Sustainable Construction Enterprises: A Project Development and Implementation Strategy

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Introduction

A program for the promotion of the building technology for low-cost housing is currently implemented by the ILO Entrepreneurship and Management Development Branch. The objective of this program is to promote the development, dissemination and application of building techniques suitable for low-cost construction in developing countries with a view of minimizing the cost of such construction, maximizing the use of locally available raw materials, and generating productive employment. This program is funded by the Swiss government and is implemented in the Philippines in close collaboration with SKAT, an information and documentation center and a consultancy group engaged in promoting and implementing appropriate technology in partner countries worldwide.

SKAT is a member of BASIN (Building Advisory Service and Information Network), a coordinated network of experienced international professionals, which was established to provide qualified advice and information in the field of building materials and construction technologies. As a member of BASIN, SKAT specializes in roofing technology, particularly fiber concrete roofing (FCR) an micro-concrete roofing (MCR) tiles technology. Within BASIN, SKAT established the Roofing Advisory Service (RAS) to facilitate the promotion and dissemination of roofing technologies.

RAS has tried to support the FCR/MCR tiles technology with increased advisory capacity, with the publication of a series of manuals for the differing target groups, with seminars and training. RAS have achieved in many instances a sound establishment of the technology, which means professionals have acquired the skill to produce a high quality product. Yet what is lacking is sustainability. There are still too few sustainable production units which produce on profitable terms. There is not yet one back-up

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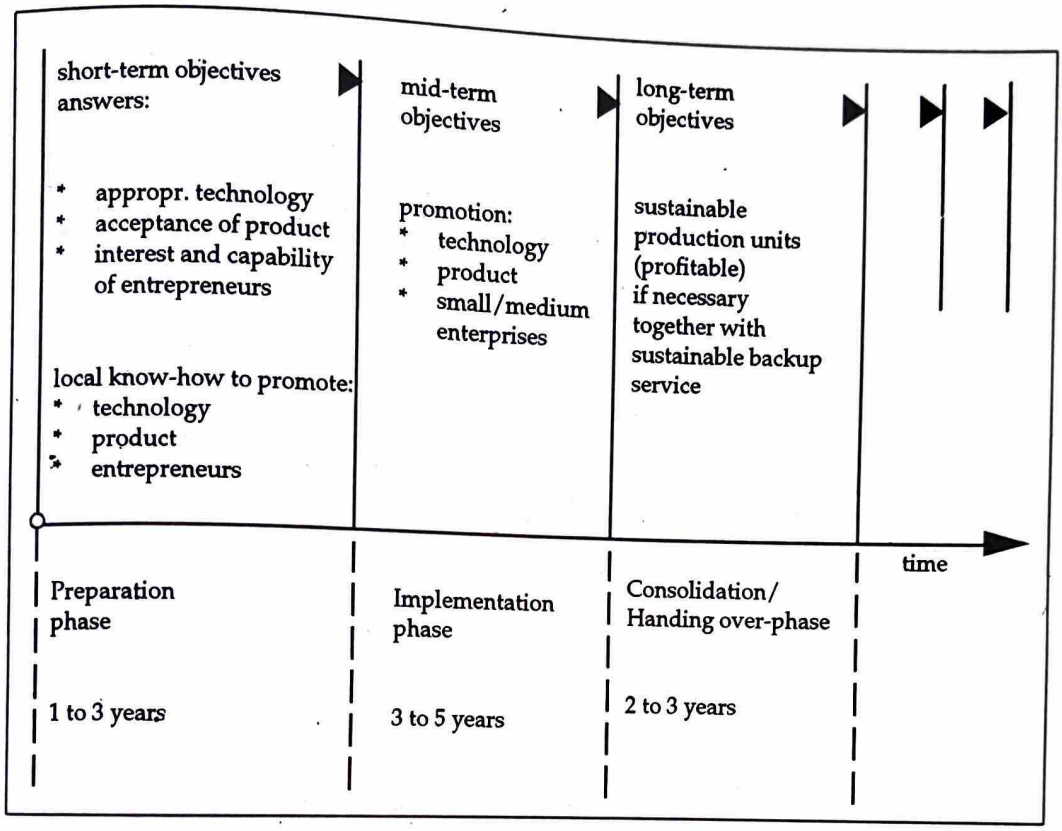
service center which is able to finance the provided services through their clients. The question is, why has it not yet been possible to achieve sustainability?

