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# Housing Policy Paper

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## SUMMARY AND RECOMMENDATIONS

### The Economics of Housing

- i. By 1980 nearly a fifth of the people in developing countries -- some 550 million -- will live in cities. This number is expected to increase to nearly 1.2 billion by the year 2000, when more than a quarter of the population of the developing world will be urban. The task of accommodating this unprecedented increase in the number of urban dwellers and improving their living standards poses a major challenge not only for urban development and housing policies, but for national development in general.
- ii. Housing is important to development in both economic and welfare terms. It typically constitutes 15 to 20 percent of household expenditures. For all but the wealthy, it is usually the major goal of family saving efforts. Investment in housing represents up to 20 to 30 percent of fixed capital formation in countries with vigorous housing programs, and it is increasingly recognized as a profitable investment good, yielding a flow of income. For some of the self-employed housing is also the place of work. In countries with substantial underutilized labor, material and financial resources, housing can make such resources productive at low cost. The import content of housing construction is usually relatively low, so that multiplier linkages tend to be substantial.
- iii. Housing has substantial social benefits, including the welfare effects of shelter from the elements, sanitation facilities and access to health and education services. Improved health and education and better access to income-earning opportunities can lead to higher productivity and earnings for low income families. It is thus for sound economic reasons that housing is typically the largest item of household expenditure after food for poor families, and that they are willing to go to great lengths to obtain housing at locations with access to employment, even if this means incurring the risks of illegal "squatting."
- iv. A positive housing policy can thus make a substantial contribution to economic development and social welfare. The relationship of housing to employment, social services, recreation and other aspects of urban life is spatially important. Access to employment for several members of a family is particularly important for the poor, and so is access to other urban facilities, particularly education. High transport costs or a long time taken in walking or otherwise travelling to and from work can negate the advantages of cheap housing on the outskirts of a city. Housing policy is therefore a major tool for influencing the efficiency and equity of urban areas.
- v. The importance of housing stands in contrast to current housing conditions in most cities of developing countries. A handful of countries have responded imaginatively to housing problems, but in the majority of countries housing conditions are much worse than they need be.

vi. The reasons for bad housing conditions are complex, and vary widely among countries. However, at the risk of oversimplification, they may be characterized as stemming from a lack of understanding of the underlying problems, and resulting misguided policy formulation. Many countries have attempted to provide unrealistically high standard dwellings rather than meet the effective demand for housing. This has led to regulations discouraging the production of appropriate standard housing, to the expenditure of limited public resources on high priced housing for a small proportion of the population, and the condoning or active encouragement of the removal of squatter and similar housing.

vii. Such policies combined with the limited resources available to meet the investment needs of rapid urban population growth, have given rise to substantial gaps between housing supply and demand in most cities of the developing world. In the six cities studied for this paper (Ahmedabad, Bogota, Hong Kong, Madras, Mexico City and Nairobi), from one-third to two-thirds of the population are unable to afford the lowest cost housing presently being produced by the formal sector.

viii. Potential solutions to housing problems differ greatly among cities and countries. However, in most countries, the adherence to unrealistically high standards for new housing construction, and the refusal to accept existing low quality dwellings even as an interim solution, is the principal obstacle to better housing. The result is a cycle of construction and demolition. The poor, unable to construct or purchase dwellings of acceptable standard are pushed to ever more distant peripheries.

ix. Although inappropriate housing standards are most important, other imperfections also affect the operation of housing markets. The supply of urban land and urban services such as water, sewerage and electricity tends to be constrained and skewed toward upper income groups. Housing finance institutions are typically undeveloped. This limits the supply of housing for middle income groups, and often means that housing provided for the poor is "raided" by higher income families.

x. Income levels, modified by the structure of income distribution, are the most important determinant of housing options. They set the limit on what the poor can afford. But because of spatial considerations, city size is also very important. Housing must be considered together with income earning opportunities, and hence in relation to transport costs. The growth rate of cities affects the rate at which land can be serviced. As the largest cities also tend to be the fastest growing, growth often exacerbates spatial problems. However, even in relatively small cities high growth rates pose a difficult challenge to housing policy. Finally, general economic policies, as well as those particularly concerned with housing, play a critical role in determining the efficiency of housing markets.

xi. This paper approaches the housing situation from the standpoint of effective housing demand. The costs of dwelling units of varying sizes, standards and locations are compared to the ability of low income groups to pay. It is suggested that housing (including site and services and other self-help methods of construction) could be provided without significant subsidy for at least 80 percent of the population of most cities. It appears that in relatively higher income countries most of the lowest 20 percent could be reached with a small measure of subsidy. In very large, lower income cities it is more difficult for the poorer segments of the population to be reached. In these instances squatter area upgrading appears to hold the most promise.

xii. Though incomes may be increased, and to some degree redistributed, over time, the only way to bring housing within reach of substantially increased numbers within a relatively short period is to bring the supply cost down. This can be achieved, in the first instance and most rapidly, by reducing standards: permitting and encouraging the use of lower cost (frequently indigenous) building materials and a lower quality of finish; providing communal rather than private plumbing and sanitary facilities; encouraging or providing higher density construction, with less land per dwelling unit; and providing less living space per dwelling unit. Without being carried to extremes, these steps -- singly or in combination -- can bring the cost of housing down so that a much higher proportion of the population than currently served can afford housing with access to employment. Land costs, and the efficiency of supply of the various components of housing, particularly of construction, also influence the housing the poor can afford. Self-help is an obvious way of bringing down financial costs. In some situations some complementary construction is needed to utilize self-help appropriately. Medium or high rise buildings may sometimes be the most efficient way of reaching the poor in circumstances in which land costs are high, construction costs are low, such housing is culturally acceptable and the location affords the poor cheap and ready access to employment.

xiii. These policies, it should be stressed, are only effective when coordinated in the context of urban and national development. Exchange, foreign trade, commercial, labor, monetary, credit and fiscal policies influence a country's overall competitiveness, the flow of private and public funds to the housing sector and the coordination of the housing "package." Such policies, as well as zoning and land development policies more directly affecting housing, also have spatial dimensions influencing the range of city sizes within each country and the locations of residences and places of employment within cities. An improvement in these policies, complementary to more direct measures, can substantially improve the housing situation.

#### International and Bank Group Experience

xiv. Many of the early efforts to provide international assistance for housing suffered from the same misconceptions about the nature and

complexity of housing problems that prevented most governments from dealing with them effectively. These efforts did not attempt to provide large resource transfers. They did not expect to have a substantial direct effect, but they expected to be seminal, and particularly to have an impact on the provision of low income housing. However, there was a tendency to underestimate the complexity of the problem, and to see it in terms of a shortage of housing finance without adequate attention to the supply of housing of an appropriate standard at appropriate locations. The financial assistance provided thus often went to lower middle and middle income groups, rather than to lower income groups; the bulk of the population in urban areas was not affected.

xv. The Bank Group entered this field, in the 1970s, as a latecomer. It has, as a result, benefited from the experience of others -- both governments and international agencies. It has from the outset treated housing problems within the broader framework of urban and national development problems, and it has proceeded cautiously and pragmatically, according to a policy of learning by doing.

xvi. Bank Group operations in housing have so far taken the form of lending for serviced sites, on which occupants contribute to the construction of their own homes, and, increasingly, lending for the upgrading of squatter settlements. In the site and services approach, land plots are levelled and furnished with access roads, drainage, water, sewerage, electricity and a variety of other individual as well as community services. Particular attention has been paid to locating projects within reach of major markets and employment opportunities, and to bringing activities and jobs to the project area.

xvii. The essence of squatter housing upgrading is to conserve the existing low-income housing stock, particularly in serviceable, relatively central locations; and to improve this housing by including additions and improvements to services and facilities within the entire neighborhood. This approach, a complement to site and services programs, is seen as an increasingly important means of providing benefits to low income people and of maintaining their access in relatively central locations.

xviii. To date, ten urban development projects involving housing have been approved in Senegal, Nicaragua, India, Botswana, Jamaica, Tanzania, Zambia, Indonesia, El Salvador and Korea. These projects (or their housing components) have been relatively small, entailing loans or credits of less than \$25 million, with some loans being as low as \$3 million to \$5 million.

xix. Although self-help and mutual-help methods have been applied as far as possible in the construction of dwellings and some community facilities, experience has demonstrated that, for a variety of reasons, some direct construction is essential and complementary in both approaches. Self-help is sometimes technically impossible or economically inefficient. In some instances, core units may be required to provide shelter from the

elements -- rain or cold -- while the construction process is completed. Families whose homes must be removed in the process of upgrading squatter areas may require that new, relatively high density housing be constructed for them in the area so that they will not suffer costly removal to distant sites. Responding to the housing problems of the poor in a variety of circumstances -- to bring standards down and to obtain accessible locations -- requires a flexible approach and a full range of lending instruments. It is in this light that future directions for Bank Group lending are considered.

### Recommendations

xx. The growing recognition of the importance of urban development, and particularly of the need for equitable development, is leading to increased demands for Bank Group assistance for housing in the context of urban development. The approach of "learning by doing" ensures that the Bank Group will be able to respond adequately to member country urban development needs in the future. Bank Group assistance for housing is limited to countries and cities broadly committed to alleviating the housing conditions of the poor as part of efficient and equitable urban development. In this context it is recommended that:

a) Squatter upgrading and site and services projects should continue to be the prime instruments for improving the housing conditions of the urban poor. Within this framework an open attitude toward housing construction is necessary to ensure efficiency and, in appropriate circumstances, to facilitate more economic use of land and improve access to income earning opportunities.

b) In some cities, the appropriate response to housing for the poor involves conventional construction. This may be in circumstances in which land cost, construction cost and access to employment make medium to high rise housing the most efficient and equitable housing solution for low income earners, provided such solutions are socially acceptable and part of a city's overall approach to housing the poor. Lending for conventional housing would form a small proportion of total lending for shelter. It is not envisaged that the Bank Group would become involved in lending for mass housing construction in the foreseeable future.

c) The Bank Group has a particular role to play in responding to requests for assistance in building housing finance institutions. Lending for low income housing project beneficiaries is one avenue, but it is relatively limited. The Bank Group should continue to provide "seed capital" for appropriate housing finance institutions with the objective of promoting better housing solutions for all income groups over time. In addition, it is recommended that "seed capital" should be provided for mortgage insurance institutions to facilitate lending for housing and enable lower income groups to be reached.

xxi. It is recommended that monitoring, evaluation and research should continue to be an integral component of the urban development program. It is also envisaged that increasing attention be given to the coordination of the Bank Group's lending for urban development to maximize the benefits of such lending, and to prepare the way for a larger urban development effort in the future.

## INTRODUCTION

1. By 1980 nearly a fifth of the people in developing countries -- some 550 million -- will live in cities. This number is expected to increase to nearly 1.2 billion by the year 2000, when more than a quarter of the population of the developing world is likely to be urban 1/ (see Table I.1). Urban development thus poses a major challenge for the decades ahead.

2. The Urbanization Sector Working Paper (1972) discussed the Bank Group's role in assisting member countries to meet this challenge efficiently and equitably. A large part of Bank Group lending has always been urban oriented, 2/ and much of it has been concentrated in major cities. In recent years, however, the emphasis has shifted from merely expanding a sector or sectors within urban areas, to "improving the efficiency of the urban centers both for production and for living." 3/ Projects have provided urban resources such as transport and water supply in a framework of urban development, with special attention to the needs of the poor. A substantial increase in support for urban development has been proposed. 4/

3. Housing is important to development in both economic and welfare terms. Investment in housing is a significant component of total investment. For lower income groups it is the largest item of household expenditure after food and, for all but the wealthy, it is usually the major goal of family saving efforts. In urban areas the housing package of land, shelter and utilities -- in combination with access to work and educational and social opportunities -- markedly affects the productivity of the poor, as well as their welfare. Its location can also alter the spatial layout of cities. Jobs can be made more or less accessible, traffic can be aggravated or relieved.

4. The Bank Group has been marginally involved in the provision of housing for many years in port, mining and land settlement projects. In such projects, however, housing has not been a central feature, and it has formed a small proportion of total project expenditures. The approval of the first site and services project in June 1972 marked the Bank Group's entry into assistance for urban housing as the prime objective. This approach has reflected the Urbanization Sector Working Paper's emphasis on "learning through doing." Substantial experience has been accumulated in the design of these projects, and in the understanding of housing in urban development through research.

1/ Urban areas are defined as localities with 20,000 or more inhabitants.

2/ IBRD, Urbanization Sector Working Paper, June 1972, p.53.

