



Mapping ecosystem services potential in Lithuania

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Ecosystem services (ES) are understood as the benefits that humans get from ecosystems functions. They are divided in providing, regulating, supporting and cultural. The correct management of ES is fundamental to achieve sustainable development goals. A good assessment of ES potential can be obtained using GIS techniques, in order to have a spatial dimension of ES distribution. This will help to have a better territorial planning, improve ES capacity, and have more benefits. ES potential analysis can be carried out based on the ES matrix developed by Burkhard et al. (2009). This method is based on the attribution a rank from 0 to 5 (0= no capacity to 5=very high relevant capacity) to the land use classes of the corine land cover (CLC). This represents an important advantage since a determined land use can be related with a certain number of services. The objective of this work is to Map the ES potential in Lithuania. The results showed that Lithuania has a high potential for regulating services, followed by cultural and provisioning services. Urban areas provide a very small amount of services, contrary to forest, where the highest potential is observed. The most comon land covers in Lithuania are non-irrigated arable land, complex cultivation patterns, mixed and coniferous forest. Total and regulating and cultural ES had dispersed pattern showing that they are scattered in the territory. They are located mainly in forested and coastal areas. In relation to provisioning services they had a clustered distribution, and they were mainly observed in the central part of Lithuania.

References

Burkhard B, Kroll F, Müller F, Windhorst W. 2009. Landscapes' capacities to provide ecosystem services – a concept for land-cover based assessments. *Landsc. Online*. 15:1–22