AFRI SS WEDDY 343



## UNIVERSITY OF NAIROBI HOUSING RESEARCH AND DEVELOPMENT UNIT

ROOFS FOR LOW-COST STRUCTURES

> UNIVERSITY OF NAIROBI HOUSING RESEARCH AND DEVELOPMENT UNIT TEL. 27441 EXT. 212 P. O. BOX 30197 NAIROBI

author: J. Eygelaar, senior research fellow cost analysis: J. Eygelaar and G. Ochola date: June 1978

Housing Research and Development Unit Director - T.S. Chana P.O. Box 30197, Nairobi, Tel., 27441 ext. 212.

## ROOFS FOR LOW-COST STRUCTURES

For a low-cost house the roof structure represents a large proportion of the cost of the house. Also, the construction of the roof is, technically speaking, a rather difficult job, especially for the self-help builder. For this reason HRDU has issued in the past years a number of papers dealing with technical and cost aspects of roofing for low-cost structures.

The present publication comprises four papers which have previously been issued separately. Those dealing with cost aspects have been revised to take price changes into account.

1. ROOF SLOPES FOR LOW-COST STRUCTURES was first published in January 1975.

The paper suggests that instead of the common practice to specify roof slopes in round numbers of degrees, simple slope ratios are to be used. The practical advantages of this simplification are explained and it is shown how the slope ratios should be related to various roofing materials.

2. COST OF METAL ROOF SHEETING FOR LOW-COST STRUCTURES was first published in November 1974. It has been revised for present day prices. ((978))

Types and sizes of metal roof sheeting manufactured in Kenya are varied. Due to differences in sizes of sheets manufacturer's price lists do not allow straightforward cost comparison of the types available.

The paper contains dimensioned sketches of the various types, and cost comparison tables for the products of two manufacturers.

3. ROOFING TILES FOR LOW-COST STRUCTURES was first published in November 1975. It has been revised for present day prices. (1978)

As shown in the next paper, the cost of some locally manufactured roofing tiles compares favourably with the cost of corrugated sheeting for small-span structures. To enable designers to make proper use of these local products, the essential data of five types of tiles manufactured in the Nairobi area are shown on a tabulated data sheet. Shapes, dimensions and fixing details are shown on sketch sheets.