

CHAPTER 9

The Basic Requirements for Shelter Provision Policies in Developing Countries

If, arbitrarily, we set the last quarter of this century as a prospective time interval for analysis, then this review of the standards and criteria that directly or indirectly determine the environmental quality in human settlements in developing countries must ultimately be justified in terms of three main issues. The first is the tremendous demographic potential of countries in the three continents of Africa, Asia and Latin America. Not only will their populations continue to grow rapidly for the rest of this century but the proportion likely to move into urban agglomerations will rise moderately in Latin America, more steeply in Asia and very steeply in Africa. Secondly, the shelter needs for the year 2000 A.D. have already been defined by children already born, so our ability to manoeuvre on the issue of size or number is tightly constrained. Thirdly, from all indications a very high proportion of the required shelter will be self-built.

Given these facts, two pertinent questions that must be faced by all those involved in decision-making on these matters are: *what type of settlements do we really want and what type can we afford?* Discussions on these vital issues have as yet not received the attention they deserve, despite the seriousness of the situation that developing countries are soon likely to face.

If most shelter is likely to be self-built, what pre-conditions must be fulfilled to ensure that the living environments in these settlements meet certain basic standards? The process of urbanization in most developing countries, as has been emphasized, is likely to continue with inadequate resources both on the part of the people and of their governments. If, however, there is to be more deliberation, and more deliberate use of what resources do exist, then there are four issues to which great attention must be paid: land, technology, social stratification, and organization.

LAND

The key problem here concerns the access of people to land on which they can build their shelter. 'Access' in this connection is to be defined mainly in terms of security of tenure. Governments need to re-examine current policy positions on land ownership, especially in urban areas, including inheritance rights to land and the morality of speculation. The nature of this and other environmental problems in developing countries requires radical solutions. It will be impossible to make adequate use of the willingness of people to build their own shelter if there is no realistic state policy on land tenure and security of tenure.

Such a policy must contain two main items. First, it must deal with the legal

problem of providing security for every family in need of a plot to build a dwelling. The problems created by traditional inheritance rights and land speculation have to be overcome. Second, the policy must provide a means of regulating the physical expansion of urban areas. In particular, it must ensure that development does not take place in areas with adverse topographical or climatic characteristics; areas likely to undergo natural catastrophes such as floods; areas of difficult accessibility with respect to the city as a whole or the provision of essential services, such as water; or in areas where water or air is undergoing unavoidable pollution. On the other hand, government land policy must make it possible for the new sets of self-built dwellings to have a rational urban layout with respect to the width and continuity of streets, and the possibility of providing services networks in the near future. It must ensure or provide space for health, education, recreational and commercial facilities and will presumably regulate the size and shape of individual plots. All these relate to standards which demand something more than control. They require the participation of trained technicians and the provision of certain basic but essential investments, such as the landmarking of the plots.

ATTITUDE TOWARDS TECHNOLOGY

If the majority of shelter to be provided in the three developing continents during the remainder of this century will be self-built, it will be necessary for governments to organize the production of low-cost construction materials and to organize the use of available natural and human resources. Since the situation will be one in which we will have architecture without architects and city builders without urbanists, it will be necessary to ensure that people do not try to reproduce inadequate and inappropriate versions of houses built to past 'official' standards. A mechanism for evolving design and technology compatible with actual needs must be given serious consideration.

Equally demanding of attention is the development of new technologies for the building of infrastructure. Due to the characteristics of infrastructural services, their building, maintenance and operation can be carried out efficiently only by official bodies. Since most of these countries are poor and present technologies involve large-scale investments that are generally beyond their capabilities, new technologies are urgently needed that can achieve similar ends at much lower costs of building and operation.

SOCIAL STRATIFICATION

Governments need to be committed to the search for the greatest good for the majority of the people they serve. Once there is this commitment, a policy on shelter provision can be defined in such a way that its integral relationship to other policies of government can be easily appreciated. A determined shelter policy will seek to make national facilities and resources available to all groups so that, in contrast to the present, the rich classes subsidize shelter provision for the poorer classes. This is particularly relevant to housing loans by government agencies, which now invariably tend to be directed at the higher income groups, to the utter neglect of those with low incomes, aggravating the social stratification within the country.

ORGANIZATION

Perhaps the most important aspect of a new policy for shelter provision in developing countries is the organization of people to participate effectively in the task of providing their own shelter and to care for the land and for their living environment. Basic to such an effort is the creation of popular awareness of the challenge facing the country with respect to shelter provision. Such an awareness can only grow as a result of a massive effort at popular education. Efforts in this direction could make the difference in most countries between a continuation of the existing deleterious situation well into the future, and its arrest and reorientation towards more acceptable human settlements.

Apart from popular enlightenment, effort could also be directed at influencing the curricula at all levels of the formal educational system. This should encourage research and training towards the design and production of the materials and elements required for adequate environment for community life. To achieve this, it will be necessary at the university level to introduce concern for environmental problems into each discipline, to develop new fields of study, and to train technicians. At the primary and secondary level, the problem of preservation of the environment could be incorporated into the school syllabuses through the teaching of the effect on the environment of different elements of the everyday life of each social group.

