

Literature cited in the project text

- [1] Ambrušová, L., Dobšínská, Z., Sarvašová, Z., Hricová, Z., Šálka, J. 2015. Forest Land Ownership Change in Slovakia. COST Action FACESMAP Country Reports, European Forest Institute Central-East and South-East European Regional Office, Vienna. 37 pages. [Online publication]
- [2] Baskent, E. Z., Borges, J. G., Kašpar, J., & Tahri, M. 2020. A Design for Addressing Multiple Ecosystem Services in Forest Management Planning. *Forests*, 11(10), 1108.
- [3] Báliková, K., Dobšínská, Z., Paletto, A., Sarvašová, Z., Korená Hillayová, M., Štěrbová, M., ... & Šálka, J. (2020). The Design of the Payments for Water-Related Ecosystem Services: What Should the Ideal Payment in Slovakia Look Like? *Water*, 12(6), 1583.
- [4] Biber, P., Borges, J. G., Moshhammer, R., Barreiro, S., Botequim, B., Brodrechtová, Y., ... & Sallnäs, O. (2015). How Sensitive Are Ecosystem Services in European Forest Landscapes to Silvicultural Treatment?. *Forests*, 6(5), 1666-1695.
- [5] Bolte, A., Ammer, C., Löf, M., Madsen, P., Nabuurs, G. J., Schall, P., ... & Rock, J. (2009). Adaptive forest management in central Europe: climate change impacts, strategies and integrative concept. *Scandinavian Journal of Forest Research*, 24(6), 473-482.
- [6] Borges, J. G., Marques, S., Garcia-Gonzalo, J., Rahman, A. U., Bushenkov, V., Sottomayor, M., ... & Nordström, E. M. 2017. Multiple criteria approach for negotiating ecosystem services supply targets and forest owners' programs. *Forest Science*, 63(1), 49-61.
- [7] Branke, J., Deb, K., Miettinen, K., Słowinski, R. (Eds.) 2008. Multiobjective optimization (Interactive and evolutionary principles). *Lecture Notes in Computer Science*, Springer Berlin Heidelberg NewYork: 480 pp.
- [8] Brescancin, F., Dobšínská, Z., De Meo, I., Šálka, J., & Paletto, A. (2018). Analysis of stakeholders' involvement in the implementation of the Natura 2000 network in Slovakia. *Forest policy and economics*, 89, 22-30.
- [9] Brodrechtova, Y., Navrátil, R., Sedmák, R., & Tuček, J. (2018). Using the politicized IAD framework to assess integrated forest management decision-making in Slovakia. *Land use policy*, 79, 1001-1013.
- [10] Busch, M., La Notte, A., Laporte, V., & Erhard, M. (2012). Potentials of quantitative and qualitative approaches to assessing ecosystem services. *Ecological indicators*, 21, 89-103.
- [11] Convention on Biological Diversity. The Nagoya Protocol on Access and Benefit-Sharing. (8 April 2015; www.cbd.int/abs)
- [12] Costanza, R., De Groot, R., Sutton, P., Van der Ploeg, S., Anderson, S. J., Kubiszewski, I., ... & Turner, R. K. (2014). Changes in the global value of ecosystem services. *Global environmental change*, 26, 152-158.
- [13] De Groot, R., Brander, L., Van Der Ploeg, S., Costanza, R., Bernard, F., Braat, L., ... & Van Beukering, P. 2012. Global estimates of the value of ecosystems and their services in monetary units. *Ecosystem services*, 1(1), 50-61.
- [14] Deb, K., 2008. Introduction to Evolutionary Multiobjective Optimization. In: Branke, J., Deb, K., Miettinen, K., Słowinski, R. (Eds.) 2008. Multiobjective optimization (Interactive and evolutionary principles). *Lecture Notes in Computer Science*, Springer Berlin Heidelberg NewYork: 76-93.
- [15] Deb, K., Sindhya, K., Hakanen, J. 2017. Multi-Objective Optimization. In: Sengupta, RN., Gupta, A., Dutta, J. (Eds.) *Decision Sciences: Theory and Practise*, Taylor & Francis Group, USA., 1026 s.
