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**MATÉRIAUX, TECHNIQUES ET ÉCONOMIE DE LA CONSTRUCTION
DANS LES PAYS EN DÉVELOPPEMENT**

**MATERIALS, CONSTRUCTION TECHNIQUES AND CONSTRUCTION ECONOMY
IN DEVELOPING COUNTRIES**

**MATERIALES, TÉCNICAS Y ECONOMÍA DE LA CONSTRUCCIÓN
EN LOS PAÍSES EN DESARROLLO**

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An Evaluation of Urban Low-Cost Housing in Kenya 1979-1983

Une évaluation de l'habitation à loyer modéré au Kenya - 1979-1983

Una evaluación de las viviendas urbanas de bajo costo en Kenia 79-83

The paper determines if the policy of affordable nonsubsidized low-cost housing is realizable. A simple theoretical model is developed on which the analysis is based. It is demonstrated that the lower and middle income households would afford market prices of some of the housing. However, the very low income households would require subsidies.

It is also argued that practical building regulations, formulations could be guided by an understanding of cost, offer and bid price functions and knowledge of the wage/income structure in the urban areas.

L'exposé analysera la rentabilité d'une politique vouée à la création d'habitations à loyer modéré non prime. On développera un modèle théorique simple qui sera la base de l'analyse. On montrera que habitations pourraient être à la portée des familles à moyens faibles ou modérés. Ce pendant, les ménages à moyens très faibles exigeraient des subventions.

Et l'on pourrait avancer également que les règles qui gouvernent la construction des bâtiments pourraient être plus pratique selon les exigences du marché (prix, offre et demande) et une connaissance profonde de la structure salariale dans les quartiers urbains.

En la publicación se estudia la viabilidad de la aplicación de una política de viviendas asequibles no subvencionadas. En ella desarrolla un sencillo modelo teórico sobre el que se basa el análisis y demuestra que las familias de ingresos bajos o medios podrían adquirir algunas viviendas a precio de mercado. No obstante, sería preciso subvencionar a las familias de ingresos muy bajos.

También se recomienda que al establecer normativas y requisitos prácticos de construcción se tengan en cuenta los costos, la oferta y los precios aceptados, así como la estructura de sueldos/ingresos en las zonas urbanas.

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1. INTRODUCTION

Most of the studies have noted that urban housing development problems in Kenya are mainly due to high urban population growth rates resulting from immigration and natural population growth, lag in development of urban infrastructure that support housing development, low purchasing power of the majority of the urban households and the lack of appropriate building standards and by-laws especially for the low-cost housing.

Heilbrun (1981) argues that the obvious and the most frequently neglected fact is that every family must have a place to live and that generally speaking the main function of the market is to match up the existing number of households with the existing stock. It has also been observed that the income of households is a major determinant of housing units that may be supplied on the market. Therefore the market function essentially reduces to matching up a distribution of households by income amount with a distribution of housing units by rent/price level.

The government policy is to discourage housing subsidies as much as possible and encourage construction of affordable housing for various income groups. Affordable housing implies that households are able to pay market prices for the given housing.

The main purpose of the paper is to determine if the policy of affordable nonsubsidized low-cost housing is realizable. Under various assumptions, we estimate and analyze the affordability of some of the housing programs that are being financed by the public sector and the international agencies over the plan period 1979-83 by the lower and middle income households at market prices. In this paper we assume that households spend between 15% and 25% of their income on housing, PRENT. Each income group is subdivided into three subgroups.

This paper is divided into five sections. It demonstrates that the lower and middle income families would afford some of these housing projects under the assumption that PRENT = 25%. However, the very low income group would afford none of these projects. It is noted that cost, offer and bid price functions if properly specified and estimated as well as knowledge of the wage/income structure in the urban areas would provide a better guide to formulation of building standards and by-laws. Gentrification process possibilities are not ruled out as about 75% of these projects are targeted at the mid-low and upper-low income groups and only 12% of them are for the middle income households.

2. CURRENT URBAN HOUSING SITUATION

Kenya's urban housing needs are estimated to be 290,000 in the period 1979-1983 and that of 1984-1988 to be 380,000 units. In the latter period, Nairobi's requirement is 41%. To satisfy this need we have to construct about respectively 58,000 and 76,000 units annually. This has hardly been realized as the production is lagging behind.

Between 1979 and 1984, the formal sector produced 44,000 units only, an average of 7,300 per year in the urban areas. Nairobi's requirements in the period was estimated to be 10,000 units annually. This implies that most of the urban households were accommodated by the