SELF-HELP HOUSING:
AN EXAMINATION OF THE EFFECTIVENESS
OF THIS POLICY
IN SELECTED DEVELOPING COUNTRIES

by

AMJAD ALI BAHADUR RIZVI
M.A., (Karachi), D.Ek., (Athens)

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

in the Division
of
COMMUNITY AND REGIONAL PLANNING

We accept this thesis as conforming to the
required standard

THE UNIVERSITY OF BRITISH COLUMBIA
April, 1966
In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the Head of my Department or by his representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of Community and Regional Planning

The University of British Columbia
Vancouver 8, Canada

Date May 16, 1966
ABSTRACT

In order to eliminate the housing backlog in the developing countries of Asia, Africa and Latin America, an annual output of 24 million dwelling units or ten units per thousand population, are required to be built in the fifteen year period 1960-1975. This is a gigantic task for the developing economies; even the relatively developed economies do not build at an average rate higher than five dwelling units per thousand population for want of adequate resources.

What is more alarming is the fact that even if the developing nations succeed in performing the monumental task of doubling their national income in a generation or so, their absolute per capita income would still be one-eighth of that of the developed world. At the present rate of development, the gap between the need and the resources for housing would not be significantly narrowed. In short, even the distant future appears dismal.

What then is the right path for the developing nations to tread? This study attempts to provide an answer: adoption of the self-help housing method.

Three main steps characterize the methodological approaches used to justify the effectiveness of the self-help housing method. Firstly, the need for a labour-intensive approach in housing is established by making deductions as to the inadequacy of the current capital-intensive approach. Secondly, self-help housing programs at national levels are
evaluated in terms of their successes and failures and finally, eight self-help housing projects are examined in detail in terms of the costs incurred and benefits gained. The overall success of the programs and benefits received from the projects thus become the measures of effectiveness of the self-help housing method.

The self-help housing method has recently gained recognition among the developing nations. Notwithstanding the method having not been entertained in the national housing programs, it has been effectively utilized as a tool of implementing the community development programs. Most of the government-guided piecemeal self-help housing programs have not only been fairly beneficial but have also been practicable.

The eight projects analysed, one each for India, Pakistan, the United Arab Republic, Jamaica, Colombia, Costa Rica, Chile, and Guatemala, have scored marked success. More than three-quarters of the labour input contained in the guided self-help projects have been drawn from the families at no monetary commitment.

The monetary value of labour and material contributed by families involved in the self-help housing projects averages one-quarter of the project cost. This value represents a direct benefit, or what has been called in an Egyptian context, the "ekistic efficiency" of a self-help housing project. When account is taken of the indirect social and economic benefits resulting from environmental improvement, the benefit from the use of the self-help
housing method is equivalent to about half of the project cost.

The self-help housing management input, valued at 10 per cent of the project cost, is crucial to the success of the project. The object of the guided self-help method through efficient management is to maximize spontaneous self-help in the long run by guided action in the short run. When this objective is pursued to the point where spontaneous self-help activity is set in and guided action or self-help management withdrawn, the benefits to the project approach the value of three-quarters of the project cost.

The self-help housing approach is not a magic solution to the low-income housing problem. Given the requisite management techniques, it can form an effective method of meeting the deficiency of housing units in the developing countries. Hence, in order to bridge the gap between the deficiency of housing and the inadequacy of resources among the nations of Asia, Africa and Latin America, a concerted national self-help housing program is considered to be essential.

Implicit in this conclusion is a further note of optimism. If activated, the self-help housing process can alleviate the shortage of skilled labour, provide employment, mobilise building industry, and generate cooperative spirit. As such the self-help housing can be an effective tool for the achievement of socio-economic objectives.
TABLE OF CONTENTS

ABSTRACT ................................................................. ii
TABLE OF CONTENTS ...................................................... vi
LIST OF TABLES .......................................................... x
LIST OF FIGURES ......................................................... xi
LIST OF PHOTOGRAPHS .................................................. xiii
ACKNOWLEDGEMENTS ..................................................... xiv

CHAPTER

I INTRODUCTORY SETTING ............................................. 1-13
   Why Self-Help Housing Study? .................................. 1
   Dimensions of the Present Study ................................. 4
   Focus of Self-Help Housing .................................... 5
   Methodological Support of this Study ............................ 7
   Definitions of Terms ............................................. 11
   Assumptions ...................................................... 12
   Chapter Summary ................................................ 12

II THE CONCEPT AND OBJECTIVE OF SELF-HELP HOUSING ........ 14-27
   Evolution of Self-Help Housing ................................ 14
   Goals and Objectives of Self-Help Housing .................... 19
   Approaches to Self-Help Housing ................................. 20
   Benefits of Self-Help Housing .................................. 22
   Organization of Self-Help Housing ............................... 24
   Chapter Summary ................................................ 26
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>III THE DEFICIENCY OF HOUSING IN DEVELOPING COUNTRIES AND THE INADEQUACY OF HOUSING RESOURCES</td>
<td>29-67</td>
</tr>
<tr>
<td>Measures of Development: Developing Countries</td>
<td>29</td>
</tr>
<tr>
<td>Characteristics of Developing Economies</td>
<td>34</td>
</tr>
<tr>
<td>Deficiency of Housing in Developing Countries</td>
<td>39</td>
</tr>
<tr>
<td>Quantitative Deficiency Asian Countries</td>
<td>41</td>
</tr>
<tr>
<td>African Countries</td>
<td>43</td>
</tr>
<tr>
<td>Latin American Countries</td>
<td>45</td>
</tr>
<tr>
<td>Qualitative Deficiency</td>
<td>46</td>
</tr>
<tr>
<td>Inadequacy of Resources for Housing in Developing Countries</td>
<td>49</td>
</tr>
<tr>
<td>Chapter Summary</td>
<td>59</td>
</tr>
<tr>
<td>IV EVALUATION OF SELF-HELP HOUSING PROGRAMS IN DEVELOPING COUNTRIES</td>
<td>65-125</td>
</tr>
<tr>
<td>Recognition of Self-Help Housing Method at International Level vis-a-vis Developing Countries</td>
<td>68</td>
</tr>
<tr>
<td>Evaluation of Self-Help Housing Programs at National Levels Programs in Asian Countries</td>
<td>79</td>
</tr>
<tr>
<td>India</td>
<td>81</td>
</tr>
<tr>
<td>Pakistan</td>
<td>85</td>
</tr>
<tr>
<td>Indonesia</td>
<td>89</td>
</tr>
<tr>
<td>Malaysia</td>
<td>91</td>
</tr>
<tr>
<td>Thailand</td>
<td>92</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>PAGE</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>Greece</td>
<td>93</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>93</td>
</tr>
<tr>
<td>Philippines</td>
<td>94</td>
</tr>
<tr>
<td>Conclusion</td>
<td>94</td>
</tr>
<tr>
<td>Programs in African Countries</td>
<td>95</td>
</tr>
<tr>
<td>Kenya</td>
<td>97</td>
</tr>
<tr>
<td>Ghana</td>
<td>98</td>
</tr>
<tr>
<td>The United Arab Republic</td>
<td>102</td>
</tr>
<tr>
<td>Belgian Congo</td>
<td>103</td>
</tr>
<tr>
<td>Morocco</td>
<td>103</td>
</tr>
<tr>
<td>Guinea</td>
<td>104</td>
</tr>
<tr>
<td>Somalia</td>
<td>104</td>
</tr>
<tr>
<td>Conclusion</td>
<td>105</td>
</tr>
<tr>
<td>Programs in Latin American Countries</td>
<td>105</td>
</tr>
<tr>
<td>Jamaica and Puerto Rico</td>
<td>108</td>
</tr>
<tr>
<td>Colombia</td>
<td>111</td>
</tr>
<tr>
<td>Brazil</td>
<td>113</td>
</tr>
<tr>
<td>Venezuela</td>
<td>113</td>
</tr>
<tr>
<td>Chile</td>
<td>114</td>
</tr>
<tr>
<td>Peru</td>
<td>114</td>
</tr>
<tr>
<td>Conclusion</td>
<td>115</td>
</tr>
<tr>
<td>Overall Conclusions</td>
<td>118</td>
</tr>
<tr>
<td>Chapter Summary</td>
<td>124</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>PAGE</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td><strong>V</strong></td>
<td></td>
</tr>
<tr>
<td>EVALUATION OF SELF-HELP HOUSING PROJECTS IN DEVELOPING COUNTRIES</td>
<td>126-167</td>
</tr>
<tr>
<td>Selection of Self-Help Housing Projects</td>
<td>126</td>
</tr>
<tr>
<td>Evaluation of Self-Help Housing Projects</td>
<td>128</td>
</tr>
<tr>
<td>Faridabad Project, Delhi, India.</td>
<td>128</td>
</tr>
<tr>
<td>Korangi Project, Karachi, Pakistan</td>
<td>133</td>
</tr>
<tr>
<td>Gourna Project, United Arab Republic</td>
<td>137</td>
</tr>
<tr>
<td>Bonnett St. Mary Project, Jamaica</td>
<td>140</td>
</tr>
<tr>
<td>Aguablanca Project, Cali, Colombia</td>
<td>145</td>
</tr>
<tr>
<td>San Sebastian Project, San Jose, Costa Rica</td>
<td>150</td>
</tr>
<tr>
<td>Clara Estrella Project, Santiago, Chile</td>
<td>155</td>
</tr>
<tr>
<td>Colonia Centro-America -- Las Victorias Project, Ciudad de Guatemala, Guatemala</td>
<td>158</td>
</tr>
<tr>
<td>Conclusion</td>
<td>163</td>
</tr>
<tr>
<td>Chapter Summary</td>
<td>165</td>
</tr>
<tr>
<td><strong>VI</strong></td>
<td></td>
</tr>
<tr>
<td>SUMMARY CONCLUSIONS AND RECOMMENDATIONS</td>
<td>168-180</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>181-190</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Estimated Housing Shortage in Developing Countries (1960-1975)</td>
<td>47</td>
</tr>
<tr>
<td>2. Housing and Living Conditions in Selected Countries</td>
<td>53</td>
</tr>
<tr>
<td>3. Bonnett St. Mary Self-Help Housing Project, Jamaica: Beneficiaries Contribution to a Typical Two Room House</td>
<td>143</td>
</tr>
<tr>
<td>4. Aguablanca Self-Help Housing Project, Cali, Colombia: Cost and Benefit Aspect</td>
<td>147</td>
</tr>
<tr>
<td>5. San Sebastian Self-Help Housing Project, San Jose, Costa Rica: Cost and Benefit Aspect</td>
<td>152</td>
</tr>
<tr>
<td>6. Clara Estrella Self-Help Housing Project, Santiago, Chile: Cost and Benefit Aspect</td>
<td>156</td>
</tr>
<tr>
<td>7. Colonia Centro-America, Las Victorias Self-Help Housing Project: Cost and Benefit Aspect</td>
<td>159</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>Description</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Developing Countries of Asia, Africa and Latin America</td>
<td>33</td>
</tr>
<tr>
<td>2.</td>
<td>Quantitative Deficiency of Housing in Developing Countries, 1960-1975</td>
<td>48</td>
</tr>
<tr>
<td>3.</td>
<td>Qualitative Deficiency of Housing in Developing Countries</td>
<td>54</td>
</tr>
<tr>
<td>4.</td>
<td>Organizational Chart for a Large Scale Self-Help Housing Program</td>
<td>78</td>
</tr>
<tr>
<td>5.</td>
<td>Sample Self-Help Housing Projects</td>
<td>127</td>
</tr>
<tr>
<td>6.</td>
<td>Faridabad Project, Delhi, India</td>
<td>131</td>
</tr>
<tr>
<td>7.</td>
<td>Korangi Project, Karachi, Pakistan</td>
<td>136</td>
</tr>
<tr>
<td>8.</td>
<td>Aguablanca Project, Cali, Colombia</td>
<td>148</td>
</tr>
<tr>
<td>9.</td>
<td>San Sebastian Project, San José, Costa Rica</td>
<td>153</td>
</tr>
<tr>
<td>10.</td>
<td>Clara Estrella Project, Santiago, Chile</td>
<td>157</td>
</tr>
<tr>
<td>11.</td>
<td>Las Victorias Project, Ciudad de Guatemala, Guatemala</td>
<td>161</td>
</tr>
<tr>
<td>12.</td>
<td>Colonia Centro-America Project, Ciudad de Guatemala, Guatemala</td>
<td>161</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES (con't)

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Self-Help Housing Projects: Direct Benefits or Saving</td>
<td>164</td>
</tr>
<tr>
<td>15. Organizational Chart for a Large Scale Housing Project</td>
<td>167</td>
</tr>
<tr>
<td>PHOTOGRAPH</td>
<td>PAGE</td>
</tr>
<tr>
<td>------------</td>
<td>------</td>
</tr>
<tr>
<td>1. Traditional Round Houses Built by Spontaneous Self-Help Housing Method in Rural Areas</td>
<td>28</td>
</tr>
<tr>
<td>2. Typical Houses Built by Spontaneous Self-Help Housing Method in Urban Areas</td>
<td>28</td>
</tr>
<tr>
<td>3. Rapporting and Convassing for Self-Help Housing Activity</td>
<td>28</td>
</tr>
<tr>
<td>4. Unfinished &quot;Core Houses&quot; Finished by Guided Self-Help Housing Method in Ghana</td>
<td>101</td>
</tr>
<tr>
<td>5. A Row of Earth-Built Houses by Guided Self-Help Housing Method in Gourna Community, United Arab Republic</td>
<td>101</td>
</tr>
<tr>
<td>6. Physical Manifestation of Self-Help Housing Method in Ghana</td>
<td>101</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

The author is highly indebted to Dr. H. Peter Oberlander, Head of the Division of Community and Regional Planning, University of British Columbia, Vancouver, for providing the initial incentive to undertake this study, and for his inspiration.

For the able guidance and continuous encouragement provided during the progress of this study, the author records his profound sense of gratitude to Dr. Kevin J. Cross, Assistant Professor of the same Department. The author is appreciative of the benefit of discussion on some methodological problems of this study extended by Dr. Philip Friedly, Assistant Professor of the same Department.

The assistance provided by Mrs. E.D. Dodson, Head Librarian of the Government Publications Division, and Miss Melva J. Dwyer, Head Librarian of the Fine Arts Division of the University of British Columbia and their respective staff is gratefully acknowledged. Thanks are also due to Miss Pat Strandberg of the Department of Pharmacy of the University of British Columbia for pointing out typographical errors and linguistic anomalies in the concluding chapter.

Lastly, the financial assistance provided by the West Pakistan University of Engineering and Technology, Lahore, in the form of an "Overseas Scholarship" is sincerely acknowledged.
CHAPTER I

INTRODUCTORY SETTING

I WHY SELF-HELP HOUSING STUDY?

The countries of Asia, Africa and Latin America contain three-fourths of the world's population. Half of this population is homeless and lives in extremely overcrowded housing conditions. An example of the picture of a slum in Pakistan illustrates the extreme living conditions of most of the people in developing countries: ¹

They live packed like sardines in colonies which are disease-ridden... a case of gross cultural regression, of dehumanization, of degradation which staggers human imagination. ²

It is estimated that in order to alleviate poor housing conditions and to eliminate the present housing shortage, at least twenty-four million additional dwelling units are required in these countries. This means the construction of ten dwelling units per thousand population. ³

¹Unless otherwise stated, the term "developing countries" means the countries of Asia, Africa and Latin America, as defined on page 11 and as illustrated in Figure 1 of this study.


How difficult a task this is, can be well appreciated from the fact that rich countries today are building at the rate of six to seven dwelling units per thousand population.

There is a big disparity between housing requirement and resource capacity of developing countries. The capital investment required to build ten dwelling units per thousand population would be equal to at least 100 times the gross national product per capita per thousand population. This is equivalent to 10 per cent of the gross national product which is about the total investment in all sectors of economy of the developing countries.

About 90 per cent of the people do not possess the necessary means to build a modest house costing 800 - 1,000 U.S. dollars. To sustain an adequate house building, the entire resources of the developing countries are called for.

The existing economic resources as such, are too meagre to solve the immense problem. Even if in some cases the growth of the economy is significant, it does not lead to any hope of meeting the housing shortage in the conceivable future. Will these countries ever be able to meet the challenge?

An affirmative answer to the above question is

---

regarded as being too optimistic an assumption in planning quarters. The hope of those dealing with housing problems in developing nations is based on the supposedly bright prospects of non-monetized human capital which is abundant in these nations but has hitherto remained under-utilized.

The development and utilization of human capital through self-help housing methods is gaining importance as one of the most significant media of meeting the acute shortage of housing in poor communities. The few self-help housing experiments already carried out in some communities tend to strengthen a belief in its efficacy for the improvement of housing conditions.

Housing is an important aspect of community planning. Since housing is a part of the community planning process and community planning is hard to realise in the case of communities with very limited resources and other pressing priorities, there is a need to integrate community development techniques of self-help with the community and regional planning process, as concluded by Bofah. There is, therefore, a need to probe into the suitability aspect of self-help housing in developing countries, which is attempted in this study.

---

II DIMENSIONS OF THE PRESENT STUDY

There are many facets to the concept of self-help housing, inasmuch as there is a variety of ways in which families build houses. The approach ranges from complete self-reliance to partial self-reliance on the resources of the family. In the first case, families build houses entirely with their own labour and from materials that are readily available. This is the informal or spontaneous approach. (Photographs Nos. 1-2) In the second case, self-help is supplemented by manual help from other families and/or public support in the form of technical assistance and material subsidies. This is the formal approach. (Photographs Nos. 3-6)

There are many aspects of the formal type of self-help housing program. For example, the organizational aspect entails involvement of families in the processes of work; the educational aspect covers orientation and training of self-help families; the technical aspect deals with the economic designs and methods of building houses, and so on.

Combinations of these methods are being used to a limited extent in various parts of the world. It is recognized in the developing countries of Asia, Africa, and Latin America, as will be seen in Chapters IV and V, that the self-help method is most suitable because it
reduces the monetized capital inputs which are scarce in these countries.

The consideration of a variety of formal or guided self-help housing experiments being made in a number of countries having a variety of cultural, economic, and physical situations forms the broad subject area of this study. The informal, spontaneous or traditional self-help housing method remains outside the scope of this study, unless otherwise, at places its consideration is necessary.

III FOCUS OF SELF-HELP HOUSING

The concept of informal or spontaneous self-help housing is widely prevalent in developing societies. However, houses built by traditional methods are proved to be incompatible with the most minimum contemporary standards of hygiene and sanitation. That is why, as the experience in some countries shows, "the lowering of standards and specifications beyond a reasonable limit is not a wise policy for public housing."  

The shift of the rural populace to the rapidly growing urban areas in developing countries results in a transplantation of the informal and spontaneous method to the cities. Since the construction standards of the resulting houses are often far below the minimum standard

---

of urban houses, the spontaneously transplanted houses are graded into slum houses and clusters. "Juggies" in India and Pakistan, "bodonvilles" in Algeria, "barriadas" in Peru, "callampas" in Chile, "ranchos" in Venezuela, "villas miserias" in Argentina and "favelas" in Brazil are cases in point.

This universal observation, therefore, necessitates a deliberate refinement of the first, i.e., the spontaneous approach, and the use of the second approach, viz., the formal approach of self-help housing in the circumstances prevailing in developing countries. The formal approach has been adopted to a limited extent in many developing countries, so that some information relevant for the purpose of evaluating the utility and performance of the method is available.

It is, therefore, suggested that based on the available data, an evaluation of self-help housing programs at both the national and local levels and an appraisal of some of the projects (as distinct from programs) in developing countries should lead to a substantiation of the hypothesis that:

SELF-HELP HOUSING CAN FORM AN EFFECTIVE METHOD OF MEETING THE DEFICIENCY OF HOUSING UNITS IN DEVELOPING COUNTRIES.

The purpose of this study is to test the above hypothesis and to provide evidence which may establish or
contradict it. The substantiation of this hypothesis would strengthen and clarify the somewhat blurred belief in the efficacy of the self-help housing method as a solution to the housing problem in the developing countries. Once the relevance of the method is established and experience in its application gained, refinement and improvement of the method could be made by those handling self-help housing projects.

IV METHODOLOGICAL SUPPORT OF THIS STUDY

More cumbersome than the study of self-help housing is the development of relevant techniques to measure the effectiveness of self-help housing programs and projects. There are many reasons why this is so. Some countries are only at the stage of awareness of their housing problems and alternative approaches to the solution. In those countries where there is a practical demonstration of awareness, projects are part of the community development programs; in a few countries there are independent projects unrelated to health and social welfare programs.

The self-help housing concept has not yet become an accepted component of the national housing programs except in a few cases. A few projects that are underway are too isolated and small to permit effective evaluation for the purpose of assessing general applicability of the self-help housing method.
The evaluation problem is compounded also because in most projects public input is so much and the family's non-monetized investment so small that the real status of the self-help housing programs is distorted. On the other hand, they cannot be excluded from examination. In short, limitation of self-help experience and paucity of data are central obstacles to utilization of an evaluative method. It is difficult to weigh methods in relative terms and decide which alternative is most effective when sufficient data about alternatives are not available.

In spite of these limitations, it is not impossible to make a meaningful evaluation and to attempt to substantiate the hypothesis. By inference it is possible to identify the need for a labour-intensive method, such as the self-help method by making deductions as to the inadequacy of capital-intensive methods presently in use in the developing countries. The existing data warrants the study of the magnitude of housing deficiencies both in quantitative and qualitative terms, and the inadequacy of private and public resources to cope with the housing situation in the foreseeable future.