This survey of the environmental problems in the countries of Africa, Asia and Latin America, and the role played in them by the alien nature of official standards and criteria for shelter provision, underlines the fact that these problems are of a different genre to those in the advanced industrialized countries of Europe and North America. In the latter areas, environmental problems reflect more the negative consequences of massive industrialization on the physical environment, consequences that serious scholars tend to regard as irreversible in many aspects. The notion of 'pollution' — the introduction into the natural environment of items that have adverse effects on the life of man and of the animal and plant species to which man is related in a complex ecological web — is paramount to this concern.

Equally important is the apprehension about the progressive depletion of non-renewable natural resources. In both respects there is a growing awareness that the unilateral process of man's control over nature, arising from the historical process of industrialization, must in future be looked at from an entirely different viewpoint. This should involve a theoretical reappraisal and a new plan of action, to check both the rate of consumption of natural resources and the general pollution of the environment. This concern is reflected at all scale of human activities, from the danger of polluting the oceans to local pollution of the atmosphere in small regions. It is recognized that local problems are often linked with larger phenomena. In developed countries, therefore, the environmental problems of human settlements can seldom be analysed apart from the problems characteristic of the environment at the national or even the continental scale.

By contrast, in the countries of Africa, Asia and Latin America, environmental problems derive largely from underdevelopment and inadequate industrialization

and their most serious manifestations are at the local level within human settlements. Rapid urbanization aggravates these problems faster than the growth of popular awareness and the capacity for action by political and social organizations. The solution to environmental problems, moreover, lies not so much through absorbing externalities by private firms or in direct action by the State, as is usually suggested in developed countries, but through raising the standards of living of the great majority of the people. Job opportunities for everyone, the removal of marked social inequalities, mass education, the diffusion of existing technology as regards public health, the increase of mass consumption of essential goods: these are all factors which might be more effective in raising the quality of life in these countries than measures for preventing pollution. Whereas environmental problems are the result of affluence in the developed countries, they are basically the product of poverty in the developing ones.

However, separate analyses of environmental problems in developed and developing countries can easily lead to an erroneous conclusion. The title, *Only One Earth*, of the book that has made the greatest contribution to raising global awareness of the environmental issue seems quite appropriate in this respect. All countries of the world are today very interdependent and must be seen as elements of a single system. The usual dichotomy of development-underdevelopment should perhaps be replaced by that of centre-periphery if environmental problems are to be tackled from an adequate perspective.

In this regard, it would be futile to look to the history of the highly developed countries for stages comparable to those which most countries in Africa, Asia and Latin America are currently experiencing. The historical experience of the former is of interest only in an evaluation of the environmental problems that the latter may have to face in the *next* stage. Before the Industrial Revolution, and during its early stages, no European countries had any human settlements comparable in size to those existing now in Brazil and India, Nigeria and Mexico, Indonesia and Egypt – settlements growing at terrific speed, in which low environmental quality consequently affects an important and growing proportion of the total population of these countries. Nor was there in the past the technological and scientific capability that has contributed to raising life expectancy in developing countries in the last three decades. Thus, although the environmental problems of these countries are rooted in poverty, they require for their solution political, economic and social means and determination rather than technological capabilities. We already know how to avoid epidemics, how to purify water, how to set up an efficient sewerage system. At the beginning of European or North American industrialization, these problems were still challenges that were hard to define and even harder to solve.

What is needed in developing countries, therefore, is an integration of present knowledge on the environment within a theoretical scheme which allows each specific case to be evaluated in terms of its coterie of problems. Even though the general environmental problem field is ultimately a single field for the whole world, it takes on specific characteristics in each country, depending on the level of development and its situation within the world economic system. The fact that the environmental problems of human settlements of Africa, Asia and Latin America during the rest of this century will be mainly related to shelter that is self-built by the masses emerges as of foremost importance in all our empirical studies. In several

countries of the three continents, the environmental characteristics of settlements of different sizes stand out in sharper contrast than in developed countries. The early stages of the industrialization process found in these developing countries affect these settlements in a highly differentiated way. In the bigger settlements in particular, along with an aggravation of the environmental problems of poverty, there are problems of pollution, possibly more serious than in the large metropolitan areas of developed countries due to the much faster rate of population growth. Greater São Paulo, for example, clearly illustrates this dual set of problems.

Environmental problems are becoming more and more matters of serious concern for governments in developing countries and for international organizations. But they will be adequately appreciated and, therefore, adequately solved only if they are defined and analysed in terms of an integrated systems approach, involving the study of their interconnections and drawing heavily on existing knowledge and technology.

One of the key aspects for such integrated approach is a review of existing standards and criteria in the provision of shelter. The characteristics of existing settlements in developing countries represent the way the masses of the people have tried to 'negotiate' their values, cultural preferences and economic capacity with those government agencies concerned with maintaining and enforcing a set of official standards. What we have referred to as 'cultural standards' can, in this sense, be seen as no more than the product of such a 'negotiation'. In such a fluid and indeterminate situation, the role of the scientific community should be, in our view, to act as a 'broker' between the people and the authorities, helping to resolve the conflict in perceptions and actions that manifests itself in the current unsatisfactory state of environmental conditions in human settlements. In the preceding pages, we hope that we have succeeded in laying the groundwork for the dialogue needed for such a resolution and that we have shown the vital importance of adopting a new approach to standards and criteria for shelter provision, one which will help to create in developing countries human settlements that have a wholesome and attractive environment.