3/ Ibid, p.55.

4/ IBRD, "Revision of IBRD/IDA Program, FY74-78," June 4, 1974, p.26.

5. This paper evaluates the experience of the Bank Group's initial efforts in housing in light of the evolving housing situation in developing countries. It is confined to urban housing, because village housing problems are more properly discussed in the context of rural development, and it places particular emphasis on responding to the housing problems of the urban poor. Like the urban transportation policy paper, <sup>1/</sup> it is part of an intensified investigation which is required for a deeper understanding of urban development as a whole. It represents a continuation of efforts to assess the contributions made by the Bank Group and others to improving housing conditions in developing countries.

6. The central purpose of the paper is to examine whether, in the context of improving the housing situation of the poor, a broadening of the instruments of lending for housing, in particular to include lending for construction, is advisable, and second, what other measures can be taken to improve the Bank Group's involvement in housing. The circumstances in which assistance for housing is likely to be particularly appropriate are considered.

7. To answer these questions, it was necessary to assess the current urban housing situation in developing countries; analyze the relation between urban housing and social and economic development; evaluate the functioning of urban housing markets with particular concern for the effects on low income families; and consider current policy responses to housing problems. A special study of housing conditions in six cities (Ahmedabad, Bogota, Hong Kong, Madras, Mexico City and Nairobi) was undertaken to provide information about the housing poor people can afford. The analysis of the housing situation is presented in the accompanying "Background Paper on Housing." The first three sections of the present paper summarize the background paper. The past role of international assistance in the housing field, with particular attention to the Bank Group's experience, is then reviewed. This paper concludes with recommendations for directions for Bank Group lending for housing.

## I. THE URBAN HOUSING SITUATION IN DEVELOPING COUNTRIES

8. The houses of the Mediterranean, the flat roofed dwellings of the Middle East, and the pitched roof, stilt-supported houses of Southeast Asia are typical of the variety of styles that enrich the human heritage and form an essential part of the "quality of life." Behind this diversity, however, common uses of housing reflect similarities in living arrangements based on family needs for sleeping, eating, child rearing, leisure and earning a living. The vast majority of city dwellers find some form of housing, but in most cities it ranges from spacious dwellings

<sup>1/</sup> IBRD, "The Urban Transport Sector," Report No.603 (December 27, 1974).

for the rich to the miserable hovels of the very poor. Housing is as complex as the societies it serves, but several key factors clearly dominate the housing situation in all cities.

### Income Levels

9. Income is the most important determinant of housing. At the household level, income determines the housing a family can afford. In national terms, it reflects a country's capacity for housing its population at standards which will not distort other investment allocations. The distribution of income among households determines the number of poor families, and the extent of their poverty. The spatial distribution of income affects the housing characteristics of a city; there are relatively rich cities in low income countries, and relatively poor cities in high income countries.

10. Relatively high income countries (with per capita annual incomes of more than \$450) generally have a vigorous private housing market, which usually provides serviced housing with security of tenure for well over half the population. In addition, some of the countries in this category have made a substantial contribution to housing lower income groups through public housing. Hong Kong and Singapore are notable in this respect, with some 40 percent of their populations living in public housing. Many of these countries have, however, failed to stimulate private housing for middle and upper income groups and have almost totally neglected housing for the lower income groups.

11. Middle income developing countries (with per capita annual incomes between \$150 and \$450) account for almost half the urban population of developing countries. They include many large cities, some high income cities, and half the population in cities over two million. Their housing problems are extremely diverse. Some cities, for example Sao Paulo, have successfully stimulated the private market so that some 80 percent of the population is housed in serviced dwellings. Other, less affluent cities have also shown that the private market generally makes a substantial contribution to housing, but unfortunately, many of the countries in this category have not pursued policies conducive to stimulating private housing. Squatter housing upgrading and site and services approaches can provide housing for lower income groups, but many countries have rejected these approaches on the grounds that they would create or perpetuate the existence of "slums."

12. The poorest developing countries (with per capita annual incomes of less than \$150) may be conveniently divided into two groups. The first consists of four large Asian countries: Bangladesh, India, Indonesia and Pakistan. They have relatively low rates of growth of urban population. However, the size and number of their cities is very large and so many people need to be housed that the problems seem overwhelming.

Squatters and slum dwellers in Calcutta (1,720,000), Jakarta (1,125,000) and Karachi (811,500), for example, outnumber the total populations of some countries. The second group consists primarily of the sparsely populated, less urbanized African states. Even their principal cities are quite small, generally below 100,000, but their rates of urban population growth are very high. This growth has rarely been able to stimulate an adequate government response to housing problems. As a result, the proportion of the total population living in slums or uncontrolled settlements is very high.<sup>1/</sup> However, only very limited new resources can be devoted to improving housing conditions in these countries.

### City Characteristics

13. City size is a second major factor in housing. The largest cities, notably those with populations above 2 to 3 million, confront the gravest problems, because it is here that spatial imbalances in the location of people and jobs are most severe. The scarcity of land with good access to employment opportunities is the central feature of their housing problem. This scarcity is often aggravated by large quantities of such land being either kept vacant or devoted to uses which do not require a central location. Of course, land is more readily available on the outskirts of these cities at much lower cost. However, these areas are generally not well integrated with the city as a whole. There are seldom substantial employment opportunities nearby, infrastructure provision is inadequate and transport is usually very costly. In contrast, in smaller cities, even centrally located land may not be expensive, and land on the outskirts is usually very cheap. This does not mean that large cities are uneconomic. A large range of city sizes is in practice functional.

14. The rate of city growth is a third important factor in the housing situation. Many cities in developing countries have grown more rapidly in the last 25 years, than at any previous time in human history. Large cities, moreover, are among the fastest growing. Most have been deficient in housing the poor at standards offering protection from the elements and sanitation at a cost they can afford. A minimum

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<sup>1/</sup> Traditional housing "deficit" estimates, which use data on slum and squatter housing as proxies for inappropriate housing, (see Annex B, Table 1), tend to overstate the seriousness of the housing problem. Although such housing may be illegal, built from traditional materials, or both, it is not necessarily of an unacceptably low standard. Much of this housing, in most cities, provides both adequate shelter and good access to employment. Some is quite substantial. The study of six cities conducted for this paper suggests (see Table II.1, p.9) that, in the lowest income countries, the percentage of urban households currently unable to afford housing may approach, or even exceed, two-thirds. This measure too overstates the problem. Being based on the cheapest housing currently being produced by the public sector, it implies that the private sector does not produce lower-cost housing, and that the gap between incomes and housing costs has persisted for some time. Research and observation in the same six cities and elsewhere suggests that in practice the housing situation is not always as bad as such figures imply.

of 630 million persons is likely to be added to the urban populations of developing countries by the year 2000 (see Table I.1). Associated changes in the age structure of populations ensure even more rapid rates of household formation and increases in the effective demand for housing, making solutions which meet this demand all the more urgently needed. These estimates assume that a rapid acceleration in rural productivity and living standards will be more than matched by productivity gains in urban areas, maintaining a relatively higher standard of living in cities and resulting in continuing high rates of migration.

1/  
Table I.1: ESTIMATED URBAN POPULATION OF  
 DEVELOPING REGIONS  
 1960, 1980, AND 2000

Developing Region				Average Annual Growth Rate	
	1960	1980	2000	1960-1980	1980-2000
2/ Asia	134	309	647	4.3	3.8
Latin America	69	163	342	4.4	3.8
Africa	31	77	190	4.7	4.6
Total, Developing Regions	234	549	1,179	4.4	3.9

1/ Localities of 20,000 inhabitants and over. These figures thus sometimes exclude municipal units of less than 20,000 inhabitants within urban areas. Growth rates are regional averages; those of principal cities are typically higher than these averages (see Annex B Table 1).

2/ Excludes People's Republic of China.

Source: United Nations, Growth of the World's Urban and Rural Population, 1920-2000 (New York, 1969).

15. Topography, climate, social structure and other factors also affect housing, but in a modifying rather than determining manner. Hilly and marshy land, a site surrounded by mountains or the sea, and sites susceptible to earthquakes are all relatively difficult to develop.

#### Housing Policies

16. The fourth critical variable in housing conditions is housing policy. Variations in housing conditions among cities of similar rates of growth, size and income reflect differences in housing policies and their administration. Many past attempts to deal with housing have

taken the form of calculations of the investment required to meet the present and prospective housing "deficit." This approach is basically unsound. Apart from the conceptual difficulties of estimating "appropriate" housing for a variety of socio-economic conditions, it suggests that the housing problem is a "bottomless pit." By ignoring the potential for incremental improvement through a better use of existing resources, it has thus encouraged the adoption of counter-productive policies.

17. The most common such policy is a cycle of demolition and redevelopment of urban neighborhoods. Refusal to accept existing low quality housing as at least an intermediate solution to the urban housing problem is common. The consequence is a continuous process of construction of temporary dwellings which last until the government clears the land for other purposes or until they are washed away by tropical downpours. Thus, as the value of land close to the city center increases, squatters are forced to move toward the expanding periphery away from employment and other opportunities.

18. Many governments have insisted on maintaining high standards which raise the cost of housing and prohibit self-help construction by low income households. Prohibitive building codes, costly land acquisition procedures and other barriers prevent the poor from building permanent legal houses where they can earn a living. The sentiment "construct big, beautiful, and forever," is not unusual. The poor, who are frequently described as "marginal" by those who resent slum and squatter areas, are thus "marginalized" by policy failure.

#### Facing the Housing Situation

19. Interaction of the principal determining factors -- incomes, city size, the rate of city growth and housing policies -- results in a wide range of housing conditions. However, income factors are dominant, for they determine how much households, cities and countries can afford to spend on housing. At present, inappropriate policies often limit the housing available, forcing even middle income, but particularly lower income, families to live under worse housing conditions than resources could permit. Given particularly the rapid urban population growth forecast for the next decades, a more realistic approach to housing problems is needed if developing countries are to improve their housing situations.

## II. THE ECONOMICS OF HOUSING

20. Housing has multifaceted economic and social characteristics. It represents some 15 to 20 percent of household expenditures, and it is the major focus of saving for all but high income families. It is increasingly recognized as a profitable investment good, yielding a flow

of income. For some households, it is also a place of business. Moreover, it is spatially fixed, making its location relative to jobs, transport networks and public services as much a part of its essence as the materials used in its construction.

21. Investment in housing can have an important impact on income and employment through the utilization of unemployed or underemployed workers. Moreover, the import content of housing construction and of the manufacture of construction materials is usually relatively low, and the supply of domestic raw materials for housing is generally elastic. Multiplier linkages through the economy can be substantial. In Korea, for example, approximately 14 additional jobs are created for every \$10,000 spent on the construction of dwelling units. Housing construction can form up to 20 to 30 percent of total fixed capital formation in rapidly growing countries with vigorous housing policies.

22. Housing is thus a tool for macro-economic development, which should be viewed as complementary to other sectors. The emphasis which should be given to housing development in a national or an urban economy will depend upon the strength of demand and the elasticity of supply; that is, the degree to which the particular housing produced can draw on underutilized resources.

23. Housing also has social benefits. An inadequate dwelling, absence of water and sewerage facilities, or lack of access to income earning opportunities, contribute to low family incomes, poor health <sup>1/</sup> and a low ability to absorb education. Well planned housing, on the other hand, can increase national productivity, economize on urban space and minimize the cost of urban infrastructure. Improved location of dwellings in relation to jobs leads to reductions in traffic congestion and increased household take-home pay by reducing commuting expenses.

24. Housing as a package of shelter and services must thus also be viewed in terms of substitution and complementarity. The housing-transport relationship is an important case in point. In some instances either instrument may pose a different, but equally acceptable, solution to a particular problem. In others, they are best applied together. The relationship between housing and health is more clearly complementary. In a squatter area, for example, improvement of the house, provision of water supply and sewage disposal and the introduction of health clinics may seem to be competing for resources, but the realization of benefits available from a health investment may be dependent upon some improvements in housing.

25. Given its costliness and durability, however, there is a limit to the amount of housing construction a country can afford during any period of time. The emphasis must therefore be on (i) mobilizing underutilized resources; (ii) reducing unit costs by increasing the efficiency of construction or reducing standards; and (iii) improving the interaction among housing, land use and transport in integrated urban development.

1/ IBRD, Health Policy Paper, October 29, 1974.