When attempting to make a comparative evaluation of self-help housing programs at national levels, one not only has to take account of differences in physical, cultural and economic settings, but also the great number of variables that are involved. Many of the variables
are not conducive to standard methods of measurement and comparison. One is unable to hold all variables in mind and evaluate them. Under this situation, until meaningful data are available, the use of a descriptive method objectively followed with respect to relevant variables is a better alternative than any other method which cannot be amenable to sophisticated refinement under the above limitations.

Evaluation of "projects" as compared with "programs", and measurement of their effectiveness is possible with the help of cost-benefit techniques which have made considerable headway in recent times. Nathaniel Lichfield's "Welfare Test" of a cost-benefit type is considered relevant to planning projects. He has applied these techniques in transportation studies. John Krutilla also holds "that careful analysis of the costs and benefits of each component project is the best way to evaluate the effectiveness of a program." In doing so, there is the problem of the measurement of certain non-quantifiable variables. This difficulty can be solved by giving scores


to variables based upon intuitive judgement and taking account of them in the cost-benefit ratios. An approximately comparable method of what is termed as the "ekistic efficiency" has been used and recommended by Hassan Fathy from his experience of a rural self-help housing project in Egypt.

It would appear to be relevant firstly to follow a descriptive approach in so far as evaluation of the self-help housing method at international and national levels is concerned. In doing so, it is possible to explore proceedings of the United Nations Expert Committees on Housing, Building and Planning and some available national reports to utilize evidence in support of the hypothesis. The data on countries adopting such programs can also be used to the same end.

Secondly, a micro-analytical examination of selected projects from selected countries of Asia, Africa and Latin America is used. This is followed by evaluating the benefits measured in terms of the saving resulting from the use of self-help voluntary labour and materials contributed by self-help families. The saving thus represents a certain proportion of the project's cost, and thus as a benefit, is a measure of effectiveness of the self-help housing method. It is suggested that these methods are likely to effectively validate the hypothesis.

---

V DEFINITION OF TERMS

Four terms contained in the statement of the hypothesis deserve precise definition as to their connotation in this study. These are: "Self-Help Housing", "Effective Method," "Deficiency of Housing Units," and "Developing Countries,"

Self-help housing is a system of house building whereby a number of families organise themselves, or are organized by an external agency for building houses for complete ownership by the families. The families contribute their own services so that they benefit from an amount of work equal to that which they themselves contribute.

Effective Method means a method which is suggestive of decisive effect or indicative of positive consequence as measured by alternative means of doing the job and meeting the desired objective.

Deficiency of Housing Units means quantitative shortage and qualitative inadequacy of houses with reference to the demand among poor families in developing nations.

Developing Countries refer to the countries of Asia, Africa and Latin America, whose per capita real income is low when compared with the per capita real incomes of the United States of America, Canada, Australia and Western Europe. (See Section I of Chapter III and Figure I)

VI  ASSUMPTIONS

This study proceeds on the following assumptions:

The people in developing countries have talents and resources which, according to the United Nations observation, "are not being used or allowed to contribute to any other national development";\(^{13}\)

the building of a minimum house is beyond the income capacity of a large number of families in developing countries;

the economic resources of developing countries are too limited to be spent on mass house building programs which could satisfy the minimum housing demands of their populace;

the self-help housing method is a feasible method from the social and technical points of view; and

the economy of developing countries is not going to change so drastically in the foreseeable future as to warrant a massive building program to eliminate the present housing backlog and that expected in the near future.

VII  CHAPTER SUMMARY

The need for this study stems from the grim observation that there is a significant gap between the housing requirement and resource capacity of the developing

nations of Asia, Africa and Latin America. The fact that 10 per cent of the gross national product, being presently spent in all sectors of economy in these countries, is needed for housing alone compounds the problematic situation. It is contended by optimists that the main tool for breaking the viscous circle of the housing dilemma in developing nations is the adoption of self-help housing programs.

The concept of self-help housing is multi-faceted. The formally engendered self-help housing which is the subject of this study is being demonstrated in many communities. The output has not yet been comprehensively evaluated so that the optimistic notion in regard to its "effectiveness for meeting the housing deficiency in developing countries" has not yet been substantiated. The objective of accomplishing this is the focus of this study.

The study is based on the assumptions that in nations under discussion, resources are limited and housing needs are acute, and that human talents are abundant but are not being used. Taking account of the limitations of data and the involvement of many variables, a descriptive evaluation method is chosen as being most useful in the case of self-help housing programs. An analytical approach of the cost-benefit type is used in the case of a sample of selected projects in a number of selected developing countries.
CHAPTER II

THE CONCEPT AND OBJECTIVE
OF SELF-HELP HOUSING

I EVOLUTION OF SELF-HELP HOUSING

The traditional form of spontaneous self-help house building is an ancient activity going as far back as man's first habitation of the earth. This activity is still widespread in many areas of the world. The nomad's tent in Arabia, the eskimo's igloo in the Arctic and the bushman's hut in Africa bear witness to this statement. These types of shelters represent the use of real self-help where families contribute to accomplish everything without external assistance.  

As traditional materials became scarce and unsatisfactory in terms of durability and maintenance, dependence on external building materials and services

1 In the Nubian Oasis of Egypt as elsewhere, for example, the entire house-building activity is performed by families using their own labour and indigenous materials. The "ekistic efficiency" measured in terms of proportions of unmonetized local inputs in this case, as in comparable cases elsewhere, approaches 100. Hassan Fathy, "Rural Self-Help Housing," International Labour Review, LXXXV, (January-June, 1962), p. 13.
seemed inevitable. The supply of building materials appeared to be so scarce and beyond the economic means of families, that housing deficiencies and living problems grew in alarming proportion. Government efforts proved inadequate particularly in developing countries, so that the social problems continued to aggravate the situation. These and the consequent problems associated therewith attracted the attention of social reformers and social workers. The process of awareness of problems of housing gave rise to a movement which became widespread: the community development movement.

Self-help housing is essentially a part of the community development movement which started after the industrial revolution and has, of late, gained widespread popularity particularly in developing nations. The movement is "designed to promote better living for the whole community with the active participation and on the initiative of the community."\(^2\) Community development

connotes "a process by which the efforts of the people are united with those of government authorities to improve the economic, social and cultural condition of communities."^3

The above definitions bring out two basic elements: (a) willingness of the people to participate in efforts to improve their living conditions and (b) provision of devices to initiate and stimulate self-help activity.

The main basis of the community development concept is that when an input or a set of stimuli is administered to a group, the group responds with a combination of social actions which determines its output. Community development provides necessary stimuli and incites a chain reaction in the form of concerted group concern and action for the fulfilment of essential community objectives. It also provides the easiest ways to accomplish them.

The external agency initiating community development attempts to change the psycho-social field of the respondent community so that they realise their poten- 

tialities and embark upon doing things for themselves. The knowledge of their duties and conviction on means to accomplish community objectives are essential according to what Holists believe: "when people know precisely what they want and the most efficient way to get it, it is irrational for them not to choose the most efficient means." The concept of self-help, which is a community development device is, thus, engendered into the community as one of the most efficient means of achieving community ends when the material resources to achieve them are deficient or absent.

Self-help, as a community development device, has gained wide popularity in the developing nations, particularly through the efforts of the United Nations and its specialized agencies. In some countries notably Indonesia, the Philippines, India, Pakistan, Ceylon, the United Arab Republic, Ghana, Colombia, Guatemala and Chile, the self-help concept is well on the move.

During the last ten years, most of the United Nations and aid-giving countries, notably the United States, have geared their economic aid towards community development projects in the developing countries. The international agencies have also recommended that national governments support such projects, as a United Nations

document reports: "To be fully effective community's self-help projects require both intensive and extensive assistance from the Government".  

The concern of the United Nations goes back to the year 1947 when it was recommended that a series of studies be conducted on the subject of self-help housing which became one of the targets of the United Nations Development Decade.  Since 1952 the United Nations has taken effective and concrete steps in this direction. These steps created interest among the international financing agencies. There is increasing expectation among these agencies that the aid and loan recipient nations should use them in the community development endeavours and thereby demonstrate efforts to help themselves.  

Increasing attempts are being made among the developing nations to mobilize self-help resources so as to meet necessary conditions for receiving external aid. This complies with the United Nations concept of human involvement as a pre-condition for achieving the aims of the Development Decade. Notwithstanding the insignificant

---


7 This, however, excludes emergency economic aid or military aid.
impact of self-help housing in numerical terms, a practical method has nearly been found and a goal established in the area of housing and community development.

II GOALS AND OBJECTIVES OF SELF-HELP HOUSING

Goals and objectives of self-help housing vary according to different situations. Yet they can be stated in general terms. The Inter-American Housing and Planning Center Bogota has stated the "essential goals" of self-help housing to be as follows:

a. to provide dwellings at the cost of participant families assuring joint maintenance and conservation of common property by families themselves;

b. to offer the participants an opportunity to contribute their own efforts to the building, improvement, and conservation of their houses.8

Here, the cost of participants include, above all, their own resources in the shape of time, labour, materials, and transportation. Thus, the self-help housing effort, as stated, is directed principally to the utilization of the participants' own resources for home ownership.

The same source also spells out the "most important objectives" of self-help housing as follows:

a. to make possible integral house planning, both as a service and in the general interest of the community;

b. to reduce the need for total financing by the state in the construction of houses;

c. to put the latent capacity of the people to work; to promote initiative towards collective action; to encourage savings; to create a spirit of enterprise and strengthen the participants' confidence in themselves; and

d. to work for closer relations and mutual understanding among families who will live in the same district.9

Thus, the objective of self-help housing is to look after the welfare interest of the community; to relieve the state's burden; to engender community feeling; to encourage individual saving and investment, and by so doing, to ignite human energy inherent in the community for collective house-building.

III APPROACHES TO SELF-HELP HOUSING

It has been stated in the preceding pages that there are basically two ways in which self-help housing activity is performed. First is the spontaneous method,
in which no outside help is involved; and second, there is the formal method, in which some outside assistance is utilized. Thus, there are two extremes of self-help housing, pure self-help or cooperative self-help, or what the United Nations termed the "maximum contribution" and "minimum contribution" approach. It is the extent to which outside help is injected that decides the location of the relevant project in the above continuum. Four divisions can be recognized in this continuum: pure self-help, mutual aided self-help, engendered self-help and cooperative self-help.

In the pure self-help category, land is taken to be ubiquitous. Management, labour services and materials, etc. are all provided by owner-families and outside help is nil.

In the mutual aided self-help division, the essential requirement is that materials and labour, etc., are provided by neighbours in exchange for the owner's assistance which is provided for his neighbour.

In the engendered self-help type, government or public agencies organize self-help housing, at times, also by providing material help, the object being to demonstrate the method and to encourage people to help themselves.

---

In the cooperative self-help program, land, labour, material and transport, etc. are arranged by cooperative societies whose members are participants in the housing schemes. Here the member's non-monetized contribution is minimum. It is, therefore, suitable only for those families who are able to pay loan instalments equivalent to the economic rent of the house.

IV BENEFITS OF SELF-HELP HOUSING

Self-help housing experience has not yet been extensive so that it is not possible to determine concrete impacts on the welfare of people. In the absence of enough experience, benefits believed to be generally inherent are stated as follows:

In one of the countries interested in self-help, "local leaders were advised on how to base all programs on the needs of the people and how to conduct these programs through self-help so as to bring about the social and economic uplift of the community..." Social and economic uplift of the community, thus constitutes the benefit of a self-help housing program.

By utilizing work potential of families (measured in terms of man-hours available), where labour supply is

excessive as in most developing countries, the method reduces -- if not completely wipes out -- the labour cost, social security payments and contractor's profits. It also stimulates savings and capitalization, benefitting not only families but also state. By investing in a self-help housing project, the Government can substantially increase the number of dwelling units in a shorter period than is possible otherwise, that is, by building houses entirely through public resources.

The essential aspect of self-help housing is that the houses belong to the inhabitants. Since their own labour and initiative are contributed to it, they develop pride of achievement. The collective building process gives group work experience which can be utilized in other nation building activities at community levels.

Self-help housing also creates a large skilled labour force, which is scarce in developing nations. When on the job, the participants put in better quality work than does wage labour, because they work for their own direct benefit. This creates new occupational possibilities, increases labour supply, and decreases labour cost.

If effectively carried out, self-help housing appears to be the only method which can ensure minimum shelter for the mass of the world's population. It is slightly costly to start the program, but the cost of
initiating a self-help housing program can be regarded as insignificant compared with the cost of developing a public housing program of the type which is current in most countries. Also, "even if the program were limited to one or a few areas, the idea has a tremendous ignition potential which might spark unsuspected energies."  

V ORGANIZATION OF SELF-HELP HOUSING

Effective organization of self-help housing projects or programs is basic to the achievement of housing goals in developing countries. While a country-wide program is centered on housing goals, the community-wide projects fulfil the immediate local objectives. Both require the use of highly sophisticated organizational techniques. While the country-wide programs have not yet been adopted, community-wide projects have been adopted in many areas. The latter experience has demonstrated the need for a whole series of planning and administrative processes.

A thorough research method precedes the selection

---

of a community in which self-help housing program is organized. The physical, social and economic characteristics of the community are investigated. The resources of the community in terms of income and occupational structure, available free time, available indigenous building materials, etc., are assessed. The whole psycho-social field of the human community is investigated so that necessary social work techniques suitable to the community are developed.

The next stage is to plan the whole project. Three aspects of planning become important. The first aspect is the planning of social work, the object being the engendering of the self-help spirit and selling the idea to the community. The second aspect of planning is technical preparedness, the object being to develop a plan for the community to prepare the most economical designs of housing units and to discover indigenous building materials. The third aspect is the development of a management system which organizes self-help labour and coordinates their work in the field and ensures that the work is accomplished according to plan. The management also looks after the administrative or operational aspects of the project. (Figure 15)
VI CHAPTER SUMMARY

The concept of spontaneous self-help house building as a traditional activity involving maximum family contribution and no external help, is widespread in many parts of the world. Depletion and scarcity of traditional materials plus the increasing necessity of achieving minimum housing standards has led to problems of housing inadequacy and associated social problems. The awareness of social problems has given rise to the community development movement whose basic slogan is self-help, whether in the form of housing or any other community improvement endeavour.

From the stimulus provided by the United Nations and some of the relatively developed countries, the concept of self-help housing has gained great popularity in developing nations which are faced with the problems of acute shortages of housing and scarcity of resources. The goal of self-help housing, i.e., the provision of housing through the participants' efforts and the objective i.e. the encouragement of community action and ignition of self-help energy for house building, are geared to the situations of developing nations.

Approaches of self-help housing range from pure self-help to cooperative self-help, the intermediate cases being mutual aided self-help and engendered self-help. The object of engendered self-help which is being
studied here is to maximise pure self-help in the long run by providing guided action in the short run. Whatever the form, the self-help housing approach is of great benefit to the developing nations, in that it provides the only hope for societies confronted with the dilemma of housing scarcity and economic disability.
Photograph No. 1  Traditional round houses built by spontaneous self-help housing method in rural areas.

Photograph No. 2  Typical houses built by spontaneous self-help housing method in urban areas.

Photograph No. 3  Rapporting and canvassing for self-help housing activity.

CHAPTER III

THE DEFICIENCY OF HOUSING IN DEVELOPING COUNTRIES
AND THE INADEQUACY OF HOUSING RESOURCES

I MEASURES OF DEVELOPMENT: DEVELOPING COUNTRIES

Historical study of economic development shows that in many countries periods of dreary stagnation alternated with spurts of economic progress up to the end of the eighteenth century. Since then, there has been a continuous rise of economic prosperity in the countries of Europe, North America and Australia. These phenomena, coinciding with the onset of the industrial revolution are unique — unique in the sense that as against stagnation being a general rule, economic development showed up as an exceptional phenomenon, particularly in the countries situated in the northern hemisphere.

Since the end of the Second World War, the nations of Asia, Africa and Latin America which constitute 70 per cent of the world's population, have become increasingly "development-minded." As a consequence, great efforts are being made to effect such changes in the socio-economic variables as may be conducive to the generation of positive forces within the development process.

"Development process" and "economic development" have become watchwords in economic literature. "Social
change," "cultural change" and "institutional change"
as ingredients of development have elicited great concern
of the United Nations and developed nations interested in
the economic development of the world's poorer countries.

In terms of economic development, many adjectives
have been used to designate the countries of North America,
Europe, and Australia: for example, "developed", "advanced",
"rich" and "modern". Similarly, "undeveloped", "under-
developed", "poor" and "backward" are assigned to the
countries of Asia, Africa and Latin America. There has,
however, been difficulty in the interpretation of these
terms.

According to the widely used definition given
by the United Nations, the term "underdeveloped countries"
is used to mean "countries in which per capita real
income is low when compared with the per capita real
income of the United States of America, Canada, Australia
and Western Europe. In this sense, an adequate synonym
would be poor countries."

Even if suitable for academic purposes, the
term "underdeveloped" is, understandably, not entirely
suggestive of those nations which are industrially under-
developed but culturally may not be so. "Pre-industrialized"

---

1United Nations, Measures for the Economic
Development of Underdeveloped Countries (New York:
and "developing" are the alternates suggested. The first prejudges the policy conclusions that industrialization is tantamount to economic development; the second implies that all countries are in the process of development.

The United Nations definition subsumes -- or does not take into consideration -- the potential limit to the development of human and material resources possessed by the so-called underdeveloped countries. Whatever the present level of technology, economists agree that all the so-called underdeveloped countries, particularly those which have freed themselves from the bondage of colonial administration in the past few decades, are in a position to increase the effective utilization of their resources and thereby industrialize themselves sooner or later. For this reason, economists "recognize the limitations of such a linear conception of history and no longer attempt to classify countries according to the stages of development."^3

Webster's Dictionary defines "developing" as "to cause to become more completely unfolded... so as to


reveal potentialities," and "gradual advance or growth through progressive changes". Thus, the term "developing", as a substitute for "underdeveloped" conveys the notion that the countries are involved in the process of development, which is the factual position.

The gap between per capita incomes of say, rich and poor nations is going to be reduced not so much by deceleration of the former as by the acceleration of the latter; implicit is the fact that the latter would attempt to reach the datum level of the former. The term "developing countries" has, therefore, gained currency. There are rare -- if any -- cases of nations in which the Governments are not demonstrably interested in and increasingly conscious of development.

In the light of above discussion, the countries of Asia, Africa and Latin America which have lower per capita income (average 150 dollars annually) compared with the countries of North America, Europe and Australia (1500 dollars annually), by virtue of their engagement in the process of development are termed as "developing countries"; "developing nations" or "developing economies". (Figure I)

---

DEVELOPING COUNTRIES OF ASIA, AFRICA AND LATIN AMERICA

APRIL 1966

EFFECTIVENESS OF SELF-HELP HOUSING:
EXPERIENCE IN DEVELOPING COUNTRIES
Masters Thesis
Division of Community & Regional Planning
UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER
Amjad Ali B. Rajvi

FIGURE NO. 1
II CHARACTERISTICS OF DEVELOPING ECONOMIES

In order to appreciate the relevance of inputs for the solution of community problems, such as that of housing, an understanding of the general characteristics of developing countries is important. Only the elimination of economic poverty is not a sufficient argument to justify the diffusion of a method for the solution of the housing problem. The whole range of cultural problems should be evaluated to see if the method is the most effective possible.

All available statistical and descriptive information reveals that poverty is a general characteristic of developing countries. Higgins discovers that "there is indeed a correlation between national poverty and other features of country's economic and social organization." Hence, there is the need to make an appraisal of poverty and "all other features" of socio-economic organization.

For the present purposes, a summary of the main features of developing countries should suffice. In this respect, it is difficult to improve Leibenstein's list which combines most of the characteristics most often mentioned.

---

5 Higgins, op. cit. p.11.
A. Economic Characteristics

a. A very high proportion of the population in agriculture, usually some 70 to 90 per cent.

b. "Absolute overpopulation" in agriculture, that is it would be possible to reduce the number of workers in agriculture and still attain the same total output.

c. Evidence of considerable "disguised unemployment" and a lack of employment opportunities outside agriculture.

d. Very little capital per head.

e. Low income per head and, as a consequence, existence near the "subsistence" level.

f. Practically zero savings for the large mass of the people.

g. Whatever savings do exist are usually achieved by a land holding class whose values are not conducive to investment in industry and commerce.

h. The primary industries, that is agriculture, forestry and mining, are usually the residential employment categories.

i. The output in agriculture is made up mostly of cereals and primary raw materials.

j. Major proportion of expenditure in food and necessities.

k. Export of foodstuffs and raw materials.

l. Low volume of trade per capita.

m. Poor credit facilities and poor marketing facilities.

n. Poor housing.

Leibenstein has summarized economic characteristics under two headings, namely "general" and "basic characteristics in agriculture." The latter characteristics have not been discussed here, since they are not directly relevant to the present purpose.
B. **Demographic Characteristics.**

a. High fertility rates, usually above 40 per thousand.

b. High mortality rates and low expectation of life at birth.

c. Inadequate nutrition, and dietary deficiencies.

d. Rudimentary hygiene, public health and sanitation.

e. Rural overcrowding.

C. **Cultural and Political Characteristics**

a. Rudimentary education and usually a high degree of illiteracy among the people.

b. Extensive prevalence of child labour.

c. General weakness or absence of middle class

d. Inferiority of women's status and position.

e. Traditionally determined behaviour for the bulk of the populace.

D. **Technological and Miscellaneous Characteristics**

a. Low yield per acre.

b. No training facilities or inadequate facilities for the training of technicians, engineers, etc.

c. Inadequate and crude communication and transportation, especially in the rural areas.

d. Crude technology.  

