

Future Energy Development in Tanzania: The Energy Costs of Urbanization

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Abstract

This paper utilizes the detailed energy balance data developed as part of the Tanzania Urban Energy Project to examine future energy use in Tanzania. The energy costs of urbanization are shown to be quite substantial. National energy balances demonstrate that the urban areas make up a large share of the consumption of all fuels except woodfuel. As urbanization continues into the future, it will be accompanied by dramatic increases in the consumption of petroleum fuels, electricity and charcoal. For example, using base case or business as usual assumptions, over a planning period stretching from 1990 to 2010, every 1% increase in the level of urbanization can be expected to lead to a 12% increase in electricity consumption, a 14% increase in the consumption of all petroleum fuels and a 14% increase in the consumption of charcoal. Finally, the paper examines different energy policy options which are consistent with the stated national energy policy. After the examination of a set of ambitious policy efforts, a set of feasible policies are tested and shown to have a significant impact on the goals of improving efficiency, obtaining the desirable energy consumption profile and conserving indigenous woodfuel resources.

Key word Energy Development, Energy Costs