

# **Policy impact assessment on the agriculture sector in Kosovo – the case of crop and livestock farms using Data Envelopment Analysis**

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## Abstract

Impact of support schemes in the agriculture sector has been subject of discussion in the literature. While there are plenty of publications on developed economies, there is limited understanding about the impact of support schemes in post-conflict transition countries, such as the case of Kosovo. The objective of this study is to analyze the impact of government subsidy schemes in the crop and livestock production sector in Kosovo. Efficiency as a criterion, it serves as bedrock for policy and planning approaches towards sustainable development. Improving productivity and efficiency of farms is considered as one of the core component for increasing competitiveness, is thereby an objective for policy-makers. In this paper, we estimate technical, scale efficiency of the

crop and livestock farms and testing of efficiency differences between supported and non-supported farms. Data Envelopment Analysis (DEA) was used to estimate farm efficiency scores under the two different assumptions, Constant Returns to Scale (CRS) and Variable Returns to Scale (VRS). Input-oriented model was performed and its objective function was to minimize the level of inputs used given the fixed level of output produced. The data used for the analysis is Farm Accountancy Data Network (FADN) in 2013, which was provided by the Ministry of Agriculture Forestry and Rural Development (MAFRD) in Kosovo. The classification of farm specialization was done based on the share of crop output in total farm output. The obtained results showed that majority of crop and livestock farms were not operating at maximum efficiency and there was considerable potential for technical and scale efficiency improvement – thus, policy-support can contribute to improving the efficiency. No significant differences were observed between supported and non-supported of crop farms, however, different result was observed at livestock farms. Supported livestock farms on average had significantly higher efficiency scores compared with non-supported livestock farms.