---

The above list of characteristics is brief and suggestive. It subsumes the vast difference in tastes, climate and socio-cultural settings among and within the developing countries. It is indicative of most predominant characteristics studied and observed by writers on the subject. It should appear that economic problems, and therefore, economic planning approaches are similar in most of the developing countries. For example, Haque says:

... if one picks up the plans of India, Pakistan, Ghana, Egypt, Nepal or Ceylon, at random, what is surprising is not their apparent differences but their basic similarity... This basic similarity in planning techniques is due to the basic similarity of their problems of planning.

It is necessary to isolate some of the above features from Leibenstein's list so as to justify the kind of discussion to be taken up in the following chapters. These are: the super-abundance of low income

---


9 E.g., among others, the following: P.N. Rosenstein-Rodan, Alfred Sauvy, N. Prokopovicz, A.L. Minks, H. Belshaw, Benjamin Higgins, Gerald M. Meier, Robert T. Baldwin and Harvey Leibenstein.

population; existence of "disguised unemployment" and lack of employment outside agriculture; low income and low capital per head; no savings and investment capacity; major expenditure on essentials, that is, food and shelter; poor credit facilities; uneconomic use of limited capital; residential over-crowding; poor health and education facilities; traditionally determined behaviour; crude technology and lack of guidance to improve conditions.

Some of the above features are the results of low per capita incomes; others are associated with such conditions as produce low per capita incomes. Development efforts are directed to the building up of infrastructures which are required to produce favourable conditions to growth by removing obstacles to growth. The major concern of developing economies is to increase output and achieve higher incomes.

The magnitude of "trigger approaches" like "remove the obstacles to development", "release the inhibitors", "stimulate innovation" and "accelerate social change" through community development, have to be viewed in terms of the realities of developing economies.

For a country with a saving ratio of four per cent of the national income and a population growth of two per cent per annum, a saving rate of eight per cent a year would be required to keep a per capita income
constant. To achieve a two per cent rise of per capita income a saving rate of at least 16 per cent would be required. As against this simple arithmetic, there is the simple fact that the actual saving rates achieved by developing countries in recent times averages five per cent. This is equivalent to far less than what is actually required for housing programs alone.

III DEFICIENCY OF HOUSING IN DEVELOPING COUNTRIES

There is hardly a country in the world without a housing problem. The problem has resulted from a combination of common factors operating differently in different circumstances: urbanization, population increase, war devastation and economic depression have generally been regarded as being responsible for the deterioration of housing conditions in qualitative and quantitative terms.

In both terms differences in "developed" and "developing" countries are extremely wide. According to an estimate, made as far back as 1952 by the United Nations, out of the 180 million family dwelling units required in the world, 150 million constituted the requirements of developing countries alone.

The above estimate is somewhat crude. The following discussion might indicate that the paucity of data on the housing deficiency has been one of the factors which has inhibited policy makers in realising the extent of the problem. The problem, as a consequence has been perpetuated for want of policy support. Even now, almost no satisfactory quantitative data are available which can permit the estimation of housing needs. This is more so for developing nations which contain three-fourths of the world's population. There are reasons why this is so:

Most of these nations have emerged from colonial administration during the last two decades. There is diversity of environmental and institutional features, so that quantitative measures devised for developed countries have been inappropriate for comparable results. There is a shortage of technical personnel who are capable of undertaking housing surveys. Until recently, housing has been entirely the responsibility of individuals; only lately have governments started to take interest in the matter, so that, as reported in 1961, five of the Asian countries, namely Burma, Ceylon, India, Malaysia and Singapore had ministries of housing, and seven, namely, the Peoples Republic of China, Hong Kong, Indonesia, Japan, the Republic of Korea, the Philippines, the Republic of Vietnam and Pakistan had housing departments
QUANTITATIVE DEFICIENCY

As one of the consumer goods, meeting basic physical and social needs of human beings, housing is second to food in importance. It is for this reason that housing surveys and evaluations form important constituents of the United Nations Development Decade - a program, of necessity, geared to the situations of developing nations. Stimulated by the action of the United Nations, many countries have undertaken housing surveys. From the sporadically available data, it has been possible for experts to make an approximate estimate of housing needs.

The estimation of housing need is a function of the demographic characteristics and social behaviour of the population. In this respect, it is appropriate to know that, as against the world's annual growth rate of 1.8 per cent in the decade 1950-1960, the growth rates of Asia, Africa and Latin America were 1.9, 2.5 and 2.8 per cent per annum (average of 1960-1963) respectively.

---


There are no immediate prospects for the decrease of these rates to any significant degree. Demographic explosion and urbanization combined, have led to a deficiency of housing.

Based on the assumption that future household size would remain the same as that of the present, a United Nations seminar held at Copenhagen has estimated housing requirements in developing countries to be as follows:

Before the onset of the year 1966, that is, up to 1965, the developing countries required a total annual output of 24 million dwelling units; the need for 1975 would be 27 million units annually. This estimate is based on the further assumption that the existing shortage would be eliminated in thirty years and that the existing stocks in urban and rural areas would be replaced in thirty and twenty years respectively. The total requirements for the period 1960-1975 are estimated to be in the neighbourhood of 390 million dwelling units. 17 (Table I Figure 2)


The task of so big a magnitude is difficult — if not impossible — of accomplishment under the tight economic circumstances in which the developing nations are placed.

Asian countries.

In Asian countries, underdevelopment and a fast population growth have been the two major factors giving rise to the shortage of housing. With the exception of Japan, nearly all Asian nations have rates of population growth that hardly equal the rates of growth of gross national product. There are nations in Asia whose population grows at a rate as high as 2.5 to 3.5 per cent annually; urban population grows still faster, that is at the rate of five to seven per cent annually. The forecast for the next ten years 1966-1975 is still higher than the above figures.

Based on a study of demographic phenomena alone, it is estimated that in the fifteen year period 1960-1975, the required housing stock in Asia would be of the order of 103 million units; the shortage in 1960 was as high as 305 million units of which 54 million were urban units. According to the latest findings, the total housing deficit in the year 1960-1975 has been estimated at 290.8 million dwelling units distributed as follows:

18 United Nations, World... Requirements (1965) op.cit., p.4.
Million dwelling units

Due to population increase :: :: 103.1
Due to obsolescence :: :: 110.5
Due to existing backlog :: :: 77.2

In order to liquidate the housing deficit and to replace housing units falling out of use within a twenty to thirty year period, 17 to 21 million units will have to be built annually. This is equivalent to ten dwelling units per thousand inhabitants which, as has been seen, is too big a job to accomplish under the present economic circumstances.

The above description gives an approximate picture of the housing shortage in Asia generally. It conceals the very acute shortage in some countries, particularly in big urban areas.

In Burma, the urban population increased by 61 per cent from 1931 to 1953 which has perpetuated the urban housing deficit. Ceylon is estimated to have a housing backlog of 952,000 units for the period from 1958 to 1968. In Malaysia, housing accommodation is short by 100,000 units. In Hong Kong, 80 per cent of households had sub-standard housing accommodation in 1957. In big Indian cities six million dwelling units are required. Indonesia has a shortage of four million units.

In Pakistan, Karachi city alone had a shortage of well over 200,000 units in about 1960, the city population being two million.  

**African countries.**

It is estimated that the present population is expected to grow at a rate higher than 2.2 per cent per annum in the period 1960-1975. It is also expected that the urban population will increase twice as fast as the total population in the same period.

The housing shortage in almost all countries of Africa is acute. The population growth alone would necessitate the building of more than 18 million dwelling units during the period 1960-1975. A further refined estimate on the basis of population growth (22.5 million units), plus the additional construction required to alleviate the housing deficit and current replacement needs means a total requirement of 53 million dwelling units.  

(Table I Figure 2)

---


22 United Nations, World...Requirements (1965), *loc. cit.*
Latin American countries.

These countries are equally notable for high population growth and rapid urbanization which accentuate the housing shortage. The United Nations made an estimate of housing shortage from the "inadequately available" data in 1962. It was estimated that 25 per cent of conventional dwellings in Latin America had densities of three or more persons per room. In Argentina, for example, 25 per cent of the population is inadequately housed.

The housing shortage in the Continent for the period 1960-1975 would be of the order of 48.2 million; in order to take care of population growth alone an estimated 23.5 million dwelling units would be required for the period 1960-1975. The demand due to obsolescence of existing stock in the same period would be in the order of 14.4 million dwelling units.

The housing shortage in developing countries, as described above, is summarized in Table I and Figure 2.

\[23^{Ibid.}\]

\[24^{Ibid.}\]
### Table I

**ESTIMATED HOUSING SHORTAGE IN DEVELOPING COUNTRIES (1960-1975)**

(in millions)

<table>
<thead>
<tr>
<th>Developing Countries</th>
<th>Population Increase</th>
<th>Obsolescent Stock</th>
<th>Existing Shortage</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>103.1</td>
<td>110.5</td>
<td>77.2</td>
<td>290.8</td>
</tr>
<tr>
<td>Africa</td>
<td>22.5</td>
<td>17.9</td>
<td>12.5</td>
<td>52.9</td>
</tr>
<tr>
<td>Latin America</td>
<td>23.5</td>
<td>14.4</td>
<td>10.3</td>
<td>48.2</td>
</tr>
<tr>
<td>All developing countries</td>
<td>149.1</td>
<td>142.8</td>
<td>100.0</td>
<td>391.9</td>
</tr>
</tbody>
</table>


Out of the total housing deficit of 392 million for developing countries for 1960-1975, Asian countries have the highest deficit, that is, three-fourths of all deficit. An annual housing program which produces ten to twelve dwelling units per thousand population is, therefore, called for in the developing countries.  
(Figure 2)
DEFICIENCY OF HOUSING IN DEVELOPING COUNTRIES

LEGEND

- DUE TO POPULATION INCREASE
- OBSOLETE STOCK
- EXISTING SHORTAGE

EFFECTIVENESS OF SELF-HELP HOUSING:
EXPERIENCE IN DEVELOPING COUNTRIES

Master's Thesis
Division of Community and Regional Planning
UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER.
Amjad A.B. Rajvi

FIGURE NO. 2

QUALITATIVE DEFICIENCY

From the quantitative evaluation made in the preceding pages, it becomes obvious that the developing nations of the world are confronted with a grave housing shortage. The shortage is due also to the poverty of living conditions consequent on the low levels of income, so that housing is inadequate from the barest minimum standard of health and hygiene known today.

There is a distinct correlation between the qualitative and quantitative deficiency of housing. In the judgement of Crane and Paxton, the housing condition in one of the developing continents (Africa) is so poor that differences between quality and quantity of housing cease to exist altogether:

Between the Union and the Sahara lie some 8 to 10 million square miles... in which it is estimated that some 125 million people live. In some of the area, land is measured only by counting the trees on it; in the main the people have never been counted, much less the huts of grass and mud and wattles that serve them as houses. The number of people who, for the common good of the World, need to be rehoused is just about equal to the total number of people.25

If Crane and Paxton's comments do not overestimate the United Nations estimates of housing shortage, they do pinpoint the poverty of living and the qualitative

---

deficiency of housing in the type of society that make up the developing nations.

In Asian and Latin American settings, the picture is not dissimilar to that which has been examined above. In the former, according to an estimate made fifteen years ago, more than 140 million families lived in overcrowded, unsanitary, and substandard quarters. In the latter, the Pan American Union estimates (1949) said some 25 million substandard dwellings required replacement. For example, in the Caribbean Region alone, the condition has been described as follows:

In eight out of ten cases walls are of wood and the roofs of thatch or galvanized iron. One-fifth of dwellings lack toilet facilities, one-third are termite-ridden, two-thirds need major repairs, one-third lack a bedroom, one-tenth have no kitchens and nine out of ten lack bathing facilities.

It is appropriate to support the above picture about the quality of housing from the somewhat substantive

---


28 Ibid.
statistics compiled by the United Nations in 1965. In what follows, an evaluation is made of the housing and living conditions in a few developing countries randomly selected from Asia, Africa and Latin America and a comparison is attempted with countries selected from North America, Europe and Australia. The indices of condition of housing in this respect are: household size, density of occupancy (room) and availability of water bath and toilet facilities.

Examination of Table 2 and Figure 3 brings out the fact that an average household in developing countries is slightly less than twice as crowded (5.5) as in developed countries (3.3). This picture appears clearly focussed, if viewed in the light of room density (persons per room). An average room, it appears, is more than three times as crowded in developing countries as in developed countries: an average of .9 persons live in a room in West Germany, poorest in the first group compared with 3.1 in Pakistan, poorest in the second group. More than 90 per cent of dwellings contain less than 1.5 persons per room in developed countries compared to less than a quarter of dwellings of the same occupancy in developing countries, the percentage being as low as

---

10.9 for Pakistan and as high as 97.2 for Great Britain. This says nothing of the quality and size of rooms and amenities therein.

In terms of essential facilities in a dwelling, the situation is equally poor. Provision of piped water inside a house is an exception in almost all developing countries rather than a rule as in the countries of North America, Europe, and in Australia. All available data indicate the extreme inadequacy of housing and essential facilities in developing countries. (Figure 3)

It is suitable to describe some extreme situations, particularly in the big urban centers of developing nations, the object being to point out the extreme deviation from the average conditions presented in the preceding paragraphs.

Although the extreme poverty of housing and living condition is prevalent both in urban and rural areas, it is in the urban areas that the deficiency is acutely felt. In rural areas, acquired wants are few, and absence of essential urban type facilities like piped water, public toilets, electricity and sewerage facilities do not create health hazards as in urban areas. Also, acuteness of housing poverty becomes more prominent in urban areas because of the contrast between poor and rich housing.
## HOUSING AND LIVING CONDITIONS IN SELECTED COUNTRIES

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>Average size of private households (persons per household)</th>
<th>Average density (person per room)</th>
<th>Percent of Dwellings (persons per room)</th>
<th>Facilities in Dwellings (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>less than 1.5</td>
<td>1.5 or more</td>
</tr>
<tr>
<td>Group I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States (1961)</td>
<td>3.3</td>
<td>0.7</td>
<td>96.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Canada (1961)</td>
<td>3.9</td>
<td>0.7</td>
<td>94.1</td>
<td>5.1</td>
</tr>
<tr>
<td>Great Britain (1960)</td>
<td>3.0</td>
<td>0.7</td>
<td>97.2</td>
<td>2.8</td>
</tr>
<tr>
<td>West Germany (1960)</td>
<td>2.9</td>
<td>0.9</td>
<td>91.5</td>
<td>8.5</td>
</tr>
<tr>
<td>Australia (1961)</td>
<td>-</td>
<td>0.7</td>
<td>95.3</td>
<td>4.7</td>
</tr>
<tr>
<td>Group II</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea (1960)</td>
<td>5.6</td>
<td>2.5</td>
<td>11.9</td>
<td>88.1</td>
</tr>
<tr>
<td>Pakistan (1960)</td>
<td>5.4</td>
<td>3.1</td>
<td>10.9</td>
<td>89.1</td>
</tr>
<tr>
<td>U.A.R. (1960) (Urban)</td>
<td>4.8</td>
<td>1.6</td>
<td>42.3</td>
<td>57.7</td>
</tr>
<tr>
<td>Morocco (1960)</td>
<td>4.8</td>
<td>2.2</td>
<td>27.5</td>
<td>72.5</td>
</tr>
<tr>
<td>Mexico (1960)</td>
<td>6.8</td>
<td>2.9</td>
<td>18.1</td>
<td>81.9</td>
</tr>
</tbody>
</table>

a. Group I includes developed countries and Group II includes developing countries.  
b. For the places where dashes are marked, no data are available.  
c. For accuracy and method of collection of data, see notes and footnotes on pages 670-671 of the following source.  
## Qualitative Deficiency of Housing in Developing and Developed Countries

### Density of Occupation

<table>
<thead>
<tr>
<th>Household Size (persons per household)</th>
<th>Room Density (persons per room)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5</td>
<td>2.5</td>
</tr>
<tr>
<td>3.3</td>
<td>0.7</td>
</tr>
</tbody>
</table>

### Room Density

(percentage of less than 1.5 persons living in a room)

| Room Density | 22.14 | 94.8 |

### Facilities in Dwellings

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Percentage of Dwellings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piped Water</td>
<td>29.4</td>
</tr>
<tr>
<td>Bath</td>
<td>14.7</td>
</tr>
<tr>
<td>Flush Toilet</td>
<td>0.2</td>
</tr>
</tbody>
</table>

### Legend

- **"Developing" Countries**: Average of Korea, Pakistan, U.A.R., Morocco, and Mexico
- **"Developed" Countries**: Average of United States, Canada, Great Britain, West Germany, and Australia

---


**Figure 3**

**Effectiveness of Self-Help Housing: Experience in Developing Countries**

- Master's Thesis
- Division of Community and Regional Planning, University of British Columbia, Vancouver

Amjad Ali B. Rizvi

**April 1966**
Charles Abrams points out that in five big Indian cities 60 to 90 per cent of the working class families and 50 per cent of the middle class families have been living in single rooms and airless flimsy mud huts. These rooms serve as "living room, bedroom, sick room, kitchen and dining room etc., and to add to this the number of persons living in a single room ranges from four to ten. The sallow complexion, the emaciated body, the pale faces of the inmates immediately tell their tale."30

A socio-economic survey of Calcutta (1954-58) found that three-quarters of households have been living in overcrowded conditions, i.e., under 40 sq. feet of space.31 A socio-economic survey of Bombay (1954-56) revealed that three-quarters of total families have been living in an over-crowded state, i.e., with more than three persons to a room.32 A survey of Karachi in Pakistan (1959) reported 527,525 persons or one-fourth of the city's population

---


living "packed like sardines in colonies which are disease-ridden." Three-fourths of households in Karachi Metropolitan Area, as discovered in 1959 survey lacked water, bath and electricity.

In Israel, tent camps and temporary dwellings house tens of thousands of families; in the new dwellings five to six persons to a room is not uncommon. In Turkey, it is not unusual to find 16 to 18 persons to be living in one house. In Manila, Philippines, 40 per cent of the population is estimated to have been living in make-shift shanties known as 'barangbaronbs'. In Singapore, 134,000 people live in squalid and unsanitary conditions. In Hong Kong (1957), 80 per cent of households were living in shared accommodation; 160,000 households were living in cubicles, bedspaces, cocklofts and verandahs.

In the African countries, Dar-es-Salaam, Tanganyika, has an average occupancy for Africans of eight persons to a room 16 to 20 feet in size, the occupation density being 12 to a room in some cases. In Algiers, shanty towns or 'bidonvilles' lie five miles from the center of the city in all directions; each hut ten feet

---


34 Amjad, A.B. Rizvi, "Housing and Living Conditions of the Peoples of Karachi" (paper read at the Seventeenth All Pakistan Science Conference, Karachi, February 12-17, 1965), p.5.
square, houses an average of four or more persons and often a goat as well. In Johannesburg, South Africa, sprawl squatter colonies are a chaos of shacks and hovels pieced together by the homeless and destitute. In the poorer areas of Accra, Ghana, 2.71 families live in an average house lacking in essential facilities. This means an occupation density of about 13 persons per unit.

A quarter of the population in Latin American cities, such as Caracas, Rio-de-Janeiro, Lima, Guayaquil, Cali, Maracaibo, and Bogota live in slums containing types of shacks not different to those which have been pictured above for Asian cities. In Panama, it has been reported that slum clusters have houses which are bulging at the seams with as many as 20 individuals in a room 15 by 15 feet. In Bolivia, a single room in a crude cabin not only serves one or more families but the domestic animals as well. In Mexico, whole colonies of squatters descend upon the land with such speed that they have earned the name "squatter parachutists". Seventy per cent of the Mexican houses are graded "poor" and 60 per cent of Bolivian dwellings are graded "not habitable".


To an observer personally acquainted with the housing conditions of such countries as India, Pakistan, Lebanon, Turkey and Greece (Greece is geographically in Europe, characteristically in Asia), which do represent conditions of developing countries, the situation appears poorer than the poorest impression a western observer has of a poor house.

If the same grades of houses as 'good', 'fair' and 'poor' most frequently used for the assessment of quality of houses in the urban renewal studies in United States and Canada, are utilized for the evaluation of the quality of houses in developing countries, the houses graded 'poor' in the former would almost all be placed under the 'good' or 'fairly good' category in the latter, a fact that suggests the extent of poverty of living conditions of the mass of the world's population in Asia, Africa, and Latin America.

---

37 Based on the observations from the author's association and acquaintance with the (a) Survey of Shelterless persons in Karachi 1959, (b) Peoples of Karachi Survey 1959, (c) Survey of Korangi Township 1960-1961, (d) Survey of Bourj Hammoud Slum in Beirut, and his study of the Urban Renewal Studies for the cities of Canada.
IV INADEQUACY OF RESOURCES FOR HOUSING

IN DEVELOPING COUNTRIES

For the estimation of resources for housing, some comments can be made with reference to the expenditure pattern of families in developing countries. In this context, it is well to remind oneself of the well-known Engel's Law which states that the lower the income per head the greater the proportion spent on so-called primary needs, such as food and shelter.

This should not lead to the happy conclusion that the developing economies are well placed with respect to self-sufficiency in food and housing. The real position is that absolute income per head (ten dollars a month) is so meagre, that it is absolutely insufficient for food and shelter. Even if nearly all personal income is spent on food and housing, it would still be a small fraction of what is required (as further exemplified in the following paragraphs). As such, the problem of hunger and that of living continues to haunt the developing economies.

