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Water Management of Polish Agriculture and Adaptation to Climate Change

Authors : Dorota M. Michalak

Abstract : The agricultural sector, due to the growing demand for food and over-exploitation of the natural environment, contributes to the deepening of climate change, on the one hand, and on the other hand, shrinking freshwater resources, as a negative effect of climate change, threaten the food security of each country. Therefore, adaptation measures to climate change should take into account effective water management and seek solutions ensuring food production at an unchanged or higher level, while not burdening the environment and not contributing to the worsening of the negative consequences of climate change. The problems of Poland's water management result not only from relatively small, natural water resources but to a large extent on the low efficiency of their use. Appropriate agricultural practices and state solutions in this field can contribute to achieving significant benefits in terms of economical water management in agriculture, providing a greater amount of water that could also be used for other purposes, including for purposes related to environmental protection. The aim of the article is to determine the level of use of water resources in Polish agriculture and the advancement of measures aimed at adapting Polish agriculture in the field of water management to climate change. The study provides knowledge about Polish legal regulations and water management tools, the shaping of water policy of Polish agriculture against the background of EU countries and other sources of energy, and measures supporting Polish agricultural holdings in the effective management of water resources run by state budget institutions. In order to achieve the above-mentioned goals, the author used research tools such as the analysis of existing sources and a survey conducted among five groups of entities, i.e. agricultural advisory centers and departments, agricultural, rural and environmental protection departments, regional water management boards, provincial agricultural chambers and restructuring and modernization of agriculture. The main conclusion of the analyses carried out is the low use of water in Polish agriculture in relation to other EU countries, other sources of intake in Poland, as well as irrigation. The analysis allows us to observe another problem, which is the lack of reporting and data collection, which is extremely important from the point of view of the effectiveness of adaptation measures to climate change. The results obtained from the survey indicate a very low level of support for government institutions in the implementation of adaptation measures to climate change and the water management of Polish farms. Some of the basic problems of the adaptation policy to change climate with regard to water management in Polish agriculture include a lack of knowledge regarding climate change, the possibilities of adapting, the available tools or ways to rationalize the use of water resources. It also refers to the lack of ordering procedures and the separation of responsibility with a proper territorial unit, non-functioning channels of information flow and practically low effects.

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