

APPROPRIATE BUILDING MATERIALS AND CONSTRUCTION TECHNOLOGY
FOR PRIMARY SCHOOLS IN KERIO VALLEY-ELGEYO/MARAKWET DISTRICT

PROJECT TEAM

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Sponsored by: Arid and Semi-Arid Lands Development
Programme (ASAL) Elgeyo/Marakwet District
Ministry of Planning and National Development
P.O. Box 388
ITEN

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PREFACE

As one makes a tour of Kerio Valley one thing that strikes one most is the vast sparsely populated semi-arid land which supports very little besides thorny bushes and thicket. Within this desolate land lives people who, though few and dispersed have struggled to eke a living out of the harsh environment. These same people have directions, goals and aspirations equivalent to those of other Kenyans in more affluent regions. They aim for improved standards of living in all aspects - better food, better shelter, better roads, better health facilities and better education.

It is out of this realization that the sponsor of this project, Arid and Semi-Arid Lands Programme (ASAL) stepped in so as to set a momentum for change towards these goals. Consequently ASAL has sponsored several pioneer community projects through which it hopes to mobilize the people towards putting extra effort for a faster realization of their goals. Such projects include water supply, cattle dips, and small scale irrigation.

Ultimately, ASAL realized the need for improved learning facilities within the valley so as to achieve better education. It is out of this need that this project was hatched. Since primary schools and nursery schools are the initial formal learning institutions in the country, they have very far reaching implications in the lives of individuals, regions and even the nation as a whole. Therefore, the quality of education in future will depend on the present efforts put into primary education now. One area where these efforts are badly needed is in the provision of environmentally and economically appropriate learning spaces - classrooms, workshops, laboratories etc.

However, the financial undertaking involved has been so high that few regions or schools can boast of having adequately satisfied the needs. Then the question arises, "Are there ways of cutting down the costs of construction of these school buildings while maintaining their quality and performance standards"?

This is the problem that the sponsor of this project brought to the University of Nairobi - Faculty Projects Office - Faculty of Architecture, Design and Development, looking for an answer appropriate to Kerio Valley region of Elgeyo/Marakwet district.

Therefore this report is an attempt to answer to this question and we hope that the findings and recommendations will go a long way towards helping the people of Kerio Valley realize better primary school buildings and consequently improved standards of education.

TERMS OF REFERENCE:

SPONSOR: Arid and Semi-Arid Lands (ASAL) Development Programme
Elgeyo/Marakwet District
P.O. Box 388
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CONSULTANT: Faculty Projects Office
Faculty of Architecture, Design & Development
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- OBJECTIVES: i) To look into means of cutting down construction costs as they specifically relate to primary schools in Kerio Valley while maintaining quality and performance standards.
- ii) To appraise existing indigenous building materials, construction technologies and skills and compare them with conventional building methods with a view of minimizing construction costs.
- iii) To recommend to the sponsor the most appropriate building materials and technology for the community in the construction of primary school buildings (classrooms, offices, teachers' houses e.t.c).

1.0 INTRODUCTION:

1.1 LOCATION AND SIZE:

Kerio Valley is a low lying stretch of land in Rift Valley province starting from Kimwarer in Elgeyo/Marakwet district, running directly north to Lake Turkana. The valley is bounded by Cherengany Range and peaks and the associated Elgeyo Escarpment to the west, the Tugen Hills and the Tiati Massif to the east; to the north the valley widens into the Pokot and Turkana Plains. Thus it lies within four districts:- Baringo, Elgeyo/Marakwet, West Pokot, and Turkana. For the purpose of this report Kerio Valley is taken to mean only that part within Elgeyo/Marakwet district. (see maps 1:1 and 1:2).

The valley lies between $35^{\circ}41'$ and $35^{\circ}45'$ east and between $0^{\circ}14'$ and $1^{\circ}20'$ north. Maps 1.1 and 1.2 show the locations of the valley in the national and regional contexts respectively.

The valley is one of the three physical regions of Elgeyo/Marakwet district which run parallel to each other in a north-south direction. It occupies 800 km. sq. out of a total area of 4,810 km. sq. for the whole district.