---

38 Leibenstein, op.cit., p. 42.

39 The recent finding (Haque, op.cit., p. 112.) that a low income less productive region generates higher savings than relatively high income and more productive regions (East and West Pakistan being cases in point), does not help because absolute saving is too small to be of any value for the purposes of investment in shelter.
In the United Arab Republic, the per capita annual income is four Egyptian Pounds. On the basis of a family size of six, the cost of the required 2.8 million minimum standard houses would be 1400 million Egyptian pounds. Assuming that 20 per cent of the family income is available for a house (although this is too high an assumption), this would mean an annual capital investment of £E4.8 per family. On this account, a house to be paid for, in over 20 years say two per cent interest must not cost more than £E 83. As against this, the minimum estimated cost of a modest house would be about £E 500. This is equivalent to 100 times the annual personal income, 20 times the annual family income or about 100 times the 20 per cent of the family income available for a house.

The Egyptian position is fairly representative of developing economies. The above facts speak in clear terms how difficult it is for the developing economies to mobilize sufficient capital resources for the solution of their housing problem. What is more serious is the fact that there are no immediate prospects of the improvement of the prevailing conditions.

---

Assuming that the most developed among the developing nations manoeuvre their economies through some magical efforts or external aid (e.g., Israel) and succeed in increasing per capita income to, say, four times the present level, the absolute equivalent available for housing would still be insufficient. Even the developed economies which have as high as 10 to 15 times the present level of incomes of the developing economies have to resort to legislative relaxations, tax exemptions and subsidies to keep a reasonable balance between the demand for and supply of housing.

What a developing economy should afford for a housing task of so big a magnitude as discussed in preceding pages can be well visualized through Krotki's conclusions from his demographic study of Pakistan:

---

41 Although in the eyes of economic theorists, this is too amusing an assumption. For example, based on the Rostow Model of long-term growth of Pakistan, Haque contemplates the per capita income can rise from the present Rs.300 ($60) to Rs.600 ($120) in 1985, while Russian model can bring a three times rise in per capita income, i.e., Rs900 ($180) by the year 1985. (Haque, op. cit., pp. 14-15). This still is around one-tenth of the per capita income of the developed countries. The grim aspect of the matter is that the vigour of the five to ten year plans leave the economy to the situation of five to ten years before the end of the plan periods because, as in many cases, the demographic behaviour remains contrary to that predicted by the plans; additional numbers eat up the intervening additional benefits brought out by the plans.
...the results of 1961 population census and conceivably also the results of the earlier housing census, if published fully and without lumping, are bound to throw light on the crucial question. To double the standard of living in less than a century... will need another 4 per cent of the national income or altogether 16 per cent. There are no underdeveloped countries which can provide saving of their own on such a scale to achieve the modest objectives of doubling the national income in less than a century.42

This is most probably so because, above all, "economic progress" as said Nurske, "is not an automatic or spontaneous affair."43

Further prospects in favour of priority housing in most countries do not appear to be more than bleak, because other problems like shortages of food and defence are so pressing that housing not only does not -- and might not -- receive the priority it deserves in budgetary allocations and plans, but also that its priority status is lowered for the good of the nations.

Pakistan, for example, despite the great housing deficiency had to decrease the proportion of allocation in housing and settlements sectors from 15 per cent in the second plan (1960-1964) to 10 per cent in the third plan (1965-1969). The third plan contemplates development


44 Haque, op. cit., p. 40.
of 300,000 plots which is equivalent to the requirement of two cities, Karachi and Lahore alone that account for one-thirtieth of the country's population.

The situation in regard to resources for housing is not much different among other developing nations. In Burma, although there is a ministry of housing, due to limited budgetary allocation and need for subsidies, housing has not kept pace with requirements. In Malaysia, combined efforts of the local government authorities and the private sector are still short of the total requirement. In the urban housing area, India enthusiastically put "maximum efforts" in the year 1951-1961, but the result: hardly three million out of a backlog of 8.9 million units could be built. Indonesia has a shortage of four million dwelling units, but the resources hardly warrant the attainment of one-fourth of the speed required.\(^{45}\)

Despite the great performance in the area of low-cost housing (50,000 units in the period 1959-1963) in Korangi and North Karachi townships of Karachi, Pakistan, resources are absent for another 145,000 units required.\(^{46}\)

---

\(^{45}\) United Nations, Industrial... Materials (1961), passim.

Among the Asian countries, even the most prosperous Japan failed to catch up with the housing shortage.

In Africa, "it would seem that in some cases the present efforts were sufficient to satisfy only about one-third of the estimated need." A close observer of the Ghanaian scene states:

There is a lack of capital for working funds for the great portion of the housing market which lies below the upper income 5 per cent of population... Hanging over the whole housing problem is the problem of national investment -- development planners may not freely dip into the country's scarce capital and technological resources to "standardize" housing in a big way.

In Latin American countries as already discussed, the present resources can hardly ensure one-tenth of the estimated annual requirement of 12 dwelling units per thousand inhabitants.

To conclude, the estimate, as discussed in the preceding pages that an annual output of 24 million dwelling

---


units or ten dwelling units per thousand population are required in developing countries, can be compared with the housing output currently being attained by the developed economies: except for Soviet Union (12.4), Federal Republic of Germany (10.1), Switzerland (9.3), all other developed economies build houses at a rate which is less than seven units per thousand inhabitants. This is enough to justify the critical position in regard to the complete paucity of resources for housing in the developing economies.

The paradoxical scarcity of economic resources and the enormity of the task explain the reason why one wonders if self-help housing can be one of the important — if not the only — rational expedient under the aforementioned circumstances in which the developing economies are placed.

V CHAPTER SUMMARY

The countries of Asia, Africa, and Latin America which have low per capita income compared with the countries of North America, Europe and Australia by virtue of their being engaged in the process of development are identified as "developing countries." As distinct from the "developed countries", the "developing countries" are characterized

---

Ibid., p. 13.
by low income population, disguised unemployment, low saving and investment potential, poor housing conditions, crude technology and resistance to cultural change which inhibit their rapid development.

There is an acute deficiency -- both quantitative and qualitative -- of housing in developing countries. A shortage of 392 million houses - 291 million in Asia, 53 million in Africa and 48 million in Latin America - is estimated for the period 1960-1975. An estimated annual output of 24 million dwelling units - 18 million in Asia and about three million each in Africa and Latin America -- or an average of ten dwelling units per thousand population are required to be built during the period 1960-1975. This deficit, estimated on the basis of the minimum needs of shelter accounts for the extreme poverty of housing conditions prevailing in the developing countries.

On the other hand, a house building task of such a magnitude is beyond the combined public and private resources of the developing economies. In order to build a modest house, an average family has to devote 100 times the 20 per cent of its income (though a very generous assumption) that is estimated to be equivalent to what is required for the purpose.

Even if the developing economies succeed in doubling their national income in a generation or so, (a task of monumental proportions) the absolute per capita
income would still be almost one-eighth of that of the developed world, so that neither the maximum public nor maximum private efforts can guarantee the meeting of the housing deficiency in the conceivable future.

The estimated annual output of 24 million or ten dwelling units per thousand inhabitants, required in the developing countries, can be compared with the performance of developed countries: four to six dwelling units per thousand inhabitants. Thus, even the developed economies with income ten times higher than that of developing economies do not keep up with the housing shortage.

As the position stands, the solution to this dilemma lies either in (a) combining efforts with monetary inputs or, (b) divorcing monetary inputs from efforts. As seen, the first alternative is difficult — if not impossible — of achievement; the second is, understandably, not only possible but may be feasible through the community development expedient — the concept of self-help housing.
CHAPTER IV

EVALUATION OF SELF-HELP HOUSING
PROGRAMS IN DEVELOPING COUNTRIES

I RECOGNITION1 OF SELF-HELP HOUSING METHOD
AT INTERNATIONAL LEVEL
VIS-A-VIS DEVELOPING COUNTRIES

"Spontaneous" as against "formal" or "guided" self-help housing has been a world-wide traditional activity that continues also in the present times. Crane and McCabe estimated that in 1950 at least two hundred million families, by tradition, and of necessity or by choice built their houses -- huts, cabins, shacks, houses -- in various forms. 2

During the past forty years, two world wars, an economic depression and demographic and urbanization revolutions have aggravated the world housing shortage. Many governments have been looking for policies and measures that would help. Among the many measures adopted in various countries after the Second World War, one was a guided form of traditional self-help, that is the

---


manipulative or aided self-help. Among the countries benefitted were Greece, the United Kingdom, Puerto Rico, Italy, the Netherlands, the Union of South Africa, the Soviet Union and even the United States of America.
Since then, the method has gained considerable popularity as a solution to housing problems in developing countries.

The recent upsurge of interest in self-help housing has arisen due to three reasons: as pointed out in Chapter III, the growing development-mindedness of the newly emerged nations; the increasing involvement of western countries, particularly of the United States of America in the socio-economic development and political direction of the developing nations and the increasing role of the United Nations and its specialized agencies in the area of community development and social welfare.

The interest in self-help housing methods among newly emerged nations has arisen from a desire to mobilize indigenous resources to the maximum, and to move away from dependence on foreign-aid and loaned capital. The method has appealed to developed nations vis-a-vis developing ones, because the initial experience has established that it can ensure optimum use of their capital input.

The concern of the United Nations for self-help housing goes as far back as the late forties, when on the recommendation of the Economic and Social Commission, a series of studies was undertaken on the subject. In
1950, a mission of experts was appointed by the United Nations to investigate low-cost housing in south and south-east Asia. The mission impressed upon the United Nations as follows:

Self-help method is the oldest and most widely applied of all methods of producing shelter... aided self-help can do more to reduce money cost and to achieve higher standards than any other combination of finance and technology.³

In the same period an international meeting of tropical housing experts was held in Caracas, Venezuela. Subsequently an integrated program was formulated with the cooperation of the United Nations and some non-governmental agencies. By 1952, it was realized that:

Practical solution to the crushing problem of tropical housing must... combine the initiative and resourcefulness of the people, the rational application of local materials and skills, the social advantage of group work, and the best use of resources and technical knowledge available.⁴

The United Nations has devoted its attention to the area of self-help housing in the form of guidance and


technical assistance to the low-cost housing programs in the developing countries.

In 1959, the United Nations Economic and Social Council, in connection with a long range concerted program of international action in the field of housing recommended that:

The program should emphasize the rule of public authorities in directing and coordinating housing activities as well as the contribution which self-help mutual aid, cooperative and similar methods can make to the total effort.  

During the last fifteen years self-help housing, as an expedient, has appeared on the agenda of almost all the meetings of the United Nations, held on the subject of housing and planning. For example, in one of the meetings in October 1958, it was realized that assistance to developing nations should aim at mobilizing, to the fullest extent, all the available public and private resources, "including resources outside the building industry and, in particular, the efforts of the people themselves."  

This aim was further strengthened in 1961-1962 when the United Nations Economic and Social Council categorically stated that the international programs in


6 Ibid., p.2.
housing are meant "for the purpose inter alia, of mobili-
zizing self-help, mutual and cooperation methods for housing
and for urban development programs."  

During the year 1961-1962, nineteen projects
of the self-help type were approved by the United Nations
and initiated, a fact that suggests that what was first
a formal interest of the international body was effectively
instrumentalized.

During the same period, among other programs, a
comprehensive fact-finding survey and evaluation of self-
help housing methods and practices was undertaken in
selected countries of Asia, and Africa. This was substan-
tiated by a workshop on the extension of self-help housing
and community facilities within community development
programs in Africa. A mission of experts belonging to
the United Nations was provided to fulfil the above objec-
tive, as part of the program.

The interest of the United Nations in the subject
of self-help housing has not been merely theoretical.
Practical interest in terms of technical assistance and
financial support has been demonstrated in many cases.

---

7United Nations, Progress Made by the United
Nations in the Social Field During the Period 1 January
1959 - 31 December 1960 and Proposals for the Program of
Work 1961-1963 (New York: Economic and Social Council,
1961, p.29.

8Ibid.

9Ibid.
Through the recommendations of expert committees on Housing, Building and Planning, the relevant governments have been advised on the desirability of adopting concerted housing programs and incorporation of self-help efforts in such programs. It has also been selling the idea through publications. In 1964, two self-help housing manuals were published: one was a handbook for village workers\(^\text{10}\) (published in cooperation with the Staff of Oceana Publications; the other was a highly informative manual for those interested in carrying out such programs. \(^\text{11}\)

The United Nations interest was not confined to Asian and African countries. One of its recommendations was specifically addressed to the Latin American countries. For example, a United Nations sponsored Latin American Seminar, held in Mar del Plata, Argentina in 1963, says in vehement terms:

In developing countries public authorities should establish an efficient agency to give special attention to self-help and core housing using... local materials.\(^\text{12}\)

---

\(^\text{10}\)*Village* says the title may be taken to mean both rural and urban communities.


In spite of what has been stated, however, except for the technical and some sporadic material support, the international capital and efforts, applied so far, have been insignificant in proportion to what are required to bring about an effective mobilization of initial self-help endeavours.

Individual countries of the West have also been instrumental in giving assistance in self-help housing efforts where they formed part of the community development programs. The assistance has been in two forms: in the form of guidance whereby experts are sent to conduct studies and help local authorities carry out programs, and material assistance in terms of dollars.

As an illustration, out of a total of 190.6 million dollars worth of loan and grant support given by the United States Agency for International Development (USAID) in the budget year from 30th June 1960 to the 30th June 1963, for the housing sector, the breakdown of support for the various components has been as follows:

<table>
<thead>
<tr>
<th>Aided self-help and slum clearance etc.</th>
<th>102.6 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community facilities commitments</td>
<td>44.9 million</td>
</tr>
<tr>
<td>Seed capital to housing finance</td>
<td>43.1 million</td>
</tr>
<tr>
<td>institutions</td>
<td></td>
</tr>
<tr>
<td>Total Dollar Aid Support</td>
<td>190.6 million</td>
</tr>
</tbody>
</table>

---

Separate figures for expenditure made by USAID on self-help housing have not been available. On the assumption that half of the 102.6 million dollars allocated to slum clearance and self-help, comes to the latter sector, one can reach a conclusion as to the involvement of the United States in the program.

The United States dollar assistance is in addition to the indirect stimulus provided by the Peace Corps and through aided grants and loans advanced to social work and the recently developing community development programs, which also cover self-help housing to some degree. During the same period, 89.90 million dollars worth of capital was advanced by the USAID in the area of community development.\(^{15}\)

Also, such United Nations agencies as the World Health Organization (WHO), the Food and Agriculture Organization (FAO), the United Nations Relief and Rehabilitation Agencies (UNRRA) and such other agencies as the Organization of American States (OAS), the International Development Association (IDA), and Inter-American Housing and Planning Center (CINVA), have been participating in, and at times, initiating self-help housing efforts in developing countries, and advancing material support where needed.\(^{16}\)

\(^{15}\) Ibid., p. 16.

\(^{16}\) The dollar support of these agencies and the output of these supports are subsumed under broad programs of social and economic development of which self-help housing remains a component part. As such separate data are not available.
The Inter-American Housing and Planning Center (CINVA) at Bogota is supervised by the United Nations. It plays an important role in the propagation of self-help housing programs. It conducts studies and research on the subject, gives guidance to interested agencies, organizes courses and seminars and "furnishes and analyses exchange of experiences in order to arrive at conclusions for the formulation of general recommendations for self-help housing programs, for the promotion of pilot projects, or for demonstration projects."\(^{17}\)

In 1964, the United Nations built up an organizational program for the guidance of countries embarking upon the large scale self-help housing program. The program is summarized in Figure Number 4.

The figure emphasizes the need for a separate specialized self-help housing agency in developing countries within the overall framework of a national housing program. The organizational framework, it is proposed by the authors, should itself be built up on the team work concept:

It is this team approach that gives the program a uniqueness requiring special techniques, often resulting in the development of personnel with such a broad outlook that they are often induced by other departments to work for them at higher wages. Therefore, there should not only be a training program for personnel who will manage and supervise the projects, but a continuous program to provide qualified personnel who can fill the staff posts at all times.¹⁸

In short, it is suggested, as pointed out elsewhere in the same context, that in developing countries efficient training and management agencies should be established to guide self-help programs.¹⁹

The above discussion suggests that there is an increasing awareness in the United Nations and some of the developed countries and institutions, interested in the development of developing countries, for the initiation of self-help housing programs. The interest has been manifested in terms of material aid, propagation media, and technical and advisory guidance. Clearly, it appears that the demonstration of practical interest is based on the conviction that self-help housing is an effective avenue towards which much of the housing effort should be directed. This augurs well in view of the fact that about fifteen years ago there was hardly any formal mention of the self-help housing concept in planning and housing documents.

ORGANIZATIONAL CHART
FOR LARGE SCALE HOUSING PROGRAMME (SELF-HELP)

LOW-INCOME FAMILIES

TEAM

PARTICIPANT FAMILIES

PROGRAMME DIRECTOR

TEAM SUPERVISOR

SELF-HELP HOUSING AGENCY

LEGAL AND LAND COUNSEL

PROJECT PLANNER

ARCHITECT

ENGINEER

WATCHMAN

FOREMAN

BUILDING TRAINEES

GROUP WORKER

ADMINISTRATIVE ASSISTANT

POLICY AND TECHNICAL ASSISTANCE AGENCIES

LEGAL

LAND

PLANNING PHYSICAL SOCIAL AND STATISTICS ECONOMIC REGIONAL DEVELOPMENT

WORKS ARCHITECT ENGINEER LAND SURVEYOR BUILDER

HOUSING ARCHITECT ENGINEER PLANNER - PHYSICAL SOCIOLOGIST ECONOMIST

BUILDING SCHOOLS AND TRADE UNIONS

COMMUNITY DEVELOPMENT AND SOCIAL WELFARE

SPONSORING AGENCY SELF-HELP HOUSING

NOTE: ALL POSTS WITHIN THE HEAVY LINE COMPRISE THE BASIC SELF-HELP TEAM. OTHERS ARE ADDED AS NEEDED.

EFFECTIVENESS OF SELF-HELP HOUSING EXPERIENCE IN DEVELOPING COUNTRIES

Masters Thesis
Division of Community and Regional Planning
University of British Columbia, Vancouver
Amjad A B Rizvi

APRIL 1966

FIG. 4

SOURCE: UNITED NATIONS, MANUAL ON SELF-HELP HOUSING (NEW YORK UNITED NATIONS PUBLICATIONS, 1964), P. 51.
II EVALUATION OF SELF-HELP HOUSING PROGRAMS

AT NATIONAL LEVELS

Data on housing in developing countries is extremely inadequate, let alone information on self-help housing. Until very recently, housing was an individual matter lying beyond the public jurisdiction. Recognition of the housing problem at national levels is a very recent phenomenon.

Although self-help housing as an expedient has received considerable attention in most of the developing nations, it has not yet been absorbed in the national housing programs. Programs are themselves weak due to the lack of the pre-requisite legislative background and presence of high priority development sectors such as food, infra-structures and defence, etc.

On the other hand, spontaneous self-help as pointed out by Crane and McCabe, \(^{20}\) is present among the people. Such traditionally prevalent but undirected efforts, very often, lead to poor housing and haphazard slums. The high cost of land and of public utilities and materials in countries suffering from a chronic deficiency of currency worsens the state of affairs. Provision of infra-structural support can encourage individual and group initiative, but substantial public capital cannot

\(^{20}\) Crane and McCabe, loc. cit.
be mobilized in this direction, a direction most probably economical and desirable both to governments and beneficiary households.

National housing programs in developing nations fall far short of what the scale of the problem suggest they should be. The legislative framework and housing standards, at times created to lessen the problem of poor housing, add to the perpetuation of the problem, as indicated by the following statement:

There are a lot of families in developing countries without means. What is even more important, most of them would be willing to contribute their maximum efforts to obtain a house... Families around the world are ready to turn to self-help, if the need arises, but often hesitate because of confusion about new standards and new building materials introduced by the Governments which are different from their traditional ones.21

It, therefore, appears that tools designed for the solution of housing problems inhibit the refinement and development of self-housing methods. This explains the reason why the United Nations and agencies expert in the field such as CINVA (Centre Interamericano de Vivienda Y Planeamiento, Bogota) impress upon the governments the need for guidance and encouragement of such efforts through the use of public initiative and resources.

Despite some of the prevailing inhibitive factors, it may be observed from the sporadic mention of

21 United Nations, Namual... Housing (1964), _op.cit_, p. 8.
the subject of self-help housing in the literature, that there is a thorough awareness of the advantages of the method, particularly among the leaders of the developing nations. There have been few manifestations of this awareness, but these have been definite. The method seems to be gaining in popularity.

PROGRAMS IN THE ASIAN COUNTRIES:

India

Among the countries of Asia, India faces the biggest housing problem. The shortage of resources is still a serious dilemma. The community development efforts scored great success during the last five-year plan periods. Self-help housing has been part of this movement. The highlights of the program of the Ministry of Community Development and Cooperation during the last few years have been the organization of a Volunteer Force for the total mobilization of human and material resources of rural India."^22

Many spontaneous group practices for social work inherent in traditional India are being utilized, for example, the Panchayat system. The Third Five Year Plan of India said that:

Local plans are vital elements in the success of Panchayat Raj which places in the hands of the people of each area the initiative and responsibility for their own development and the means and resources for rapid advance.\textsuperscript{23}

The Plan provided 29\textsuperscript{4} crores of Rupees (one crore equals ten million units and one U.S. dollar equals about five Indian Rupees) for such projects. "Cohesion and mutual self-help within the community is 'one of the important tests by which the success of the Panchayat Raj is measured'.\textsuperscript{24}

No separate self-help housing program exists in India within the national housing program. Whatever is being achieved, is from the community development endeavours and the many voluntary associations operating at the local community level.

During the last few years demonstration projects in India, as in some other countries, have either been initiated or supported by the National and Provincial Governments. These isolated projects have been successfully engineered so that there is an increasing belief in the efficacy of the method for the solution of the housing problem of 80 million Indian families living in 5\textsuperscript{4} million sub-standard houses.

