

Biogas enterprises from the perspective of the embeddedness concept

It is common knowledge that due to the fluctuation of the economy, constantly changing conditions, enterprises operating in isolation are doomed to fail. The development of collective cooperation improves the acquisition of knowledge, skills, and in a broader sense facilitates the implementation of innovation. Therefore, we are currently observing the dissemination of various forms of cooperation between different entities – actors that are participants of the local economy, including: enterprises, public institutions, non-governmental organisations (NGOs), local authorities and the local community. Current relations between participants of economic processes and the nature of networks created determine the economic behaviour of business entities. Both formal and informal relationships between participants of the economic game are important in that respect because networking is a significant factor of embeddedness of business entities in the local environment, which in turn determines the efficiency of enterprises.

Due to the fact that embeddedness of enterprises in the local environment improves access to local resources, it is particularly important in the case of newly-created, innovative enterprises with mainly external capital, established in rural areas. Biogas enterprises – agricultural biogas plants – are such business entities. They are innovative companies conducting their activities in a priority sector for the national economy – the energy sector. Agricultural biogas plants operate in rural areas and produce energy (electricity and heat) on the basis of agri-food production waste and/or energy crops. The functioning of agricultural biogas plants is the most predictable among all renewable energy sources (RES) installations. The production of energy is not so strictly conditioned by natural factors as it is in case of wind or hydro plants. The formation and operation of agricultural biogas plants is to a large extent the resultant of socio-cultural (and economic) premise characterizing investors, suppliers of substrates used for the production of biogas, as well as inhabitants of rural areas, with which agricultural biogas plants are strictly associated.

Biogas enterprises have been established also in the post-state agricultural estates (in Poland: *Państwowe Gospodarstwa Rolne*, post-PGR estates), which have shaped not only structure of agriculture, but also structure of local society, economy, environment in rural areas in the post-socialist Central European Countries (CECs). Nowadays, these estates are characterized by high levels of socio-economic dysfunctionality which determines the local development, entrepreneurship. In the context of mentioned-above **the scientific aim of the project** is to define the mechanisms of embeddedness of biogas enterprises, i.e. agricultural biogas plants in the local environment, socio-spatial milieu, in the context of their role in local development. The studies are conducted from the perspective of the two different rural areas: post-PGR estates and others rural areas. The results of the research will be compared with studies from Slovakia and Czech Republic.

The impact of the project results on the development of the research field and scientific discipline are the result of a fact this is the pioneering research in Poland which aims at define mechanisms of embeddedness of biogas enterprises in the local environment in the context of their role in local development. Defining the mechanisms of social/territorial embeddedness of biogas enterprises helps determine the basic conditions for the location and functioning of these enterprises in the social context, in both: large-scale post-states owned farms and others rural areas. The results of the project will helps learn in detail the drivers of local development, indicate tools for the implementation of multifunctional development of rural areas, create new workplaces, and thus improve the socio-economic situation of their inhabitants, in particular in relation to the highly problematic post-state owned estates.