

Analysis of the Forest Certification Process with the R'WOT Approach

Korhan ENEZ¹ Aslıhan ŞİMGA² Sevgi ÖZTÜRK³

Introduction

A forest is a life union created by the forest community together with trees, shrubs, shrubs and herbaceous plants, moss, ferns and fungi, microorganisms living under and above the soil, and various insects and animals, which can create a unique climate over wide area (1,2). In other words, the forest not only produces wood products, but also includes non-wood products, animals, and microorganisms beneath the ground. Forests have economic, social, and ecological functions. Using and managing these functions properly is among the primary duties of forest enterprises (2,3). However, factors such as rapid population growth, industrialization, air pollution, fire and climate change have resulted in many problems with the sustainability of forest management. Problems such as the misuse of forests, overharvesting or overexploitation, and incorrect processing techniques that negatively affect product quality cause global deforestation and the loss of forest resources. Therefore, improving forest management came to

Kastamonu University, Faculty of Forestry, korhanenez@kastamonu.edu.tr, ORCID iD: 0000-0001-7526-0312

Kastamonu University, Institute of Science, aslisimga@gmail.com, ORCID iD: 0000-0001-8772-5909

³ Kastamonu University, Faculty of Engineering and Architecture, sozturk@kastamonu.edu.tr, ORCID iD: 0000-0002-3383-782



 Arranging harvest techniques in scope from a tree to a stand to control the damage of forest products or to keep the level of damage to a minimum, and ensuring that the forest products are transported from the forest without deterioration of forest road network and surroundings.

References

- 1. Aytuğ B. Orman tanımlaması ve bu tanımlamada yer alan ağaç, ağaçcık ve çalı kavramları. In: *1.Orman Kadastro Semineri*, 15 Ocak- 22 Şubat 1974, Ankara, Türkiye. (in Turkish)
- Paluš H, Krahulcová M, Parobek J. Assessment of forest certification as a tool to support forest ecosystem services. Forests; 2021; 12: 300. doi.org/10.3390/ f12030300
- 3. Koçak S, Tolunay A, Türkoğlu T. Effects of forest certification applications on forest resources management in Turkey. *Turkish Journal of Forestry*; 2017; 18: 49-56. doi:10.18182/tif.307447
- 4. Durusoy İ, Özdemir O. Price premiums for certified roundwood: evidence from auction sales in Turkey. *Journal of Forest Research*; 2021; 26: 395-399. doi:10.1080/13416979.2021.1940664
- 5. FSC. Forest Stewardship Council. (on 10.02.2019 available at https://Facts_and_Figures_2018-02-09.pdf)
- 6. Özcan G, Sakici OE. Evaluation of forest villagers' perceptions about protection activities in Kastamonu region and their integration possibilities to forest planning. In: *International Forestry* Symposium, 7-10 December 2016, Kastamonu, Türkiye. (p. 363-374)
- 7. Marx A, Cuypers D. Forest certification as a global environmental governance tool: what is the macro-effectiveness of the Forest Stewardship Council? *Regulation & Governance*; 2010; 4: 408-434. doi:1111/j.1748-5991.2010.01088.x
- 8. Meidinger E, Elliott C, Oesten, G. Social and political dimensions of forest certification. Meidinger E, Elliott C, Oesten, G, Remagen-Oberwinter (eds.), SUNY Buffalo Legal Studies Research Paper No. 2015-007, Germany, 2003.
- 9. Rametsteiner E, Simula M. Forest certification-an instrument to promote sustainable forest management? *Journal of Environmental Management*; 2003; 67, 87-98. doi: 10.1016/S0301-4797(02)00191-3
- Zubizarreta M, Arana-Landín G, Cuadrado J. Forest certification in Spain: Analysis of certification drivers. *Journal of Cleaner Production*; 2021; 294: 126267. doi:10.1016/j. jclepro.2021.126267
- 11. Tolunay A, Türkoğlu T. Orman ürünleri sertifikasyonu, amacı, uygulamalar ve tüketici üzerine etkileri; *Orman ve Av Dergisi*; 2011; 6: 26-27. (in Turkish)
- Boakye-Danquah J, Reed MG. The participation of non-industrial private forest owners in forest certification programs: The role and effectiveness of intermediary organizations, *Forest Policy and Economics*; 2019; 100: 154-163. doi: 10.1016/j. forpol.2018.12.006
- 13. Maser C, Smith W. Forest certification in sustainable development: healing the landscape. Washington, DC: Lewis Publishers, CRC Press; 2000.



