RURAL HOUSING: INSTITUTIONAL MECHANISM FOR TECHNOLOGY TRANSFER

(A STUDY OF SELECT VILLAGES OF BIHAR STATE IN INDIA)

By

NIRMAL KUMAR

CENTRE FOR RURAL DEVELOPMENT AND TECHNOLOGY

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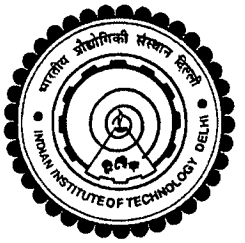

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Rural housing – Bihar (India)

Dedicated
to

The rural Indian people,
who need appropriate technology for constructing safe houses.

CERTIFICATE

This is to certify that the thesis entitled **Rural Housing: Institutional Mechanism for Technology Transfer (A Study of Select Villages of Bihar State in India)** being submitted by **Mr. Nirmal Kumar**, to the Indian Institute of Technology, Delhi, India, for the award of the degree of Doctor of Philosophy, is a record of bonafide research work carried out by him. He has worked under our guidance and supervision, and has fulfilled the requirements for submission of this thesis, which to our knowledge has reached the requisite standard.

The results contained in this thesis have not been submitted in part or in full, to any other University or Institute for award of any degree or diploma.

(Dr. Rajendra Prasad)
Professor
Centre for Rural Development and Technology,
Indian Institute of Technology, Delhi

(Dr. Ravi Shankar)
Associate Professor,
Department of Management Studies,
Indian Institute of Technology, Delhi,

(Dr. K.C. Iyer)
Associate Professor
Department of Management Studies
Indian Institute of Technology, Delhi

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(Nirmal Kumar)

ABSTRACT

Housing construction in an Indian village is largely a self-built process based on locally available materials, skilled/unskilled labour, family savings and informal credit. But the houses so constructed are substandard, and suffer from quantitative as also qualitative problems at some villages.

The Indian government has taken up a plethora of initiatives under its different plans for improving the housing condition in the rural areas. One of the major initiatives was that the Ministry of Rural Development set up Rural Building Centres (RBCs) to provide appropriate technologies and capacity building at the grassroots level. However the outcomes of the initiatives have not been reported to be satisfactory. In this milieu, this study attempts to analyse the problems of rural housing taking into account its interdependence with numerous social, economic and environmental factors and the availability of appropriate technology as integral to them for housing development. The study was carried out in two stages. At the first stage primary data were collected at the household level through a structured questionnaire survey in select villages of the Bihar state in India followed by a case study of RBCs to capture the grassroots reality in relation to the government initiatives. The analyses of data as well as the case study of RBCs reveal actual impediments in implementation of government initiatives and the deficiencies in the functioning of RBCs, such as absence of suitable linkages with R&D institutions; lack of competent professionals; lack of technical infrastructure; and extension mechanism. As a result there is least percolation of technology at the user end.

In the second stage the enabling variables responsible for technology transfer were identified through expert opinions and were input in the Interpretive Structural Model

(ISM) to get a suitable framework for technology transfer for rural housing development. The model identifies that creation of nodal institutions at the state level to enable acquisition of technology, building of support system and mechanism for extension network; and formulation of a workable action plan for rural housing.

It is also realised that in the absence of an effective institutional mechanism no comprehensive Rural Housing and Habitat Policy can be operationalised and technical intervention alone cannot serve the purpose of reducing drudgery and increasing efficiency, productivity, quality and sustainability in the rural housing sector.

Since rapid advances in appropriate technology for rural housing, increasing need of improving housing conditions and the changing societal aspirations in the rural areas of the country are exerting greater pressure on deployment of technology at the user end, contribution of this research is considered to be of importance among professionals and policy makers.

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