

: Investments related to infrastructure and access to forest land – the evaluation analysis

Klára Bálíková

Department of Forest Economics and Management, Faculty of Forestry, Technical University of Zvolen, Zvolen, Slovakia, klara.balikova@tuzvo.sk

Zuzana Dobšínská

Department of Forest Economics and Management, Faculty of Forestry, Technical University of Zvolen, Zvolen, Slovakia dobsinska@tuzvo.sk; National Forest Centre – Forest Research Institute Zvolen, Zvolen, Slovak Republic, zuzana.dobsinska@nlcsk.org

Zuzana Sarvašová

National Forest Centre – Forest Research Institute Zvolen, Zvolen, Slovak Republic, zuzana.sarvasova@nlcsk.org

Jaroslav Šálka

Department of Forest Economics and Management, Faculty of Forestry, Technical University of Zvolen, Zvolen, Slovakia, salka@tuzvo.sk

■ ABSTRACT

Financial support from the Rural Development Program is an essential economic forestry policy instrument in Slovakia. The study aimed to evaluate the implementation process of measure No. 4.3 Investments to infrastructure and access to forest land from Rural Development Program 2014-2020. The study was methodology based on document analysis and a questionnaire survey. The evaluation analysis was based on qualitative indicators. The results reveal that the measure supported road reconstructions and construction projects, including forest roads and other necessary properties for sustainable forest management. It is effective, and the forest owners were interested in it. Based on the presented evaluation of measure 4.3, we found that this measure fulfilled the expected goals, and the identified implementation shortcomings affected its effectiveness to a very low extent.

■ KEYWORDS

Forestry measures, Rural Development Program, Slovak Republic, implementation process, evaluation analysis

■ 1 INTRODUCTION

Forestry in Slovakia can be supported by national or structural funds of the European Union (Šulek, 2004). Forest policy belongs to the EU rural development policy, understood as the second pillar of the Common Agricultural Policy (CAP). CAP is constantly evolving to respond to new challenges in national rural and forest areas (Papadopoulos, 2005). Rural development policy deals with the need for multifunctional development of the forest sector and solves complex environmental problems within the European Union (Dobšinská et al., 2013) and is implemented through different measures (Jarský et al., 2014). The forestry measures of the Rural Development Program of the Slovak Republic are an essential economic instrument of forestry policy, as they provide financial support to achieve the goals set in strategic forestry documents, such as National Forestry Program (Jarský et al., 2014). Among many problems that forest policy addresses, the financing of new innovative technologies and forest roads reconstruction have a strong position when speaking about financial support in forestry (Štěrbová and Šálka, 2016).

The area of forest land in Slovakia is 2,025,525 ha with a total length of forest roads of approximately 39,036 km, of which 6,607 km are haulage forest roads of the first class (1L), 15,303 km of second class (2L) roads and 17,126 km of third class (3L), the surface of which is without surface reinforcement (Ministry of Agriculture and Rural Development, 2022). The forest roads must still be built and reconstructed, because to their lower quality and insufficient length (Ministry of Agriculture and Rural Development, 2022; Krykorková et al., 2022). Starting from this consideration, the scientific goal of the paper is to evaluate the European financial support focused on forest road reconstruction in Slovakia.

■ 2 METHODS

The study aimed to evaluate the implementation process of measure No. 4.3 Investments to infrastructure and access to forest land from the Rural Development Programme of Slovak Republic 2014-2020 (RDP). The evaluation method was based on specific criteria adapted to conditions for evaluating forestry measures of the RDP.

The evaluation criteria (Table 1) were chosen from the theory of policy analysis (Windhoff-Heritier, 1987), and the theory of state intervention (Streit, 1991), and the object of the evaluation analysis was the process of measure implementation. Data for indicators evaluation were collected through the document analysis and survey method.

Table 1. Evaluation criteria and data collection

Criteria	Performance (points)			Data collection
	1	2	3	
Administrative difficulty¹	High	Moderate	Low	Survey for applicants, document analysis.
Implementation gaps¹	Gaps occur, are relevant and decrease the effectiveness.	Gaps occur but are not relevant to the effectiveness.	Gaps do not occur.	Survey for applicants, document analysis.
Information asymmetry¹	High – nor implementors and recipients have no information related to the program.	Moderate – implementors or recipients have no information related to the program.	Low – implementors/ recipients have sufficient information about the program.	Survey for applicants, document analysis.
Changes in program parameters during the implementation process	The changes appeared that decreased the program's effectiveness.	The changes did not occur; if yes, this change did not impact the program's effectiveness.	The changes appeared but had a positive impact on the program's effectiveness.	Document analysis.
Program implementation „time lags“	„Time lags“ occurred and negatively affected the goal achievement.	„Time lags“ occurred but had no/neutral effect on the goal achievement.	„Time lags“ did not occur.	Document analysis.
Policy impacts	The goals were fulfilled, but the recipients had no interest in applying for financial support.	The goals were partially fulfilled; the recipients will be interested in applying for financial support.	The goals were fulfilled, and the recipients changed their behaviour and applied for financial support.	Document analysis.
Effectiveness	The goal is achieved in less than 50%.	The goal is achieved between 50% – 75%.	The goal is performed on more than 76%.	Document analysis – quantitative assessment.