- 14. Nussbaum R, Simula M. *The forest certification handbook*. London: Taylor and Francis; 2013.
- 15. GDF. *General Directorate of Forestry 2020.* (on 05.15.2019 available at https://sertifikasyon.ogm.gov.tr/Documents/OGM-Sertifikalandirma-Calismalari.pdf)
- 16. Gutierrez Garzon AR, Bettinger P, Siry J, Abrams J, Cieszewski C, Boston K, Mei B, Zengin H, Yeşil A. A comparative analysis of five forest certification programs. *Forests*; 2020; 11: 863. doi:10.3390/f11080863
- 17. Komut O, Öztürk A. The perception analysis of forest products certification in the wood and wood products sector in Turkey. *Eurasian Journal of Agricultural Research*; 2017: 120-128.
- 18. Köksal S. A research on customers' perception of corporate reputation for green businesses. MSc Thesis, Çukurova University, Türkiye, 2011. (in Turkish)
- 19. Şen G, Genç A. The definition of the problems in the forest management certification application process from forester's perspectives in Turkey. 2017; *Journal of Sustainable Forestry*; 36: 388-419.
- 20. Şen G, Güngör E. Local perceptions of forest certification in state-based forest enterprises. *Small-scale Forestry*; 2019; 18: 1-19. doi:10.1007/s11842-018-9404-7
- 21. Tolunay A, Türkoğlu T. Perspectives and attitudes of forest products industry companies on the chain of custody certification: a case study from Turkey. *Sustainability;* 2014; 6: 857-871. doi:10.3390/su6020857
- 22. Türkoğlu T, Tolunay A. FSC orman yönetim sertifikasının Muğla ormanlarına etkisinin nitel olarak araştırılması. In: *II. Ulusal Akdeniz Çevre ve Orman Sempozyumu*, 22-24 October 2014, Isparta, Türkiye. (p. 506-517). (in Turkish)
- 23. Özkaya B. Green advertisements in the context of green marketing as an extension of the social responsibility understanding of companies. *Öneri Dergisi*; 2010; 9: 247-258.
- 24. Üstünay M. The application of green marketing from the social responsibility perspective and a survey in the chemical sector. MSc Thesis, Trakya University, Türkiye, 2008. (in Turkish)
- 25. Kurttila M, Pesonen M, Kangas J, Kajanus M. Utilizing the analytic hierarchy process (AHP) in SWOT analysis—a hybrid method and its application to a forest-certification case. *Forest Policy and Economics*; 2000; 1: 41-52. doi:10.1016/S1389-9341(99)00004-0
- 26. Van der Ven H, Cashore B. Forest certification: the challenge of measuring impacts. *Current Opinion in Environmental Sustainability*; 2018; 32: 104-111. doi:10.1016/j. cosust.2018.06.001
- 27. Genç A. Problems and solution recommendations on forest management certification applications (a case study of Kastamonu Forest Regional Directorate). MSc Thesis, Kastamonu University, Türkiye, 2014. (in Turkish)
- 28. Okan T, Kose N, Arifoglu E, Kose C. Assessing ecotourism potential of traditional wooden architecture in rural areas: The case of Papart Valley. *Sustainability*; 2016; 8: 974. doi:10.3390/su8100974
- 29. Şener FN. Nongovernmental and administrative structuring in certification and accreditation of sustainable forestry management applications in Turkey (case studies for Andirin and Göksun State Forestry Enterprises 2003-2007). MSc Thesis, Kahramanmaraş Sütçü İmam University, Türkiye, 2019. (in Turkish)



