

# **The impact of clean production on the performance of Kenyan manufacturing firms.**

**Mercylinem Waithira Kamande.**

**PhD (Economics)**

**University of Dar es Salaam, College of Social Sciences, 2011.**

This dissertation assesses the effect of clean production on the performance of Kenyan firms measured by technical efficiency and profitability. It further investigates the relationship between carbon emissions and economic growth while also exploring the impact of legal and institutional framework on the level of carbon emissions. The key finding of this dissertation is that manufacturing firms in Kenya were found to be technically and environmentally inefficient with technical efficiency level being only 59% and environmental efficiency standing at only 3%. Firms with no environmental policy were least efficient while medium sized firms were found to be most efficient. Environmental efficiency is mainly influenced by squared firm size and firm age but the use of environmental detrimental input is not a significant determinant of environmental efficiency. Eco-efficiency has no significant impact on the profitability of a firm. Proactive EMS and reactive EMS have a positive impact on a firm's energy eco-efficiency with proactive EMS having a relatively higher impact. At the macro level, a u-shaped relationship between carbon emissions and economic growth is observed which implies that environmental management policies should be pursued simultaneously with economic growth objectives. Further, developing a proper legal and institutional framework is likely to reduce the level of carbon emissions. Therefore, all stakeholders and especially the government should endeavour to embrace good environmental management practices and improve the environmental and legal framework in order to move towards environmental sustainability.