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Comparative Advantages of Cotton Production with Respect to Irrigation Systems in Syria

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Abstract

The scarcity of natural resources, in particular water, and the ongoing opening of the Syrian economy to the world markets call for an urgent need to reallocate domestic resources. In this paper, we refer to comparative advantage as compromise between economic efficiency, social equity and environmental conservation. Therefore, policy makers need information on comparative advantages and costs of their policies in order to allocate the domestic resources efficiently in agricultural production. In Syria, Cotton is the most important strategic crop, representing the foremost agro-industrial crop and contributes about 20–30 % to the foreign agricultural exchange earning in the country.

This study aims to know whether lint cotton in Syria has comparative advantage or not, considering the different irrigation methods that are used to produce cotton. To do so a Policy Analysis Matrix (PAM) was built and employed as an analytical technique. The PAM's data was collected targeting firstly, the farm level, where farms were classified according to irrigation systems: public river irrigation (Furrows Irrigation) and private wells irrigation (Furrows and drip Irrigation), obtaining information related to the cost of agricultural operations. Secondly, information about post harvest and off-farm processing and operation was also gathered from the Cotton Market Organisation and the National Agricultural Policy Centre.

Results showed that lint cotton does not have comparative advantage in public irrigation system; while it has comparative advantage in the drip irrigation system commonly used in the well regions. Therefore, this study recommends (1) reconsidering the currently applied policies concerning prices and subsidies especially in public irrigation region, (2) using of drip irrigation technologies.

Keywords: Comparative advantage, cotton irrigation system, Syrian agricultural policy