

DESCRIPTION FOR THE GENERAL PUBLIC

The main objective of the project is to assess impacts of changes in agriculture resulting from implementation of the Sustainable Development concepts on efficiency of farms of different size and production types. Realization of the project will also help to recognize the main barriers in practical translation the general idea of *sustainability and sustainable development* into the real life of human economic activities, particularly in the farming sector.

The research will focus on the farming sector, however in the cognitive process it will go beyond agricultural activities relating also to a wide perspective of relations observed in the line: human being – environment – economy (three pillars of sustainability). The *Sustainable Development* is the development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

Observation of economic and political reality indicates that participants of economic and political life frequently act against the *sustainable development* principles even if they declare respect to the *sustainability* idea. Practical implementation of the sustainability concept in economy meets numerous difficulties, also in agriculture. This suggests that despite the significant research and intellectual achievements in the last thirty years a lot of problems connected with practical aspects of *sustainable development* remains unsolved, what determines necessity of further investigations.

Due to the fact that production processes in agriculture are dependent on the nature, the question about the relationship between farming and environment is particularly important because degradation of natural resources leads to a reduction of the production potential in the agricultural sector. The example can be an increased frequency of droughts (and other extreme phenomena), which is considered to be a result of climate change causing measurable losses not only in agriculture, but in the whole economy. In economic terms it is a source of losses and costs that leads to a reduction of the overall society welfare. On the other hand agriculture is also responsible for about 13.5% of global greenhouse gas emissions, which are considered as the primary cause of the adverse climatic events. Consequently, it can be assumed that any inefficient resources use related to e.g. emission which can be avoided is a partial contribution into the future losses observed at the aggregated level.

Realization of the project comprises several phases. At the first stage, in-depth literature studies will be carried out in order to identify the set of parameters which can be applied for sustainability and efficiency measurement. Parameters identified in this phase will be then used in developing the questionnaire of interview. At the second stage the interviews in representative survey of 600 farmers participating in Polish FADN system will be conducted. The data obtained during these interviews will then connected with appropriate data collected in FADN database. In such a way we will obtain a set of detailed data covering production and financial performance of surveyed farms and a set of variables referring to farms' and farmers' characteristics (underlining environmental and social aspects of farming). In the next step of the research the data obtained in the previous step will be used to identify the relation between farms' compliance with sustainability and economic efficiency, what is the main research problem of the project. At the last stage, a logic model of a "sustainable farm" reflecting the significance of efficiency in *sustainable development* will be developed and synthetic conclusions will be drawn.