\textsuperscript{23} Government of India, Planning Commission, 
\textit{Third Five Year Plan} (New Delhi: year not mentioned), p. xiv.

\textsuperscript{24} \textit{Ibid.}, p. 339.
Besides the dissemination of self-help housing efforts through the Panchayat Raj and the Volunteer Force in India, demonstration projects have been carried out in such urban centers as Madras, Delhi, Lucknow and Jaipur.

The Madras Corporation started aided self-help projects. The Corporation has provided cheap building materials and developed land, all the rest having been contributed by the people. In Lucknow, family efforts far exceeded the efforts of the public in the "core" housing scheme. Such part-assistance schemes are common in urban India; spontaneous schemes are carried out in rural India. In the case of the latter, a Government publication says: "What is required now is to encourage and foster the habit of the villagers to build his own house with local building materials." 

In Jaipur (Rajasthan), Largarh community has been built on a self-help basis. One hundred and eighteen houses were built with the help of guidance and building materials provided by the government. The Project proved that "improved physical condition can result in motivating people for higher standard of living."

---

25 Government of India, Housing in India (Delhi: Publication Division, 1956), p. 31.
26 Ibid., p. 24.
In Delhi, six pilot projects were initiated with the help of a Ford Foundation Grant. The resulting experience is synthesised as follows:

One of the most important feelings we have developed relates to the economic ability of slum dwellers to undertake self-help projects... achievements so far are quite encouraging. In three of our projects, results have been beyond our expectations; in two have met them, and in one, have fallen short of them.²⁸

The Indian program is encouraging, but efforts are directed towards piecemeal improvement of poor housing which, as the Lalgarh experience shows, is not productive of good results: "Such piecemeal developments are not only non-beneficial but also wasteful from long-term point of view.²⁹

The piecemeal self-help housing efforts in India, as demonstrated by Lalgarh, Nilokheri and Faridabad have proved that the method is suitable to the Indian condition and that given public encouragement, it can work effectively. And of this fact there is sufficient awareness among housing experts and policy makers. Self-help housing programs at national level is still lacking.

²⁸ B. Chatterjee, "India Applies Rural Technique on Self-Help to Rapidly Growing City Neighbourhoods, Journal of Housing, 18 No. 5 (May 1961), p. 196.

²⁹ Unnithan and Singh, op. cit., p. 198.
Pakistan:

In Pakistan, as in India, spontaneous self-help activity has been of traditional character. The institution of Panchayat has been part of the village social organization. During the last ten years, the Government have been trying to infuse life into the masses and induce them to participate in organized self-help activity. The Village-Aid development program and Urban Community Development program have been run under the same objective. Self-help housing has been an implicit part of such programs.

On the national level, except for occasional mention of the advantages of self-help housing method, there has been no significant formally organized program. This does not, however, mean that there has been a total absence of such efforts at local levels.

The Government of Pakistan have been conscious of the problem and convinced of the need to mobilize human resources for housing. One has only to observe that the first policy and priority of housing and settlements program under the First Five Year Plan (1955-1960) was proposed to be as follows:

The Government program must be designed to mobilize to the maximum the labour, funds and physical resources of the people who will own and use the houses and community buildings.30

There is a more explicit mention of the need for self-help housing in the Government housing program. For example, along with the proposal to build 250,000 new dwelling units in urban areas (120,000 for refugees) during the First Five Year Plan period, it was further suggested that:

This work will be done in new ways designed to serve the needs of the people better at less cost by the maximum use of local materials and "self-help" methods of construction.\textsuperscript{31}

The object was substantially accomplished in hundreds of Village Aid projects in rural areas and some in urban areas. Among the urban area, for example, in the 200,000 size Liaquatabad urban community, Greater Karachi, the Government initially provided developed plots, some basic community facilities and nucleus units in 1950-52. Today, it is one of the most lively communities of low income refugee population in Karachi if one were to judge from the biggest ever political convulsions that occurred in the area after the January 1965 presidential elections.

In Pakistan, bright prospects for encouragement of the self-help housing method exist under the socio-political institution of Basic Democracy introduced by the Ayub Government in 1959. The system, above all,

\textsuperscript{31} Ibid., p. 17.
prepares one community leader from each group of about 1,000-12,000 population who then initiates and helps the public authorities in carrying out community development works. The Government states the rationale of the program with clarity:

The 80,000 representatives elected to the various councils and committees of Basic Democracy were advised on how to base all programs on the needs of the people and how to conduct these programs through self-help so as to bring about social and economic uplift of the community and locality they represent.  

In 1959, the Government of Pakistan drastically intensified efforts of previous governments in the area of refugee housing. It embarked upon an ambitious program of rehabilitating 500,000 people of Karachi who were reported to be living in 250 slum clusters in various parts of the city for the last thirteen years.  

For the rehabilitation of slum dwellers, a township was planned. The self-help approach was to build a "core" house with a boundary wall and an unfinished room, leaving all other improvements to be made by the families themselves.

---


Within four years (1960-1964), 150,000 people were resettled in 30,000 houses in the newly created township of Korangi south east of Karachi, and 50,000 were resettled in 10,000 houses in North Karachi township. A one-room "core" house plus essential amenities were provided initially. A post-rehabilitation survey of the first settlers of Korangi community resulted in the finding that three-fourths of the households have built additions to the core houses themselves.

The following statement of a representative of Doxiadis Associates at Athens, who have planned and programmed the above described Pakistani communities, throws light on the involvement of self-help housing in the Korangi project:

Self-help provisions were made in housing and service facilities and community development methods for resettlement of refugee immigrants emphasised. Low-cost housing techniques were employed for lower income groups in conjunction with self-help provision for building additional rooms with official guidance and help.35

34 Amjad A.B. Rizvi, Spatial Distribution of the Housing and Living Conditions of the People of Karachi, (paper read at the 17th All Pakistan Science Conference, Karachi, February 12-17, 1955), p. 3.

Indonesia:

In the kampongs of Indonesia, most of self-help housing activity is carried out in the traditional fashion. But these efforts are very insignificant in proportion to the need: 1,000,000 dwelling units per annum. In 1951, the Peoples Housing Department was created to ensure that the whole population had an opportunity to obtain dwellings of a minimum standard. It was suggested that "the construction of houses, will for the most part, be tackled through aided self-help schemes since it is indigenous to the Indonesian culture, and labour is available. Human resources as compared to the national income devoted to housing are almost unlimited."[36]

In the smaller communities of Indonesia, cheap indigenous building materials are used by the people, and the necessary labour is generally provided according to the concept of mutual help. Locally known as 'gotong-rojong, tulung-menulung", the mutual-aided self-help concept is also being used where plague regulations are in force. The system has, however, died down in big cities like Jakarta where the habit of collective life has largely disappeared. Seeing the potentiality of the

---

system, a United Nations expert mission concluded:

Thus, self-help methods for building a house could be carried on with the assistance of the Government... It is recommended that this system of aided self-help for urban, as well as rural areas, be applied to Indonesia.\(^{37}\)

The financial consequences of tackling the housing problem in Indonesia may prove to be a heavy burden on the annual budget. Despite the notable Government's efforts since the second world war, the problem is still acute. On the other hand, there is an abundance of cheap building materials, like bamboo, timber, matting, fibres of sago palm, and indug, a fibre of the aren palm. Besides building materials, there is the traditional system of mutual help, that is, gotong-rojjang, tulung menulung. Thus, the two pre-requisites of the self-help housing program are present. Only government initiative and an administrative machinery are required to do the needful.

National self-help housing program required in Indonesia are absent. The self-help idea is gaining in popularity among housing departments through United Nations expert missions who are convinced of the suitability of the method and have recommended its application.

\(^{37}\) United Nations, Low Cost... Asia (1951), \textit{op.cit.}, p. 134.
Malaysia:

In Malaysia, there is active participation of public authorities in the self-help housing activity. An aided self-help housing program was launched at Kuala Lumpur in 1960 by the Malaysian Housing Trust. The program was thoroughly prepared and successfully advanced.

In Malaysia centralized programs are absent because there is no centralised department responsible for housing and planning policy. The work of independently administered public agencies shows that "the Government is utilizing "aided-self-help" principle in the solution of the housing problem. The Government selects sites, supplies utilities, posts, roofs, and the people do the rest themselves with guidance from the Government whenever necessary. The refugees use their own materials for sidings, doors and windows, and supply their own labour to erect the whole structure."  

More effective interest of the Government is required for the mobilization of self-help housing resources. This is not possible unless the method is entertained in the national housing policy. Isolated efforts, however, successful do not significantly effect the total housing results.


39United Nations, Low-Cost... Asia (1951), op. cit., p. 104.
Thailand:

In Thailand, a department of housing under the Ministry of Public Welfare looks after the housing interests. Housing suffers from the lack of immediate legislative actions and measures for implementation of programs and an absence of focus of responsibility. Formalized self-help housing is inconspicuous; in spontaneous forms it does exist. "When a new house is built the family has to buy the materials for it, but the people of the hamlet help each other with their labour."40

In Thailand, self-help activity is practised on a comprehensive basis. Many resettlement schemes have been put through as pilot projects. Self-help method is applied in agriculture, housing and social development areas under expert guidance. One of such pilot projects, the Bangpakong, recorded marked success.

Although the self-help method is being used effectively in individual housing projects its formal recognition and application on national level is absent in Thailand.

40 Ibid., p. 117.
Greece:

Greece presents one of the first successful Government-sponsored and aided self-help housing programs in the post-war period. It was one of the first programs launched as a part of the overall national housing program of the reconstruction of 23 per cent of war-damaged housing units of Greece. The first stage of this program was the so-called "Material-In-Aid Plan" under which, in over a three year period beginning in 1947, about 30,000 houses were rebuilt or repaired.

Hong Kong:

In Hong Kong self-help housing is not a separate but part -- and an essential part -- of the public rental housing programs of urban areas. For instance, single room apartments are built to austerity standards and tenants are called upon to use self-help to finish and maintain their apartments.

---

41 Geographically belonging to Europe, Greece is well outside the scope of this work. But in view of its characteristic similarity with the countries of Asia, Africa and Latin America, and being the first to successfully launch a national aided self-help program, the description is considered relevant.

42 United Nations, Housing...Tropics (1952), *op. cit.*, p. 62.
Philippines:

Similarly in the Philippines in the top floor of apartments built under the Government low-cost housing program in Manila, tenants are encouraged to build mezzanine floors, etc. by the self-help method, with some technical guidance.

In Thailand, the Philippines, Ceylon, Japan, India, Pakistan, resettlement programs have included the provision of providing some initial loan for the erection of houses using self-help methods.

CONCLUSION

Traditional self-help building is very common in Asian countries. It can receive a great stimulus through manipulated governmental actions. According to Alcock, "it has become the common practice where traditional house-building has become a specialized art, for the housebuilder to procure and transport his own materials, ... and to provide unskilled labour through his own and his family's efforts."\(^4^3\)

On the national level, self-help housing programs are conspicuously absent in Asian countries. Local public authorities do undertake projects of this kind. Every possible encouragement is provided by the Government.

At times, even the Government initiate and pilots local programs, like that in, for example the Faridabad and Nilokheri communities near Delhi and the Karangi and Liguatabad communities in Greater Karachi.

However, insignificant these efforts might be, they do reflect the increasing recognition of self-help housing method in the developing countries. This, however, should not prejudice the abundantly present spontaneous and unguided efforts still current among the Asian communities. "There are many examples of prodigious achievements in the field of building by inspired communities through organized group efforts in the shrines and temples of South-East Asia."\textsuperscript{144} Equally numerous are the examples of prodigious self-built housing communities around the temples and mosques of Asia.

PROGRAMS IN AFRICAN COUNTRIES:

In Africa, where the housing problem is not unlike that in Asia, the need for self-help housing has been formally recognized by a few governments such as those of Ghana, the United Arab Republic and Kenya. The recognition came firstly, as a result of the growing enthusiasm of nations who emerged from colonial rule after

\textsuperscript{144} Ibid., p. 86.
the Second World War, and secondly, because of the repeated recommendations made by various expert committees of the United Nations that community development and the self-help approach are inevitable to the solution of the housing and related social problems.

For example, one of the major recommendations of experts on housing conditions in Africa who met in Addis Ababa, Ethiopia, in January 1963, reads as follows:

The Secretariat should circulate information available on aided self-help projects in Africa, and in particular ensure the widest possible circulation of the report prepared on this subject by a United Nations Technical Assistance expert; the secretariat should also include the subject of aided self-help on the agenda of the first meeting of the proposed committee on housing and physical planning.45

National governments in African countries have been amply receptive to such proposals. The growing interest in the area of self-help housing in countries such as Ghana, Kenya, the United Arab Republic and Morocco is reflected in many development programs that are underway. The Volta Resettlement Program, for example, displays the physical manifestation of the self-help housing method in a sufficiently effective manner. (Photograph 4 and 6)

Besides positive response of governments to similar recommendations of foreign experts working with them, there is an enthusiastic response from African communities to self-help efforts in housing. Askwith indicates that in Africa:

the self-help schemes are essentially a part of campaign for better living. They would not be nearly so successful if the emotional urge was absent. In spite of the frequent drudgery of life, Africans can be exuberant and joyful people. When this exuberance can be linked with construction work, the results are remarkable. 46

Kenya:

In Kenya, a self-help housing program in Nechako district, locally known as 'mevethya' was launched in about 1960. Three thousand two hundred and thirty four new houses were built and 4,031 renovated by 2,867 groups of neighbours, involving some 75,000 families. The Government did not provide any material assistance, only guidance. The whole basis of the exercise was mutual cooperation and self-help. 47


47 Ibid.
Following the exemplary success of the Nechako program, the Government of Kenya was provided with 35,000 dollars worth of assistance under the United Nations Regular Program of Technical Assistance for 1964 for a similar self-help effort in Nairobi costing $120,000. Through such programs, the Kenyan Government amply demonstrates the effectiveness of self-help housing methods in solving the housing problem.

Ghana:

Ghana has demonstrated a combination of self-help housing efforts in recent years. The traditional method is current throughout the country. The Government policy utilizes this very art. The Ghana Building Society provides nominal loans "helping people to build their own houses." The Governments Roof Loan Scheme provides loans for roofing houses so that the rest may become a self-help affair.

The Government also initiates schemes whereby the people are supplied with such cheap building materials as "latecrete" (a mix of small amount of cement with

---


large amount of laterite). Such Government patronage encourages the poor Ghanaians to build cheap houses for themselves.

The Government conviction concerning the value of self-help housing is exemplified by the fact that particular demands for experts specialized in launching self-help programs are sent to the United Nations. The duty of a carefully selected United Nations expert (1963) was, for example, "to assist the Government of Ghana in the organization and construction first, of a pilot project in self-help housing, and subsequently in other self-help projects." 50

Government sponsored programs in Ghana are many. These are sufficiently displayed in the massive resettlement programs for the 60,000 families being displaced by the Volta River Dam Project. The method is being used as a device for making the community housing program economical and for engendering community and group feelings conducive to the emotional adjustment required at the time of changing the age-old abode and environment in the valley of the Volta. (Photographs 4-6)

Out of the 3,000 houses to be built annually, a target for a ten year program for the capital city of Accra, 17 per cent would be built by the self-help method

50 United Nations, Planning... Building and Planning (1963), loc. cit.
with some Government loan under its Roof Loan Scheme. Most of the rest would either be subsidized by the Government or built and sold through the hire-purchase system.

Eighty per cent of the people of Ghana are still capable of building their own houses. "Government efforts," says a United Nations Expert Mission, "should (therefore) be concentrated on the support of such tradition, on the teaching of improved methods, and on the supply of those materials which cannot be procured locally.

The fact that the Ghanaian Government is alive to the problem and demonstrably receptive to such proposals is a matter of great importance. For once the method is effectively formalised and the experience amply disseminated, other housing-handicapped nations of Africa would hopefully accelerate such efforts.

In one of the rare effective housing programs in the developing countries, Ghana's Roof Loan Scheme, a participant in and stimulant of self-help housing endeavours, helped 13,260 families build houses up to September, 1963, and 28,055 families were waiting to benefit from the same scheme. The Government of Ghana has recognized that 174,000 units would be required over


52 Ibid., p. 47.
Photograph No. 4  Unfinished 'core houses' finished by guided self-help housing method in Ghana.

Photograph No. 5  A row of earth-built houses by guided self-help housing method in Gourna Community, United Arab Republic.

Photograph No. 6  Physical manifestation of self-help housing method in Ghana.

SOURCE: UNITED NATIONS, SELF-HELP HOUSING GUIDE. (NEW YORK: UNITED NATIONS PUBLICATIONS, 1964)
the next seven years starting in 1964 and hope to rely on self-help programs supported by small loans.\textsuperscript{53}

The United Arab Republic:

In the UAR, until very recently neither development plans nor overall housing programs existed. The success, however, of some of the individual guided self-help endeavours have proved the effectiveness of the method in Egyptian rural setting.\textsuperscript{54}

The United Arab Republic is going to launch a thirty year long range program affecting over 6,000,000 families. Use of local materials and self-help have been specifically stressed in the program. \textsuperscript{55} "Among the new features that would be introduced are self-help methods of construction and pre-fabrication of the roof elements."

\begin{footnotes}


\textsuperscript{55}United Nations, Priorities... Decade (1964), op. cit., p. 16.

\textsuperscript{56} Ibid., p. 35.
\end{footnotes}
Belgian Congo:

There are other numerous examples of self-help housing schemes in African communities. In the Belgian Congo, for example, labour power, skills and small savings of workers and technical and financial guidance of the Government were pooled to build 6,600 houses in Elizabethville.

Morocco:

In Morocco, government supported loans are provided and people guided in the use of self-help methods in constructing houses on Government-built foundations. In 1962, 4,560 "core" units were constructed through a combination of self-help and loans. Additional room extensions were made by people themselves in 4,000 one-room core units.

About 50,000 housing units have been built by the Moroccan Government through a combination of self-help and other housing management methods during 1956-1962. Like Pakistan the Moroccan experience established the advantages of "core" house approach underlying the self-help housing approach. The program has, however, been confined to urban areas.

---


58 United Nations, Priorities... Decade, (1964) op. cit., p. 12.
Guinea:

The Government of Guinea intends to mobilize foreign aid and indigenous resources and embark upon a self-help housing program. The objective of the program would be:

... to demonstrate, in urban and rural areas, how traditional building methods can be improved; how the prefabrication of core or skeleton houses can be used to mobilize the potential for self-help building in urban areas and how building research can develop and improve productivity and the use of local materials and techniques.59

Somalia:

In Somalia, foreign assistance in terms of dollars and experts have been pooled in an housing office, a nucleus of the Somalian Government Agency for Housing which was in the creation stage in 1962. The Office helps in the development of low-cost contractor-built houses and introduces self-help housing methods.60

Attempts have also been made to popularise the method. With the cooperation of United Nations Economic Commission for Africa and the Swedish and Ethiopian Governments, an Inter-African Exhibition of low-cost housing was held in 1963 at Addis Ababa. The object of this exhibition

59 Ibid., p. 15.
60 Ibid., p. 13.
was "to demonstrate better and more economical house
designs, to introduce self-help methods in building and
to demonstrate comprehensive residential planning."61

CONCLUSION

From the above account, it should appear that
in Africa, as in Asia, self-help housing efforts are well
on the move. National programs are few. The amount of
work being done and the amount of interest being generated
in government departments and communities shows conviction
for the effectiveness of the method in the African setting.

PROGRAMS IN LATIN AMERICAN COUNTRIES

In the countries of Latin America, spontaneous
self-help housing divorced from guided efforts, gave rise
to the adoption of a formal method. It was discovered
that although the spontaneous method solves the quantitativ­
e aspects of the problem, it creates further problems in
so far as the quality of housing and amenities are concerned.
Where governments are incapable of solving the problem, the
people themselves solve it whatever the cost and whatever
the results may be. The pooling of the people's modest
resources through their own cooperative and democratic
methods without expert guidance has taxed the limited

61 United Nations, Planning... Building and Planning (1963), op.cit., p. 15.
resources of governments by eliciting the repeated use of public resources on short-term curative expedients, which under a preventive dispensation would ensure enduring results.

Until very recently -- and in most cases still -- most housing programs of South American Governments have become permanent drains on state resources. In view of the insignificance of resources in proportion to the housing demands and the method of their deployment, the problem has been perpetuated rather than solved. The case of Peru well exemplifies the observation:

In the seven year period 1949-1956, an exceptionally active period of building accomplishment, the Peruvian Government built 5,476 houses on a unit cost which made repayment by an average urban family impossible. It was a big achievement of the Government in absolute terms. But this also meant that only 1 per cent of the housing deficit was solved during the seven year period. The result was that 50,000 families took the problem into their own hands and solved it through the spontaneous self-help method outside the established financial, legal, administrative and financial superstructure.62

Such experience which also speaks for such Asian countries as Pakistan, India and Hong Kong, and such African countries as the United Arab Republic, Ghana,

and Kenya, shows that authoritarian imposition of public housing not only does not solve even a part of the problem but also incurs still more serious problems. Even with such experience, no attempt was shown by Peru until 1958 to associate the resources of shelterless Peruvians living in slums, with the Government development programs. After such adverse experiences, some of the Latin American Governments have changed their role from financier-builder to that of promoter and coordinator while launching housing programs.

Besides governments, many non-government institutions of Latin America promoted the cause of self-help housing in recent years. A few of them deserve mentioning: the Centro Inter-Americano de Vivienda Y Planeamiento in Bogota and Instituto de Credito Territorial in Colombia, the Instituto Cooperativo Interamericano de la Vivienda in Guatemala and the Program Conjunto de Vivienda in Nicaragua. These institutions have also been getting government patronage. Their role has been commendable.

