

**DIGITALISATION AND CIRCULAR ECONOMY:
forestry and forestry based industry implications**

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▀ **"SOMEONE'S GARBAGE IS
SOMEONE ELSE'S TREASURE" –
CROSS-SECTORAL
INTEGRATION IN CIRCULAR
ECONOMY**



Gergana Slavova,
Maya Ivanova

ggss@ue-varna.bg
maya.ivanova@vumk.eu

CIRCULAR ECONOMY AND CROSS-SECTORAL INTEGRATION

- Cross-sectoral cooperation as a sustainable way for growth of two complementing industries
- The synergy of cooperating sectors contributes to the primary principles of the circular economy
- The aim is to explore the opportunities for integration of circular economy models, using the shared resources of forestry and tourism industries. The study steps on secondary research of similar cases, presented by other authors, and adds to this analysis several examples from the North-eastern region of Bulgaria.

FORESTRY AND TOURISM INTERCONNECTEDNESS

The cross-sectoral integration of tourism and forestry may be illustrated in several aspects:

- Forests are used as environment/space for tourism, with relevant tourist facilities (Kuvan, 2005)
- Nature-based experiences, taking place within the forest, as part of the tourism product (Li & Lai, 2011; Rantala, 2010)
- Material items, produced from forest industry residues, that are targeted mainly for tourists – like souvenirs, furniture, amenities, etc.

Forests as Environment for tourism



Forests used for nature-based experiences



Forestry industry residues, utilized in tourism



Forestry industry residues, utilized in tourism



CASE STUDY – NATURE PARK “ZLATNI PIASACI”/ ”GOLDEN SANDS”

- The smallest nature park in Bulgaria - 13,2 sq. km
- The forest is 98,2% from the entire territory of the park
- Located in proximity to the second largest sun-sea-sand resort Golden sands and the third largest city in the country – Varna



METHODOLOGY

- Single case study
- Secondary information
- Two in-depth interviews with representatives of the nature park Zlatni piasaci to share particular examples of cross-sectoral integration regarding the three common aspects – creating appropriate environment for tourism, examples of tourist products, and personal observations about the viability of such integration for the future development of the nature park “Zlatni pyasaci”
- Research period May-June in 2019

RESULTS AND DISCUSSION

Forest as environment for tourism

- The park has special plan, where the areas for tourist visits and the rest protected places are strictly defined
- in 2018 the total number of visitors was over 108 000, from them around 4500 came for weekend tourism, around 21 000 were organized eco tourist groups and more than 2200 visitors came for the attractions in the park; more than 80000 visitors, 2/3 of them foreigners, visited the park for its archaeological and natural sights.
- 5 general and 4 specialized tourist itineraries. Along the trails are created picnic areas, used to rest and relax.

RESULTS AND DISCUSSION

Forest used for nature experiences

- “Jay’s Home” trail, specially designed for children education,
- “The Forest’s song” trail, offers interactive education of birds’ kingdom and ends up as an open-air classroom for the kids
- Dendrology trail and Cycling trail present opportunities for deeper exploration and adventure experiences
- Visitor centre offers a number of tourist services, tours, guiding, consultancy and even movies about the park and its inhabitants. There are special educational “green school” programmes, organized for kids and teenagers to learn more about the nature and species

RESULTS AND DISCUSSION

Forestry industry residues used in tourism

- Facilities and amenities along the trails and in the Visitor centre are constructed by recycled wood, or solid offcuts, e.g. wooden benches, tables, fireplaces, penthouse.
- All the signs and mark directions are created from wooden remains or plywood.
- The classroom is made entirely of wooden solid offcuts, there are also platforms for wildlife watching
- The alleys are covered with residual sawdust to keep wheels running smoothly
- Rope adventure park made of residuals from wood, ropes and natural materials

RESULTS AND DISCUSSION



RESULTS AND DISCUSSION



Concluding remarks

“Someone's garbage is someone else's treasure”

becomes a truly applicable mantra for the cross-sectoral integration of the forestry and tourism industries and we see its full illustration in the case of Nature park “Zlatni piasaci”.





Thank you for your attention!

Any questions?



References

1. Daian, G., & Ozarska, B. (2009). Wood waste management practices and strategies to increase sustainability standards in the Australian wooden furniture manufacturing sector. *Journal of Cleaner Production*, 17(17), 1594-1602.
2. Helles, F., & Vedel, S. E. (2006). Experience economics—An emerging field within forest economics? *Journal of Forest Economics*, 3(12), 167-170.
3. Hengeveld, G. M., Schüll, E., Trubins, R., & Sallnäs, O. (2017). Forest Landscape Development Scenarios (FoLDS)—A framework for integrating forest models, owners' behaviour and socio-economic developments. *Forest Policy and Economics*, 85, 245-255.
4. Ivanov, S. and Dimitrova, M. (2014). Managing Tourism in Bulgaria: between 'Mission Impossible' and New Hope. In C. Costa, E. Panyik & D. Buhalis (eds.). *European Tourism Planning and Organisation Systems. Vol.II. National case studies.* Channelview Publications, pp. 87-105.
5. Kajanus, M., Leban, V., Glavonjić, P., Krč, J., Nedeljković, J., Nonić, D., ... & Wilhelmsson, E. (2019). What can we learn from business models in the European forest sector: Exploring the key elements of new business model designs. *Forest Policy and Economics*, 99, 145-156.
6. Kirchherr, J., Reike, D., Hekkert, M., 2017. Conceptualizing the circular economy: an analysis of 114 definitions. *Resour. Conserv. Recycl.* 127, 221–232.
7. Kuvan, Y. (2005). The use of forests for the purpose of tourism: the case of Belek Tourism Center in Turkey. *Journal of environmental management*, 75(3), 263-274.
8. Li, C., & Lai, L. (2011). The development and utilization of forest parks based on the experiences strategy. *Procedia Environmental Sciences*, 5, 37-42.
9. Matilainen, A., & Lähdesmäki, M. (2014). Nature-based tourism in private forests: Stakeholder management balancing the interests of entrepreneurs and forest owners? *Journal of rural studies*, 35, 70-79.
10. Millar, N., McLaughlin, E., & Börger, T. (2019). The circular economy: swings and roundabouts?. *Ecological economics*, 158, 11-19.
11. Rantala, O. (2010). Tourist practices in the forest. *Annals of Tourism Research*, 37(1), 249-264.
12. Sikora, A. T., and Nybakk, E. (2012). Rural development and forest owner innovativeness in a country in transition: Qualitative and quantitative insights from tourism in Poland. *Forest Policy and Economics*, 15, 3-11.
13. Tran, K. (2015). *The connection between forestry and tourism in Finnish Lapland.* Unpublished Bachelor's thesis. School of Tourism and Hospitality Management. Lapland University of Applied Sciences.