



Evaluation of environmental vulnerability to selected forms of anthropopressure – a draft

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Human impact on the environment is nowadays very significant. The potential negative impact of planned activities on environment is called vulnerability (Steintz 1967). The spatial distribution of environmental vulnerability to different kinds of anthropopressure should account for a basis for spatial planning. Therefore, assessment of environmental properties is now an essential component of environmental studies in spatial planning. However, it is a very complex and difficult issue.

The aim of this presentation is to show a draft of the complex method to assess the vulnerability of the natural environment to the various forms of human pressure, which can be used in spatial planning at the local level, particularly in land use plans or strategic environmental impact assessments. Considered forms of anthropopressure include stressors related with air pollution, water pollution and land-use changes.

This assessment is carried out separately for each form of human pressure, taking into account affected properties of the environment. Firstly, selected environmental properties such as e.g. ground water pollution potential or the capacity to immobilize the contaminants are assessed. In the next step they are combined together in order to obtain an overall range of possibilities in land use planning. In the study, GIS modeling methods as well as map overlapping technique account for a basis. Maps of individual elements of the environment, i.e. numerical terrain models, orthophotos, geological, soil and agrarian as well as surface and groundwater maps, are the main source of information.

The main advantage of the presented approach is the possibility of environmental features selection depending on the planned land use. Integrated analyses of this kind should account for basis in environmental impact assessment of planned land use.

Steintz C., 1967, Computers and regional planning: the Delmarva study, MA: Graduate School of Design, Harvard University, Cambridge.