteristics of the biodiversity, determination the baseline area (hectare) of HNV farmland and forestry and comparation the current status with the baseline.

The main types of HNV in the SR include the following areas:

HNV areas under specific program measures (with low intensity farming) within Axis 2 RDP SR 2007-2013; categories of Protected Areas in SR (PA) under Slovak legislation - Act of NC SR No. 543/2002 Coll. on Nature and Landscape Protection and Water act of NC SR No. 364/2004 Coll. (e.g. Protection zones of water supplies, Protected water management areas, Wetlands of international ("RAMSAR") and national importance, an ecological network of protected areas NATURA 2000 (SPA, SAC), Large-scale PA, Small-scale PA, Watering rivers, etc.); areas of high proportion of semi-natural and natural vegetation – grasslands (natural and semi-natural)

The task will be realised under on-going evaluation activities of the RURAL DEVELOPMENT PROGRAMME OF THE SLOVAK REPUBLIC 2007-2013 ("RDP SR 2007-2013").

The solution of the task expects:

• definition and determination of HNV farmland and forestry areas in the Slovak Republic (SR) (in cooperation with other institutions, e.g. Ministry of Agriculture SR, SNC, Daphne, APA, NFC, etc., the area (hectare) of specific areas and quantification of the main parameters/indicators that are characteristic for these HNV areas.

The main parameters/indicators for determination of HNV areas in the SR:

management of areas (farming activities - low-intensity farming; conservative management in forests), farmland bird index, low agricultural inputs, protection of species of wild fauna and flora /biodiversity/, special biotopes, water and soil quality, Livestock Unit/hectare, forest restoration activities, semi-natural vegetation, diversity of arable crops, etc.
Each HNV area has also its own special characteristic.

High diversity of land cover: Valuable areas of high biological and landscape diversity are preserved in the mountainous and foothill areas. These include for example: some areas with traditional farming - traditional agricultural landscape and the foothill areas within protected areas. Consequences of the abandonment of agricultural land in many mountainous and foothill areas are: secondary succession, expansion of ruderal plant communities, the gradual degradation of the grassland.

Characterising and Identifying HNV Forests [3]
To identify potential HNV forests at either the national or regional scale involves first classifying forests as 'naturally dynamic', 'semi natural' or 'plantation'. This schema is based on the three categories used to assess the degree of forest naturalness under the MCPFE Indicator 4.3 (EEA, 2006 in Study of HNV indicators for evaluations [3]). To determine whether a semi-natural forest is HNV or not, one, or a combination of the criteria listed below may be applied at the scale most appropriate to national conditions. The first is the core criterion and will eliminate most semi-natural forests that are not HNV. One, or a combination of criteria two to four need only be applied where there is some uncertainty over whether a forest is HNV or not. For each criterion, a threshold is set at which a forest is classified as HNV, providing a justification based on the ecology of the forest. The four criteria are:
1. Proportion of native tree species (measured as the percentage of native species per given area)
2. Volume of standing and lying deadwood in the forest (measured in metres^3/hectare)
3. Density of large trees in the forest (measured as the number of trees per given area)
4. The proportion of the area of a forest which is made up of stands older than the age of economic maturity (measured as the percentage of old trees per given area)

Under the Strategic framework of the Rural Development Programme of the SR 2007 – 2013 [4], the part of the Global Objective which concerns to Axis 2, is: to improve the environment by introducing suitable farming and forestry systems.
The Objective of Axis 2 (Improving the environment and the countryside) is: to establish multifunctional agricultural and forestry systems compatible with the environment, countryside and landscape.
Priorities of Axis 2 are:
1.) Enhancing biodiversity in rural areas and agriculture and forestry systems of high natural value
2.) Maintaining and improving the quality of underground and ground waters
3.) Maintaining and enhancing the quality of agricultural and forest soil
4.) Mitigation of the impacts of climatic changes
The specific measures supported under the RDP SR 2007 – 2013 [4] which contribute to improve the environment and the countryside and also to HNV: Less favoured areas, Natura 2000 and Water Framework Directive, Agri-environment, Animal welfare, First afforestation of agricultural land, Natura 2000 – forest land, Forest-environment payments, Restoring the forestry potential and introducing prevention measures.

Conclusion

After the Slovakia's accession to the EU was significantly changed the system of nature protection in Slovakia and along with the relationship to land ownership and to management in PA. The issue of determination of HNV Farmland and forestry is very important. Its better understanding and awareness of value of these areas will contribute to increase of efficiency of their conservation in Slovakia by conservation land management. Agri-environment schemes, promotion and development of organic farming, prevention against pollution and erosion, management of protected nature areas, and conservation management (especially the extensive grazing of livestock) in areas of high nature value are also important in Slovakia. Program measures under Axis 2 of RDP SR 2007-2013 also significantly contribute to HNV Farmland and Forestry in SR.

References:

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