- 30. Şen G, Genç A. Perceptions and expectations on forest management certification of foresters in state forest enterprises: A case study in Turkey. *Applied Ecology and Environmental Research*; 2018, 16: 867–891. doi:10.1007/s11842-018-9404-7
- 31. Dengiz O, Sarioglu FE. Parametric approach with linear combination technique in land evaluation studies. *Journal of Agricultural Science*; 2013; 19: 101-112. doi:10.1501/Tarimbil_000001234
- 32. Öztürk S. Developing of basin management plan for Devrekani watercourse sub-basin. Doctoral dissertation, Gazi University, Türkiye, 2011. (in Turkish)
- 33. Yılmaz E. R'WOT tekniği; arıcılık sektöründe katılımcı yaklaşım ile örnek bir uygulaması. *Çevre ve Orman Bakanlığı Yayınları*, 2006; 274: 86. (in Turkish)
- 34. Yılmaz E, Coşgun U, Koçak Z, Ay Z, Orhan KH. Prioritising and determining of ecotourism strategy with participatory approach: a case studies of the Cehennemdere Valley and Köprülü Kanyon National Park, Eastern Mediterranean. *Forestry Research Institute*; 2009; 51.
- 35. Aguilar FX, Vlosky RP. Consumer willingness to pay price premiums for environmentally certified wood products in the US. *Forest Policy and Economics*; 2013; 9: 1100-1112. doi:10.1016/j.forpol.2006.12.001
- 36. Cha J, Chun JN, Youn YC. Consumer willingness to pay price premium for certified wood products in South Korea. *Journal of Korean Forest Society*; 2009; 98: 203-211.
- 37. Howe JL. Analysis of the environmental certification of wood products, Doctoral dissertation, University of Minnesota, United States, 1999.
- 38. Ozanne LK, Vlosky RP. Certification from the U.S. consumer perspective: A comparison from 1995 and 2000. *Forest Products Journal*; 2003; 53: 13-21.
- 39. Van Kooten GC, Nelson HW, Vertinsky I. Certification of sustainable forest management practices: a global perspective on why countries certify. *Forest Policy and Economics*; 2005; 7: 857-867. doi:10.1016/j.forpol.2004.04.003
- 40. Jaung W, Putzel L, Bull GQ, Kozak R, Elliott C. Forest Stewardship Council certification for forest ecosystem services: An analysis of stakeholder adaptability. *Forest Policy and Economics*; 2016; 70: 91-98. doi:10.1016/j.forpol.2016.06.004
- 41. Kalonga SK, Midtgaard F, Klanderud K. Forest certification as a policy option in conserving biodiversity: An empirical study of forest management in Tanzania. *Forest Ecology and Management*; 2016; 361: 1-12. doi:10.1016/j.foreco.2015.10.034
- 42. Falcone PM, Tani A, Tartiu VE. Imbriani C. Towards a sustainable forest-based bioeconomy in Italy: Findings from a SWOT analysis. *Forest Policy and Economics*; 2020; 110: 101910. doi:10.1016/j.forpol.2019.04.014
- 43. Cerutti P, Lescuyer G, Tsanga R, Kassa S, Mapangou P, Mendoula E, Missamba-Lola A, Nasi R, Eckebil P, Yembe R. Social impacts of the forest stewardship council certification: an assessment in the Congo basin. *Center for International Forestry Research*, Bogor, 2014.
- Kalonga SK, Kulindwa K. Does forest certification enhance livelihood conditions?
 Empirical evidence from forest management in Kilwa District, Tanzania. Forest Policy and Economics; 2017; 74: 49-61. doi: 10.1016/j.forpol.2016.11.001
- 45. Kalonga SK, Teketay D, Mutta D. Status of forest certification in eastern and southern Africa sub-regions. *African Journal of Rural Development*; 2020; 4: 109-123.
- 46. Karmann M, Smith A. Forest stewardship council reflected in scientific and professional literature: Literature study on the outcomes and impacts of FSC certification. Forest Stewardship Council Policy Series, Bonn, 2009.