

SES
STUDY OF AN
ENVIRONMENTALLY
SOUND BUILDING
SYSTEM.
A feasibility report.

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FACULTY PROJECTS OFFICE,
FACULTY OF ARCHITECTURE,
DESIGN & DEVELOPMENT,
UNIVERSITY OF NAIROBI.
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2.0. EXECUTIVE SUMMARY:

1. It is possible to build an environmentally-appropriate permanent structure in central Nairobi for about 30% less cost than similar buildings being erected today. Such a structure, relying heavily on locally available materials and techniques which, in most cases, are less energy-consuming but are more labour-intensive in production, can also be operated for considerably less cost than many existing buildings, and with a higher rate of utilization.

The key factors in bringing about such prospective and beneficial results are: the use of construction materials and techniques which are cheaply made locally, rather than being imported; major attention being given to energy-conservation, both in terms of capital investment and in programme operation; optimization of use of space and services through a 'sharing system' which encourages cooperation between different organizations.

2. All these factors require shifts of perception away from current local practices if they are to be successfully employed in new construction projects. In some cases, changes are required in land tenure arrangements, in building codes, in restrictive regulation in the energy field but, probably most important of all, in the everyday perceptions of ordinary people and the use they make of their built environments.

What is needed to trigger such changes is the right client, since it is the client who creates the demand for innovation in response to difficult environmental conditions presently being faced.

3. The Client: (Some Operating Assumptions): assume that one of the country's major public institutions, the University, wishes to expand its programmes and facilities in order to serve the country better and that, while it has land available for expansion, it has little or no money to do so. The conventional response would be to give up the expansion plans and wait until the economic situation improves or a willing donor turns up with the financial resources required. This, in today's climate, may take a long time.
4. Very often, Universities take the position that change and adaptation to circumstances are to be avoided and that tradition must be maintained at all costs. Tradition provides that University resources are for exclusive University use with the result that sports facilities may go unused, residences may stand empty for large portions of the year, classrooms and lecture halls may be in use for only a few hours a day and so forth. At the same time, there may be a substantial demand for such facilities by others who cannot gain access.
5. In the present exercise, the hypothetical 'client', the University, decides that if it is to expand its facilities, it will have to overcome traditional constraints and seek partners in its building ventures...partners who can cooperate with the academic institution in specifying the design and ultimate patterns of use of the new structure.