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Abstract : Improved resource efficiency of production is a key requirement for sustainable growth, worldwide. In this regards, by considering the energy and tourism as the extra inputs to the classical Coub-Douglas production function, this study aims at investigating the efficiency changes in the North African countries. To this end, the study uses panel data for the period 1995-2010 and adopts the Malmquist index based on the data envelopment analysis. Results show that tourism increases technical and scale efficiencies, while it decreases technological and total factor productivity changes. On the other hand, when the production function is augmented by the energy input, technical efficiency change decreases, while the technological change, scale efficiency change and total factor productivity change increase. Thus, in order to satisfy the needs for sustainable growth, North African governments should take some measures for increasing the contribution that the tourism makes to economic growth and some others for efficient use of resources in the energy sector.

Keywords : data envelopment analysis, economic efficiency, North African countries, sustainable growth
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