SUMMARY & CONCLUSION

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CHAPTER - VIII
SUMMARY & CONCLUSION
At present both the conventional and cost effective technologies are available in the field of housing construction. Among these, the cost-effective technology has the advantage of economy in construction, saving of time and energy and of the optimum use of materials. Since the building materials are locally available the huge transportation costs incurred for transporting the materials and the delay in construction can be avoided. Thus, cost-effective technology, no doubt, can be opted as a permanent remedy to overcome the severe housing inadequacy in the country.

Thus, the questions arise at this point are whether we should need a ‘house’ or a ‘shelter’? Why some people imitate or compete with others in house-building? By doing so why these people sacrifice their family’s aggregate welfare? How is it possible to make the economies in construction? Then, what are the methods which enable to bring down the construction costs? Whether Nirmithi or COSTFORD is forefront in low-cost housing construction? How can we overcome the severe housing inadequacy in the country? Whether the income status, family size, or grant availability has any association with the household’s demand for low-cost-housing technology? Whether the local availability of building materials has any influence on cost reduction? Among the low-cost houses
constructed by Nirmithi & COSTFORD which type of houses (whether it is more of HIG/MIG/LIG houses) show an upward trend? A deep attempt has not been made so far regarding these questions.

So, with a view to answering these questions we set certain specific objectives such as

(1) To examine the relative cost differences between the conventional and cost-effective technologies with special reference to Nirmithi & COSTFORD. (2) To examine the preferential differences in building materials employed by both Nirmithi & COSTFORD (3) to analyse the trend and pattern of the demand for low-cost houses built by Nirmithi & COSTFORD in the state and (4) to examine the factors influencing the households demand for low-cost housing.

The first objective has been fulfilled with the help of secondary data. For examining the relative cost differences between conventional and cost-effective technologies data has been collected by the survey conducted at Nirmithi and COSTFORD centres in Thrissur district. The relative costs have been examined by using simple statistical tools such as averages and percentages.

For the second and third objectives also secondary data has been used. The necessary data has been collected by surveys conducted at
Nirmithi and COSTFORD centres in Kerala by making use of questionnaire I.

The last objective has been fulfilled by conducting household surveys at various selected panchayats in Thrissur district for which questionnaire II has been used. The panchayats have been selected by the means of purposive sampling method. In order to find out whether the income status, size of family or grant availability has any influence on the households demand for low-cost housing a simple statistical tool 'chi-square' test has been employed.

8.1 SUMMARY OF FINDINGS

Based on the afforesaid objectives of the study, the survey results prove that there is vital differences in construction costs and material consumption between conventional and new specification. Likewise, there is slight variations in both the construction costs and types of materials used between Nirmithi and COSTFORD centres in the state. This is due to the change in method of construction, types of materials used and in the availability of materials. Moreover, from the survey it is also clear that while the COSTFORD concentrates mainly on the construction of residential buildings, the Nirmithi concentrates on Institutional buildings sponsored by the government of Kerala.
Accordingly, the survey results reveal that if we use conventional specification for housing we have to spend around Rs. 410 per square feet plinth area whereas by using cost effective technology the per square feet cost is Rs. 322/50. Thus, when compared to conventional specification, the average square feet saving by new specification is Rs. 87.50.

Further, the study reveals that there is an intra-district and inter-unit (between Nirmithi and COSTFORD) differences with regard to building materials employed depending upon the local availability. For example, the Nirmithi in Thrissur district employs burnt clay bricks for walling while the Nirmithi in Kannur district employs laterite stones for the same. Likewise, the COSTFORD in Thrissur prefer roofing tiles while the Nirmithi in the same district prefer Mangalore pattern roofing tiles for roofing.

With regard to the trend growth of low-cost residential projects undertaken by both Nirmithi and COSTFORD during 1990-2000, the study reveals that there has been a wonderful achievement in the growth of low-cost residential projects in the state except in the years of 1996 and 1997 when the massive gulf return to the state affected adversely to the construction activity in general.
Finally, for the purpose of satisfying the last objective of the study, the factors such as income status of the households, size of family and availability/non-availability of grant from the government for housing have been taken as the determining factors of the demand for low-cost housing technology by the households. Based on these, the study found that all these factors are having a close association with the demand for low-cost housing. Thus, it is clear that among such factors no single factor can be isolated as the dominant factor in determining the demand for low-cost houses.

8.2 SUGGESTIONS AND RECOMMENDATIONS

It is seen that some people just imitate others in house-building. They most often forget about their income capability/affordability level. By doing so, they actually sacrifice their family’s aggregate welfare by getting trapped into a huge financial debt. So, a point which needs to be taken care of in the interest of better housing may be that one should not imitate others in house-building and it is better to construct houses according to the income-affordability of each. By selecting cost effective technology we can definitely construct houses based on our budget line which is being the basic tenet of the present study. Thus, we must plan a house according to our need only and not to imitate what other man round the corner of the street has built. For achieving the economy in construction the following points should be taken into consideration.
i) Try to use locally available building materials and avoid high priced scarce materials. By doing so, we can avoid unnecessary costs and delay in construction.

ii) Before embarking upon a particular housing project, try to understand its 'cost effectiveness' when compared to other technologies.

iii) It is better to avoid wasteful expenditure by giving garish colours and points on housing - "let the bricks look bricks".

iv) As Dr. K.N. Raj says "West is best" attitude should be changed. We should have a mind to welcome our own technology (Low-cost). This calls for an attitudinal change in the mindset of individuals.

v) "Housing is a problem". But it will not be a problem or a dream not to be fulfilled if we use cost-effective technology.

vi) A clear-cut understood strategy is a must about structural planning and architectural designing of housing.

vii) The reduction in thickness of wall construction is good. It will assure not only the economy in construction but also gives more space for rooms by reducing the difference between plinth area and floor area.

viii) It will be better to concentrate more on internal facility rather than giving external outlook for housing.
ix) There should not be any difference between Estimated cost and Actual cost. When specification changes there will be much gap between the two. The selection of cost-effective technology enables to bridge this gap.

x) It is not the engineer who tells what sort of house we need but we must tell to the engineer what sort of house we should have.