Analysed documents were:

- Coll for applications submission no. 1/PRV/2015 from 18.05.2015
- Rural Development Programme of Slovak Republic 2014-2020 (date operation of the statute 16.02.2015)

¹ Criteria specified in more detail through questions for applicants

- Applications received from eligible applicants (total 126 applications; source: Agricultural Paying Agency).

The questionnaire survey was used to map the experience of the eligible applicants while applying for financial support. We analysed three closed-ended related to chosen evaluation criterion:

1. *Administrative difficulty*: How difficult was it to prepare the application?
 - a) Exceedingly difficult (e.g., we could not do it ourselves; it took much time; we had to hire new employees and/or allocate exceptional capacities for it; we had hired an external consultant).
 - b) Moderately difficult (e.g., we spent much time preparing the application or obtaining permits and information, but we managed it within company employees).
 - c) Not difficult (we managed the process with our capacities without a more significant extent).
2. *Implementation gaps*: Did you face problems while applying for measure 4.3? If yes, please choose from the options:
 - a) Need more time to submit the application form.
 - b) Unclear conditions of the coll no. 1/PRV/2015.
 - c) The difficulty of securing the necessary attachments.
 - d) Frequent changes in the coll no. 1/PRV/2015.
 - e) Weak feedback from the authorities.
 - f) Weak feedback from the APA.
 - g) Other (please identify)
3. *Information asymmetry*: Did you have enough information in the application process? (Yes/No). Did you have enough information in the implementation process, from the approval of the application to receiving the money? (Yes/No).

The online questionnaire survey is still open; to the date of paper preparation, we have received fourteen completed surveys. We present preliminary results concerning related criteria.

■ 3 RESULTS

Measure 4.3 Investments related to infrastructure and access to forest land from Rural Development Programme 2014-2020 aimed to reconstruct and build forest roads. The eligible applicants for the measure were state and non-state forest owners. The Agricultural Paying Agency of the Slovak Republic (APA) was responsible for the implementation process of measure 4.3. The evaluation analysis revealed the high implementation effectiveness of the measure (Table 2).

Table 2. Results of measure 4.3 evaluation

Criteria	Evaluation	Points
Administrative difficulty	High	1
Implementation gaps	Relevant	1
Information asymmetry	Moderate	2
Changes in program parameters during the implementation process	Yes – positive change	3
Program implementation „time lags“	“Time lags“ occurred but did not affect the goal achievement	2
Policy impacts	The recipients had an interest in the support that exceeded the allocated funds.	3
Effectiveness (goal fulfilment)	Goal: to reconstruct 200 km of forest roads Response: reconstructed 259,902 km and build 14,353 km of forest roads	3
Implementation effectiveness: 0-7 p. (low) / 8-14 p. (moderate) / 15-21 p. (high)		15 (high)

Application forms for the measure had to be submitted in paper form, on the prescribed form “*Application form for a non-refundable financial contribution*”, with 20 pages. They required 27 mandatory attachments, the applicant’s sworn statement, and a tabular part in EXCEL format. Mandatory attachments also contained several confirmations from various state authorities. The applicants considered administration difficulty moderate (42.86% of respondents) to exceedingly difficult (50.00%). Similarly, as respondents, we evaluate the administrative difficulty as high with one point.

More than half of the respondents faced problems during the application process. They indicated the following implementation gaps: i) The difficulty in providing the necessary attachments (100% of respondents assigned the answer); ii) Unclear conditions of the call (55.56% of respondents assigned the answer) and iii) Weak feedback from the authorities (44.44% of respondents assigned the answer). We evaluate these implementation gaps as relevant.

It is explicitly stated in the call no. 1/PRV/2023 that APA does not provide individual advisory services in the announced call. From the very wording of the call itself, the degree of information asymmetry on the part of the PPA is obvious, as it requires from the applicants’ various attachments and decisions that need to be requested from multiple public (State Forest Administration, National Forest Centre, courts) and private bodies (banks) to which the PPA does not have access. Conversely, the applicants had enough information (88.89% of respondents answered positively). We evaluated the fulfilment of this criterion with two points.

In the eighth modification of the RDP 2014-2020, the budget for measure 4.3 was increased by 25 million EUR. At this time, the contracting rate was 97%. This change in program parameters made it possible to support even more projects and applicants. We

evaluate this change as positive, which increased the goal fulfilment (evaluation with three points).