The RAS Strategy for Sustainability

Figure 1. Program Objectives



The objectives as shown in Figure 1 are the conclusion of a careful cross-analysis of external and internal evaluations of various ongoing projects. While the aim is to provide an affordable roofing material, in particular for low income groups, the long term objectives are commercially sound production units which are profitable and sustainable.

RAS has developed two tools which should help not only decision makers and planners at regional and national centers but also the producers to define their strategy and to control their performance as the project is implemented. These tools are shown and described below:

a) The Decision Tree to control and manage the project performance. Figure 2 shows the project implementation in different steps. Each step ends with a screening procedure according to predefined criteria. These criteria are the key elements to be considered in this process. Depending on the results of the screening the project will be continued, adjusted or stopped.

b) The external support diagram to achieve self-reliance and sustainability. External support may be obtained from banks in form of credits or from donor agencies in form of grants or loans. The quicker the step out of external support can be achieved, the better are the chances for long-term sustainability. In any case the amount, course and duration of the external support need to be carefully planned and strictly controlled during implementation. Figure 3 provides an idea of how the external support diagram could look in the support of a national or regional center.

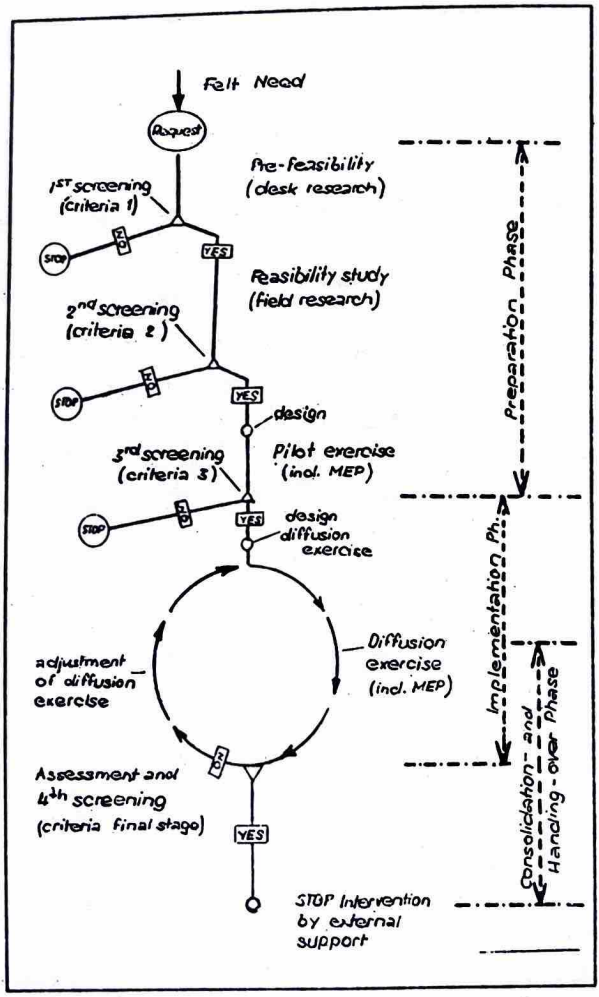
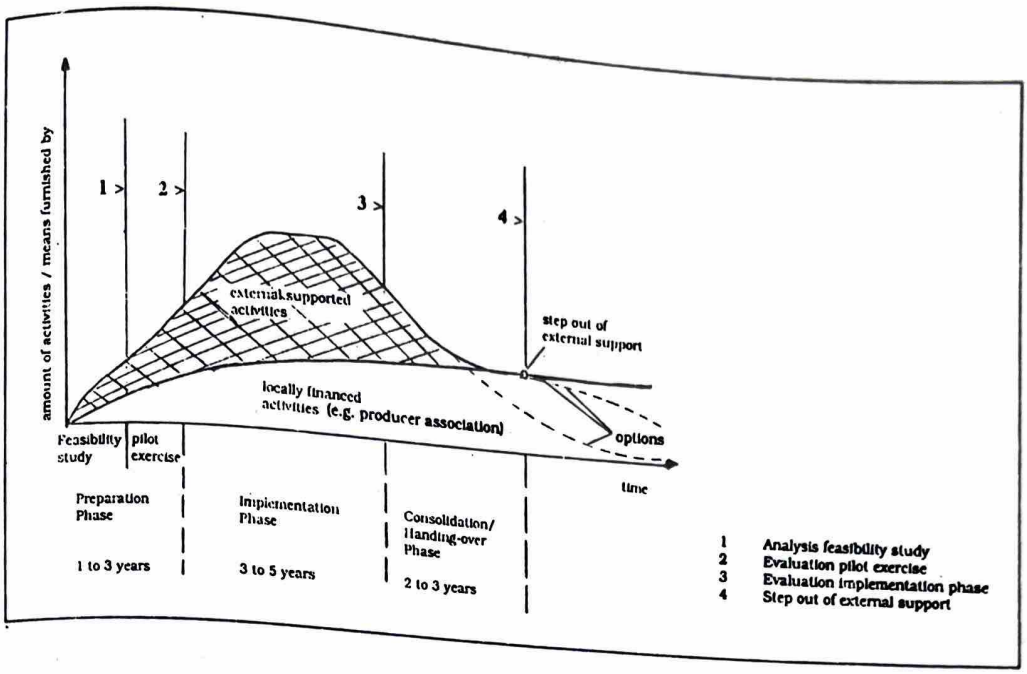