### Housing in the Urban Economy

26. Housing has several components. The usefulness of land depends upon its location and area; the services, such as water, sewerage, electricity and roads, supplied to the plot; and transport available at that location. Land and the materials, capital and labor required for construction all have uses other than for housing, and their coordination on the site is a substantial problem which few societies have dealt with satisfactorily. The components together determine the total cost of the dwelling, and the mix of components may be adjusted to alter the cost per unit. The result is a wide range of housing types, which emphasize the substitutability of one component for another.

27. Location, and hence land is clearly of critical importance to housing. A dwelling located far from employment opportunities and social services is more expensive than an identically priced unit with better access, because travel costs are part of the cost of living at that location. Poor families are quite cognizant of the value of locations which give access to jobs (including sources of income to secondary family earners and supplemental incomes to primary earners), and access to services such as health and education which affect productivity as well as welfare. It is thus for sound economic reasons that families are willing to go to great lengths to obtain housing at desirable locations, even if it means accepting the risks of illegal "squattling."

28. The reasons for social investment in housing are equally soundly based. Housing can modify urban form and community development to improve equity and efficiency. It can take a variety of forms. Access to income earning opportunities is sometimes best improved by increasing the low-income housing supply near employment concentrations; sometimes it is better to locate industrial and commercial activities near low-income housing concentrations; sometimes linking existing residential and employment areas by improved transport is the best approach.

### Housing Costs and Incomes

29. To be effective, housing policies and programs have to be tailored to a country's income level and households' capacity to pay. Many past housing programs have met with little success because they have attempted to meet housing "needs" rather than the effective demand for housing. In contrast to estimations of need according to arbitrary standards, effective demand is derived from a household's ability and willingness to pay for housing.

30. At present there are wide gaps in most developing countries between the cost of currently produced housing and the ability of low income urban families to pay for it. In the six cities studied for this

paper, the cheapest housing units currently produced by the public sector ranged from \$570 to \$3,005 (see Annex B Table 4). From 35 to 68 percent of urban residents were unable to afford the full costs of such housing (see Table II.1). <sup>1/</sup>

Table II.1: PERCENT OF HOUSEHOLDS UNABLE TO AFFORD CHEAPEST DWELLINGS PRESENTLY AVAILABLE: SELECTED CITIES

(Percent of Population Not Served)

Mexico City	55
Hong Kong	35
Nairobi	68
Bogota	47
Ahmedabad	64
Madras	63

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Source: Annex B Table 4.

A 20 percent reduction in costs would enable the market to reach an additional 18 percent of households in Madras and roughly 10 percent in the other cities, but only an extra five percent in Nairobi. To reach the bottom 20 percent of households, costs would have to be reduced by nearly 70 percent in Nairobi, but only 20 percent in Hong Kong and approximately 50 percent in the other cities. (See Annex B Table 5 for the foregoing and for reductions that would be necessary to reach the bottom 40 percent, 20 percent and 10 percent of households in all the cities.)

31. Rising per capita incomes and improvements in their distribution may in time make this picture less gloomy. Time, however, is limited. For the current generation of urban dwellers, measurable progress requires a pragmatic approach to attaining lower production costs. Too often, a government's legitimate desire for good quality housing for its citizens engenders a neglect of ways to achieve decent dwellings at lower cost; however, cost reduction can be achieved, in the first instance and most simply, by reducing standards. Indigenous materials and traditional building methods can be substituted for higher cost materials. A lower quality of finish can be accepted. Interior living space can be reduced. Communal kitchens and sanitary facilities can lower the dwelling cost to each household.

32. Substantial savings can also result from reducing the land area devoted to each dwelling. This can be achieved by reducing the

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<sup>1/</sup> These figures assume that poor families will spend 15 percent of their household budget on accommodation at a real interest rate of 10 percent.

plot size for single family detached and semi-detached houses in site and services development; by designing houses, such as two-storey row houses, which share walls on both sides; and/or by constructing four to six storey walk-up apartment buildings. Land use is thus an important consideration in the design of housing and residential areas. It raises the question of trade-offs between single family and multi-family structures and between the use of self-help methods to utilize labor with low opportunity costs and multi-storey formal construction to utilize land more efficiently and reduce its weight in total dwelling costs. Families usually have at least the notional choice between relatively roomy and good quality shelter at locations with poor and costly access to income earning opportunities, and very cramped living conditions in locations with good access.

33. The nature of the trade-offs involved and the provision of alternative housing options for low income families in urban areas of widely varying characteristics have to be taken into account in housing decisions. Data for such decisions are usually not readily available, and all the options can therefore not be detailed in this paper. A limited approach, based on information collected for the six cities studied, can nevertheless indicate the effects of changes in standards which can realistically be achieved in housing of varying location and formal construction content. This is accomplished by comparing cost and income data on the assumptions that (i) livable space per household, (ii) land area per household, (iii) public services levels and (iv) location can be brought into a realistic relationship with the income levels of poor households. The comparisons of dwelling costs with household incomes in Annex B Tables 6-8 illustrate the range of housing options potentially available.

34. These comparisons take as their point of departure the actual costs of the cheapest single family and multi-family public housing units currently built in the cities studied (see Annex B Table 4). Hypothetical reductions in the costs of these units were calculated on the basis of the following assumptions: (i) that interior livable space would be reduced to 20 sq m. per dwelling unit; (ii) that gross densities would be increased by associated changes in land use standards (see Annex B Table 7); (iii) that reductions in the cost of services and construction would follow three different service level standards -- individual, shared and basic (see Annex B Table 6); and (iv) that all costs would be calculated on the basis of land prices presently prevailing at each location. The effects of changes in location were examined using land prices at the city center, at intermediate locations (defined as one-third the distance from center to periphery), and at the periphery (see Annex B Table 6). The resulting changes in the income groups that might be reached by these approaches are recorded in Table II.2.

**Table II.2: HOUSEHOLDS UNABLE TO AFFORD CHEAPEST HOUSING  
PRESENTLY AVAILABLE AND WITH ASSUMED COST  
REDUCTIONS, 1/ SELECTED CITIES**

(Percent of Population Not Served)

	Cheapest Dwelling Presently Available (From Table II.1)	Assumed Cost Reductions	
		Space Standard A	Space Standard B
Mexico City	55	4	3
Hong Kong	35	25	18
Nairobi	68	47	46
Bogota	47	11	8
Ahmedabad	64	41	36
Madras	63	38	35

1/ Dwelling unit cost derived from cost of cheapest currently built public housing, assuming peripheral location, basic services and the following space standards:

Space Standard A: Single family: 20 sq m. livable space per family, 75 sq m. land (This is the low cost solution in Bogota and Ahmedabad).

Multi-family: 20 sq m. livable space per family, 15 sq m. share of land. (This is the low cost solution in the other cities).

Space Standard B: Single family: 20 sq m. livable space per family, 40 sq m. land. (This is the low cost solution in Bogota and Ahmedabad).

Multi-family: 20 sq m. livable space per family, 10 sq m. share of land. (This is the low cost solution in Mexico City, Hong Kong and Madras. Single family and multi-family are equally low cost in Nairobi).

Source: Annex B Tables 4, 7.

35. Administrative and maintenance costs are included for the Hong Kong examples, which are based on actual, full-cost experience. Where ownership is not an option in multi-storey housing, the management costs of public housing may be important. Therefore, a cost increase of one-third, to account for these costs, as well as interest during construction and possible delinquencies or defaults in rental payments, was calculated as a sensitivity measure (see Table II.3). Vigorous housing policies may be presumed to stimulate the efficiency of supply, so that similar cost reductions are included in the sensitivity analysis.

Table II.3: HOUSEHOLDS UNABLE TO AFFORD HOUSING UNDER ASSUMED SPACE STANDARDS AND ALTERNATIVE COST ASSUMPTIONS

(Percent of Population Not Served)

	Space Standard B (From Table II.2)	Cost Reduction of One-Third <u>1/</u>	Cost Increase of One-Third <u>2/</u>
Mexico City	3	1	7
Hong Kong	18	8	34
Nairobi	46	29	61
Bogota	8	4	13
Ahmedabad	36	13	53
Madras	35	11	68

1/ This is also equivalent to 20 percent of household income devoted to housing instead of 15 percent.

2/ Allows for administrative and maintenance costs, interest during construction and 20 percent rate of delinquencies and default on rental payments.

Source: Annex B Tables 7,9.

36. These examples illustrate the importance of city per capita income levels and their distribution, of city size (and hence of land values), and of the efficiency of supply of the various housing components in determining the income groups that can be reached by housing policies. The priority attached to housing low income groups -- especially the extent to which governments are willing to reduce standards -- is also an important factor. If relatively high space standards are maintained, the option permitting the greatest proportion of the population to afford dwellings will always be at the periphery. Our examples illustrate that this may be achieved sometimes with single family and sometimes with multi-family housing, depending upon the mix of factors mentioned above. The essential task for housing policy is, however, to develop the trade-offs between other options for further cost reduction; and this too depends upon all of these factors.

37. Income level is the first important consideration. In relatively high income cities, a fairly broad range of housing options is in most instances technically feasible; and the bulk of the population may be reached with reductions in one or more standards which are substantial, but not so great as to reduce the housing produced to unacceptable levels

(see Annex B Table 7). Furthermore, the proportions of the population that can be reached in relatively high income cities does not appear to be very sensitive to changes in costs or the percentage of family income devoted to accommodation. <sup>1/</sup> Thus, for example, in Mexico City and Bogota, the percentage of the population which could be accommodated does not change markedly with either a cost increase or a cost decrease of one-third (see Table II.3).

38. In the low income Indian cities, and in Nairobi, the percentage of households which could not afford similar housing solutions appears to be much larger, and also more sensitive to changes in costs. In the Indian cities, this result is attributable chiefly to low incomes. Thus, despite the lowest construction costs in the world (see Annex B Table 2), more than one-third of families would be unable to pay the full costs of what are defined as low standard dwellings, with basic services at the periphery. In Nairobi, despite higher incomes, the figure is nearly one-half, a result which appears to stem primarily from the high local costs of construction and construction materials.

39. The importance of city size and layout, operating through their effects on land values at central and intermediate locations, comes out most clearly in the case of Mexico City. Thus, unless they are among the relatively few short-term beneficiaries of rent control, the poorest half of the population could afford housing at the standards for which costs were estimated only at the periphery. In Hong Kong and Bogota, by contrast, despite lower incomes and relatively large populations, substantial numbers in the lower income groups appear able to afford intermediate locations. In India, these groups clearly have a wider range of options in Madras with its extended layout than in Ahmedabad with its highly concentrated city center.

40. The figures suggest that the problem in the higher income cities is in principle manageable; that is, a reasonable reduction in standards would enable the bulk of the population to be housed at peripheral locations. However, particularly in very large cities such as Bogota, Hong Kong and Mexico City, this may not be the best solution. Some portion of the lower income groups could afford intermediate locations in row housing or multi-storey apartments; however, it would be desirable to provide a broader range of options under which larger numbers might be able to afford housing with better access to income earning opportunities for the entire family. Several possibilities emerge: (i) programs which encourage or enable families to devote a larger percentage of their expenditures to housing; (ii) increasing densities and/or reducing interior living space still further (see Annex B Table 8); or (iii) introducing conscious spatial policies, for example encouraging industrial and commercial activities to locate at the periphery or, alternatively, making higher value land accessible for low income housing through subsidies, whether explicit (as in the case of the Hong Kong and Singapore public housing programs) or implicit (as in squatter area upgrading programs). Finally,

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<sup>1/</sup> Except in special circumstances as in Hong Kong, where low density housing development at the extremes of the urban-rural fringe is not permitted.

there are numerous market imperfections which can be ameliorated or removed, thereby improving the efficiency of supply of the various housing components and of the materials entering into their construction.

41. In the lower income cities, the problem remains one of providing housing solutions for the poorest segment of the population. In these instances, many of the same measures may be considered; however, with different degrees of emphasis. For example, explicit subsidies of any size are beyond the fiscal capacities of governments. Furthermore, in these cities, very low standard site and services and squatter housing upgrading may be the only way to provide housing opportunities for large numbers of the urban poor.

42. The preceding illustrations, it must be stressed, should not be interpreted as being indicative of where and how the poor should live within cities. Nor do they establish an "optimal" residential density or suggest circumstances in which higher densities are required. For one thing, present information about the social costs imposed by lack of access to employment opportunities is too limited to permit a more careful weighing of the trade-offs between peripheral and more central locations. Even if full costs were known, the results would be no more than indicative of what could be accomplished in a variety of political and sociological contexts. Actual solutions will vary with income levels, traditions, personal preferences, political structures, urban development settings and relative costs of each city. The perceived private costs of the housing solutions proposed will have to be weighed against those of squatting and other options open to low income families if the proposed solutions are to be socially successful.