- [16] Diaz-Balteiro, L., Romero, C., 2008. Making forestry decisions with multiple criteria: A review and an assessment. *Forest Ecology and Management* 255: 3222-3241.
- [17] Diaz-Balteiro, L.; González-Pachón, J.; Romero, C., 2017. Measuring systems sustainability with multi-criteria methods: A critical review. *European Journal of Operational Research* 258: 607-616.

- [18] Duncker, P. S., Raulund-Rasmussen, K., Gundersen, P., Katzensteiner, K., De Jong, J., Ravn, H. P., ... & Spiecker, H. 2012. How forest management affects ecosystem services, including timber production and economic return: synergies and trade-offs. *Ecology and Society*, 17(4), 50.
- [19] Eggers, J., Holmgren, S., Nordström, E. M., Lämås, T., Lind, T., & Öhman, K. (2019). Balancing different forest values: Evaluation of forest management scenarios in a multi-criteria decision analysis framework. *Forest Policy and Economics*, 103, 55-69.
- [20] Elmqvist, T., Maltby, E., Barker, T., Mortimer, M., Perrings, C., Aronson, J., ... & Pinto, I. S. 2010. Biodiversity, ecosystems and ecosystem services. TEEB Ecological and Economic Foundations. Earthscan, London, 41-111.
- [21] Gamfeldt, L., Snäll, T., Bagchi, R., Jonsson, M., Gustafsson, L., Kjellander, P., ... & Mikusiński, G. 2013. Higher levels of multiple ecosystem services are found in forests with more tree species. *Nature communications*, 4, 1340.
- [22] Goldenberg, R., Kalantari, Z., Cvetkovic, V., Mörtberg, U., Deal, B., & Destouni, G. (2017). Distinction, quantification and mapping of potential and realized supply-demand of flow-dependent ecosystem services. *Science of the Total Environment*, 593, 599-609.
- [23] Haines-Young, R. and M.B. Potschin (2018): Common International Classification of Ecosystem Services (CICES) V5.1 and Guidance on the Application of the Revised Structure. Available from www.cices.eu
- [24] ICSU (2015). Review of targets for sustainable development goals: The science perspective. Paris, France: International Council for Science (ICSU).
- [25] IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Díaz, J. Settele, E. S. Brondízio E.S., H. T. Ngo, M. Guèze, J. Agard, A. Arneth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razzaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services Secretariat, Bonn, Germany. 56 pages. <https://doi.org/10.5281/zenodo.3553579>
- [26] Juerges, N., Arts, B., Masiero, M., Baškent, E.Z., Borges, J.G., Brodrechtova, Y., Brukas, V., Canadas, M.J., Carvalho, P.O., Corradini, G. and Corrigan, E., 2020. Integrating ecosystem services in power analysis in forest governance: A comparison across nine European countries. *Forest Policy and Economics*, 121, p.102317.
- [27] Kati, V., Hovardas, T., Dieterich, M., Ibisch, P.L., Mihok, B. & Selva N. (2015). The challenge of implementing the European network of protected areas Natura 2000. *Conserv. Biol.*, 29(1), 260–270.
- [28] Kienast, F., Helfenstein, J., Grêt-Regamey, A., Haines-Young, R., & Potschin, M. (2019). Ecosystem Services under Pressure. In *Landscape Planning with Ecosystem Services* (pp. 91-101). Springer, Dordrecht.
- [29] Lotov, A.V., Bushenkov, V.A., Kamenev, K.G. 2004. *Interactive Decision Maps. Approximation and Visualization of Pareto Frontiers*. Kluwer Academic Publishers, Boston- Dordrecht-New York-London, 307 pp.
- [30] Lotov, A.V., Miettinen, K., 2008. Visualizing the Pareto Frontier. In: Branke, J., Deb, K., Miettinen, K., Słowiński, R. (Eds.) 2008. *Multiobjective optimization (Interactive and evolutionary principles)*. Lecture Notes in Computer Science, Springer Berlin Heidelberg NewYork: 213-244.
- [31] Mace, G. M., Norris, K., & Fitter, A. H. 2012. Biodiversity and ecosystem services: a multilayered relationship. *Trends in ecology & evolution*, 27(1), 19-26.