In Latin American countries, individual self-help housing projects have been common. These are not contemplated as part of the national housing plans and programs. In some countries self-help building is initiated by institutions, such as the ones mentioned above, which are specifically meant for the purpose. In other
countries, these are carried out in a "haphazard way" as part of the existing local housing and community development schemes. As such, coordination and integration remains absent.

**Jamaica and Puerto Rico:**

Jamaica and Puerto Rico present the most well recorded experience of aided self-help housing both for urban and rural areas. The urban projects involved the resettlement of dwellers of slums and squatter camps to the self-built government-patronized housing communities. The Puerto Rican scheme has been part of the 'Rural Resettlement and Community Action Program' and Jamaica Welfare one, part of the 'Better Village Approach' program. In both, according to a United Nations source, "a minimum of cash and a maximum of community organization were combined to produce outstanding new homes..."\(^{63}\)

The forty years of experience in housing programming has taught Puerto Ricans that human initiative can effectively meet the challenge of the goal adopted by the Government. To this end, a housing bank legislation was enacted. This provides Housing Bank teams, each consisting of a builder, an engineer, a secretary, and a social worker who provides guidance in self-help efforts.

\(^{63}\) United Nations, Housing...Tropics, (1952), *op. cit.*, p. 54.
"Among the urges that have led to the housing bank legislation is the growing recognition that among the low income families there is a tremendous initiative and drive which has not had enough guidance and support."\(^{64}\) Thousands of people have built their own houses under this legislation.

The Puerto Rican "Land and Utilities Program" and the "Community Action Plan" which deal with housing problems indirectly have used aided self-help methods extensively. The 1949-1951 plan produced successful test demonstrations leading to wider application of the method. Under the law, the Insular Government of Puerto Rico has undertaken a large scale resettlement program for 75,000 families living in crowded temporary shacks. The technical and management resources of the Social Program Administration (SPA) and the Puerto Rico Planning Board were pooled to accomplish the task. The labour for housing and essential community buildings were contributed by families and the SPA provided guidance, training, materials and finance. The Puerto Rican experience also indicates that for want of direct housing help, the resulting houses are not compatible with the

good standard of health and hygiene required in housing communities.

The most prevalent method followed in the Puerto Rican aided self-help program is that the Land Authority purchases the land, sub-divides it and cedes lots to the families. After planning and programing, the cooperative self-help work is organized partly under technical supervision of Social Program Administration, and partly with the help of Government loans and material aid.

Crane and McCabe point out a major drawback of the program arising from its operating through the United States Housing Act: When the tenants income increases above the maximum allowable, they are required to move. Thus, the regulation causes hardship to those who through their own frugality make improvements in their living. This, however, does not defeat the overall performance of the aided self-help program. The Puerto Rican experience is considered to be one of the most successful ones in developing countries.

---

65 United Nations, Housing...Tropics (1952), op. cit., p. 57.
67 Crane and McCabe, op. cit., p. 375.
Colombia:

Colombia is another country in Latin America with an admirable self-help housing record. A Government housing agency, one of the oldest of its kind in Latin America, i.e., the Instituto de Credito Territorial (ICT) was created in 1939. During the first twenty years of its life, the Institute underwent two major changes as a result of rapid urbanization. By 1956, its focus of attention changed from a rural one to that of urban housing, the rental housing having been shifted to an agricultural credit body. In 1957, housing was divorced from the exclusive dependence on directly financed and commercially contracted methods. The ICT has been promoting and developing housing with an almost exclusive dependence on self-help techniques.

The Colombian self-help housing experience is one of tangible achievements. In some selected periods, say between 1958 and 1960, out of the 15,505 houses built, half were built for low income families on a self-help basis and half for middle income families by combined methods. In 1961, the year of greatest achievements, 80 per cent of the total 18,973 units were built on a self-help basis. In 1962, 60 per cent of the 31,798 units built, were built using self-help methods. The total that was built was twice the national average production for urban areas. The ICT intended to build
40 per cent of the total houses through self-help methods in each of the years 1963 and 1964.

Convinced of Colombia's achievements, the United Nations whose main interest in recent years has been in the area of low cost self-help housing has been appreciative of the score: "The largest known non-emergency self-help housing program in existence today exceeds 20,000 units in 1962-1963 (Colombia)." The idea has been well sold and the program is well on the way. Observers are convinced of the effectiveness of Colombia's program and the role of the ICT in making the program effective. Thus Turner observed:

The biggest single factor of ICTs recent plans is the adoption on a large scale, of aided self-help techniques: the institute is giving priority to the self-help plans carried out through individual efforts (esfuerzo propio) and by mutual aid groups (ayuda mutua), as experience of the larger programs to date has shown their effectiveness with regard to low unit costs, future owners participation in the building work, considerable saving and investment by the families in the building and completion of their houses.

68 United Nations, Priorities... Decade, (1964), op.cit., pp. 11-12.
69 United Nations Manual... Housing (1964), op.cit., p. 68.
70 Turner, op.cit., p. 386.
Through the vigorous program, the Colombian Government expects to stabilize the housing deficit within the next five years, that is by 1971. An annual goal of 26,000 to 30,000 units has been planned for 1965, 1966 and 1967. Out of these, a little less than half will be built using the self-help method basis. The success of the Colombian program and the tangible achievements of its housing output in recent years are among the most impressive ones in the developing countries.

The Colombian experience was followed in other countries of Latin America. The Corporación de la Vivienda (CORVI) and Institute de Vivienda Caritas in Chile and Central Office for Coordination and Planning (CORDIPLAN) and Centro de Estudios para el Desarrollo (CENDES) in Venezuela are parallels of the Colombian ICT.

Brazil:

In Brazil several farming communities locally known as "nucleus" are being planned. The families are given lands, a few hand tools and the blessing of the Government. Thus, they try to build their own houses and stand on their own feet. There is no evidence of an overall self-help housing program at the national level.

Venezuela:

In Venezuela the program is carried out by institutions of the kind mentioned above, and the departments such as the Community Development Division,
as part of their housing program. The CORDIPLAN is a guiding and coordinating agency. These agencies apply aided self-help methods mainly in the strictly 'classical' Puerto Rican fashion, that is by supplying owners with materials and instructions so that they can build their own houses. By far the most important labour contribution comes from women and children.

**Chile:**

The programs in Chile are carried out under cooperative schemes. The cooperatives such as Arturo Alessandri P. Palma and Arturo P. Cooperative undertake projects as part of their housing works. The cooperatives receive guidance from Government housing agencies such as Corporación de la Vivienda (CORVI), the Institute de Vivienda Caritas (UNICA) and the Technical Branch of the Federation of Housing and Cooperatives (TECHNICOOP). The self-help housing system runs on a project basis, and external capital input is considerable.

**Peru:**

In the city of Lima, Peru, there exists one of the most astonishing examples of an urban community that was developed with the help of spontaneous method by the people themselves: the Pampa de Comas (population 30,000), part of the Caraballo group of "barriadas" in Lima. These have developed the same way as the 'ranchos'.
'callampas' and 'favelas' in Caracas, Valparaíso and Rio de Janeiro respectively. The inhabitants, however poor, do produce these planned -- though admittedly primitively designed -- communities on a city scale and build thousands of quite acceptable permanent structures. These houses, according to Turner are better than could be, or has been, provided by the state or private commercial enterprise. 71

CONCLUSION

It is often forgotten while studying the squatter-labelled communities in the big cities of Asia, Africa and Latin America, such as Caracas, Lima, Cairo, Karachi, Delhi, Calcutta, and Hong Kong, that the organic, and at times, planned growth of these communities is the result entirely of the hundred per cent efforts of the people alone. Some guidance and nominal government assistance could improve these squatters and could thereby prevent slum conditions -- prevention is better than cure.

Generally self-help housing in Latin American countries is not contemplated as part of the national housing plans and programs. In countries such as Guatemala, Nicaragua and Colombia, the program is carried out by institutions whose objective is precisely to carry out such works. In other countries, such as Brazil and

71 Turner, op. cit., p. 376.
Argentina, the programs have been developed sporadically within the existing housing institutions. In still others, the programs have developed as part of the community development endeavours. Such approaches are not conducive to organized and coordinated work, which is necessary to ensure concrete achievements.

The lack of national programs and the existing piecemeal work, however, does not prejudice the extraordinary achievements made by housing institutions in countries, such as Puerto Rico, Colombia and Chile. It is through the stimulus provided by such institutions as the ICT and the experience and knowledge disseminated by such institutions as the CINVA that there is a stir and enthusiasm among national governments. The stage is, therefore, set for the development of national self-help housing programs.

The Latin American experience in self-help housing also shows that it is more economical to devise a program whereby the spontaneous self-help housing displayed by the squatter settlements can be manipulated through planning and entertained in the legislative framework. Let Charles Abrams words express what is meant here:

If influxes are anticipated and planned for, the planning can be substantially preserved.
This called for a designation of sites on which it will be prescribed. It calls for firmness with understanding. It entails a policy for land layout that will permit settlement according to plan, help with materials where essential, and even undertake some inspirational building by the Government to influence the character and course of growth.\textsuperscript{72}

\textsuperscript{72} Charles Abrams quoted in: Turner, \textit{op.cit.}, p.388.
III OVERALL CONCLUSIONS

Traditionally, spontaneous efforts have guided the self-help housing approach the world over. Of whatever quality, two hundred million families still build houses themselves. Manipulative or aided self-help housing activity was born out of informal or spontaneous activity after the Second World War. The United Nations and some of the developed countries saw in this method a new hope for the capital-deficient labour-abundant countries of Asia, Africa and Latin America. Hope was based on the belief that manipulative self-help could reduce money cost and ensure a higher standard than any other combination of finance and technology.

The international agencies interested in alleviating the poverty of living of the world's multitudes have demonstrated their interest in self-help housing in various ways. Large numbers of missions of experts on housing have been delegated, among other things, to explore its effectiveness. Materials and technical guidance have been provided; manuals and guides have frequently been published; conferences and exhibitions have very often been held, and proposals and recommendations have repeatedly been made to the relevant countries to incorporate the self-help method in national housing programs.

All the available evidence leads one to conclude that practical interest on the part of international
agencies in the self-help housing method is based on the conviction that the system is an effective -- if not the only -- avenue of solving the massive housing problems of the developing countries.

The effectiveness of the self-help housing device is not recognized on the international level alone. The idea has gained currency also among the developing nations where it is considered relevant in view of the poor condition of housing, paucity of the requisite capital input and abundance of human input as observed in Chapter III. Although the method has not yet been included in the legislative framework of national housing programmes, it has nevertheless gained in popularity and is currently used in many localized programs in various ways with appreciable success.

The development plans of many countries, such as India, Pakistan, the United Arab Republic, Ghana, Colombia, Venezuela and Puerto Rico justify and use the method as an important tool of implementing housing and community development programs.

In Asian countries, manipulative self-help has been used since about 1950. The self-help techniques of human mobilization are being used through the Volunteer Force and Panchayat Raj in India. The Lalgarh experience in Jaipur, the Faridabad experience in Delhi, and many others in Madras, Lucknow and Calcutta and other urban
and rural areas of India have been reported as fairly effective. The Government of India recognizes the effectiveness of the method.

The Village Aid and urban community development programs in Pakistan have made considerable headway during the last ten years. In the Korangi and North Karachi residential communities, part of the Greater Karachi Resettlement Program, a combination of self-help and government-help techniques have been used with success. The Government promises to utilize self-help technique through the institution of Basic Democracy in the implementation of housing and community development programs of the recently launched Third Five Year Plan.

The People's Housing Department of Indonesia is using the mutual aided self-help method locally known as 'golong rojong' and 'tulung-menulung'. In Malaysia, the independently administered public agencies, such as the Malaysian Housing Trust use the method. In Thailand, Hong Kong, and the Philippines the method has been used one way or the other under government guidance.

In Asian countries, self-help housing programs on a national level are conspicuously absent. Community programs are given sufficient encouragement by governments which even at times initiate them. The method is, however, well recognized among leaders, planners and
community people at large.

In African countries too, such as Ghana, the United Arab Republic and Kenya, the program is recognized by government and is well on its way. The locally known 'mevethya' program of Nechako district in Kenya, and that of Nairobi have been accomplished with success. In Ghana the program is supported by the Roof Loan Scheme and works of the Ghana Building Society. The method is being used in the massive resettlement program in connection with the Volta River Scheme and is reported as being carried out with considerable success.

In the United Arab Republic, use of the method has been specifically stressed in a thirty year long range program effecting 6,000,000 families. In the Belgian Congo, the Government built aided self-help communities in Elizabethville. Similar government initiated schemes have been put through in Morocco, Guniea, Nigeria and Somalia, and have been reported to have scored considerable success.

In Latin American countries, aided self-help housing programs were adopted earlier than in Asia and Africa. These are launched through various government supported institutions, as part of the housing policy and community development programs.

Jamaica and Puerto Rico provide the most well-recorded experience of aided self-help housing. In both areas, "a minimum of cash and maximum of community"
organization have been combined to produce outstanding new houses. Through the Housing Bank Legislation, and Community Action Plan, the Social Program Administration and Puerto Rican Planning Board have made exemplary achievements in self-help housing.

Colombia is another country with an outstanding self-help housing record. The Government supported institutions such as the Instituto de Credito Territorial (ICT) develop housing with an exclusive dependence on self-help techniques. Half of the houses built under ICT's program are built on an aided-self-help basis. The Colombia experience is one of the tangible achievements. It had the largest known self-help housing programs in existence in 1963-64 (20,000 units).

In Brazil, Venezuela, Chile and Peru, government sponsored self-help housing projects have been accomplished. In all these countries, institutions, similar to the ICT of Colombia, supervise the operations and add greatly to the solution of housing problems.

Thus, through the encouragement given by international agencies and through their own "development-mindedness", most of the developing countries have adopted the manipulative self-help housing methods. By so doing, they are directing what has been the traditional spontaneous method into productive channels. Although national programs are still almost negligible, the success of institutional and community programs have established conviction on the
the effectiveness of the method for the solution of the acute housing problem of developing countries.

This should, however, not prejudice the grim situation that even the supposedly most economical self-help housing method helps only insignificantly in meeting the acute deficiency of housing in the developing countries. Refinement of the method is still possible and is being developed through practical experience.
IV CHAPTER SUMMARY

This chapter deals with the awareness and the profundity of the interest of international agencies, such as the United Nations, and national governments of developing countries in the self-help housing programs. It establishes that prevailing interest in the subject of self-help housing is based on the conviction that the method is more effective than contemporary ones for the solution of housing problems of the mass of the world's poor multitudes.

No self-help housing programs have been formally entertained in the overall national housing programs in most of the countries of Asia, Africa and Latin America; no significant legislative support has been extended in this regard. This, however, does not prejudice the fact that there is an active demonstration of interest in the program among the developing nations. A considerable number of government-guided, piecemeal and localized programs within the community development and social welfare areas have been carried out in such countries as India, Pakistan, Ghana, Kenya, Colombia, Puerto Rico and Jamaica. Some have had marked success.

However inadequate and negligible the total experience gained through institutional and community development programs might be, it has, nevertheless, emboldened the relevant nations to demonstrate a more practical interest in self-help housing than hitherto
shown. There is manifestation of the growing awareness in the long-range economic development plans of many developing nations.

This chapter ends with the hope that because self-help housing is a better expedient than existing alternatives, it might be widespread in the not too distant future. The question of how far the better alternative will help eliminate the paucity of housing in the economically handicapped nations still remains unanswered until specific projects are exposed to microscopic examination, in the following chapter: "self-help housing projects".
CHAPTER V

EVALUATION OF SELF-HELP HOUSING PROJECTS
IN
DEVELOPING COUNTRIES

1. THE SELECTION OF SELF-HELP HOUSING PROJECTS

In the preceding chapter (IV), a macro-evaluative approach for the study of self-help housing experience was adopted. In this chapter, a micro-analytical approach is followed, whereby a sample of specific self-help housing projects implemented in some selected developing countries are the focus of attention.\(^1\)

A total of eight projects have been chosen for examination. (Figure No. 5) Two of them, one in the United Arab Republic and the other in Jamaica, are situated in rural areas, while the remaining six are located in urban areas as follows:

a. Faridabad Project, Delhi, India.

---

\(^1\) The method adopted in the selection of specific projects is not the sophisticated sampling technique, much against the wish of the author and demand of reason. The self-help housing projects are so few that the only course open was to select, out of the few projects that are reported, only those whose data are substantive, and have been reported in such a way as to be amenable to meaningful treatment. It is assumed that this method of selection would not significantly blur the conclusions to be drawn therefrom. The chosen sample represents well over half of the universe investigated.
SAMPLE SELF-HELP HOUSING PROJECTS

Colonia Centro-Ameri
Las Victorias Project
Ciudad de Guatemala
Guatemala
San Sebastian Project
San José Costa Rica
Aguablanca Project Cali
Colombia
Clara Estrella Project
Santiago Chile

Bonnett St.
St. Mary
Project
Jamaica

Gourna
Project
United Arab
Republic

Faridabad
Project
Delhi
India

Korangi
Project
Karachi
Pakistan

APRIL 1966

EFFECTIVENESS OF SELF-HELP HOUSING:
EXPERIENCE IN DEVELOPING COUNTRIES
Masters Thesis
Division of Community & Regional Planning
UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER
Amjad Ali B Rizvi

FIGURE NO 5
b. Korangi Project, Karachi, Pakistan.
c. Gourna Project, The United Arab Republic.
d. Bonnett St. Mary Project, Jamaica.
e. Aguablanca Project, Cali, Colombia.
f. San Sebastian Project, San Jose, Costa Rica.
g. Clara Estrella Project, Santiago, Chile.
h. Colonia Centro-America -- Las Victorias Project, Ciudad de Guatemala, Guatemala.

The object of exposing the above projects to an evaluative process in what follows, is to examine the benefit measured in terms of saving in house building resulting from the self-help labour inputs. Generally, the method adopted in doing so is: firstly, to describe concisely the setting under which the relevant projects have been undertaken; secondly, to examine the proportion of self-help labour input to the total labour inputs in the projects; and finally, to assess the cost of these voluntary inputs which is equivalent to monetary saving or direct benefit.²

II EVALUATION OF SELF-HELP HOUSING PROJECTS
FARIDABAD PROJECT, DELHI, INDIA.

As discussed in Chapter IV, India has launched many housing projects in which the self-help method has

²In some cases, where the data were available, materials contributed by the self-help families, were also assessed.
been used with considerable success. Of these, the Faridabad Project located 17 miles south of Delhi has gained great popularity. (Figure No. 6)

A Development Board under the Indian Ministry of Rehabilitation undertook the scheme of transforming the disorderly camps of Pakistani refugees into a self-sufficient community in collaboration with the Indian Cooperative Union in 1947. Spread over an area of 7 sq. miles, the community involved 10,000 families of industrial workers and petty traders. The Project was handled by Indian planners under the direction of Otto Koenigsberger, a United Nations Housing Expert to the Indian Government. At present, Faridabad is a self-contained residential community. (Figure No. 6)

The Government of India advanced a loan of Rs. 25,000,000.00 ($5,000,000.00) for the initiation of the Project on the understanding that a monthly instalment of Rs. 10.00 from the families would be forthcoming for 25-30 years of the amortization period. The average cost of a dwelling unit was very low, i.e. about Rs. 2,000 (400 dollars), and the rate of building construction of 500 houses a month was sufficiently high. One of the reasons for this was the involvement of beneficiaries (i.e. self-help families) in the building activity.

The Faridabad Project is an example of the aided self-help type of project. The people were induced to work
on the construction site in many ways. As an aid to self-help building efforts, ten brick kilns were started, each handled by a producers' cooperative of fifty families. The members managed to raise part of the money themselves and the rest was advanced by the Government. By so doing, the cost of one of the building materials was substantially reduced.

The indirect result of the above method was that the producers' cooperatives did not cease their work after completion of the Project but continued to operate on a commercial scale to meet the increasing demand for building materials in the Delhi Metropolitan Area.

The self-help work was adopted in a gradual manner. The refugee immigrants worked on a subsidized cooperative basis, during the second year of construction. The subsidy on wages was as high as 150 per cent in the beginning but was gradually scaled down to nil as the apprentice workers mastered their skills and started earning normal wages. The method, in short, provided new avenues of employment.

The overall extent of direct self-help involvement on construction in the Faridabad Project was higher than in any other known planned project in Asian and African countries; it also favourably compares with projects in

---

3Work on a subsidized cooperative basis implies that the wages normally paid to unskilled and skilled workers were subsidized.
FIG. NO. 6

EFFECTIVENESS OF SELF-HELP HOUSING: EXPERIENCE IN DEVELOPING COUNTRIES

MASTER'S THESIS
DIVISION OF COMMUNITY AND REGIONAL PLANNING
UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER, B.C.

APRIL 1966

Latin American countries. One should, however, be mindful of the fact that in Latin American countries, projects are numerous but small, ranging from the ten house project of Viveros de Cuyuta in Guatemala to the four thousand house project of San Gregorio in Santiago, Chile. The size of the Faridabad Project was 10,000 houses.

"One of the remarkable features of Faridabad," according to a United Nations evaluation, "is that more than 95 per cent of the manual labour required for the Project was carried out by previously untrained refugees who were mostly small merchants and shopkeepers, of the type that traditionally despises manual labour." The economy from manual labour alone reached the level of 25 per cent of the housing cost.

In this way, a population of 50,000 refugees on welfare subsistence doles costing the Government of India Rs. 50,000 ($10,000) a day, were not only settled partly through their own efforts under Government guidance, but were also taught the art of building and, thus, put on their way to self-sufficiency as useful and productive citizens. In fact, according to close examiners of the Project, Faridabad represents:

---

..... a good example of a township built by self-help and demonstrates what the cooperative endeavour of the people themselves, with a little technical guidance and modest financial aid provided by the Government could achieve.  