43. The data collected for this study are designed to show what might be accomplished by reducing standards, improving markets in other ways, changing locations and densities and utilizing self-help methods. In all cities studied, the examples suggest that housing (including site and services and other self-help methods of construction) could be provided without significant subsidy for at least 80 percent of the urban population (see Annex B Tables 7 and 8). In the wealthier cities, it appears that many of the lowest 20 percent could be reached within acceptable standards and with a low subsidy element. In Hong Kong and Singapore they presently are being reached, with some measure of subsidized access for the lowest third of the population. In the lower income cities it is more difficult for the poorest segment of populations to be reached by formal housing construction solutions. Market improvements should be stressed, because they can have great importance over time; however, squatter area upgrading programs and site and services approaches, stressing low space standards and high proportions of self-help construction, appear to hold the most promise at present.

## Housing Markets

44. Housing markets have special characteristics and they are very imperfect, with wide divergences between the private and social costs of production and limits on the flow of resources to the entire housing sector, and to low income households in particular. The scarcity of well located land, the high capital costs of servicing land and the durability of housing make for a relatively inelastic housing supply; increases in urban population, family formation and income levels lead to large demand shifts which frequently outstrip the supply response. This results in a market rationing process in which the limited stock of housing is allocated to the highest bidder. Households in all but the highest income categories are forced to accept housing which does not meet their expectations, and increased crowding results. Middle-income families occupy housing designed for low-income families, and the latter may not be able to afford "formal" housing at all.

45. Externalities, particularly the quality of the neighborhood environment, and the fact that housing is spatially fixed affect household decisions to construct or improve housing or to change their residence. Superimposed on these attributes are imperfections which can be classified as institutional or economic in nature. The latter include restrictions on the availability of infrastructure needed to service housing land. Complications in dealing with indivisible assets yielding substantial scale economies are frequently compounded by pricing and management rules of utilities which may restrict the access of the poor to public services at reasonable cost. Imperfections in private land markets lead to very high land prices, frequently caused in part by speculative withholding. These high prices combine with high transactions costs to make land assembly difficult for the poor to undertake.

46. Institutional constraints generally arise from legal barriers and administrative controls erected to protect specific groups or interests. Zoning often prevents parcels from being allocated to their highest and best use, either by imposing limited categories of use or by restricting unit density. Building codes, ostensibly designed to protect the consumer who has limited ability to judge quality of structures, often protect suppliers of outmoded materials or favored building trades. Minimum wage legislation and unionization have been blamed for limiting the flow of labor into the housing sector, raising unit costs. Rent controls discourage the expansion and maintenance of the housing stock. Institutional arrangements governing housing finance, such as interest rate ceilings and collateral requirements, may inhibit the mobilization of savings. Countless additional barriers restrict the access to vital information and make compliance with required procedures more difficult, particularly for the poor. Overcoming these constraints requires a sustained commitment to policies which provide housing at a cost within the reach of poor families.

### III. HOUSING POLICY OPTIONS FOR DEVELOPING COUNTRIES

47. Housing, and more generally urban development, is difficult to organize efficiently and equitably even in industrialized countries which do not have to deal with explosive city growth. However, several developed and some developing countries have been able to achieve housing standards which combine efficiency with welfare. Developing countries thus have a range of experience on which to draw.

#### The Policy Framework

48. A country's general policy framework has important implications for both supply and demand factors influencing housing. Exchange, foreign trade and other commercial policies affect the housing market through their impact on a country's overall competitiveness. Monetary policies influence the availability of housing finance; lack of development of grass roots financial institutions, for example, means a lack of mortgage funds. Fiscal policies are critical to a country's ability to mobilize resources for growth and the distribution of income. Equally important, all these policies have spatial dimensions which influence the range of city sizes within each country and the location of residences and employment within a city. Countries with a poorly conceived overall policy framework cannot expect to deal effectively with their housing problems.

49. The economic characteristics and welfare implications of housing make it a sector of relatively high public involvement in most countries. Important components of the housing package -- access roads, utilities and to some degree transport -- are "natural" monopolies that require public ownership or regulation if supply is not to be restricted so that excessive monopoly profits may be reaped. External costs and benefits also make public assistance necessary. The substantial external benefits of urbanization and housing are reflected in increasing land values in the course of city growth. Unless special effort is made to appropriate some of these benefits for social use, the increases in value will accrue to those individuals fortunate enough to be land owners. This situation encourages land speculation and "clearance" of squatter areas, and may ultimately lead to social conflict.

50. The welfare implications of housing are another reason for government assistance. Such assistance may be designed to offset market imperfections which are too difficult to attack directly, but which discriminate particularly against the poor. Thus housing subsidies may be justified on grounds of increasing productivity, as a means of redistributing income to the very poor, or both.

51. An effective housing program requires effective administration. The experience of most developing country cities suggests that existing approaches give insufficient weight to fostering institutions with a specialized knowledge of local conditions. Emphasis needs to be given to fostering institutions capable of formulating urban development plans and, within them, housing programs. In contrast to previous planning methods which have relied chiefly on zoning maps to indicate which development is to take place at which locations, strategic urban development planning implies the analysis of socio-economic influences on development and their coordination in a framework specifying planning objectives and the resources at hand to meet the objectives.

52. However, without a commitment to carry out these plans, the best conceived institutions and management cannot be fully effective. Government resistance to programs which allegedly "perpetuate slums" can for a variety of reasons be very strong. In other countries, where resistance may not be a problem, there may still be insufficient knowledge about the operation of housing markets and lags in dealing with their imperfections. The first step in improving housing opportunities for the poor is often a forthright recognition of these constraints and their effects on the formulation and execution of housing policy.

53. The range of instruments available for carrying out housing strategies and policies is considerable. Although their application may frequently lead to unexpected effects, sufficient experience has by now been accumulated to enable some general judgments to be made about the most appropriate use of particular instruments.

#### Zoning Regulations

54. Zoning is a potentially valuable instrument of urban and housing policy, important in protecting an aesthetically pleasing residential environment, grouping certain (e.g. commercial) activities in an efficient manner, and segregating unwanted activities. Yet the inappropriate application of developed country zoning regulations may exclude the poor from residence near industrial, commercial and high income residential zones which provide their income earning opportunities.

#### Building Standard Controls

55. Appropriate building standards can also do much to create a safe and pleasant environment, for example by preventing or limiting the likelihood of fires, floods and similar hazards. However, if standards are set too high for existing income levels, their primary effort will be to push down the living standards of the poor by reducing the amount of housing available at prices they can afford. The poor will then be driven to bribery to retain or construct "sub-standard" housing.

### Pricing Policies

56. The attempt to prevent the capture of socially caused gains by private individuals and to offset the imperfections of housing markets by introducing rent controls has a long and unsuccessful history. Rent controls have only been effective for limited periods of strong social cohesion, as during wartime, and when applied in combination with strict controls on other incomes and prices. Applied over longer periods, they have eventually given way in most countries to illegal rationing systems by which some form of "key money" becomes a substitute for proper rents, and the poor are driven out of much of the controlled housing. But this neither undoes nor fully stops the damage. Because they limit returns on housing below market levels, rent controls inhibit additions to housing stock and lead to deterioration through lack of maintenance. Attempts to control the prices of public utilities or urban transport have had similar financial repercussions. In addition, they distort the location decisions of households and firms. They also lead to rationing situations in which the poor are seriously disadvantaged as capital stock and the supply of services deteriorate.

57. Measures to price these services at their full economic value, however, may be difficult in the short run. They frequently run into resistance. But even if they do not, their introduction in the absence of other measures may be inequitable. Obliging poor families, for example, to pay the full cost of housing services may place them at a disadvantage relative to the non-poor as well as other poor families, if the practice is not city-wide. Yet, it is precisely in cities where the absence of full cost pricing for housing and some services is widespread that the magnitude of the change, and the numbers likely to be affected by measures to introduce greater efficiency and equity, can give rise to the greatest resistance. Such changes must thus be introduced thoughtfully. One means which appears to be gaining acceptance is to finance part of the cost of services to the poor from profits from operations involving richer families; these cross-subsidization schemes have had increasing application in a number of countries.

### Land Tenure

58. Land ownership is at least as complex and as maldistributed in urban as in rural areas. While an overall improvement in land tenure can usually be only a long term target, squatter upgrading is a prime policy instrument for improving the situation for at least part of the poor population quickly. Introducing an element of equity into urban land ownership by giving squatters security of tenure is an urgent policy issue in most cities in developing countries, and one with high returns in terms of retained and improved housing stock, access to earning opportunities and consequent welfare. However, the payment for at least some portion of the actual land value should be required in exchange for title to avoid excessive subsidies to only part of the poor.

### Land Purchase and Development

59. Most cities have found it necessary to purchase urbanizable land to deal with housing and associated urban development problems equitably. Some cities in developing countries have publicly owned land which can be used to start such a process; others are interested but have no initial land bank, and a few are legally barred from such action. Land within existing city limits is usually very costly, but peripheral land can often be purchased ahead of use at low cost. As the present owners are generally farmers, a variety of deferred payment schemes can assure eventual possession at current prices: in the meantime, the land continues to be productive in agricultural use. Public land servicing has successfully stimulated private housing in many countries, and it is particularly suited to assisting low income households at peripheral locations through the site and services approach. The preparation of serviced sites ahead of the growing demand for housing can be used to affect urban form as well as to provide poor households with security of tenure and a sound basis for building a house. With good management, the increasing value of serviced land can be appropriated for social use on a much broader scale. The development of land for manufacturing and commercial uses together with housing and transport can have a strong development impact. In these circumstances, city growth can in time become not only more efficient and equitable, but also more financially self-reliant.

### Taxes on Land

60. The capture for social use of some of the gains, or "betterment," accruing to land and housing owners from public improvements is another important issue. By capturing betterment, society does not penalize a landowner for putting his land to productive use, but simply reduces any incentive to hold land for other than productive reasons. Capital gains and other forms of taxes on land, as well as user charges, have often been used for these purposes. In practice, valuation problems and erosion of the tax base through exemptions have limited the effectiveness of these taxes. They are, nevertheless, increasingly called upon to provide revenues, underwrite the cost of specific public improvements and achieve a more equitable distribution of urban real resources. Raising tax receipts from land can alleviate some of the burden of taxes on capital, stimulating the flow of investment and the development of financial institutions. Moreover, a program of public improvements financed by betterment levies or equipment charges tends to reduce uncertainty about the pattern of future urban growth, thereby encouraging private investors.

### Building Materials

61. The greater use of traditional materials and the adaptation of new techniques to traditional building methods can lower costs, particularly in labor-surplus economies. India has scored notable successes in this regard. Traditional brick and tile making methods, for example, may not be able to utilize more than a small fraction of

local clays, but a refractory technique may do so. Although secondary timbers in tropical countries may not be sufficiently durable for building in their natural state, appropriately treated they will withstand climate and predators. The use of lime, which is in plentiful supply near many cities, instead of cement may also produce savings.

### Improving Financial Institutions

62. The lack of mortgage funds frequently constrains housing. However, overcoming this problem is not so much a housing issue as a question of development of the financial sector. In most developing countries, to build up a range of suitable intermediaries is the first task. But financial intermediation generally requires reforms of financial markets. The freeing of interest rate restrictions, measures to encourage competition among banks, the ending of inappropriate banking practices, the promotion of life insurance companies and pension funds, all increase the availability of long-term credit, and hence, potentially, of finance for an efficient housing sector. Removal of the several specific hindrances to housing finance would allow housing to compete more effectively with other claimants for long-term institutional finance, and would enhance social progress through facilitating home ownership. Mortgage insurance can be used to facilitate increasing lending for housing and to bring such lending within the reach of lower income groups. Lending in small amounts to low income borrowers requires special institutional approaches.

### Public Housing

63. Experience with large scale public housing construction which substantially increases housing density is varied. There have been many failures; however, countries active and successful in public housing view it as an instrument for shaping cities and urban productivity, and as a contribution to the welfare of lower income households. Public housing may improve the spatial distribution of residences and employment by locating families where all earners have access to job opportunities. Enough knowledge has been accumulated, as much from the failures as from the successes, to guide countries wishing to embark on this course. Standards have to be consistent with prevailing income levels. If buildings are designed flexibly, initially low standards can be adapted as incomes rise. Construction has to be technically sound and economically efficient. Public housing can provide the steady demand that assists a local contracting industry to develop.

