SERVICES NATURE PROVIDES US

POLICY RECOMMENDATIONS RELATED TO FOREST AND GAME MANAGEMENT FOR DECISION MAKERS
WHAT DOES NATURE PROVIDE FOR FOREST AND GAME MANAGEMENT?

The term ecosystem services is an umbrella term for all those services that nature provides for society. These services – such as wood and timber, natural forage and fodder, water (retention) or erosion control – are useful and often vital. Unfortunately, we are losing them at an alarming rate, and their loss not only damages nature but represents a heavy economic burden, too.

Three groups of ecosystem services are distinguished: provisioning, regulating and cultural services. While provisioning services provide us with wood and timber, and edible plants and herbs, regulating services secure clean air and water, and contribute to regulating the climate and rainfall. Furthermore, the forest can/may serve/be a popular tourist destination for excursions and provides numerous non-material services such as hunting and artistic inspiration or aesthetic experience.

WHAT ARE THE VALUES OFFERED BY FORESTS AND THEIR SERVICES?

In the course of our work, we assessed the key ecosystem services of the Niraj-Târnava Mica region. Our objective was to explore key services and facilitate the integration of their protection in relevant development plans. We included the local population in our research since it is them who are most familiar with the landscape’s features and likewise they are the ones most affected by changes in the landscape. We also mapped and examined the region’s economic values.

The local population deemed all ecosystem services directly related to forests important. Water retention, also related to plant and forest cover, was ranked the highest. Respondents identified carbon sequestration as the second most important service, whose annual value in the region is estimated at 5.7 million RON, largely due to forests. Wild plants and mushrooms are the third most important service with 1.7 million RON in economic value in the region. Wood and timber ranked fourth with an estimated annual economic value of 14.8 million RON in the region.

THE PRESENT STATE OF FOREST AND GAME MANAGEMENT

Forests cover 37% of the study area. The most significant tree species is the beech, accompanied by a smaller share of holm oak and hornbeam, as well as acacia and pine on plantations. Forestry represents an important economic sector in the region. Nevertheless, the assessment of ecosystem services carried out by local experts confirmed that the services of forests are far more diverse than wood and timber. Deciduous forests proved to be the most important habitat in providing the services of touristic attractiveness and local identity, erosion control, as well as wild plants and mushrooms. Several problems were raised regarding logging, the most direct exploitation of forests, including: management practices that are
often environmentally destructive and are not monitored due to unsettled types of forest tenure, and the common practice of illegal logging. These pose concern, as consequently it is not only logging that is managed unsustainably but other services provided by the forest are also damaged, which contributes to more complex regional problems such as the deterioration of the quality of water and flooding. Timber theft and foraging without a permit are also common in the region.

**WHAT CAN BE DONE FOR SUSTAINABLE FOREST MANAGEMENT?**

In order to achieve the coveted scenario by 2040 from the current state, an appropriate regulatory environment is necessary. It is essential to implement land consolidation, and to strengthen the regulatory framework for logging in terms of detailed quantity and quality requirements so that logging activities/practices be implemented with compliance of strict nature conservation criteria. It would be important that municipalities be able to regularly monitor forestry operations and compliance of rules. It would also be essential to value forests based on not only timber quality but also other ecological and cultural services, factor it into the price of forest products, and take it into account in preparing the forestry management plans. To achieve sustainable logging, log exports should be restricted by imposing duties. To keep timber in the region, wood processing should be performed by local businesses that could initially receive state and EU funding. Woodlands outside the current forestry fund should be treated as forests, and adequate compensation should be provided to owners of Natura 2000 sites. Due to the protected nature of Natura 2000 sites and related nature conservation requirements, forest owners would need compensation as a reimbursement for lost income incurred due to logging restrictions.

**WHAT DO WE INTEND TO ACHIEVE IN THE NIRAJ-TÂRNAVA MICA REGION BY 2040?**

In our research, we have outlined an ideal scenario where the ecosystem services are all preserved and properly used. However, in order to achieve this, we need to act in the present.

According to this ideal scenario, forests are managed sustainably, typically with native/indigenous tree species. Through sustainable logging, the health and biological diversity of forests are not impaired. Many people forage in forests, however, only within appropriate, legal frameworks.
TO ACHIEVE THIS WE RECOMMEND:

- Introducing stronger requirements for logging permits and their inspection,
- Integration of other ecosystem services of forests (non-wood/timber) into forestry management plans,
- Elaborating Natura 2000 payment schemes for forests in the framework of the Rural Development Programme,
- Regulating foraging activities in the forest so as to prevent the overexploitation of forests and their services and at the same time enable the sustainable use of those services for society.

For further information, see publications “What is the way forward? - Scenarios for the Niraj and Târnava-Mică region with relation to ecosystem services”, and “How much are nature’s gifts worth? - The summary study of mapping and assessment of ecosystem services in the Niraj-Târnava Mică region’s Natura 2000 sites”. Available at: www.milvus.ro/ecoservices.

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The objective of the project was to map and assess the key ecosystem services of the research area. The study explores the contribution of the region’s ecosystem services to the major economic sectors.

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