Doctor's dissertation, written under the supervision of: Prof. Bartosz Mickiewicz, Ph. D., D.Sc.

## Determinants of green economy development in rural areas based on the example of Wielkopolska Province

mgr Sebastian Robert Lisiak

## **ABSTRACT**

The aim of the dissertation was to determine the properties of the development level of green economy in rural areas in Wielkopolska province. It was achieved by determining the development level of green economy in rural areas and identifying the potential of green economy entities surroundings in the light of local development strategies and barriers to its development. Barriers to the development of green economy in rural areas of Wielkopolska province were also identified.

The above range of information was collected from public statistics, review of literature and interviews with representatives of businesses and local government offices which operate in rural areas and support development and also the green economy development processes which need support in Wielkopolska province.

Chapter I. Methods. The author presented the methods adopted in the dissertation, describing the above aim and particular objectives. The chapter also describes the paper scope, research hypotheses, sources of data and methods of data collection, methods used to select study objects and indices used to evaluate green economy/sustainable development in rural areas as well as the methods applied in the analysis of the data or information collected.

Chapter II. Green economy in sustainable development. The author presented the concepts of sustainable development in economic theories, namely: ecological, environmental, institutional and post-Keynesian economics. The multitude of scientific areas (economics, social sciences, natural science and technology) which deal with sustainable development and green economy causes significant difficulties and discrepancies in their definitions. The dissertation adopted the concept of sustainable development which allows for the role of state policy and its ability to create conditions supporting economic growth and social development.

Chapter III. Social and economic determinants of sustainable development. The author described the main concepts related to the development of green economy, with the relevant conceptual range, their connections with sustainable development concepts, human capital and environmental capital as well as macroeconomic conditions which influence the development. Based on the review of the concepts discussed and for the needs of the dissertation sustainable development was defined as the ability of a unit (region, country) to develop socially and economically using its natural resources rationally and minimising the impact of human actions on the environment. The actions in this scope were connected with human capital, considered in the dissertation to be an important value of economy and created by individual attributes of employees / entrepreneurs / employers and relational abilities. Individual attributes were defined as education, experience, skills, knowledge and individual pro-educational attitudes. Relational abilities were assumed to stem from the ability of human capital to create a network of contacts inside and outside an organisation. It was assumed that external relations of green economy development are created first of all by the most important actors of local development, who have the tools and instruments to conduct innovative activities.

Chapter IV. Research results - determinants of green economy development in rural areas that participate in development processes and in rural areas which need support for development. The defined spatial variety of green economy development level in rural areas in Wielkopolska Province divided the studied areas into two groups. The first one comprised 10 rural areas which based on a synthetic indicator obtained a high, relatively high or medium grade of green economy development. The other group contained 11 rural areas, characterised by a low grade of green economy development which indicated delay, significant delay or low level of development. The comparison of the synthetic indicator of green economy development and the components of sustainable development adopted in the paper did not indicate statistically significant relationships. This concerns a bilateral relationship between the value of the synthetic indicator of green economy development and the following indices: the number of working people per 1,000 residents, the share of the registered unemployed in the working age population, the number of units newly registered in REGON statistical register per 10,000 people, the number of units deleted from REGON register per 10,000 people, the number of natural persons conducting business activity per 1,000 residents. Also the actions of the local government have a great impact on sustainable development and the development of green economy in rural areas of Wielkopolska Province. After a review of strategic documents the following areas of support for green economy in the

discussed areas were defined: energy, heat production, water and sewage systems, waste, environment pollution, natural and artificial water bodies, thermal insulation of buildings, agriculture/ fishing/ fishery / forest management and education and promotional activities in ecology. However, the activities of local government focus mainly on water, sewage and waste management. Only few of local government bodies plan to conduct tasks in other areas. These results of document review correspond to declarations of local government representatives: both in rural areas supporting development and in those which need support in this respect, the services related to waste and water and sewage management were the most often provided, funded and planned. As for ecological education and promotion, they were most often provided in rural areas which supported development, while in the future they will be the most frequent task conducted in rural areas that need support in development. A low level of local government support of green economy was accompanied by low activity of enterprises in implementing innovation and solutions which support sustainable economic growth. The identified barriers to green economy development result from a low level of involvement of the main actors in its development.

Chapter V. Summary and conclusions. The author discussed the results of verification of hypotheses adopted in the research. The first hypothesis, which assumed small differences in development of green economy between particular rural areas in Wielkopolska Province, was not corroborated. However, the research confirmed the second hypothesis, according to which local development strategies in the analysed communes inadequately consider and support the development of green economy in rural areas in Wielkopolska Province. The study results helped to verify the third hypothesis, which assumes that the development of green economy in rural areas in Wielkopolska Province encounters a number of barriers, first of all lack of correlation between development level of green economy and the functional kind of rural areas (those which participate in development processes / those which need support of development processes).

**Chapter VI. Study tools.** In this part the author included the study tools used in interviews with representatives of local government and business entities operating in green economy.

**Summary.** The research is the author's contribution to the construction of a model to measure the level of green economy development and create an indices data base. The area is still open and the model might be used to collect, aggregate and analyse the data.

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