

Evaluation of the Agri-environment sub-measure „Maintaining Biodiversity in Grasslands” of the Rural Development Programme (RDP) 2007-2013

Summary of the report

The report is prepared in the scope of the Ongoing Evaluation System (OES) of the Rural Development Programme 2007-2013 (RDP 2007-2013) regarding sub-measure “Maintaining Biodiversity in Grasslands” (MBG) of the Agri-environment measure 214/3. The findings of the grassland survey conducted in 2013 and the data from the Rural Development Service (RSS) and Nature Conservation Agency (NCA) are used in the scope of the evaluation.

The report provides an overview on the types of semi-natural grasslands, and their distribution, as well as the state of conservation of the semi-natural grasslands. It describes the role of agriculture in the formation and conservation of the semi-natural grasslands. The report contains an analysis of RDP 2007-2013 measure MBG and the recommendations for its improvement. The study evaluates botanical quality of the botanical, biologically valuable grasslands (BVG) managed in the scope of MBG measure in Natura 2000 areas (based on available data of Natura 2000 monitoring regarding 946 ha BVG) and outside them (conducting a survey of BVG fields in the area of 1072 ha). Data are representative for all BVG supported in MBG measure, because the analysis in general includes 4% of the total area of the semi-natural grassland types inventoried (or 6 % of BVG area supported by MBG). The report contains an evaluation of MBG measure and recommendations for its improvement.

MBG measure is implemented since 2004, and currently 98% of the area, which in RDP 2007-2013 was defined as an output indicator (35 000 ha, whereof 34 300 ha were applied) for the achievable areas, comprising approximately 52% of the total BVG area, are applied. It may therefore be concluded that MBG measure has significantly stimulated preservation of BVG. In absence of MBG measure, the areas of grassland habitats of the EU importance would have shrunk in the last 10 years even at a greater speed than it has happened, and the public funding spent in MBG measure has therefore significantly reduced shrinking of the grassland biodiversity, even though it has not been able to fully stop it.

Several significant problems have been detected in efficiency of MBG measure, especially in respect of the objective to maintain biodiversity in the botanical BVG. The objective of MBG measure is not reached in respect of diversity of plants, because 24 % of the managed BVG did not any longer conform to BVG criteria, while only approximately 15% of all managed area in MBG measure had great botanical diversity.

BVG supported by MBG in Natura 2000 areas had higher botanical quality than those without support (greater density of species, more indicator species of semi-natural grasslands and smaller cover of aggressive species), even though the differences were not statistically significant. Natura 2000 areas had more high quality grasslands supported by MBG in terms of biodiversity, but less outside them.

The great proportion of low quality grasslands may be explained mostly by inadequate conditions of MBG measure – late mowing and grinding (mulching) negatively affected botanical quality of the managed BVG, but non-differentiated single support payment created misbalanced representation of BVG types in the applied areas, resulting in smaller number of biologically most valuable and diverse grasslands being applied for MBG measure, because they mostly are almost always difficult to manage and have smaller economic value.

Suspension of late mowing and grinding is necessary as a priority, as well as differentiation of support depending on BVG type and management complexity is necessary for the improvement of efficiency and purposefulness of MBG measure.

The most significant problems in relation to existing BVG data have been recognized in the scope of evaluation. The inventory findings show that approximately 24 % of all surveyed BVG possibly do not any longer conform to BVG status. 18.3 % of the inventoried areas, which were still recognized as BVG, did not conform to the habitat specified for the grassland during its first inventory, but conformed to other grassland habitat of the EU importance. Updating of BVG data is necessary due to implementation of new RDP 2014-2020, by performing repeated inventory of all existing BVG.

The report was prepared by Solvita Rusina with an assistance of the nature experts Ieva Rove and Anita Namateva in the field work. Peteris Lakovskis, Zaiga Mikelsons and Liene Dambina, the employees of LSIAE RDED, and Laura Liepina, the student of Geography and Earth Sciences of the University of Latvia, participated in the analysis of individual data, preparation of descriptions and images, as well as development of databases and entry of data.

Conclusions

Types, area, management and state of conservation of the semi-natural grasslands

Several classification systems of semi-natural grasslands have been developed in Latvia, while the classification of grassland habitats provided in Appendix 1 to the EU Biotope Directive is used in the practical nature conservation. It contains all types of semi-natural grasslands to be found in Latvia. 11 habitats of the total number of grassland habitats of the EU importance (33) can be found in Latvia.

The total area of semi-natural grasslands in Latvia since the beginning of the 20th century has reduced to 2 % of its initial area and currently occupies only 47 581 ha. New semi-natural grasslands nowadays almost do not develop.

The currently available data on the areas of semi-natural grasslands and their types in Latvia are not precise, which can be explained by different methods of collecting data, and due to lack of updated inventory data.

Proportion of the types of semi-natural grasslands (EU grassland habitat types) is very uneven. 85 % of all area is formed by three types of EU importance habitats, while other seven types of habitats jointly form only 15 % of the total area of EU importance grasslands, therefore special attention should be give to maintaining the latter.

The state of conservation of all natural grassland habitats, which are fully dependent on the agricultural activity (extensive mowing and grazing) in the country, is unfavorable (bad) with a trend to decline.

Agriculture in Latvia stimulated the formation of semi-natural grasslands and the increase of their areas up to the first half of the 20th century, as well as ensured the existence of the biologically diverse semi-natural grasslands. Development of agriculture since the middle of the 20th century affected the semi-natural grasslands mostly negatively due to hydromelioration, cultivation and intensification, as well as abandonment of the marginal areas.

