

AN ECONOMIC MANAGEMENT INSTRUMENT FOR ENHANCED SUPPLY OF UTILITIES TO MEGACITIES

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Abstract

A cost structure is proposed to enhance the supply of utilities to megacities on a regional operating scale. Estimation is enabled of the economic impact of megacities on the GDP in a certain region or the trade bloc in question from a utility-supply point of view. The introduced methodology involves business administration theory and economics and employs the previously introduced equality principle and the model for Efficient Use of Resources for Optimal Production Economy (EUROPE) to impose shadow costs on supply losses to induce economic incentives to improve the functionality of megacities. A case study presents the practical application of the proposed theory in an Asian context. It is concluded that the introduced methodology makes the megacities more efficient and improve their functionality. Profitability increases, technology is advanced and environmental conditions improve when the EUROPE model is applied on activities that involve supply-flow at higher policy analysis levels. Application of an introduced single monetary key factor encapsulates many megacity aspects of interest. The equity of the regional access to facilities is improved. The developed methods support decision-making when managing megacity supply.

Keywords: Megacities, Supply, Optimisation, Economic incentives, Equality principle