64. Secondly, public housing has to be well located in relation to job opportunities. In Singapore and Hong Kong public housing is well located in relation to industry. In addition, "flatted factories" for small-scale industry have been built in the middle of housing developments, and large-scale, labor-intensive industries have been attracted by factory space for leasing in the midst of housing estates to employ

secondary family workers. A housing area has to be large enough to have functional community facilities such as schools, health clinics, markets or shops, and recreation areas and facilities, or to have good access to them. It is somewhat easier to manage owned than rental units, and ownership is often also preferable for social reasons. In any case the management input has to be substantial and efficient. This includes not only finance and maintenance, but also staff to collect rental or time payments according to a rigorous schedule and social workers to assist families to adjust to high density housing and other new aspects of their environment. Of course, some delinquencies are to be expected, for a variety of political and social reasons. But in appropriately designed and managed public housing where standards are geared to income levels, delinquencies because of inability to meet rental payments should not be substantial. To be effective, public housing has to have most of these components, in forms which meet the needs and cultural patterns of the occupants.

#### IV. THE LESSONS OF INTERNATIONAL ASSISTANCE

##### A. The Evolution of International Assistance

65. The economic and welfare gains to society from the provision of housing have drawn the United Nations, several multilateral and bilateral aid agencies, and private aid agencies into providing assistance for housing since shortly after World War II.

66. There have been two main types of assistance. The United Nations agencies, <sup>1/</sup> recognizing the importance of urban planning, have concentrated on a "master plan" approach. Many years of urban physical planning effort have been supported in Bogota, Dakar, Karachi, Lagos, San Jose, Singapore and elsewhere. This strategic planning is designed to influence growth in ways which improve on what a simple continuation of past trends would produce. It may also suggest ways in which disenfranchised groups may more equitably share in the benefits of urban growth. Some cities, notably Singapore, have been able to provide a counterpart planning input backed by administrative measures and financing to bring plans to fruition in a relatively short period.

67. More commonly, however, such "absorptive capacity" has been inadequate. In these cases, planning efforts are frequently overtaken by rapid urban growth. In some instances, moreover, planning has been unduly influenced by the standards and social goals of industrialized countries. Zoning measures restricting land to a single use ("commercial," for example) might have worsened employment access problems had they been

<sup>1/</sup> Programs relating to human settlements are undertaken by the U.N. Centre for Housing, Building and Planning (UNCHBP), FAO, ILO, UNESCO, UNIDO, WHO and the World Food Programme. The International Habitat and Human Settlements Foundation (founded January 1, 1975) is also expected to play an active role in this field.

effective. The heavy reliance on transport investment in many urban plans often implies unrealistically high expenditures on transportation to work for poor families. Some plans have sought to orient public sector activity toward the needs of the poor, but, even if implementation problems could be solved, they generally offer only long-term prospects for improved living conditions, not tangible benefits in the foreseeable future.

68. Most other public assistance efforts have been more direct, primarily involving funds for housing finance institutions, although technical assistance has also been provided on a limited scale. The principal public aid agencies with housing commitments have been the U.S. Agency for International Development (AID), The Caisse Centrale de Cooperation Économique (France), the Inter-American Development Bank (IDB) and the Commonwealth Development Corporation (CDC). The AID program has been the largest, with some \$205 million in capital assistance and nearly \$14 million in technical assistance devoted to housing from 1949 to 1971. This was supplemented by commitments of \$472 million in the Housing Investment Guaranty Program through June 1973. This assistance has been concentrated mainly in Latin America, where AID funds had contributed to the construction of 111,000 units by 1971. The Caisse Centrale de Cooperation Economique is the second largest source of bilateral funds for housing in developing countries. It has concentrated its lending activities in French-speaking countries, primarily in sub-Saharan Africa. Approximately two-thirds of its loans have been made to housing corporations, and the rest to housing authorities (O.H.L.M.) seeking to assist middle and low income groups. The IDB has committed \$416 million, seven percent of its total portfolio from 1960 through 1973, to urban development projects including housing. Under IDB projects the construction of 340,000 dwelling units had been completed by January 1, 1974. CDC involvement in housing, also substantial, has focused primarily on seed capital and technical assistance for mortgage finance companies and housing estate developments in Africa, South Asia and the Caribbean. Commitments totalled \$148 million from 1960 through 1973, <sup>1/</sup> and these funds were supplemented by \$246 million from other sources. CDC has, in addition, extended loans totalling \$25 million to governments and housing authorities for low cost housing.

69. After more than a decade, it has become clear that these efforts, although they have helped to increase the total housing stock, have had little direct impact on housing for the poor. The bulk of past assistance efforts have not dealt effectively with existing market imperfections and have not succeeded in reaching low income groups (Annex A, Tables 2 and 3). The unit costs of housing they have financed have ranged from \$960 to \$10,000. <sup>2/</sup> Moreover, "seed capital" for housing institutions has not in practice altered banking policies which have subsidized middle income groups and excluded the poor from housing loans.

<sup>1/</sup> Annex A, pp.5-6. Sterling figures have been converted at \$2.60/£.

<sup>2/</sup> See Annex A, Table A.2.

70. These programs might have reached more poor families had they been part of a package of housing inputs, conceived in an urban planning framework. They might have been more conducive to reducing subsidies to middle income groups had their implementation been made conditional on the charging of appropriate interest rates within an appropriate package of repayment terms.

71. AID and IDB are aware of their inability to meet the objective of helping to provide "minimum shelter" to the urban poor. A 1971 report prepared for AID concluded that the bulk of the housing financed over the previous decade had been too costly for the poor. The report recommended "that AID redress this record by concentrating upon the housing needs of low income people and discourage ... loans, grants, and technical assistance programs which do not attempt to meet their needs." <sup>1/</sup> A number of donors now support the site and services approach as the most promising way of achieving this objective.

72. Private bilateral aid agencies, for example the Foundation for Cooperative Housing (FCH) and the Pan American Development Foundation (PADF), appear to have been somewhat more successful in reaching lower income groups, although on a very small scale. The FCH has helped establish cooperatives in several Latin American countries, achieving unit housing costs of less than \$1,000. PADF projects organize the poor so that they may take advantage of low cost credit. The first national foundation in the Dominican Republic, created with PADF assistance in 1966, has since made available about \$1.7 million in loans for housing and community development involving 150,000 people, for an average loan of \$11.50 per person.

73. Private development agencies have thus been generally more realistic in defining the housing demands of low income groups and more cautious in their approach; they have concentrated limited financial and human resources on a small number of cases. Perhaps for these reasons, they appear to have made a more innovative impact on housing than public agencies. The public aid agencies, viewing the range of experience -- successful and unsuccessful -- with low income housing, are reassessing their own programs, and this has contributed to the renewal of interest in "human settlements" in the international foreign assistance community.

B. The Experience of the Bank Group

74. The Urbanization Sector Working Paper (June 1972) set out an initial strategy for the Bank Group's entry into the housing field. Until that time the Bank Group's lending and related institution building efforts in urban areas had been directed toward national and sectoral objectives, rather than affecting the growth pattern of cities and the welfare of the poor. The Sector Working Paper, taking a comprehensive view of urban development, indicated a need for projects which would

1/ Foundation for Cooperative Housing, Cooperative Housing and the Minimum Shelter Approach in Latin America, Vol.II, 1971.

assist countries to accommodate rapid urban growth more efficiently and improve the distribution of income in cities. Site and services projects, by providing access to serviced land and security of tenure, could be a key instrument for influencing urban development.

Improvement of existing low income housing was also considered important, although specific approaches were not worked out at that time. The principal objective in both these types of projects was to provide low income families with the land and public utilities components of the housing package, and a variety of technical and financial assistance to enable them to use self-help to build and progressively improve their dwellings. Direct lending for housing was not immediately contemplated, but the possibility was not excluded that, at a later stage, there might be direct financing of permanent housing if the circumstances warranted it. Indirect Bank Group assistance to housing through stimulation of housing finance institutions was contemplated, provided there were no subsidies for medium and high income groups. <sup>1/</sup>

#### Site and Services Projects

75. The first site and services project was approved by the Board in June 1972. To date, ten urban development projects involving site and services and other housing components have been approved for Senegal, Nicaragua, India, Botswana, Jamaica, Tanzania, Zambia, Indonesia, El Salvador and Korea (see Annex B Table 10). An additional four, in Kenya, Pakistan, the Philippines and Thailand, are in preparation. The variety of situations faced in the course of project design has made a broad range of responses appropriate (see Table IV.1 for general project characteristics and Annex B Table 10 for details). The diversity of projects undertaken has also contributed to a rapid evolution of the character of lending, and highlighted the principal issues which will be faced by the Bank Group in undertaking future projects in this field.

76. In site and services projects, land plots are levelled and furnished with access roads, drainage, water, sewerage and electricity. Schools and health clinics have been provided in all projects, and in some there are also refuse collection, fire protection services, and other public facilities. Particular attention has been paid to locating projects within reach of major markets and jobs. An effort has also been made to provide job opportunities within project areas. In the Nicaragua, Jamaica and El Salvador projects, provision has been made for small industries on the project site to assist in employment creation; and, in these and the Botswana project, land has been provided for industrial development.

#### Upgrading of Squatter Housing

77. Lending for squatter housing upgrading to complement the site and services approach was adopted with the Calcutta Housing and Area Development Project. This feature of project design can help prevent

<sup>1/</sup> IBRD, Urbanisation Sector Working Paper, June 1972, pp.64-66.

squatters from being relocated far from employment opportunities, and can provide low cost housing together with low cost access to employment. It is becoming an increasingly important feature of Bank Group lending, as in the Indonesia, Jamaica, Tanzania and Zambia projects. Squatter housing improvement provides a means of retaining and improving existing housing stock which might otherwise be demolished. At the same time, it maintains the access to employment and social services of relatively central locations for low income residents. Its most important contribution is to give the poor security of tenure.

78. Issues encountered in the Tondo District of Manila illustrate the advantages of this approach. The initial project proposal would have involved total demolition of housing in the area, and a redevelopment pattern which would have accommodated less than 30 percent of the existing population of approximately 160,000. The other families would have been resettled either on government land more than 30 kilometers away, or on new land reclaimed at considerable expense from Manila Bay. The project is now being reformulated with Bank Group advice and assistance so that: (i) the bulk of existing structures will be retained; (ii) most of those families that are temporarily dislocated will be accommodated within the project area at densities approximating those currently prevailing, but with improved access to services; and (iii) the much smaller "overspill" population will be settled nearby.

79. In squatter area upgrading, the objective is to avoid, insofar as possible, the dislocation of residents when roads and public facilities are introduced. In most urban fringe areas and in the low density squatter settlements of most African cities this objective can usually be achieved. However, most central city slums and squatter areas of long standing are densely populated. It is not usually possible in these areas to introduce services, particularly water supply and sewage disposal, without removing a few structures. Even when removal is kept to a minimum, some families may have to be rehoused. In such cases, effective area upgrading may require some multistorey construction, e.g. three to five storey walk-up tenements, on the same site to at least maintain the existing density and avoid costly relocations to distant sites.

#### Self-help and Mutual-help

80. In both site and services and squatter housing upgrading projects, self-help or mutual-help methods have been applied to the construction of dwellings and some community facilities. These methods have in some cases also been employed in road formation and the laying of water and sewer pipes. To be effective, self-help requires technical as well as financial assistance to the poor families and the settlement communities. The range of technical services offered has widened with experience. Project beneficiaries now receive guidance in applying for housing, obtaining title, and learning a variety of construction methods.

Table IV.1: GENERAL CHARACTERISTICS OF SITE AND SERVICES  
AND SQUATTER HOUSING UPGRADING PROJECTS FINANCED  
BY THE BANK GROUP: JUNE 1972 - DECEMBER 1974

	<u>Range of Values</u>
Amount of Credit or Loan <sup>1/</sup> (\$ Million)	3 - 25
Lowest Target Income Group (percentile)	0 - 48
Number of Site and Services Plots (thousand)	2 - 16
Plot Dimensions (square meters)	60 - 324
Number of Houses Upgraded <sup>2/</sup> (thousand)	1 - 17
Number of Core Housing Plots <sup>2/</sup> (thousand)	1 - 8
Infrastructure and Services <sup>3/</sup> (number of kinds included)	4 - 10
Distance from City Center (kilometers)	
Towns	1 - 5
Small Cities	3 - 8
Large Cities	6 - 15
Self-Help Proportion (estimated percent of total project costs)	30 - 40

<sup>1/</sup> These figures refer only to that proportion of the total credit or loan devoted to housing; in some instances, e.g. the Calcutta and Korea loans, this is a small portion of the total loan or credit.

