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(In the Field of Agriculture economic)

Comparison of Technical Efficiency of Strategic and Non-Strategic Agricultural Products in Sistan and Baluchestan Province: Approach of Special Panel Models

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Abstract

Achieving a higher level of production is one of the most important economic goals of any country, which due to limited resources, the best way to achieve this goal is to increase efficiency. Especially in the agricultural sector, the increase in crop production can not be relied solely on increasing the use of inputs and the area under cultivation; Therefore, improving efficiency is a more appropriate solution. Based on the available statistical evidence of the situation of the agricultural sector of Sistan and Baluchestan province, the yield of this province's products is lower than the national average and it is necessary to plan and implement development programs for efficiency and production efficiency. These products should be considered. In this regard, measuring their technical efficiency and examining the factors affecting the growth of technical efficiency can be a guide for policy makers in the sector. On the other hand, these products are in two groups of strategic and non-strategic products, for which different policies are implemented by the government. Therefore, the purpose of this study is to calculate the technical efficiency for strategic crops (wheat, barley, corn and canola) and non-strategic crops (watermelon, cucumber and tomato) and compare between these two product groups in the period 1379-1399. The results showed that in strategic products, chemical fertilizer input and labor input in non-strategic products have the highest partial production elasticity; Therefore, with the development of these inputs and their further use, the producers of each of these groups of products can improve their performance and reach a higher level of production. Also, the comparison of the average technical efficiency of strategic and non-strategic products in each of the estimated models shows that non-strategic products have on average more technical efficiency than strategic products.

Keywords: Agriculture, Technical Efficiency, Sistan and Baluchestan, Strategic Products, Non-Strategic Products, Panel Data.