The agriculture nowadays has the most significant role in maintaining semi-natural grasslands, because maintaining these ecosystems is not possible only by means of nature conservation measures. In order to facilitate maintaining sustainable grasslands, they need to be integrated in production and used as the resource for diversification of rural economy.

The main problems in ensuring conservation (management) of the semi-natural grasslands is the low economic value of them, lack of traditions to use them as the resource for diversification of the rural economy, low proportion of semi-natural grasslands in especially protected areas in comparison to areas outside Natura 2000, as well as conditions of MBG measure, which do not encourage management of more difficult to manage habitats, and the use of inadequate management methods.

Inventory and evaluation of BVG areas supported by MBG

Evaluation of the areas supported by MBG is based on the data regarding 352 sites with the area of 2022 ha within the entire territory of the country (both in Natura 2000 areas and outside them), which forms 4.5 % of the total area of semi-natural grasslands (botanical BVG) in the country. Part of conclusions is based on the data regarding the area of 1072 ha inventoried in 2013 outside Natura 2000 areas, which is 4 % of the total area of the inventoried types of semi-natural grassland (botanical BVG) outside Natura 2000 areas.

66 % of the inventoried BVG area supported by MBG measure was mowed (grass is collected in the lesser part of them), 20 % is grazed, while 14 % was not managed.

The current information regarding the total area of biologically valuable grasslands in the country does not conform to the actual situation. Inventory results show that approximately 8 400 ha or 24 % of all BVG supported in MBG measure possibly do not conform to BVG status. Loosing of BVG status is related to reduction of botanical quality due to late mowing and mulching. 18 % of the inventoried area, which is still currently treated as BVG, did not conform to the EU habitat type specified for it during the initial inventory, while it conformed to other grassland habitat of the EU importance. In most cases this can be related to quality of historical data (initial mapping of BVG), but the impact of inadequate management for the habitat type is also possible.

It is estimated that repeated inventory will mostly reduce the area of the habitats of the EU significance, which are the rarest in Latvia (6120* sandy grasslands, 6230* Species-rich *Nardus* grasslands, etc.), because the areas of these habitats turned out to be smaller than currently mapped.

Structural parameters of 54 to 92 % of grasslands (litter, invasive and expansive species) showed high quality. More high quality grasslands in terms of structure were located in Natura 2000 areas, less - outside them.

Evaluation of the grassland quality based on parameters of diversity of the plant species (number of indicator species of semi-natural grasslands, species richness), showed that only 2-17 % of all grasslands were of high botanical quality, while 74 to 86 % of grasslands had low diversity of plant species. Slightly larger number of high quality grasslands was observed in Natura 2000 areas than outside them.

BVG supported in Natura 2000 areas had higher botanical quality than the ones without any support (higher species richness, more indicator species of the semi-natural grasslands and lower cover of expansive species) even though the differences were not statistically significant.

The studies conducted by other countries showed that late mowing and leaving the grass (grinding, mulching) affects the botanical quality of the grasslands very negatively. The results of this study show that the late mowing and leaving the grass could have an impact that enhances reduction of botanical quality, while significant

differences in botanical quality of BVG depending on the method of management were not revealed (late mowing with hay removal, late mowing with grass leaving and grazing). It may be related to the data quality, because the lack of monitoring studies and information regarding the management history and initial botanical quality of each grassland, starting the management.

Evaluation of MBG measure

MBG measure has been in effect since 2004, but its conditions ever since have been changed several times, the most important whereof being the triple change of mowing date and permission to grind (mulch) since 2008.

The output results (number of supported properties and supported area) show that the measure has significantly facilitated maintaining semi-natural grasslands in Latvia, protecting them from abandonment and overgrowing with bushes. 60% of semi-natural grasslands are currently being managed within MBG measure, which is a significant improvement compared to time, when support for the management of grasslands was not available for the owners of the semi-natural grasslands.

Result indicators (improvement of biodiversity) in respect of diversity of plants show that the objective set for MBG measure has not been reached, because 24 % of the surveyed MBG areas had ceased to conform to MBG criteria (the diversity of plants therein had reduced), while high biodiversity was preserved only in approximately 15 % of all area managed in MBG measure.

The most important factors resulting in failure to reach the objective are inadequate conditions of MBG measure – late mowing and grinding negatively affected botanical quality of the managed BVG, but non-differentiated single support payment created unbalanced representation of BVG types in the applied areas, resulting in a smaller number of biologically most valuable and diverse grasslands being applied for MBG measure, because they mostly are more difficult to manage and have smaller economic value.

Results of the surveyed areas show that the support for approximately 24% of the total area eligible for support in MBG measure is currently paid inexpediently. Repeated inventory of BVG areas is therefore necessary, which is an important precondition for further implementation of MBG measure, because it will ensure more efficient and purposeful use of public funding. Saved funds may be used for the efficiency improvement of MBG measure.

Change of conditions of MBG measure, review of indicators used for the evaluation of the measure and repeated inventory of BVG with a detailed mapping of grassland habitats of the EU importance is necessary, in order to purposefully reach the objective of MBG measure in future and control the implementation and results of MBG measure. Currently, the information regarding BVG quality, compliance with BVG criteria and type of habitat of the EU importance in respect of 38% of the total BVG area supported in MBG measure is outdated (partially erroneous and partially changed).