KORANGI PROJECT, KARACHI, PAKISTAN

In 1961, the Second Population Census of Pakistan reported a population of 2,048,745 in the city of Karachi. This was four times the city's population at the end of 1947, the year the country achieved national status. In 1959, Lt. Col. Ahmad conducted a survey and reported 527,535 shelterless persons in Karachi either homeless or living on pavements or temporary tenements in about 250 slum clusters in various parts of the city. The Government's efforts had been inadequate for the solution of even a fraction of the problem.

The new revolutionary Government was stirred by the poverty of the living conditions of the muslim refugees of India. In 1959, the Government embarked upon an


ambitious project of rehabilitating the entire shelterless population of Karachi. A self-contained township, like that of Faridabad in India but ten times bigger in size, was planned to the south east of the city. (Figure No7) Construction started with great zeal by the Martial Law Government as is evident from the attainment of one of the biggest rate of low income house building in the world. Within a year, 15,000 houses were constructed and a like number of families settled. During the four years ending 1963, 30,000 houses were built and 150,000 persons rehabilitated. The work continues to date.

The essential concept used in the Korangi Project is that of an unfinished "core house" (area 1080 sq. feet), like the one adopted in the Aguablanca Project of Cali in Colombia, with an unplastered room, bath and boundary wall built in cement and locally available material ("Bajri" from the neighbouring Malir River bed).

The assumption of this approach was that the initial investment in the form of a loan of Rs. 2,000 ($400) per house, made by the Government, would be returned by beneficiaries on a monthly instalment of Rs. 10.00 per month and that subsequently additions and improvements to the unfinished "core house" would be made by the families themselves on a self-help basis. Iatridis so states this approach underlying the Korangi Project:

... community development methods for resettlement of refugee immigrants were emphasised....
low-cost housing techniques were employed for lower income groups in conjunction with self-help provision for building additional rooms with official guidance and help.¹⁸

The result of this indirect self-help housing approach in the Korangi Project appeared to be substantial when findings of a post-rehabilitation sample survey of the first batch of about 15,000 families (1960-1961) appeared: Three-fourths of the families have made structural additions and improvements and have landscaped their core houses.⁹

The author who has been associated with the pre-rehabilitation survey of shelterless persons of Karachi (1959) and the post-rehabilitation survey (first batch of $5,000 families) and analysed the Korangi experience in other studies estimates that by the end of 1964, the families had invested, at least, twice the labour and capital input originally supplied by the Government.


KORANGI PROJECT, KARACHI - PAKISTAN

EFFECTIVENESS OF SELF-HELP HOUSING: EXPERIENCE IN DEVELOPING COUNTRIES
Master's Thesis
Division of Community and Regional Planning
UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER
Amjad Ali B. Riyu

APRIL 1966

FIG. NO. 7

SOURCE: DOXIADIS ASSOCIATES, KORANGI PROJECT, NO. 2, JULY, 1969, ATHENS, GREECE.
Barring the poor quality of additional construction that resulted from families self-help efforts without technical guidance, the fact remains that the original assumption of Korangi planners as to the spontaneity and potentiality of self-help housing method was justified.

GOURNA PROJECT, THE UNITED ARAB REPUBLIC

According to a survey carried out by the Fellah Department of the United Arab Republic, in 14 villages of former Egypt, 54.3 per cent of rooms had roofs of palm branches and reeds and 27.5 per cent had no roofs at all. Whence it is concluded that the owners are too poor to be able to afford even reeds which are very cheap and that "they possess the will to build, and will put up walls if not defeated by the problem of roofing." Such is the problem in the area of rural housing involving 17 million Egyptian peasants. Both Government and people are helpless for want of the requisite capital.

The Gourna self-help housing project was taken up under the above background. A village of peasants displaced from an "antiquities zone" was to be created in

---

11 They were: Doxiadis Associates - Consultants in Development and Ekistics, 24 Str. Syndesmou, Athens, Greece.

Lower Egypt. The Government of Egypt designated the Gourna village as a model self-help housing project. Professor Hassan Fathy, the then Head of the Department of Architecture at the University of Cairo was entrusted with the job of designing and implementing the Project. (Photograph No. 5)

No concrete results in terms of monetary economy as a result of the use of indigenous building materials and use of peasants labour has been reported to the best of the author's knowledge. What has been reported is the fact that the Gourna Project as a demonstration venture was a big accomplishment in the area of rural self-help housing. Fathy actually lived in the community, motivated people and engaged them in cooperative work. Mud bricks, local wood and reeds and peasant's traditional craftsmanship was extensively used. The inexperienced villagers were taught the technique of building on the job. And, says Fathy, "I found that it took three months to turn a totally inexperienced villager into a mason competent enough to perform all needed operations, including the construction of vaults and domes."\(^13\)

\(^{13}\) *Ibid.*, p. 11.
From the experience of the Gourna Project, Fathy has evolved a formula to measure the effectiveness of self-help housing project to be undertaken anywhere: The cost of self-help building could be reckoned as follows:

Local labour + local materials reckoned in man-hours and converted into cash: \( L \)

Imported labour + imported materials reckoned in cash: \( E \)

Then the so-called "ekistic efficiency" ie. \( K \) of the building would be:

\[
K = \frac{L}{L+E} + 100
\]

What actually was attempted in the Gourna Project was to raise the value of \( L \) and reduce the value of \( E \). In the Harga Oasis and Nubia, under the traditional building, the "ekistic efficiency" approaches 100. In the case of Gourna, however, since initial public input was substantial, the "ekistic efficiency" as high as say 50 could be expected only if a host of intangible benefits which were many \(^{14}\) could be amenable to monetary measurement. However, Fathy's conviction on the Gourna experiment is amenable to generalization as to the effectiveness of the self-help housing method:

---

\(^{14}\) Stated in the light of Prof. Fathy's slide lecture on the Gourna Project at the Athens Technological Institute, Graduate School of Ekistics, Athens, May, 1960.
Once ... some of the houses are up, the skills implanted and a village plan drawn up, the re-building will go of its own momentum (and) if the traditional cooperative system can be made to work under non-traditional conditions, then it can clearly be expanded and applied to a mass housing programme.15

The method has been recommended for the entire communities of Egyptian falahins (peasants), and for communities living under similar circumstances elsewhere.

BONNETT ST. MARY PROJECT, JAMAICA.

One of the important objectives of the Jamaica self-help housing projects, says Stockdale, is "to enable the people to secure, by their own exertions, both a life and livelihood which will bear comparison with the moral and material standards of the twentieth century."16 The Jamaica Welfare Limited financed originally from the United Fruit and Shipping Company has been pioneering in the achievement of the above objective by organizing self-help housing based on rural economy. The Jamaican Project provides, by far, the most organized experience of cooperative house building.

In the period 1941-1945, the Jamaica Welfare Limited took over a number of experimental cooperative house building projects in collaboration with the Lands

Department and subsequently with the Agricultural Loan Societies Board with technical guidance from the Government Central Housing Authority. The Bonnett St. Mary Project is one of these experimental schemes.

As distinguished from the "community type" of self-help project, the Bonnett St. Mary Project falls into the "organized type" of house building which relies on the mutual help of members of group to each other in such a way that each member receives an amount of labour equivalent to that which he has contributed.

The Project dealt with the building of 29 houses on an experimental basis. The initial stage was marked by three steps: presenting the organized self-help idea to the people; organizing them under the so-called "Better Houses, Better Settlements and Better Villages Movement"; and economising cash expenditure through the use of cheap local materials and voluntary labour.

The house-holders were organized into building groups of six. They worked alternately thrice a week having gone through a preliminary training period. The owner's labour was credited to non-owner members, with deductions made for meals provided on the site. The Central Housing Authority provided technical guidance.

---

17 In the so-called "community type" of cooperative housing, members of the community help their neighbours to build their houses without expectation of any reward or return in kind, as is the case in the "organized type" of self-help building.
One third of the cost of each house was provided by the people themselves in the form of cash and kind, i.e. labour. The extent of the beneficiaries own contributions is shown in monetary terms in Table 3. (see next page 143)
**TABLE 3**

**BONNETT ST. MARY SELF-HELP HOUSING PROJECT, JAMAICA:**

**BENEFICIARIES CONTRIBUTION TO A TYPICAL TWO-ROOM HOUSE**

<table>
<thead>
<tr>
<th>Outlay</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials contributed①</td>
<td>£ 20.1.7</td>
</tr>
<tr>
<td>Materials paid for</td>
<td>£ 78.16.5</td>
</tr>
<tr>
<td>Total</td>
<td><strong>£ 98.18.0</strong></td>
</tr>
<tr>
<td>Labour contributed①</td>
<td>£ 14.3.6</td>
</tr>
<tr>
<td>Labour paid for</td>
<td>£ 36.3.9</td>
</tr>
<tr>
<td>Total</td>
<td><strong>£ 50.7.3</strong></td>
</tr>
<tr>
<td>Food</td>
<td><strong>£ 2.16.3</strong></td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td><strong>£152.1.6</strong></td>
</tr>
</tbody>
</table>

**Source of Funds**

| In the form of materials contributed① | £ 20.1.7 |
| In the form of labour contributed①   | £ 14.3.6 |
| **Total**                             | **£ 34.5.1** |
| Grant                                  | £ 50.13.10 |
| Loan                                   | £ 67.2.7 |
| **Total Expenditure**                  | **£152.1.6** |

① by the house-holders.

From Table 3 it is evident that the householder's direct contribution was equivalent to a little less than a quarter of the total cost of the house. On a total project basis also, the owners contributed £572 worth of materials and £339 worth of labour i.e. a total of £911 out of the total Project's cost of £3,665. The beneficiaries direct contribution amounted to 25 per cent of the Project's cost, as against the planned assumption of 20 per cent.

The Table 3 also brings out the fact that materials contributed by householders amounted to one-third of materials purchased, while the labour contributed amounted to more than one-third of the labour paid for. In this way, the Government grant was economised; it was reduced to one-third of the Project cost. The balance between cost of the Project, cost of material and labour contributed, and the Government grant, was to be paid on a weekly instalment of under three shillings per week. This was within the reach of every beneficiary.

The Bonnett St. Mary experience made the planners hopeful of the possibility of increasing the proportion of the value of voluntary labour from one-third to one half of the paid labour, and of economising the time cost substantially. Their belief on the effectiveness of self-help housing in Jamaica was based on their recommendation

---

that in future the method could be distributed over a larger sphere of operations.\textsuperscript{19}

AGUABLANCA PROJECT, CALI, COLOMBIA

The Instituto de Crédito (ICT) in Colombia, as elaborated in Chapter IV, has been carrying out self-help housing projects with an urban focus. The Institute selects a project after considerable research and supervises work under an adequate system of group organization.

In 1959, the Colombian Government placed on the ICT's shoulders the responsibility of implementing the Aguablanca Project with as much self-help involvement of the relevant community as possible. The plan was part of an emergency action to solve the housing deficiency in the city of Cali and to counteract the threatening growth of squatters. A total of 1589 dwellings distributed as follows were built:\textsuperscript{20}

\begin{tabular}{ll}
Unfinished houses & 1,020 \\
Mutual aid houses & 476 \\
Self-help houses & 93
\end{tabular}

The Aguablanca self-help housing project was started in April of 1959 (Figure No. 8). The first stage of work was

\begin{thebibliography}{99}
\bibitem{19}United Nations, "Survey ... Areas," \textit{op. cit.}, p. 46.
\bibitem{20}Unless otherwise quoted differently, the un-opinionated factual data in this and the remaining pages of this chapter are from: \textit{Pan American Union, Department of Social Affairs, Self-Help Housing Guide} (Bogota: Inter-American Housing and Planning Center, 1962), p. 4 (present reference page).
\end{thebibliography}
marked by the formation of groups and their orientation. It took seventeen months to complete 476 mutual aided self-help houses.

A gratifying number of 35 houses per month were built with the application of the aided self-help method. The essential evaluative information on an average mutual aid self-help house is summarized in Table 4. (See next page 147)

\[\text{21} \text{ This period excludes the interval between the start of the first, } \text{i.e.} \text{ the demonstration group and the second group.}\]
## TABLE 4
AGUABLANCA SELF-HELP HOUSING PROJECT CALI, COLOMBIA: COST AND BENEFIT ASPECT

<table>
<thead>
<tr>
<th>Extent of Voluntary Participation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total dwellings involved</td>
<td>476&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Participants labour:</td>
<td></td>
</tr>
<tr>
<td>Man-hours per house</td>
<td>515</td>
</tr>
<tr>
<td>Man-hours per sqm.</td>
<td>11.2</td>
</tr>
<tr>
<td>Percentage man-hours on construction:</td>
<td></td>
</tr>
<tr>
<td>Participants labour</td>
<td>100</td>
</tr>
<tr>
<td>Paid labour</td>
<td>nil</td>
</tr>
</tbody>
</table>

### Cost Aspect<sup>b</sup>

<table>
<thead>
<tr>
<th>Description</th>
<th>Colombian Pesos&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost per dwelling</td>
<td>3,403.00</td>
</tr>
<tr>
<td>Cost per sqm.</td>
<td>22.39</td>
</tr>
<tr>
<td>Average cost of materials and components per dwelling</td>
<td>1,500.00</td>
</tr>
<tr>
<td>Average cost of cement slab foundation and floor per dwelling</td>
<td>1,188.00</td>
</tr>
<tr>
<td>Estimated value of participants labour per dwelling</td>
<td>d</td>
</tr>
<tr>
<td>Actual cost per dwelling</td>
<td>6,091.00</td>
</tr>
</tbody>
</table>

<sup>a</sup>By October, 1960, 273 houses were completed and 203 were at advanced stage of construction. The data pertains to the average of 273 houses.

<sup>b</sup>The administration and management cost is not included because a charge of 10 per cent was added to the price of the developed land to cover these expenses.

<sup>c</sup>In 1960 when the Project was in progress, a Colombian Pesos was equivalent to U.S. $0.14.

<sup>d</sup>No appraisal was made of the value represented by the labour of the participants.

AGUABLANCA PROJECT, CALI, COLOMBIA

SITE PLAN

FLOOR PLAN

EFFECTIVENESS OF SELF-HELP HOUSING EXPERIENCE IN DEVELOPING COUNTRIES
Masters Thesis
Division of Community & Regional Planning
UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER

Amjad A B Ravi

APRIL 1966

SOURCE: PAN-AMERICAN UNION, SELF-HELP HOUSING GUIDE (BOGOTA
INTER-AMERICAN HOUSING & PLANNING CENTER), 1963, PP 4-5
The tabular information can be substantiated from a comparison with the non-self-help projects as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount (Colombian pesos)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of similar unfinished contracted house</td>
<td>8,052.00</td>
</tr>
<tr>
<td>Additional cost to bring in line with Directed Mutual Aid Dwelling (Table IV)</td>
<td>450.00</td>
</tr>
<tr>
<td>Estimated actual cost of an AMD dwelling (Table III)</td>
<td>-6,091.00</td>
</tr>
<tr>
<td>Difference of cost, ie. economy with self-help</td>
<td>2,411.00</td>
</tr>
</tbody>
</table>

This economy results entirely from the reduction of building cost as a consequence of contributed labour and materials under the self-help method as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount (Colombian pesos)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net building cost of contracted dwelling</td>
<td>3,911.00</td>
</tr>
<tr>
<td>Net building cost of similar AMD dwelling (Table 4)</td>
<td>-1,500.00</td>
</tr>
<tr>
<td>Difference of cost, ie. economy with self-help</td>
<td>2,411.00</td>
</tr>
</tbody>
</table>

The tabular information is self-explanatory. Certain facts strengthening the effectiveness of the guided self-help method can be easily isolated as evidence. As a result of the 100 per cent involvement of participant

\[ ^{22} \text{less fixed value of developed land and cement-slab of foundation in amount of } \$4,591.00 \]
labour and improvement in the quality of houses for the same reason, a clear-cut saving of $2,411, i.e. 28.7 per cent of the housing cost results. Also the difference in the net building cost represents a saving of 62 per cent for the participants. This is a saving made by building a house using self-help method under public initiative and guidance.

It is of interest to describe certain features of the amply satisfactory results of the Aguablanca Project of Colombia. These were: organized and planned work; rapid execution; outstanding quality of labour; economy of investment on the part of the ICT in contracted houses; spontaneous generation of saving in participant families; the avenues of technical and administrative training; the awakening of a desire for cooperative action and social improvements in the community.

The Aguablanca Project, however small, has been one of the most well organized and successful ones among the countries of Latin America. It is one of the strongest cases that supports a belief in the significance of self-help housing projects in the developing countries.

SAN SEBASTIAN PROJECT, SAN JOSE', COSTA RICA

The San Sebastian self-help housing project is one of the numerous guided projects executed by the Instituto Nacional de Vivienda y Urbanismo in Costa Rica.
The Project dealing with 352 dwelling units was started in 1958. (Figure No. 9) Under the organized group building activity, four units were raised per day, so that the whole Project was presumably completed in three months time. The essential feature of the dwellings was that they were pre-cut and partially assembled in modular panels according to traditional dimensions of Costarican woods. The design was similar to slum elimination projects carried out under the Vivienda en Marcha (Housing on the March) and rural housing programs. Table 5 summarizes the essential evaluative aspects of the Project. (see next page 152)
### TABLE 5
SAN SEBASTIAN SELF-HELP HOUSING PROJECT
SAN JOSE' COSTA RICA:
COST AND BENEFIT ASPECT

#### Extent of Voluntary Participation

<table>
<thead>
<tr>
<th>Total dwellings</th>
<th>352</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants labour:</td>
<td></td>
</tr>
<tr>
<td>Man-hours per unit</td>
<td>650</td>
</tr>
<tr>
<td>Men-hours per sqr. meter</td>
<td>11.8</td>
</tr>
<tr>
<td>Approximate percentage men-hours in construction:</td>
<td></td>
</tr>
<tr>
<td>Participant labour</td>
<td>62</td>
</tr>
<tr>
<td>Paid labour</td>
<td>38</td>
</tr>
</tbody>
</table>

#### Cost Aspect

<table>
<thead>
<tr>
<th></th>
<th>Costa Rican Colons(^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost per dwelling</td>
<td>6,790.00</td>
</tr>
<tr>
<td>Cost per sqr. meter</td>
<td>28.00</td>
</tr>
<tr>
<td>Average cost of material and paid labour per dwelling</td>
<td>9,108.11</td>
</tr>
<tr>
<td>Average cost of management per dwelling</td>
<td>953.88</td>
</tr>
<tr>
<td>Estimated value of participants labour per dwelling</td>
<td>1,462.50</td>
</tr>
<tr>
<td>Total estimated cost per dwelling (including participants labour cost)</td>
<td>18,314.49</td>
</tr>
</tbody>
</table>

\(^a\)6.60 Colons are equivalent to U.S. $1.00

SAN SEBASTIAN PROJECT SAN JOSE’
COSTA RICA

site plan

APRIL 1966

EFFECTIVENESS OF SELF-HELP HOUSING
EXPERIENCE IN DEVELOPING COUNTRIES

Masters Thesis
Division of Community & Regional Planning
UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER
Amjad A. B. Rizvi

SOURCE PAN-AMERICAN UNION, SELF-HELP HOUSING GUIDE (BOGOTA;
INTER-AMERICAN HOUSING AND PLANNING CENTER, 1962), p II

FIG.NO.9
The participant families in the San Sebastian Project as appears from Table 5 had put in 650 man hours of work per dwelling unit. This constitutes 62 per cent of the labour required in the Project; the rest, i.e. 38 per cent was publicly paid for. In monetary terms, the participant labour was equivalent to 1,462.50 Colons according to the then prevailing wage rates. Whence, it is concluded that a saving equivalent to 7.5 per cent of the total cost of the dwelling unit was achieved by each house building family.

The saving gained in the San Sebastian Project was about one-third to one-fourth less than in the Indian, Egyptian and Colombian Projects. This was most certainly because in the Costa Rican case, housing and community design was sufficiently ambitious compared to the Asian and African cases. Three bed-rooms were planned on an average dwelling area of 54.88 m² and the cost was well over $2,000. This indicates that a high level of building specifications were used which is not generally the case adopted in self-help projects that are meant entirely for the lower income group. This is a prohibitive cost which cannot work in Asiatic and African settings. This also indicates the reason why voluntary participation was lower in Costa Rica (contributed labour cost 7.5 per cent of the dwelling cost) than in other projects described earlier.
CLARA ESTRELLA PROJECT, SANTIAGO CHILE

The Clara Estrella self-help housing project is one of the many organized by the Corporation de la Vivienda in Chile. The Project was begun in February of 1959 with the sole object of stimulating self-help efforts among the participant families living in slums and thereby alleviating the housing shortage in the growing city of Santiago. (Figure No. 10)

The Project was concerned with organizing the building of 1,417 houses for a like number of families under expert supervision. The families were organized under twelve cooperative groups. The groups built 1,300 two bed-room houses and made a money contribution equivalent to two-thirds of the dwelling cost. Accordingly the investment made by the CORVI (Corporation de la Vivienda) was reduced to one-third of the Project cost.

The procedure adopted was first the mobilization of participant groups through social work techniques. Technical and social orientation under the guidance of masons, builders and social workers on the nature of work followed there-after. Previous experience from similar projects\(^{23}\) was amply utilized to achieve the maximum economy. The highlight of a typical housing unit is contained in Table 6.

