

## Summary

**Title:** Functional typology of communes and implementation of tasks within the scope of environment protection by municipal self-governments in Świętokrzyskie Voivodeship

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Study of interrelations between the systems of natural and anthropocentric environment plays a crucial role in geographical sciences. The subject of study and providing reliable information on elements and functioning of the environment-human system are significant for scientific cognition of this discipline. All of this combined with applied test models allows to determine a structure and dynamics of this system. In addition, application of spatial analysis enables to generalize results in studying natural phenomena both on a local and a regional scale. The subject matter of human's relationship with environment is nowadays unusually essential in the context of hazards concerning ecological imbalance. Progressive environment degradation and negative effects linked to it, caused that environmental protection in the 21<sup>st</sup> cent. is perceived as a tool of achieving a variety of developmental targets. Local self-government units, which acting based on a long-term thinking and a sensible forecasting significantly shape the future of a particular municipality, play an important part in this regard.

The main aim of this dissertation is studying relationships between a functional typology of municipalities and a strategic management in the scope of implementation of tasks in terms of environmental conservation in the communes of Świętokrzyskie Voivodeship. The research problems cover years of 2006-2016 and are related to three periods of EU funds programming. Three basic parts of the research procedure has been applied in this thesis. The first part concerns a methodological part, which comprises an overview of research literature, a formulation of the research issue and hypotheses, selection of methods and theoretical premises. The second part is pertinent to conduction of surveys in communes; statistical data analysis; verification of hypotheses; classification of communes in terms of a degree of tasks implementation; development of territorial model and multifaceted statistical analyses in spatial and temporal depiction, taking into consideration a division into specific types of units. The last part refers to question of anticipated transformations, indication of barriers and risks of implementation of tasks in the field of environment protection.

A key cognitive result in this dissertation is formulation of own method for an identification of the functional structure of communes (with reference to Bański concept, 2010), which was applied for grouping the communes in Świętokrzyskie Voivodeship in respect of a range of diagnostic qualities of social, financial-economic and spatial-infrastructure characters. As a consequence of carried out typology of communes, a dynamic depiction of research in mechanisms of implementation of tasks within environmental protection applied by local self-governmental authorities, was conducted. Carried out studies and analyses more

deeply grounded in statistical data and supported by practical knowledge of decision-makers provide a certain picture of development of environmental conservation in Świętokrzyskie Voivodeship. This work is not only a reflection over an environmental condition, but it also proposes guidelines in the form of observations and recommendations for local self-governmental units in relation to changes that should be introduced for the purpose of an effective implementation of tasks in the scope of environmental protection.

An analysis of the level of development of components of environment conservation in a spatial depiction has been presented in the dissertation. Five diagnostic features characterizing the state of natural environment in particular functional types have been selected for evaluation. These are the following diagnostic variables: population using the water supply network (%); population using the sewage collection systems (%); population using gas network (%); mixed municipal waste collected within a year (kg/resident); share of expenses on public utilities and environment protection in total expenditure (%).

The model of interaction constructed at work, between a functional structure and implementation of tasks in the field of environment protection in municipal self-governments of Świętokrzyskie Voivodeship has showed occurring mutual correlations. They were characterized by a diversified coefficient of contingency depending on analyzed year and functional type. In general, a statistically moderate relationship between a functional structure and a level of tasks implementation in the scope of environmental conservation defined by means of classes, has been proved.

Management of environment protection in municipalities constitutes a complicated and complex process, based on taking account of a comprehensive approach, interdisciplinary knowledge and analytical thinking skills. Cognitive aims, which included: characterization and identification of functional structure of communes; evaluation of selected indicators diagnosing a degree of tasks implementation within environmental conservation, have been achieved in a raised subject of PhD thesis. Factors and conditions of implementation of investments and undertakings of pro-ecological nature in the studied area, which entail the risk of occurrence of threats posed to natural environment, have been defined. Influence of legal-administrative instruments upon creation and introduction of actions in the scope of environmental protection in communes, as well as fundamental directions of implementation of environmental protection policy by local authorities, have been identified in this work. A vital aspect of the dissertation of application form has been construction of a local model of dependencies between functional types of communes and implementation of tasks in terms of environmental protection, as well as demonstration of a spatial diversification of communes in Świętokrzyskie Voivodeship, considering intensity of phenomena and dynamics of changes over a span of several years. Analyses of potentials and barriers within forecast transformations encouraging a rational and responsible balanced development in self-governments, have been additionally presented.