

DESCRIPTION FOR THE GENERAL PUBLIC

Low-emission development in the Visegrad Group is not only related to the need to improve the quality of life in terms of economic considerations, but also the need for sustainable development. According to a report by the World Health Organization (WHO), which takes data from the beginning of 2016 into the 50 most polluted European cities, 33 are in Poland and 5 in the Czech Republic. In 2015, the European Commission sent a lawsuit to the European Court of Justice in Luxembourg against Poland for failing to comply with EU air quality regulations. For too much air pollution, Poland can pay a penalty of up to EUR 1 billion. The prospect of such a high financial penalty may be a factor which will lead to the intensification of low carbon development activities not only in Poland but also in the other Visegrad Group countries, where there are also over-concentration of harmful substances in the air.

The aim of the research is to identify, describe and explain phenomena and attitudes that are associated with low-emission development in the Visegrad Group countries. Analyzes in the aforementioned scope will concern:

- conditions for improving energy efficiency,
- development factors for low carbon (including renewable) energy sources,
- stimulant and destimulant to implement low carbon technologies,
- the possibility of reducing waste generation and improving the efficiency of their management,
- effective instruments and tools for promoting green consumption patterns.

The purpose of the research is also to indicate the impact on the quality of life of people in this part of Europe contaminated environment through inefficient energy management and the use of low quality fuel. Assessment of eco-efficiency of currently used energy raw materials and technologies that affect environmental pollution. Identify ways of using energy sources that are more environmentally friendly and identify the potential of the Visegrad Group countries to implement low carbon development solutions. Determination of transport conditions affecting the development of excessive emissions. Determination of ecological efficiency of electricity and heat production on the basis of different sources of energy. In addition, surveys are being conducted in the Visegrad Group countries to indicate the differences in emissions.

During the project implementation a detailed statistical analysis of survey results will be conducted. The basic questionnaire survey tools will be used in the course of the research. The survey will be conducted in two research groups: inhabitants of selected regions of the Visegrad Group countries and independent experts. Some surveys will be conducted by the Internet (online). In order to increase the likelihood of receiving honest responses, all respondents will be given anonymity. Questionnaires will be structured using open, semi-open and closed questions. Closed questions will include numerical and verbal types of response scales. At the end of the survey, the results will be forecasted (Foresight). This method will be carried out among the representatives of decision-makers (public authorities), industry, academia and the media.

The LCA (Life Cycle Assessment) study will also be conducted. This technique will help to identify and compare the impact of electricity and heat generation and the production processes that affect the environment.

The project, due to its nature, will have a significant impact on the development of the scientific discipline of economics, especially in the context of the most frequently used energy raw materials, which have a significant impact on low-emission development in Visegrad Group countries. In addition, research is aimed at identifying the eco-efficiency of using more environmentally-friendly methods of producing different types of products, electricity and heat. The cognitive value of research in the context of planned analyzes will make a significant contribution to the increase of knowledge in the field of eco-efficiency of products. The planned studies will help to establish the level of ecological awareness of the inhabitants and help identify the social problems associated with the occurrence of pollution in the Visegrad Group countries.