<sup>2/</sup> Not all projects include these elements.

<sup>3/</sup> See Annex B Table 10 for information on service levels.

Sources: Annex B Table 10.  
Appraisal Reports.

### Direct Construction

81. All Bank Group site and services and squatter housing upgrading projects have aimed at a maximum use of self-help. However, in most circumstances, there are aspects of the construction process (plumbing, for example) for which self-help is inappropriate, so that some direct construction is required for efficiency. In most site and services projects, the distribution network cannot be conceived as ending at the property line; it extends to the toilet and washstand, or the utility bloc. As it is possible to economize on these installations by providing them for two to four houses at one time, there is frequently a case for constructing a wet wall or "party wall" at the same time. This principle may also apply in cases where two storey row housing leads to a more economic use of land. In most instances, the construction of the two common walls would have to be organized.

82. Some tasks, in addition, cannot be performed as efficiently through self-help as on a contracting basis. Even in the Botswana project, with minimal service standards, the installation of aqua privies could be performed by a contractor at significantly lower cost than by each family individually. In the Korea project, construction of the foundation and floor, which included ducts for the heating system, was beyond the technical capacity of the families which were to occupy the sites. This construction component was thus incorporated in the project, although it was not financed by the IBRD loan.

83. The duration of the construction period affects the relation between direct construction and self-help. Sometimes self-help methods take too long to be utilized for project components which must be completed early. For the working poor, who form a significant proportion of very poor families, spare time to construct a dwelling may be extremely limited. Families often need protection from rain or cold while constructing or improving their dwellings. In either case, some shelter is usually required for the self-help process to get started. Additional particular features, such as the need for earthquake resistant design in Nicaragua and fire prevention in Indonesia, may require some degree of direct construction. A temporary shelter or small core unit may in some instances be required to convince families that development will in fact take place throughout the project area, enabling them eventually to benefit through neighborhood development from each other's efforts. Such partial construction is generally described as "core housing." It is built as far as possible of traditional materials, but in some cases more modern construction methods are required for structural reasons. Reinforced concrete, for example, was necessary to ensure resistance to earthquakes in the Nicaragua project.

84. By recognizing the limits as well as the advantages of self-help, and encouraging the provision of items that self-help can provide only with difficulty, the Bank Group can assist small contractors and other small businessmen who are often the most efficient suppliers of

the materials and services required. Such action can often strengthen the private housing supply capability, and provide a promising possibility for extending the Bank Group's traditional support for industry by stimulating the supply of materials for self-help construction.

The Target Groups

85. Although the target groups for all the site and services and squatter housing upgrading projects have been low income families by the standards of the countries concerned, in absolute terms they have represented a considerable range of low incomes. For example, the minimum standard sites for the lowest income groups in the Jamaica project were too costly to be afforded by the highest income group in the Botswana project. The ensuing diversity in design standards has been accompanied by a complementary range of per capita and unit project costs. Thus, the total site and services costs have ranged from \$15 per project resident in Senegal <sup>1/</sup> to \$340 in Jamaica.

86. Land, site preparation, on-site infrastructure (including water, sewerage, roads and drainage, security lighting and sometimes electricity) and plot development (including core housing and materials loans for dwelling construction) are the four major elements in site and services projects. The weight of these items varies greatly between and within projects. Generalizations are also difficult because a value has not always been estimated for land already owned by the government. (An effort has, however, been made to assess land costs in terms of foregone opportunities in the cost-benefit framework of project evaluation.) Both the wide variations among projects and an approximately equal distribution over all projects between (i) land plus site preparation, (ii) on-site infrastructure and (iii) plot development are illustrated in Table IV.2.

Table IV.2: MAJOR COST COMPONENTS IN SITE AND SERVICES PROJECTS  
(Percent of Total Site Cost)

Cost Item	Unweighted Mean	Range
Land	21	14 - 28
Site Preparation	13	0 - 19 <sup>1/</sup>
On-Site Infrastructure	33	16 - 77
Plot Development	33	4 - 62 <sup>2/</sup>

<sup>1/</sup> In one case 61 percent.  
<sup>2/</sup> In four cases 0.

Source: Annex B Table 11.

<sup>1/</sup> For the Thiès component of the project. The range for Dakar is \$39 to \$120.

### Financial Arrangements for Projects

87. Financial arrangements for projects vary widely. The costs of water and other utilities are sometimes recovered through user charges, but more often are grouped with other charges in project rental payments. The experience of other organizations with projects of this type suggests that payment delinquencies are relatively low, and therefore manageable, when the projects are appropriately located, standards (and therefore costs) are commensurate with incomes, and management is efficient. There have been two modifications to the full cost recovery approach. It is accepted practice that costs of community facilities such as schools and health clinics, typically financed out of general revenues, are not charged directly to project occupants. Secondly, if calculations of social costs and benefits so indicate, there may be implicit or explicit "subsidies" in the treatment of land in central locations where the target occupants are unable to afford such land at full market value. The occupants thereby gain security of tenure without full, and sometimes without any, payment. Beyond this, subsidies would generally be counter-productive because they would make it impossible to replicate the project on a broad scale.

### Financial Arrangements for Occupants

88. Occupants of site and services plots also need access to credit. They generally buy their plots over time, at interest rates ranging from 7 to 14 percent, with repayment periods of 15 to 25 years. Although downpayments are generally 15 to 30 percent, no downpayment at all is required of the lowest 30 percent of families in the Nicaragua project. In Korea, the downpayment is 20 percent of all land and development costs for the lower income families, and 50 percent for the relatively high income families. In the Jamaica project, downpayments are fed into a revolving fund used for construction materials loans, and in the El Salvador project they can be met in cash or through labor credits earned in mutual-help activities.

89. Finance is provided by existing institutions if they are able to service or can adapt to servicing, such small loans. If this is not possible -- and this is usually true of loans for construction materials -- financial arrangements must be provided by the project.

### Housing Finance

90. The difficulty of financing low income families is a particularly acute aspect of the general lack of housing finance institutions in developing countries. IFC has been taking modest steps toward assisting the development of housing finance institutions. Two equity participations, of 20 percent each, have so far been approved. The first was with DAVIVIENDA, a part of the Colombian system (CAV) patterned after savings and loan associations or savings banks as they are commonly known in developed countries. The second was with BNE, a mortgage bank in Lebanon

whose principal functions will be to mobilize domestic medium and long-term resources and to provide long-term mortgage financing.

#### The Institutional Framework

91. A country's overall housing and urban development policy framework and the institutional structure within which housing policy is carried out greatly influence the success of a project. Grass roots community organizations are no less important. A variety of arrangements have been utilized to date. Projects in Senegal, Nicaragua, Jamaica and Tanzania are to be implemented by national agencies, whereas those in India, Botswana and Zambia are the responsibility of metropolitan governments. In the Indonesia project, responsibility is to be divided between national and local authorities. The El Salvador project is to be undertaken by the Fundacion Salvadorena de Desarrollo y Vivienda Minima (FSVM), a private, non-profit foundation whose basic objective is to improve the living conditions of low-income people, especially those living in squatter settlements. Indeed, it was its success in doing so on a small scale which led the Bank Group to assist the FSVM to operate on a larger scale.

92. The institutions required to implement projects may not exist at all, and if they do they are deficient in many respects. It is usually necessary to identify the kernel of an institution and to help build its management capacities through technical assistance. At the city and national policy and planning levels the problems are similar.

#### Monitoring and Evaluation

93. Monitoring and evaluation constitute an important aspect of the learning by doing approach. This will provide data on the characteristics of occupants, development of their plots and changes in aspects of their environment over time. Analyses of these data will be undertaken to explain observed trends and help assess whether the projects meet their stated goals. Project monitoring and evaluation will also assess standards and locations in terms of how well they fit the behavioral characteristics of target groups, so that the melding of standards and locations with resources can be improved. A complementary research effort to improve the data and analytical base is also underway. An evaluation of urban income distribution in Latin America is now in progress (RPO 283, 285). Other research results with potential impact on project design involve studies of fertility behavior, labor markets, urban land, and income and consumption (RPO 203, 274, 290, 298, 299). Increasingly effective project design and appraisal will be possible as these efforts bear fruit and when monitoring and evaluation data from current projects begin to record the income and consumption patterns of project residents.

#### The Impact of Other Bank Lending on Housing

94. Lending for site and services development and squatter housing

upgrading constitutes only a portion of the Bank Group lending that affects housing. Lending for urban development, including urban transport, is planned to increase more than tenfold from 1969-73 to 1974-78 (Table IV.3) and become about three percent of total Bank Group lending.

Table IV.3: IBRD/IDA LENDING FOR URBAN DEVELOPMENT  
(Constant FY 74 dollars)

FY	Number of Operations	Percent of Total	Volume of Lending (\$ million)	Percent of Total
1969-73	5	0.8	63	< 0.4
1974-78	35	3.2	675	2.7

Source: "Revision of IBRD/IDA Program, FY74-78," June 4, 1974 (R74-115).

The Bank Group also lends for public utilities, industrial estates, tourism <sup>1/</sup> and ports projects in urban areas. Such investments have an impact on housing, in some cases by competing with housing for land and in others by increasing its value or creating a demand for housing in a particular place. In each case in recent years the effort has been made to relate these as well as site and services projects to each other and to plans for the overall development of the city. Unfortunately, since such plans are frequently lacking or uninformative, assessment of the impact of urban investments on housing has so far proven difficult.

#### V. DIRECTIONS FOR BANK LENDING FOR URBAN HOUSING

95. The task of improving housing for large numbers of low income dwellers in developing countries, and integrating their growing numbers in productive towns and cities at rising standards of living over the next 25 years, is clearly immense. In resource terms, the Bank Group's

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<sup>1/</sup> Recent tourism projects have provided new serviced sites, upgrading of service levels in existing communities and advice on land management policies. IBRD, Appraisal of the Puerto Plata Tourism Project, Dominican Republic (October 1974); Appraisal of a Tourism Infrastructure Project, Tunisia (May 1972). Additional projects utilizing cluster development to conserve on beach frontage are planned.

contribution to the improvement of housing conditions can only be limited. However, the Bank Group is facing growing demands for assistance for housing as urban development is becoming recognized as an urgent task, and such demands are likely to increase further as city growth continues. Experience in lending for shelter projects is short, but it already indicates that even limited involvement can have a significant impact in helping member countries find approaches to housing for the poor which are consonant with efficient urban growth. A continuing review of the Bank Group's assistance for housing, with particular attention to future needs, is therefore essential.

#### The Lending Framework

96. Bank Group assistance for urban housing is only meaningful in the context of an urban development program. Government policies and investment priorities have to be supportive of efforts to improve the employment prospects and living conditions of the poor. A single set of requirements for Bank Group involvement cannot be adopted because the circumstances of urban development and a government's freedom to act vary widely. Some broad indications of government priorities may however be considered as indicative of a commitment to improve housing for the poor:

(a) The Bank Group should intervene only if the government has a commitment to help the urban poor. This should be reflected in a willingness to retain and upgrade existing low-income housing stock in slums and squatter areas, and to adopt realistic standards to bring new housing within the financial reach of the poorer income groups.

(b) The government should be cognizant of the need for improved land management policies. To this end, it should be committed to clarifying land tenure and the means of obtaining security of tenure, particularly for the poor; improving the means of obtaining land for public sector use and mechanisms for resolving disputes in such instances; and reducing the betterment values vesting in private land holdings by full cost pricing of services, land taxation and direct public sector involvement in the land market. Planning for future urban growth in relation to national development is an important aspect of land management.

(c) There should be an understanding of present market imperfections, particularly those caused by current government policies, and an indication of willingness to reduce them over time.

#### Squatter Upgrading and Site and Services Projects

97. The analysis of the housing situation, and of the Bank Group's experience, both suggest that the upgrading of squatter housing to ensure the retention and improvement of existing housing stock, and the provision of serviced sites on which lower income families may construct new housing for themselves by self-help methods, are prime lending

instruments for more equitable urban development. Typically this type of housing project involves an examination of housing problems, land use and urban development for a city as a whole and in the context of a country's urban system to ensure efficient and equitable development. Technical assistance for urban policy formulation and execution, and to the entity executing the project, is also a very important part of this approach. As paragraphs 75 to 92 of this paper indicate, this lending approach includes a broad range of activities: land development, land servicing, the provision of communal physical and social facilities, lending to project beneficiaries, and core housing construction.