- [32] Makrickiene, E., Brukas, V., Brodrechtova, Y., Mozgeris, G., Sedmák, R., & Šálka, J. (2019). From command-and-control to good forest governance: A critical interpretive analysis of Lithuania and Slovakia. *Forest Policy and Economics*, 109, 102024.

- [33] Millennium Ecosystem Assessment 2005. Ecosystems and Human Well-Being: Current State and Trends. Island Press, Washington, DC.
- [34] Midriak, R. 1981. Diferencované obhospodarovanie lesa podľa integrovaných funkcií. *Príroda*. Príroda, Bratislava, 224 p. (in Slovak)
- [35] Navrátil, R., Brodrechtová, Y., Sedmák, R., Smreček, R., & Tuček, J. (2016). Structural analysis of the drivers and barriers to forest management in the Slovak regions of Podpoľanie and Kysuce. *Central European Forestry Journal*, 62(3), 152-163.
- [36] Navrátil, R., Brodrechtová, Y., Sedmák, R., & Tuček, J. (2019). Forest management scenarios modelling with morphological analysis—examples taken from Podpoľanie and Kysuce. *Central European Forestry Journal*, 65(2), 103-120.
- [37] Nordström, E. M., Nieuwenhuis, M., Baškent, E. Z., Biber, P., Black, K., Borges, J. G., ... & Felton, A. (2019). Forest decision support systems for the analysis of ecosystem services provisioning at the landscape scale under global climate and market change scenarios. *European Journal of Forest Research*, 138(4), 561-581.
- [38] Oxbrough, A., Irwin, S., Wilson, M., & O'Halloran, J. (2014). Mechanisms and predictors of ecological change in managed forests: a selection of papers from the second international conference on biodiversity in forest ecosystems and landscapes. *Forest Ecology and Management*, 321, 1-4.
- [39] Orazio, C., Cordero Montoya, R., Régolini, M., Borges, J. G., Garcia-Gonzalo, J., Barreiro, S., ... & Brodrechtová, Y. (2017). Decision support tools and strategies to simulate forest landscape evolutions integrating forest owner behaviour: A review from the case studies of the European project, INTEGRAL. *Sustainability*, 9(4), 599.
- [40] Papánek, F. 1978. Teória a prax funkčne integrovaného lesného hospodárstva. *Príroda*, Bratislava, 218 p.
- [41] Reynolds, K., Paplanus, S., Miller, B., & Murphy, P. (2015). Design features behind the success of the ecosystem management decision support system and future development. *Forests*, 6(1), 27-46.
- [42] Rodríguez, J. P., T. D. Beard, Jr., E. M. Bennett, G. S. Cumming, S. Cork, J. Agard, A. P. Dobson, and G. D. Peterson. 2006. Trade-offs across space, time, and ecosystem services. *Ecology and Society* 11(1): 28.
- [43] Saaty, T.L. 1980. *The Analytic Hierarchy Process*. McGraw-Hill, New York.
- [44] Saaty, T.L. 2001. *Decision making with dependence and feedback. The analytic network process*. RWS Publications, Pittsburgh.
- [45] Sarvašová, Z., Šálka, J. & Dobšinská Z. (2013). Mechanism of cross-sectoral coordination between nature protection and forestry in the Natura 2000 formulation process in Slovakia. *J. Environ. Manag.*, 127, S65–S72
- [46] Sarvašová, Z., Dobšinská, Z., & Šálka, J. (2014). Public participation in sustainable forestry: the case of forest planning in Slovakia. *iForest-Biogeosciences and Forestry*, 7(6), 414.
- [47] Sarvašová Z., Bálíková K., Dobšinská Z., Štěrbová M., Šálka J.: Payments for forest ecosystem services across Europe – main approaches and examples from Slovakia. *Ekológia (Bratislava)*, ol.38,No.2.p.154-165,2019.
- [48] Sedmák, R., Šálka, J., Bahýľ, J., Dobšinská, Z., Čerňava, J., & Kropil, R. (2019). Štúdiá-analýza dopadov/modifikovania manažmentu lesov vyvolaného posilnením rekreačných funkcií na LC LESY SR Bratislava.