\(^{23}\text{Eg., German Riesco and La Palma Projects in the city of Santiago.}\)
TABLE 6

CLARA ESTRELLA SELF-HELP HOUSING PROJECT, SANTIAGO, CHILE:
COST AND BENEFIT ASPECT

<table>
<thead>
<tr>
<th>Extent of Voluntary Participation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total dwellings</td>
<td>1,417</td>
</tr>
<tr>
<td>Participants labour:</td>
<td></td>
</tr>
<tr>
<td>Man-hours per unit</td>
<td>663</td>
</tr>
<tr>
<td>Man-hours per sqm</td>
<td>25</td>
</tr>
<tr>
<td>Percentage man-hours per m²:</td>
<td></td>
</tr>
<tr>
<td>Participant labour</td>
<td>80</td>
</tr>
<tr>
<td>Paid labour</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost Aspect</th>
<th>Chilean Escudos c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average cost per dwelling</td>
<td>283.90</td>
</tr>
<tr>
<td>Average cost per sqm</td>
<td>1.19</td>
</tr>
<tr>
<td>Cost of materials and paid labour per dwelling</td>
<td>1,529.65 d</td>
</tr>
<tr>
<td>Average cost of management</td>
<td>111.96</td>
</tr>
<tr>
<td>Estimated value of participants labour per dwelling</td>
<td>231.25</td>
</tr>
<tr>
<td>Total estimated cost per dwelling</td>
<td>2,540.50</td>
</tr>
</tbody>
</table>

---

a Average of stages 1 and 2.

b Refer to stage 2 only.

c Escudos the Chilean currency was on par with the U.S. dollar in 1960.

d Of this amount, the participants contributed a sum of £0 341.39 invested directly by them at the initial stage.

CLARA ESTRELLA PROJECT, SANTIAGO-CHILE

TYPICAL DETAIL FROM SITE PLAN

FLOOR

EFFECTIVENESS OF SELF-HELP HOUSING EXPERIENCE IN DEVELOPING COUNTRIES

Master's Thesis

DIVISION OF COMMUNITY AND REGIONAL PLANNING
UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER

Amjad A B Raz

APRIL 1966

FIG.NO. 10

SOURCE PAN-AMERICAN UNION, SELF-HELP HOUSING GUIDE (BOGOTA INTER-AMERICAN HOUSING & PLANNING CENTRE, 1962). PP 16-17
The Chilean Clara Estrella Project is successful to the extent that 80 per cent of the total man-hours in construction were put in by voluntary families themselves. This represents a saving of 13 per cent of the housing cost. If this is added to the amount they contributed in the form of material and downpayment as a result of intimate interest in the self built houses, the burden on the public exchequer is scaled down to the level of 33 per cent of the housing cost. This represents a substantial reduction of public resources resulting from the application of self-help method in the area of low income housing.

COLONIA CENTRO-AMERICA -- LAS VICTORIAS PROJECT, CIUDAD DE GUATEMALA, GUATEMALA

The twin projects of Centro-America and Las Victorias in Guatemala were implemented by the Instituto Cooperativo Interamericano de la Vivienda. The first was carried out during July, 1957 to September, 1959 and the second from July, 1958 to October, 1959 (Figure Nos. 11 and 12). The approach behind the two projects was the same, namely; the "utilization of collective manpower of participants." The projects involving 418 houses were organized as a single whole. In the first, however, ten groups each of 28 persons and in the second two groups each of about 45 persons constituted the self-help housing team. Each group worked on dwellings designed on a modular form involving re-inforced concreting and panel assembling.
The highlights of the Project (both projects combined) of interest for the purpose of evaluation is contained in Table 7.

**TABLE 7**

**COLONIA CENTRO-AMERICA -- LAS VICTORIAS SELF-HELP HOUSING PROJECT: COST AND BENEFIT ASPECT**

<table>
<thead>
<tr>
<th>Extent of voluntary participation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total dwellings</td>
<td>418</td>
</tr>
<tr>
<td>Average area of a dwelling in sqr. meter</td>
<td>51.42</td>
</tr>
<tr>
<td>Participants labour:</td>
<td></td>
</tr>
<tr>
<td>Man-hours per unit</td>
<td>1,600</td>
</tr>
<tr>
<td>Man-hours per sqr. meter</td>
<td>31.06</td>
</tr>
<tr>
<td>Percentage man-hours per sqr. meter:</td>
<td></td>
</tr>
<tr>
<td>Participants labour</td>
<td>75</td>
</tr>
<tr>
<td>Paid labour</td>
<td>25</td>
</tr>
</tbody>
</table>

**Cost Aspect**

<table>
<thead>
<tr>
<th>Quetzales or U.S. $</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average developed land cost per dwelling</td>
<td>641.00</td>
</tr>
<tr>
<td>Average cost of paid labour and materials</td>
<td>1,290.00</td>
</tr>
<tr>
<td>Average of cost of management per dwelling</td>
<td>885.00</td>
</tr>
<tr>
<td>Estimated value of participants labour per dwelling</td>
<td>560</td>
</tr>
<tr>
<td>Total estimated cost per dwelling</td>
<td>3,376.00</td>
</tr>
</tbody>
</table>

LAS VICTORIAS PROJECT, GUATEMALA
SITE PLAN

COLONIA CENTRO-AMERICA PROJECT
SITE PLAN

APRIL 1966

Effectiveness of Self-Help Housing Experience in Developing Countries
Master's Thesis
Division of Community & Regional Planning
University of British Columbia Vancouver
Amyad A B Rizvi

Fig. Nos 11-12

Table 7 reveals that three-fourths of the total man-hours involved in the construction activity of the Project were contributed free of charge by beneficiaries. The estimated value of the thus contributed labour constitutes 17 per cent of the housing cost which, therefore, is the clear-cut cash saving from the Colonia Centro-America -- Las Victorias Project in Guatemala.
II CONCLUSION.

In the developing countries, almost all self-help housing projects, particularly in urban areas are manipulative and formal in nature. The success of projects in terms of saving resulting from the voluntary involvement of beneficiaries depends almost entirely on the competence of the management handling the project. Given the effective application of social mobilization techniques exemplified by the projects, it is perfectly possible to draw from the participant families a donation equivalent to more than three-quarters of the labour required to build houses on a self-help basis. (Figure No. 13)

The monetary value of labour and materials contributed by participant families for their houses ranges from 7.5 per cent (San Sebastian Costa Rica) to 28.7 per cent (Aguablanca, Colombia) and averages to 25 per cent of the project cost. (Figure No. 14) However, where this proportion is low, it is because the housing specifications and family incomes involved are sufficiently high. This means that the method works -- though less effectively-- in the case of higher income groups. There is also some hope among planners handling self-help projects to increase the saving to twice the present level.

The Pakistan's Korangi experience, the Colombia's Aguablanca experience and India's Lucknow experience (as discussed in chapter IV) have also established the merits.
SELF-HELP HOUSING PROJECTS

EXTENT OF VOLUNTARY LABOUR PARTICIPATION

84%

SELF-HELP HOUSING PROJECTS

DIRECT BENEFITS OR SAVING

24%

EFFECTIVENESS OF SELF-HELP HOUSING:
EXPERIENCE IN DEVELOPING COUNTRIES
Master's Thesis
DIVISION OF COMMUNITY & REGIONAL PLANNING
UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER
Amjad Ali B. Rajic

APRIL 1966

FIGS. 13-14
of self-help approaches underlying "unfinished core houses". The unfinished and inadequate house represents to the householders a permanent reminder of an un-achieved goal. This reminder stimulates higher savings and higher application of self-help labour on the part of the owner families. That three-quarters of the families in the Korangi Project of Pakistan have made structural additions and improvements to their unplastered one-room core house is a case in point. Similar examples exist in the Ghanaian projects.

The projects investigated also established some of the indirect benefits accrued to self-help community. The art of building and manufacturing of building materials that people learnt, as exemplified by the Indian Faridabad and Egyptian Courna experience, became important source of income and employment to the respective communities after the completion of the projects.

The self-help housing concept draws heavily on the community development techniques. Through such leaning comes an important indirect benefit: it is one of the best ways to teach democratic action and a spirit of solidarity in the developing communities of the developing countries. Professor Fathy's recorded experience of Gourna in Egypt and similar experiences elsewhere prove the perpetuation of democratic solidarity stemming from self-help housing project experience. In this way the self-help housing policy can stimulate peoples' participation in socio-economic endeavours.
III CHAPTER SUMMARY

In this chapter, eight sample self-help housing projects carried out in developing countries have been discussed and evaluated in terms of cost involved and benefits accrued to the relevant families and respective government agencies.

Discounting the indirect economic and social benefits resulting from living in better housing and community environment than in slum conditions, the benefits measured in terms of monetary savings to self-help communities averaged out to 25 per cent of the housing cost. (Figure No. 14) If, however, the indirect social benefits are accounted for in monetary terms then the saving or benefits may be presumably scaled up to well over 50 per cent of the total cost.

This saving results from the participation of self-help voluntary labour to the extent of 85 per cent of the total labour input. That a self-help housing project could amass such a large number of people in house building activity is a further justification of the author's claim, as well as of those responsible for such projects, that the self-help housing method is suitable in the capital-deficient, labour-abundant countries of Asia, Africa, and Latin America.

In short, given a competent management machinery, as exemplified in Figure No. 15, the self-help housing
concept can be an effective method compared to existing alternative ones, in asmuch as its application results in considerable economy in housing cost and substantial socio-economic benefits to the communities involved.
CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This study is the product of a sombre observation that the gap between housing needs and available resources among the developing nations of Asia, Africa and Latin America is extremely wide. The cost of building a minimum house in these countries is greater than the family can afford, and the cost of building enough houses to fulfil the legitimate needs of people is greater than the economy can afford. This is the tight corner in which the developing nations find themselves.

On the other hand, the commonly used contemporary methods for bridging the gap between housing requirements and economic resources are not sufficient. Along with this fact, there is a not too far fetched assumption that the economy of the developing nations will not change so drastically in the foreseeable future as to warrant the massive building program of eliminating the housing backlog. What then is the right path for these nations to tread? This study has been undertaken to provide an answer to this crucial question.

The answer to the above question lies in the full utilization of the abundantly available labour force in developing countries so as to build houses through what has always been a traditional activity: self-help housing.
On the strength of a grim assumption, namely the in-adequacy of contemporary methods to grapple with the housing dilemma, this study has in its objective a rather ambitious claim to validate: "Self-help housing can form an effective method of meeting the deficiency of housing units in developing countries"; "developing countries" connotes the countries of Asia, Africa and Latin America which have low per capita income compared with the countries of North America, Europe and Australia.

Approaches to the self-help housing ranges from spontaneous or traditional self-help to guided or formal self-help. In the first case, the families make maximum contribution of their labour and materials to the building of their houses. In the second, ie. the guided self-help, external guidance and help is embedded as a stimulus for the generation of the requisite response in the form of house building endeavours.

The houses built with the help of spontaneous method conflict with the most minimum contemporary standards of health and hygiene. When, however, the spontaneous building activity is channelised through guidance, the result is guided or formal self-help. The object of guided self-help is to maximise spontaneous self-help in the long run by encouraging guided action in the short run.

Many methodological steps have been followed to establish the above hypothesis. Firstly, in order to focus the relevance of the hypothesis, the magnitude of housing
deficiency - both in quantitative and qualitative terms - in developing countries has been studied. Secondly, the extent of inadequacy of public and private resources in housing received attention. This led to the identification of needs for labour-intensive methods by making deductions as to the inadequacy of capital-intensive methods presently in use. Thirdly, the self-help housing programs at international and national levels have been evaluated for their success or failure. Finally, eight specific self-help housing projects undertaken in developing countries have been given detailed examination in terms of the cost incurred in them and benefits or savings gained by the application of self-help method. Success of the programs and benefits from the projects thus becomes a measure of effectiveness of self-help housing method.

It has been found that there is an acute paucity of housing in developing countries. A deficit of 392 million dwelling units -- 291 million in Asia, 53 million in Africa and 48 million in Latin America -- has been estimated on the basis of increase in the number of households and need for replacing the obsolescent stock in the fifteen year period from 1960 to 1975, as well as the existing backlog. Coupled with this quantitative deficiency the qualitative deficiency of housing in developing countries staggers the imagination of western housing experts and observers.

The above figures appear more meaningful when it is considered that an annual output of 24 million dwelling
units -- 18 million in Asia and three million each in Africa and Latin America -- is required during 1960-1975. This is equivalent to an annual output of ten dwelling units per thousand population. How stupendous is this task for developing nations can be imagined by the fact that the average house building performance of the developed nations is about five dwelling units per thousand population. This is indicative of the gravity of the situation and the incapacity of developing nations to grapple with their housing problem.

The problem is further compounded by the fact that even if the developing economies succeed in doubling their national income in a generation or so - a task of monumental proportion - the absolute per capita income would still be not more than one-eighth of that of the developed world. In short, even the distant future appears bleak at best.

Let, however, this gloomy picture be dampened down by another observation: although the capital is scarce in the developing economies, the labour is not; consequent upon the prevailing unemployment, underemployment and disguised unemployment, there is an abundance of human resource potential amenable to being put to productive use. In short, given initial stimulant, people can be made to respond and thereby do their own job; in the case in point they can be encouraged to build their own houses through guided self-help.

Under the grim circumstances presented above, the solution to the critical housing problem lies in either combining efforts with monetary efforts or divorcing
monetary inputs from efforts. The first alternative, as has been proved, is difficult - if not impossible - to achieve; in the second lies the "hope".

The "hope" has been based on the belief on the part of international agencies such as the United Nations and some of the developed nations, such as the United States of America and Canada which are interested in the development of these developing countries, that guided self-help could reduce money cost and ensure "a higher standard than any other combination of science and technology". The international agencies, notably the United Nations, have amply demonstrated their interest on self-help housing in a practical manner. Numerous UN expert missions have studied the problem in the field; many conferences have been held and the issue discussed; money support has been extended to propagate the concept.

The effectiveness of self-help housing method is not recognised on the international level alone. The idea has gained currency also among the developing nations. Although the method has still not been entertained in the legislative framework of national housing programs, the development plans of many countries use it as an important tool of implementing community development programs.

Considerable number of government-guided piecemeal self-help housing programs are currently underway in many developing countries, like India, Pakistan, the United Arab Republic, Ghana, Kenya, Somalia, the Belgian Congo, Nigeria,
Jamaica, Colombia, Puerto Rico, Venezuela, Chile and Peru. Most of these programs have been reported to have scored marked success. Their concrete achievements, it has been found, produces conviction on the suitability of self-help housing method not only in terms of its workability but also in terms of the benefits resulting therefrom.

The recognition of the self-help housing as an effective tool to the solution of housing problems does not lurk behind the ostensible national community development endeavours alone. In the eight projects gleaned from the developing countries and microscopically examined for their performance also lead to the same conclusion, namely, self-help housing is an effective method in the context of developing economies.

It is found that about 80 per cent of the total labour input (paid and voluntary) contained in the guided self-help project examined, has been drawn from the families participating in these projects at no cost whatsoever; also in some projects, the materials have been contributed by the participating families. That a project could amass such a large number of people and their resources in house building augurs well and guarantees the practicability of the method.

The monetary value of labour and materials put in by the families participating in the self-help housing projects does not significantly vary among Asian, African and Latin American countries. It, however, depends on how
organized the project is and what is the socio-economic status of the relevant community. Thus, out of the total housing cost, the value of the contributed labour and material varies from 7.5 per cent in San Sebastian Project, Costa Rica to 28.7 per cent in the Aguablanca Project, Colombia. This value averages to one-quarter of the total cost in the eight projects evaluated.

Not taking into account the indirect economic and social benefits arising out of the improved housing and community environment, a saving equivalent to the above value (25 per cent) represents a direct benefit to the community. This is what Professor Fathy would say, the "ekistic efficiency" of a self-help housing project, which according to him, approaches 100 in some of the Egyptian peasant communities where spontaneous self-help housing has been current.

If, however, the indirect social and economic benefits resulting from the environmental improvements of the community from slums to planned housing, are accounted for, the above value (25 per cent) as a measure of effectiveness of self-help housing method is scaled up to well over 50 per cent of the housing cost. If, again, this value is added to the value represented by the "hope" of planners and community development experts of, for example, the Egyptian Gourna project, the Jamaican Bonnett St. Mary Project, the Costa Rican San Sebastian project and the Colombian Aguablanca project, to increase the direct
saving through improved organizational skill from 25 per cent to well over 50 per cent of the total housing cost, the benefits, or the "ekistic efficiency", may well approach three-quarters of the housing cost.

The object of guided self-help, as stated earlier, is to maximise spontaneous self-help in the long run by guided action in the short run. The numerous institutional and government-initiated projects currently underway represent guided action in the short run. The cost of this guided action is equivalent to ten per cent of the housing cost. When, however, the above objective has been pursued to the point where spontaneous self-help activity has been set in, the guided action can be withdrawn from the cost inventory. The saving from this withdrawal to the extent of ten per cent of the housing cost would be added to the benefit inventory.

It follows that when in the long run the traditional approach of spontaneous house building is fully revived and improved in keeping with the contemporary standards of minimum housing, the benefit or the "ekistic efficiency" might well approach 100. When this would be possible depends on the national circumstances and the vigour with which the guided self-help housing programs are put through. The profundity of this vigour and the time perspective are only difficult to predict. What can, however, be commented on the strength of the findings of
this study is: however small the numerical strength of the programs might be, the disseminated idea itself has a tremendous "ignition potential" which might spark unsuspected energies for socio-economic development of the developing nations.

The experiences of, for example, Pakistan, India, Guinea and Colombia have proved the merits of self-help approaches underlying the "unfinished core houses". Such unfinished and inadequately built houses represent to the occupants a permanent reminder of an un-achieved goal. This reminder acts as a stimulant of family's savings and self-help action. Three quarters of the families in the Pakistan's Korangi project have made structural additions and improvements to their unplastered one-room core houses. Similar results in the Volta Dam Resettlement Projects establishes the merit of the self-help housing underlying "core home" scheme.

The above discussion leads to the following concluding peroration:

Given the competent organization techniques, as are known today, and given also the present rate of development of the developing countries, the benefits gained through the application of the self-help housing method compared to those gained through the contemporary alternative housing development methods in the area of low-income housing, are significant enough to validate the hypothesis that:
SELF-HELP HOUSING CAN FORM AN EFFECTIVE METHOD OF MEETING THE DEFICIENCY OF HOUSING UNITS IN THE DEVELOPING COUNTRIES.

The assumptions underlying this hypothesis are critical. They tend to produce a veneer of dimness on the author's claim. To maintain the "givens" itself is a stupendous task for the developing nations. To organise and train an estimated ten per cent of the labour force through self-help methods, and thus, to maintain the cost of competent organization is economically strenuous for the developing nations under their present growth performance.

It has been found that the management input is a critical catalyst for engendering self-help housing activity. This catalyst is valued at ten per cent of the project cost. As a management is specialized, the benefits accruing from the project are maximized to the level of 90 per cent of the project cost. At this point, the marginal value of the management to the project becomes zero. Its withdrawal raises the benefit from the project to 100 per cent, suggesting that improved version of the spontaneous self-help activity has been set in and objective achieved.

In this way, eight to ten management units equivalent to the cost of one full fresh project where benefits are still minimum or ten matured projects where benefits are maximum can operate as many projects as the number of management units.
This requires a big organizational task at national level. Nothing short of a ministry of housing, and planning can handle it: hence the need for such a ministry in most of the developing countries which have none. A concerted national self-help housing policy and program is required to solve the dilemma of the housing deficiency and economic disability of the nations of Asia, Africa and Latin America.

Implicit in this recommendation is a further note of optimism. The self-help housing is a dynamic process. If activated, the process can help achieve housing objectives. The housing objectives serves as a means to a higher end: socio-economic development. The training of builders and masons, the provision of gainful employment and the generation of cooperative spirit become part of the self-help housing process.

As has been seen in the Indian Faridabad and Nilokheri experiences and the Egyptian Gourna experience, the self-help housing project provides a source of gainful employment to a large number of unemployed and underemployed population. The art of brick making in the Indian case, for example, was commercially practised after the completion of the project. In this way, besides providing employment, the self-help program helps alleviate the shortage of building materials.

An equally important advantage of the self-help
housing program is, that it provides an effective avenue of on-the-job training to the unskilled labour force. This is of substantial importance in view of the fact that in the developing countries, the requisite skilled labour force in the national building industry is deficient, and all construction projects compete with each other for this limited resource. This results in inflationary cost increases and, at times, disruption of building programs. The self-help housing is a solution to this problem.

Another positive advantage arising out of the self-help housing program stems from their leaning on the community development techniques of human mobilization. The self-help building stimulates community interaction, and produces in the inhabitants a sense of belonging to their house and community. The experience has shown that the families look after the self-built house with a greater interest than the government-built house in which they live. Once activated, the self-help process also operates in areas other than housing development.

A community developed by self-help method is a community not only of bricks and mortars but also -- and more importantly -- of the people. Because the energies and spirit of people are involved, it is a community not only "for the people" but also "by the people". In short, as the self-help housing experience shows, the method is one of the best ways to teach democratic socially effective
cooperation and initiate community solidarity for collective action, so essential for the development of developing countries.

It is in the light of these facts that a concerted national self-help program is considered essential for the solution of the double dilemma of housing deficiency and economic disability current in Asia, Africa and Latin America.
BIBLIOGRAPHY
BIBLIOGRAPHY

A. BOOKS


B. PERIODICALS


C. PUBLICATIONS OF THE GOVERNMENTS, INTERNATIONAL AGENCIES AND OTHER ORGANIZATIONS


Planning Commission. Third Five Year Plan. New Delhi: Year not mentioned.


D. UNPUBLISHED MATERIALS


________. "Spatial Distribution of the Housing and Living Conditions of the Peoples of Karachi." Paper read at the seventeenth All Pakistan Science Conference, Karachi, February 12-17, 1965. (Mimeographed)