98. The accumulation of experience in shelter projects has pointed up the complementarity of formal and self-help construction methods in providing housing for the poor. Thus, although the emphasis in squatter upgrading and site and services projects is on self-help construction methods to take advantage of the availability of otherwise unutilized labor, all such projects also include some measure of formal construction. In squatter housing upgrading projects some relatively high density construction may be necessary to replace the minimum amount of housing removed during the physical upgrading process. In site and services projects, the appropriate amount of formal construction varies with the project. Core housing construction may be necessary to provide for such technically difficult components as plumbing or heating ducts, and shock resistant buildings in earthquake prone areas. Demonstration construction is sometimes required to provide training for the self-help process, or indeed to persuade potential occupants that a project will get off the ground. In some countries climate may necessitate core construction to give occupants adequate shelter while they complete their dwelling.

99. The continuing attempts to reduce costs to meet the capacity of the poor to pay highlight the importance of standards. For example, costs can usually be lowered substantially by reducing living space within a dwelling unit and the land utilized by each unit. Single-storey detached, and even semi-detached dwellings, may imply a higher level of land utilization than either poor families or rapidly growing, low-income cities can afford, even at the present city periphery. Row houses, and in some circumstances two-storey row houses, may provide a cheaper form of housing for low-income groups. They are usually the prevalent form of housing in areas where the private market operates well enough to reach down to low-income groups. Such housing would generally require some formal construction, though finishing could be left to self-help.

#### Selective Housing Construction

100. Past views of housing as an "unproductive" sector have tended to constrain the evaluation of the merits of formal housing construction. Squatter housing upgrading and site and services projects cannot always deal with the full range of housing problems confronted in the cities of developing countries. Low income housing must be so located as to provide

access to employment, including part-time or secondary jobs, for several family members if it is not to consign the low income groups to perpetual poverty. Squatter area upgrading is limited to improving existing housing. Site and services projects are more oriented toward handling the expansion of population, but they could in some circumstances involve such high land or transport costs that denser housing would be less costly in private and social terms.

101. Finding the most appropriate housing solutions for low-income families, and for efficient urban development, requires consideration of the trade-offs between the costs of transport and housing (including land and utilities). Low-income families' ability to pay for housing and transport is severely limited. In relatively small cities or where transport is, or can be made, efficient and cheap, it is frequently appropriate to develop low cost land on or near the periphery using the site and services approach. In larger cities, more central, or intermediate, locations may be needed to provide access to earning opportunities for several family members. To bring the costs of such housing within reach of low-income groups would require higher density housing. Where land values at intermediate locations are relatively low and under-employed labor can be mobilized at low opportunity costs, the construction of two-storey row houses using a maximum of self-help may be the preferred solution. In other large-city situations, a conjunction of land, construction and transport costs, together with limitations on moving employment opportunities to the periphery, may require the construction of multi-storied buildings of various heights to economize on the use of high priced land. These could be four to six-storey walk-ups, or, if costs and social attitudes permit, high rise buildings.

102. The Hong Kong experience suggests that such buildings can initially have very low space standards with communal plumbing facilities, but with provision for conversion to higher standards as the occupants' incomes rise. Access to employment for several family members sometimes makes rental or mortgage payments possible for relatively high standard housing, whereas a family living on the periphery and dependent on fewer, or even a single income earner, would be more likely to have to rely on self-help, usually for a lower standard dwelling. In these circumstances high density dwellings may be a preferred and socially efficient housing solution for poor families. The Bank Group should have the flexibility to respond to such situations in the context of an overall approach to a city's housing and urban development problems.

103. It is envisaged that medium and high rise housing would be undertaken only on a very selective and experimental basis and only where the target group consists of low-income earners. The emphasis on squatter upgrading and site and services would be retained so that lending for "conventional" housing would only account for a small part of shelter related lending. It is not envisaged that the Bank Group should become involved in financing mass housing construction; should greater participation be contemplated the issue would be brought before the Board.

104. Precise characteristics of lending by types of cities cannot be determined a priori. However, the type of Bank Group assistance that is appropriate will be influenced by the income level of a country, and by particular characteristics of the city, especially its size. In the poorest countries, there may be a gap between the cost of even a very low standard conventional housing unit and the amount of money a low-income urban family is able to spend on housing. In most of these countries Bank Group involvement should concentrate on squatter area upgrading, very low standard serviced sites, and possibly on high density low standard dwelling units; that is, on those housing solutions that are within, or nearly within, the resource constraints of poor households. In higher income countries, where government and private resources for housing are greater, direct financial and technical assistance for conventional housing in support of good government policies should not be ruled out. A key consideration should be that the solutions being applied to the housing problem are within the resource constraint of the government. For example, there should be no objection, in principle, to subsidies for low-income housing, if it can be shown that other equally urgent needs are being met, and that the financial resources for these subsidies will be available for the bulk of the poor.

#### Housing Finance

105. Mobilizing financial resources for housing forms part of the overall endeavor of increasing savings and improving their allocation through financial intermediation. The Bank Group has a particular role to play in responding to member countries' requests for assistance in the building of financial institutions. However, the Bank Group's experience with institutions providing housing mortgages is very limited and it is clear from the record of other international assistance agencies that such assistance is fraught with many dangers. In the past, the failure to evaluate housing finance institutions in the context of housing markets and the financial environment has led to inadvertent heavy public and sometimes foreign subsidies for housing for middle and upper income groups. Such subsidies are certainly not unique. Outdated financial policies frequently result in implicit or explicit subsidies to middle and upper income groups through assistance to the formal financial sector, but they are particularly reprehensible in housing. The external benefits in the form of employment during construction are relatively short run, while the long term housing bias in favor of the relatively rich is exacerbated. The Bank Group's contribution to housing finance therefore has to be carefully formulated and executed if it is to avoid such pitfalls.

106. Housing Finance for Middle Income Groups. The improved functioning of capital markets is an important condition for overall development. The lack of appropriate long-term financial institutions tends to inhibit savings and distorts the allocation of such investment funds as are available in many developing countries. The lack of mortgage institutions which could provide funds for middle income housing is often

a serious market imperfection, unnecessarily limiting housing construction with its employment and multiplier effects and causing middle income groups to "raid" lower income housing when it is provided. The provision of "seed capital" for housing and mortgage institutions can thus play an important developmental role. Moreover, as such lending institutions mature, they will be able to develop lending instruments and practices to meet the needs of the poor. In providing such "seed capital," the strong pressures for implicit or explicit subsidies in housing loans cannot be ignored. Housing institutions which do not lend at subsidized rates should be given preference in the Bank Group's operations; in other cases, the provision of "seed capital" should lead to the elimination of interest subsidy over time.

107. Mortgage Insurance. Mortgage insurance is an additional instrument for stimulating housing finance. Such schemes decrease the down-payment required for individual home purchases by insuring mortgage lenders for a certain percentage of the loan and enabling them to extend loans covering a higher proportion of the cost of the dwelling, and thus to reach lower income groups. The Bank Group should therefore provide "seed capital" for mortgage insurance institutions where appropriate.

108. Housing Finance for Low-Income Groups. Given the experience of past attempts to provide housing finance for low-income groups, the Bank Group should limit its endeavors to provide loans to the poor to instances in which a supply of suitable low cost housing is being expanded. The continuation and extension of housing finance for project beneficiaries directly through a housing project organization is an efficient way of financing housing for the poor. Where appropriate housing finance institutions already exist in countries in which Bank Group projects for the poor are under way, loans to such institutions could assist them to lend in the very small amounts needed for plot mortgages and building materials purchase by the project beneficiaries. It is recognized that this is a difficult area and a substantial volume of lending cannot be expected until the supply of housing the poor can afford is increased.

#### Coordination of Bank Group Lending for Housing and Urban Development

109. The Bank Group's concern with preserving and improving the present housing stock cannot be confined to projects specifically concerned with housing. Though the Bank Group has seldom encountered the problem to date, individual country experience indicates that port, industrial and other projects sometimes create a land use conflict with existing housing. In the past, existing housing has sometimes received little consideration, particularly if it was "illegal" or "unofficial." The high costs associated with destroying such housing stock, as well as the additional housing demand created by the project, ought to be taken into account in a full cost evaluation of all Bank Group projects in urban areas. High density development may sometimes be the best solution, accommodating both former occupants and new workers. At other

times, an alternate site for the project, or alternate housing for the area's residents, may provide better solutions.

110. The Bank Group is beginning to coordinate its lending activities in public utilities, transport and shelter, as well as with other sectors such as industry and tourism, as a means of assisting countries with integrated urban planning. Further improvements require the encouragement in all lending operations of the systematic collection of information and data needed for the planning process, the coordination of urban development policies at the local level, and improved pricing and financial management rules for city governments and major public utilities. The prospects for lending for the coordinated development of newly urbanizing areas on a large scale are a promising future avenue of development. However, it takes some time for most city and country governments to establish the planning and policy base for such development, and the Bank Group itself must also take time to develop further its capacity to generate a coordinated response.



INTERNATIONAL ASSISTANCE IN HOUSINGA. The United Nations

1. United Nations involvement in housing and urban development has focused primarily on assisting member countries to establish the planning and legislative framework for efficient and equitable urban growth. This involvement has taken different forms, including research, training, and pre-investment studies. Most of these activities are coordinated by the UN Centre for Housing, Building and Planning, with the cooperation of the regional economic commissions. The United Nations Development Programme (UNDP) has been largely responsible for programming and financing technical assistance and pre-investment planning studies. WHO, FAO, and ILO have also participated in certain situations. The UN financial commitment to housing and urban development grew from \$1.35 million in 1963 to \$3.86 million by 1970. By June 1973 the UNDP had 80 active projects in 60 different developing countries.

2. In view of limited UN resources and the magnitude of the problem, the Committee on Housing, Building and Planning of the UN Economic and Social Council has identified four priority areas for concentration and urgent action:

- (i) To encourage and assist countries to base their plans for physical development on social as well as economic considerations;
- (ii) To encourage and assist countries in adopting the necessary legislative framework to provide land tenure that will permit the urban poor to build improvised shelters on their own land with their own efforts;
- (iii) To encourage governments to provide the essential urban infrastructure in terms of public utilities in parts of cities occupied by migrants and other very low-income families;
- (iv) To help governments develop their own indigenous institutions and local skills.

These efforts offer the hope of long-term improvements in the living conditions of the poor, but seldom lead to tangible solutions to immediate problems. Frequently, there are inadequate local resources to implement the recommendations of the studies. These problems have led to discussions, within the UN family, concerning human settlements and to the creation on January 1, 1975 of The International Habitat and Human Settlements Foundation, which could provide some of the resources needed to translate studies and plans into action.

B. Multi-Lateral Institutions <sup>1/</sup>a. Inter-American Development Bank (IDB)

3. Since its establishment in 1960, IDB has made some 51 loans amounting to \$416 million for urban development projects. The projects will include some 361,000 housing units, of which some 341,000 had been completed by January 1, 1974. This lending represents seven percent of total IDB lending of \$6.3 billion from 1961 to 1973. <sup>2/</sup> Despite this substantial support of housing in the past, the IDB has more recently moved away from housing per se toward a more comprehensive approach to urban development. Greater attention is now devoted to combining housing with water supply and sewerage investments. In addition, IDB is seeking to direct its resources to services for low income groups. This initiative is a departure from the past, when the majority of "low cost" units were in fact too expensive for low-income groups. Table A.2 presents the costs of these units.

4. In order to integrate its efforts within a broader urban framework while helping low-income groups, IDB has now adopted the following criteria for urban development financing: (i) integration within national economic and social development plans, (ii) preferential treatment for programs assisting low-income groups, (iii) institution-building, and (iv) substantial local financing. Projects include (i) rehabilitation of housing, (ii) community facilities associated with housing, (iii) development of the construction industry, and (iv) research on design and materials. Programs are concentrated in areas of most rapid population growth, centers of greatest economy activity, and secondary cities. These new approaches are a result of IDB re-evaluation of its efforts in this field.

b. Organization of American States (OAS)

5. The OAS, through its secretariat, the Pan American Union, is involved in housing largely through research, training, and technical assistance. An Urban Affairs Unit within the Pan American Union provides technical assistance to member states and also undertakes research. This unit has grown significantly in recent years, but remains relatively small in contrast to other agencies. A Division of Social Affairs also is concerned with housing in Latin America. The Centro Inter-Americano de Vivienda y Planeamiento in Bogota, a part of the Pan American Union, provides training and educational assistance for housing.

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<sup>1/</sup> The African Development Bank and Asian Development Bank have not so far included housing and human settlements directly in their activities.

<sup>2/</sup> Inter-American Development Bank, Annual Report, 1973, pp 25-28.