- [49] Sedmák, R., Fabrika, M., Bahýľ, J., Pôbiš, I., Tuček, J., 2013. Application of simulation and optimization tools for developing forest management plans in the Slovak natural and management conditions. In: Tuček, J., Majlingová, A., Garcia-Gonzalo, J. (Ed.), 2013. *Implementation of DSS tools into the forestry practice: reviewed conference proceedings*. Zvolen: Technical University in Zvolen, pp. 139-152.

- [50] Sedmák, R., Marušák, R., Kašpar, J. 2017. Metodika funkčne integrovanej optimalizácie výchovy a obnovy na úrovni vlastnickeho celku na taktické a strategické úrovni plánovaní. Certifikovaná metodika, Praha: Česká zemedelská univerzita v Praze: 42 s.
- [51] Sedmák, R., Marušák, R., Kašpar, J. 2016. Metodika funkčne integrovanej optimalizácie výchovy a obnovy na úrovni lesného porostu na taktické a strategické úrovni plánovaní. Certifikovaná metodika, Praha: Česká zemedelská univerzita v Praze: 42 s.
- [52] Šálka, J., Sedmák, R., Sarvašová, Z., Dobšínská, Z., Čerňava, J., Bahýl', J., Juško, V., Kropil, R. 2020. Akčný plán na presadzovanie ochrany lesov na území Bratislavského samosprávneho kraja v zmysle Memoranda o spolupráci a spoločnom postupe pri ochrane lesov -analytická časť. Projekt na základe Zmluvy o dielo, Bratislavský samosprávny kraj, Bratislava
- [53] Sedmák, R., Tuček, J., Levická, M., Sedmáková, D., Bahýl', J., Juško, V., ... & Bushenkov, V. A. 2020. Optimizing the Tending of Forest Stands with Interactive Decision Maps to Balance the Financial Incomes and Ecological Risks according to Owner Demands: Case Study in Rakovník, the Czech Republic. *Forests*, 11(7), 730.
- [54] Scott, L. M., & Janikas, M. V. (2010). Spatial statistics in ArcGIS. In *Handbook of applied spatial analysis* (pp. 27-41). Springer, Berlin, Heidelberg.
- [55] TEEB Foundations, 2010. *The Economics of Ecosystems and Biodiversity: Ecological and Economic Foundations*. Earthscan, London and Washington.
- [56] TEEB Synthesis, 2010. *Mainstreaming the Economics of Nature: A Synthesis of the Approach, Conclusions and Recommendations of TEEB*. Earthscan, London and Washington
- [57] The European Union's Horizon 2020 research and innovation programme under grant agreement No. 676754: Alternative models and robust decision making for future forest management (ALTERFOR), 2016–2020.
- [58] The European Union's Seventh Program for research, technological development and demonstration under grant agreement No. 282887: *Future-oriented integrated management of European forest landscapes* (INTEGRAL), 2011–2014.
- [59] Tuček, J., Sedmák, R., Majlingová, A., Sedliak, M., Marques, S. 2015. Decision support systems in Slovak forestry planning: a review/Systémy na podporu rozhodovania v lesníckom plánovaní na Slovensku: prehľad. *Forestry Journal*, 61(1): 19-30.
- [60] UNECE 2014: The value of forests, Payments for Ecosystem Services in a Green Economy. Geneva Forest and Timber Study Paper 34 available from www.unece.org/forests ISBN 978-92-1-117071-9
- [61] Uhde, B., Hahn, W. A., Griess, V. C., & Knoke, T. 2015. Hybrid MCDA methods to integrate multiple ecosystem services in forest management planning: a critical review. *Environmental Management*, 56(2), 373-388.
- [62] Zanchi, G., Belyazid, S., Akselsson, C., & Yu, L. 2014. Modelling the effects of management intensification on multiple forest services: a Swedish case study. *Ecological Modelling*, 284, 48-59.
- [63] Zitzler, E., Laumanns, M., Bleuler, S. 2004. A tutorial on evolutionary multiobjective optimization. Computer Engineering and Networks Laboratory, Zurich: Swiss Federal Institute of Technology Zurich, 32 s.