

## **Carbon Tax and Environmental Quality in South Africa**

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### **Abstract**

Carbon taxes are considered an important environmental policy instrument for the improvement of environment quality in developing countries. Despite these premises, the implementation of the carbon tax policy in developing countries has lagged behind. The aim of this study is to analyse how carbon tax influence environmental quality and economic performance in South Africa. Such a country-oriented inquiry is envisaged to have some positive policy implications for the South African economy and other developing nations. The analysis was conducted using a static computable general equilibrium (CGE) model of South Africa, which was expected to capture the observed structure of South Africa's economy. Furthermore, the parameters of the CGE equations were calibrated to observed data from a social accounting matrix (SAM) for 2015. The results show that environmental tax has negative effects on gross domestic product with the energy sectors which are generally the most polluting sectors suffering higher output losses due to the environmental tax. Household consumption is significant reduced by 2.34% due to the reduction in emissions as a result of carbontax policy. According to the study findings, policy-makers should consider an initial 5% carbon tax policy which may results in achieving reasonably good environmental quality without losing on investment, fixed capital investment and government revenue.