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Building Material.

STEEL VERSUS TILE ROOFING:
WHAT'S APPROPRIATE FOR KENYA?

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A Discussion Paper For
The Industrial Research Project
Economics Department
University of Nairobi

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A. Introduction

Clay and cement roofing tiles are substitutes for galvanised corrugated steel roofing which -- depending on economic conditions -- uses 15% to 25% of Kenya's imported steel. Furthermore, the roofing tile industry is owned almost entirely by Kenyans, uses minimal foreign exchange, is highly labour intensive, and is potentially decentralisable. By contrast, the corrugated galvanised roofing industry is a major user of foreign exchange, is highly capital intensive, and has significant foreign investment. After describing the roofing materials industries, this article will evaluate the impact upon Kenya of encouraging a major shift away from steel roofing towards tiles.

B. History and Structure of the Roofing Materials Industries

Kenya has three semi-modern factories making clay tiles, two making cement roofing tiles, and one asbestos cement factory. The claytile factories make roofing tiles and a range of clay bricks. The factories making cement roofing tiles also make various precast concrete products such as floor tiles, paving slabs, grills and fence posts. One clay-tile factory, Miritini Building Products, has also diversified to manufacture cement blocks and floor tiles. Many other companies make cement blocks (e.g. Mutufali Ltd. in Mombasa) but these were not studied since the focus for this research was on roofing tiles.

The Kenyan tile industry started in the early and mid 1940s. Mombasa Brick and Tile Limited was started in the early 1940s and was purchased by a Kenyan-Asian family in 1966. The small, low-technology Kiambu Brick and Tile Factory was started in 1944, by Mr. Gonella, an Italian prisoner of war. It continued until about 1953/54 when Gonella shifted into construction contracting due to competition from Clayworks. Mr. Zuckerman, an