

# UNIVERSITY OF NAIROBI HOUSING RESEARCH AND DEVELOPMENT UNIT

P.O. BOX 30197 NAIROBI KENYA TELEPHONE 27441 EXT. 212 TELEGRAMS VARSITY

RISING BUILDING COSTS FOR LOW-COST HOUSING

November 1974 J. Eygelaar

## FOR LOW-COST HOUSING

### Past and present movement of construction costs

In comparison with international developments, the upward movement of construction costs in Kenya have been rather moderate in the years preceding 1974. Especially for structures in the lower cost brackets where only limited use is made of ready-made imported materials and components, upward cost movement was in the order of a few per cent per year from 1968 to 1972, rising to just over 10% during the year 1973.

The previous slow upward movement of building costs can be explained by two main factors:

- a. labour costs in the construction industry and in the manufacturing industries (manufacturing of building materials, elements and components) have hardly changed over these past years;
- b. the majority of building materials used in the low-cost sector are manufactured in Kenya. Even products made entirely of imported raw materials have a large local labour input which "softens" the effect of rising raw materials costs.

The above favourable picture shows a sudden unfavourable change as from the start of 1974. If before 1974 it was correct to talk about cost movement, development during the current year can only be characterised as cost explosion.

The main reasons for this sudden change of pattern are:
a. international influences, i.e. fast upward movement

- of raw material costs, which started off with the "oil crisis", followed by increased transport costs and under supply of certain basic materials;
- b. disturbance in the regular supply of imported raw materials , leading in some instances to temporary shortages or at least to supply below the demand level;
- c. upward movement of labour costs due to general wage increases for several catagories of labour .

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### Changes of building costs expressed in index figures

Although the Central Bureau of Statistics of the Ministry of Finance and Planning has been computing a building cost index since 1963, the circulation of the index figures was restricted and use was mainly limited to activities inside the Ministry.

The need for reliable building cost indices for more general use became more pressing when the upward movement of costs accelerated, and the Central Bureau of Statistics has therefore started computing Building Cost Indices, publishing of which has started in September 1974.

Calculation of the previous "internal" cost index was simply based on assessment of variations in cost per unit of built-up area (cost per square foot) and did not differentiate for different types of buildings.

For the calculation of the "new" Building Cost Indices the above method was abandoned, and separate indices are now computed for: (i) residential buildings,

(ii) non-residential buildings, and(iii) roads.

Calculation of the actual index figures is based on measuring changes of costs of materials, labour, and overheads 1, which are appropriately weighted to yield a composite index. The methodology used is explained in detail in a draft paper distributed together with the first sets of Index figures 2. The base period for the indices is the 4th quarter of 1972 (index = 100 for 1.1.1973).

The various inputs with their respective weighting used in the computation of the Building Cost Index for residential buildings are shown in a table on appendix sheet A.

<sup>1)</sup> In the actual Index figures published up to the present date, no allowance for overhead costs, profits, etc. has (yet) been made.

<sup>2)</sup> BUILDING COST INDEX - Central Bureau of Statistics - 16th September 1974 - 20 pages.