

POPULARIZATION DESCRIPTION OF THE PROJECT RESULTS:

“The impact of institutional framework change on ecosystem services provided by trees/shrubs to local communities” – grant OPUS 13 National Science Center Poland

Trees provide many benefits to people. In addition to direct benefits (e.g., fruit and wood sales) they also affect health (clean the air of pollutants and provide oxygen), create beautiful landscapes, promote recreation and even stimulate social interaction. Despite the vital role of trees, their number in Polish municipalities is decreasing, which affects the quality of life of residents. This is a result of the fact that many benefits derived from trees are usually not noticed or, if noticed, are treated as taken for granted and costless.

Therefore, an essential element of green areas management is monitoring, caring, and maintaining greenery and taking care of the cycle: cutting down, replacing, and planting new trees. The felling of trees on private land is regulated by law, defining the conditions necessary to obtain permits. To respond to demands from people pointing out the needlessness of restricting owners' rights, a change in the law came into force in 2017, removing the obligation to apply for a permit to cut down trees on a private plot not used for commercial purposes. However, the conducted opinion polls showed that the opinions of Poles were divided on this issue: 48% of Poles thought that tree felling on private land should be regulated, while 46% believed that the owner should decide on his own. The research conducted within the project aimed to check the scale of tree cutting on private lands when there were no restrictions in force. It also investigated what benefits provided by trees were indicated by residents and what their position is on the regulation of the right to cut down trees planted on private possessions.

Based on the research conducted for two selected areas (a rural municipality and an urban municipality), it was found that:

- The suspension of the obligation to apply for a tree felling permit in 2017 increased the scale of logging. This means that for a certain part of the residents of the municipalities, the regulations on tree cutting on private land stands for an unnecessary nuisance. At the same time, many residents recognize that this issue should be regulated.
- Based on data collected in an urban municipality, trees felled on private land without a felling permit accounted for as much as 80% of all trees felled between 2011-2016.
- Municipalities have little capacity to control and monitor tree felling on private land. However, modern solutions and developing technologies (e.g., LiDAR) provide new opportunities in this regard, more effective than inventories based on on-site measurements.
- Residents of a rural municipality value the provisioning benefits provided by trees to a greater extent than residents of an urban municipality.
- Residents of a rural municipality recognize to a greater extent than residents of an urban municipality that owners should decide on harvesting rather than the rural municipality. The attachment to the place of living reinforces this effect.
- Existing expert appraisal techniques allow for the creation of tree management strategies based on relatively objectified criteria.
- Conducting discussions among residents, along with providing them some sorts of information, leads to some modification of their positions on tree management.
- To provide residents optimal access to the benefits delivered by trees, it is important to remember that they most often use the greenery in their residence's immediate vicinity. This is why even small green squares or single trees can play a much more crucial role in their daily life than distant, larger forest complexes.