Deutscher Tropentag, October 8-10, 2003, Göttingen

"Technological and Institutional Innovations
for Sustainable Rural Development"

Measuring the Policy Effects on Cotton Production in Uzbekistan

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Abstract

Cotton is the major crop in Uzbekistan and an important source of employment, income and foreign exchange earnings. During the Soviet era, Uzbekistan cultivated cotton on about half of its 4.5 million arable land. Since independence the government has embarked on a program of diversification, aimed at self-sufficiency in wheat production by encouraging the gradual shift from cotton to wheat. It tried to realise a macroeconomic program of reforms, which includes privatising input and output markets, increasing production incentives, eliminating the state order for cotton, and streamlining the export system. Despite the announced program, the state continues to play a major role in the production and marketing of cotton (sets production quotas and prices, supplies inputs, purchases the crop). Those attempts of restructuring the agriculture have not brought any positive social or economic results.

This paper argues that restructuring cotton production by decreasing the areas under traditional cotton in favour of cotton under plastic, will result in welfare gains.

We test the hypothesis, according to which the production of cotton under plastic is more efficient than the production of traditional cotton. The comparative advantage of the two above mentioned varieties competing for the scarce domestic resources is calculated applying the methodology of Domestic Resource Cost (DRC) analysis, based on the data gathered in three main agricultural regions of Uzbekistan. As far as the markets for agricultural inputs and outputs in Uzbekistan are not free, the Policy Analysis Matrix (PAM) methodology is implemented to reveal and measure the effects of divergences (policy interventions and market failures), as the difference between observed parameters and the parameters that would exist if the distortions were removed. To prove the robustness of the results, sensitivity analysis (testing different policy options) is carried out.

Relying on the results of PAM, as well as on the indicators of policy distortions and economic efficiency (e.g., DRC ratios ranging between 0.54 and 0.88), policy recommendations are proposed on possible development perspectives in production structure of cotton.

Keywords: Cotton, domestic resource cost, policy analysis matrix, Uzbekistan

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