According to the schedule, the decision to deny/approve the application should be issued within 140 days from the last possible date for the application delivery, which was, in this case, the 25th of October 2015. The „time lags“ were evaluated based on the median time of agreement closure between the eligible applicant and the APA. The analysis of the call and submitted applications revealed that the median time of agreement closure was 156 days (modus value 141 days). The median time from agreement closure till the last part of the payment was 433 days (modus value 390 days). Nine specific cases caused this long implementation time, as agreements were closed too late because of constraints. The delay effect has appeared but has not negatively affected the fulfilment of the goals. We evaluate the criterion with two points.

The APA published one call No. 1/PRV/2015 on May 18, 2015. The APA received 126 applications, and 63 projects were financed. The distribution of successful applicants was as follows: i) 28 micro-enterprises, ii) 18 big enterprises (the branches of LESY SR, state enterprise), iii) 13 small enterprises and iiiii) four medium enterprises. We evaluated this criterion with three points; as measure 4.3 fulfilled goals, the recipients changed their behaviour, and their demand was higher than allocated finances.

More than 250 km of forest roads were reconstructed within measure 4.3, and more than 14 km of new roads were constructed. This exceeded the program goal; therefore, we assessed the measure's effectiveness as high, with three points on a scale of one to three.

■ 4 DISCUSSION AND CONCLUSION

High-quality forest road density reduces damage in the forest stands and is essential for implementation close to nature forest management or adverse climate change in soil erosion (Navrátil et al., 2019; Ministry of Agriculture, 2022; Juško et al., 2022). That is why the development of forest roads emerges in Slovak forest policy. As Jarský et al. (2014) concluded, it is evident that financial support from European Union is an important financial instrument for the development of the forestry sector. Therefore, the object of the evaluation analysis was measure 4.3 from RDP 2014-2020. Measure 4.3 was intended to support projects focused on constructing and reconstructing the forest road network in Slovakia.

Objectives of measures set unclearly and not measurable are important factor that reduces their effect (Krott, 2005). The goals of the Measure 4.3 was formulated precisely and clearly, which made it easier for us to make ex-post evaluation.

The results show that there was a high demand for measure 4.3 from the side of the eligible applicants, which exceeded the allocated finances. A total of 126 companies participated in the call, thereof 63 were supported. By the end of 2022, 25,856,846.69 EUR had been paid to applicants. The goal of reconstructing 200 km of forest roads was also met even though the relevant implementation shortcomings appeared. However, we assume that identified deficiencies in submitting applications will help remove barriers for applicants, and the process of implementing the measure will be simplified.

■ 5 REFERENCES

- // Dobšinská Z., Šálka J., Sarvašová Z., Lásková J. 2013. Rural development policy in the context of actor-centred institutionalism. *Journal of Forest science*, 59, 1: 34-40. <https://doi.org/10.17221/24/2012-JFS>
- // Jarský V., Sarvašová Z., Dobšinská Z., Ventrubová K., Sarvaš M. 2014. Public support for forestry from EU funds–Cases of Czech Republic and Slovak Republic. *Journal of forest economics*, 20, 4: 380-395. <https://doi.org/10.1016/j.jfe.2014.10.004>.
- // Juško V., Sedmák R., Kúdela P. 2022. Siltation of Small Water Reservoir under Climate Change: A Case Study from Forested Mountain Landscape of Western Carpathians, Slovakia. *Water*, 14, 17: 2606. <https://doi.org/10.3390/w14172606>
- // Krott M. 2005. *Forest policy analysis*. Dordrecht: Springer.
- // Kryorková J., Bálíková K., Šálka J., Surový P., Krott M., Stevanov M.Z. 2022. Comparing the performance of state forest enterprises in Czech and Slovak Republics with a focus on concessions. *International Forestry Review*, 24, 2: 175-196. <https://doi.org/10.1505/146554822835629587>
- // Navrátil R., Brodrechtová Y., Sedmák R., Tuček J. 2019. Forest management scenarios modelling with morphological analysis–examples taken from Podpolanie and Kysuce. *Central European Forestry Journal*, 65, 2: 103-120. <https://doi.org/10.2478/forj-2019-0009>
- // Papadopoulos A.G. 2005. EU Rural development policy: The drive for policy integration within the second pillar of CAP. In: Briassoulis H. *Policy integration for complex environmental problems, the example of Mediterranean desertification*. Greece, Ashgate Publishing Limited.
- // Štěrbová M., Šálka J. 2016. Financial incentives to innovations in the forestry services sector in Slovakia from the Rural Development Programme. *Zprávy lesnického výzkumu*, 61, 2: 151-157.
- // Streit M.E. 1991. *Theorie der Wirtschaftspolitik*, 4. Auflage, Düsseldorf, Werner-Verlag.
- // Šulek R. 2004. Finančná podpora inovácií v LH SR. In: *Podpora inovácií a podnikania v lesníctve*. Zborník referátov z odborného seminára. Zvolen, TU: 41–46.
- // Windhoff-Heritier A. 1987. *Policy Analyse*. Frankfurt, New York, Campus.

Acknowledgements

The article was supported by The Slovak Research and Development Agency based on contract no. APVV-20-0429.