Figure 2. Decision Tree for Development of MCR Activities in a Country or Region with External Support

Figure 3. External Support's Diagram



The national or regional center (which is a local body, organization, or institution) plays a major role in all project phases. Major activities includes providing advisory work in every aspect of the technology (including assistance in preparation of economic feasibility studies), adapting the technology to the local environment (R&D), providing assistance in the acquisition of MCR equipment, providing training facilities and backup services, supporting marketing activities (both for the technology and product), monitoring and evaluating production and application of MCR tiles, and facilitating national and international networking.

Usually external support and locally financed activities rise to a maximum in the Implementation Phase and decrease in the Consolidation Phase.

The MCR Project in Mindanao, Philippines

In May 1991, a regional MCR tiles technology reference center with two pilot entrepreneurs were established with the technical assistance of the ILO/SKAT program in Iligan City, Philippines.

The MCR Project in Mindanao is now considered towards the end of the Implementation Phase with developed capacity of the MCR Reference Center to provide technology back-up services to existing and interested entrepreneurs; the establishment if six additional MCR entrepreneurs; the

formulation of a regional standard on MCR tile products (which is currently being elevated to a national product standard); and the establishment of a national and international network of organizations and individuals involved in the production of FCR/MCR tiles.

Present development indicates that the dissemination through commercially oriented facilitators is most appropriate towards long term sustainability. Initial external efforts must be considered only as "enabling" actions that would hasten a clear but fair and professional business approach. The final gauge of the technology as becoming mature and self-reliant is when it is supported by a network of local producers and works mainly on a commercial basis like other industrial producer's association.

A paper submitted and read in the "International Workshop on Human Settlements and Sustainable Urban Development in Southeast Asia: The Challenges for the 21st Century", 5-17 September 1994, Institut Tadbiran Awam Negara, Kuala Lumpur, Malaysia.

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