C. Bi-Lateral Institutions

a. U.S. Agency for International Development (AID)

6. AID has approached the shelter problem largely through housing finance in the form of grants, loans, and housing (mortgage) guaranties, and technical assistance. Analysis of AID involvement in urban development 1/ from 1949 to 1971 shows some 154 technical assistance projects costing \$67 million and 115 capital assistance grant and loan projects costing \$408 million. In addition, some 640 "extra-urban" capital assistance projects have had impacts on urban areas. Of these totals, 21 percent of the technical assistance, amounting to almost \$14 million, was specifically devoted to housing, while slightly more than half the capital assistance, some \$205 million, was invested in housing. 2/ In addition to these efforts, there have been substantial allocations to housing through the Housing Investment Guaranty Program, created in 1963, and now expanded to a statutory ceiling of \$780 million. By June 1973, some \$472 million had been committed through this program. 3/ In recent years the impact of these large-scale efforts has been the subject of much critical analysis within AID. A 1973 review noted:

Underlying this rather broad spectrum of involvement is the fact that most of this activity has been ad hoc in nature. No framework has been provided or employed to take stock of the urban impact of these projects. Project activities generally have reflected subsectoral considerations, such as housing, various physical facilities and services, and public administration. No clear linkages are evident between projects. 4/

7. This internal view has been complemented externally by analyses of the size and type of AID commitments in housing. Table A.3 presents these figures for Latin American countries up to 1971. The costs of these houses make them affordable only to middle and upper income groups.

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1/ Includes housing, education, planning, urban/community development, urban transport, services and municipal administration.

2/ U.S. Agency for International Development, Guidance Statement on Urban Development, June 15, 1973.

3/ \$50 million to Africa, \$85 million to Asia, and \$337 million to Latin America.

4/ U.S. Agency for International Development, op.cit., p.9.

This pattern has been repeated in Senegal and the Ivory Coast, where the Patte d'Oie and Fairmont projects respectively provide very expensive housing suitable only for the wealthier families in the capital cities. While AID efforts in Latin America had produced some 111,000 housing units by 1971, their costs have excluded the income groups most in need of improved housing.

b. Caisse Centrale de Cooperation Economique (France)

8. The Caisse Centrale de Cooperation Economique acts as disbursing agent for the three assistance funds through which the greatest share of French assistance is channeled. One fund (FAC) serves the countries of sub-Saharan Africa and Madagascar, the other two serve overseas departments (FIDOM) or territories (FIDES). In addition, SCET-International provides technical assistance to projects which it finances indirectly through the Caisse. Most of the housing lending activities have taken place through FAC at the rate of approximately US\$ 25 million per year; two-thirds of this assistance going to housing corporations and one-third to public housing authorities (O.H.L.M.) which seek to assist middle and low income groups.

c. Commonwealth Development Corporation (CDC)

9. The third major bi-lateral donor involved in housing is the Commonwealth Development Corporation. Considering the great demand for inexpensive housing throughout the developing world, CDC has sought to use its relatively limited financial resources in this sector to attract finance from other sources. These efforts have met with some success since, excluding loans totalling approximately \$25 million to governments and housing authorities for low cost housing, CDC's commitments of approximately \$148 million, through the end of 1973, to mortgage finance companies and housing estate developments were matched by commitments of approximately \$246 million from other sources. <sup>1/</sup> In addition, there were some 22 housing projects under direct CDC management and another 10 projects now turned over to local management. Most of these commitments have provided seed capital and loans to housing corporations and local authorities. Over 20 mortgage finance companies have been created in Africa, East Asia, and the Caribbean. Technical assistance and town-planning studies have also been supported by CDC, but on a much smaller scale.

D. Private Organizations

a. Foundation for Cooperative Housing (FCH)

10. The Foundation for Cooperative Housing, created in the United

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<sup>1/</sup> Commonwealth Development Corporation, Report and Accounts 1973, London, 1974, p 11. Sterling figures have been converted at \$2.60/£.

States in 1950, has worked closely with AID, developing the latter's institution-building program. In 1962, FCH was asked to survey the potential for cooperative housing in Latin America. This work has led to extensive FCH technical assistance and the creation of many similar organizations in Latin America and the Caribbean. Local housing institutions such as FUNDAVICO in Panama, FERCOVIL in Honduras, the Mutual Housing Service in Jamaica, and PROVICOOP in Colombia were created by FCH efforts. Pilot projects have also been established in most Latin American countries. Demonstration efforts, with FCH assistance, have been funded by local governments, AID direct loans, or private US funds through the Housing Investment Guaranty Program. In most cases, unit costs have been below \$1,000. In addition to country-specific activities, FCH has also established an international training program and hemisphere-wide seminars on housing.

b. Pan American Development Foundation (PADF)

11. Another private institution which has provided funds for housing is the Pan American Development Foundation. PADF, created in 1964, administers a National Development Foundation Revolving Loan Fund Program in 13 countries. Combining public and private funds, the PADF supports the creation of national development foundations which provide credit to low income groups. By 1972, the PADF-supported institutions had granted some 3,932 loans, valued at nearly \$4 million, which involved some 320,000 people in projects. <sup>1/</sup> Some of these projects included low cost housing. One of these foundations, the Dominican Development Foundation, established in 1965, made some 2,400 loans, valued at \$1.7 million, benefitting 150,000 people. These loans averaged \$718.75. This organization, which was invited to the June 1974 OECD seminar on Development Projects Designed to Reach the Lowest Income Groups, has shown that private organizations can reach the poor.

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<sup>1/</sup> PADF, Annual Report 1972, (Washington, 1973)

Table A.1: BILATERAL ASSISTANCE IN INTERNATIONAL PROGRAMS FOR HOUSING,  
BUILDING AND PLANNING FOR SELECTED COUNTRIES

<u>Donor Country</u>	(1970-71) (US\$'000)	Assistance as Percentage of the Net Flow of Official Development Assistance to Less Developed Countries and Multi-Lateral Agencies (1970-71) (%)
Australia	3,783	0.9
Austria	76	0.03
Belgium	6,678	2.5
Canada	n.a.	n.a.
Denmark	1,219	0.9
Finland	1,295	n.a.
France	126,369 <sup>1/</sup>	n.a.
Italy	n.a.	n.a.
Japan	113	0.01
Netherlands	2,150	0.5
Norway	1,095	1.4
United Kingdom	13,000	1.3
United States	162,182	2.5

1/ 1968-69.

Sources: Information submitted by the governments of the donor countries,  
and OECD Development Cooperation - 1972 Review; 1972.  
United Nations Technical Cooperation in Housing, Building and  
Planning; Funds Expended for International Programmes, 1970-1971  
(E/C.6/130) and 1968-1969 (E/C.6/110), New York.

Table A.2: SUPPORT OF THE INTER-AMERICAN DEVELOPMENT  
BANK FOR HOUSING

Country	Loan Value	Average House Price	Number of Dwellings Built	Total Investment to 1970
Argentina	\$(11,000,000 est) \$30,000,000	\$8,660 4,934	3,024 15,200	
Bolivia	3,850,000 4,000,000	1,923 2,341	3,394 3,934	<u>\$(41,000,000 est)</u>
Brazil	3,850,000 \$(20,000,000 est)	1,443 1,818	4,850 26,389	<u>\$ 7,950,000</u>
Colombia	15,200,000 7,500,000 2,500,000	2,271 2,074 3,288	13,993 8,534 7,603	<u>\$(23,850,000 est)</u>
Chile	4,000,000 2,000,000 1,268,000 10,000,000	3,360 2,497 2,297 2,240	4,051 3,087 1,084 10,714	<u>\$ 25,200,000</u>
Costa Rica	3,500,000 3,600,000	2,934 2,339	2,950 2,816	<u>\$ 17,268,000</u>
Dominican Republic	3,500,000 1,735,000	1,282 1,282	3,805 960	<u>\$ 7,100,000</u>
Ecuador	10,600,000	2,728	6,500	<u>\$ 5,235,000</u>
El Salvador	6,100,000 6,000,000	2,221 2,562	5,060 5,850	<u>\$ 10,600,000</u>
Guatemala	5,300,000	2,041	5,260	<u>\$ 12,100,000</u>
Honduras	1,000,000	2,000	736	<u>\$ 5,300,000</u>
Mexico	10,000,000	2,600	23,000	<u>\$ 1,000,000</u>
Nicaragua	5,200,000 5,250,000	-- 2,650	2,958 3,774	<u>\$ 10,000,000</u>
Panama	7,600,000 \$ (8,000,000 est)	3,481 3,684	3,000 4,533	<u>\$ 10,450,000</u>
Paraguay	3,400,000	2,316	2,600	<u>\$(15,000,000 est)</u>
Peru	22,800,000 1,000,000 1,200,000	1,033 4,000 4,352	47,124 420 4,650	<u>\$ 3,400,000</u>
Uruguay	8,000,000	6,000	4,100	<u>\$ 25,000,000</u>
Venezuela	12,000,000 10,000,000 10,000,000	1,500 2,666 1,740	35,500 5,600 18,000	<u>\$ 8,000,000</u>
				<u>\$ 32,000,000</u>
Total		2,292	295,053	\$270,103,000

Source: Foundation for Cooperative Housing; Cooperative Housing and the Minimum Shelter Approach in Latin America, volume II

Table A.3: SUPPORT OF THE U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT  
FOR HOUSING

Country	By Grant	By Congressional Loan	By Investment Guaranty	Average House Price	Number of Dwellings Built	Total Investment to 1971
Argentina	\$ 498,000	\$ 2,000,000	\$ 27,721,394	\$ 2,460 7,334	814 2,820	\$ 28,219,394
Bolivia		700,000 1,780,000 1,000,000 500,000	- - - 2,150,000	7,500 5,500 - 7,500	- 400 - 149	
Brazil	5,000,000			- -	- -	<u>5,350,000</u> <u>5,000,000</u>
Chile	5,000,000	5,000,000 8,700,000	4,690,000	4,300 - 6,267	1,160 - 929	<u>23,390,00</u>
Colombia	2,000,000 480,000	12,000,000 7,500,000	26,866,084	5,000 1,010 960 4,485 8,071	952 475 12,472 1,675 4,102	<u>48,846,084</u>
Costa Rica	2,000,000 1,000,000		1,541,729	1,250 - 3,860	2,023 - 371	<u>4,541,729</u>
Dominican Republic	2,000,000	2,100,000 5,000,000	7,161,726	6,000 - 8,623	350 - 867	<u>16,261,726</u>
Ecuador	225,000	5,000,000	1,859,766	2,250 3,600 5,600	195 3,000 264	<u>6,084,766</u>
El Salvador		3,100,000 3,000,000	9,531,681	5,000 - 8,567	700 - 932	<u>15,631,681</u>
Guatemala	3,800,000		6,853,675	6,339	1,236	<u>10,653,675</u>
Guyana			1,398,245	5,142	413	<u>1,398,245</u>
Honduras		400,000 2,000,000	4,566,528	2,500 - 5,374	160 - 1,095	<u>6,966,528</u>
Jamaica	295,000	2,800,000 10,000,000	10,203,008	1,280 4,630 9,978 7,025	230 605 1,780 1,194	<u>20,498,008</u>

Table A.3: (Continued)

Country	By Grant	By Congressional Loan	By Investment Guaranty	Average House Price	Number of Dwellings Built	Total Investment to 1971
Mexico		20,000,000	10,760,032	2,600 5,537	7,700 3,057	\$ 30,760,032
Nicaragua	\$ 450,000	3,700,000	9,174,914	2,230 6,603	1,443 1,120	<u>13,324,914</u>
Panama	250,000 90,000	2,100,000 3,000,000 2,500,000 3,500,000 15,000,000	5,549,894	1,547 1,465 - - 5,000 3,650 2,500 7,122	275 2,500 - - 695 959 15,433 553	<u>30,094,894</u>
Peru	500,000 143,000 970,000	7,500,000 3,000,000 6,000,000	21,623,876	- - 4,200 5,000 6,000 5,700	72 419 1,785 200 1,000 3,395	<u>37,736,876</u>
Uruguay	4,200,000	6,000,000		8,500	706	<u>10,200,000</u>
Venezuela		5,000,000 10,000,000 30,000,000	36,749,361	3,600 10,000 4,000 9,734	2,810 5,256 10,839 3,011	<u>81,799,361</u>
Caribbean Development Bank		10,000,000		4,545	3,300	<u>10,000,000</u>
Central American Bank for Economic Integration		10,000	3,700,000	6,000 5,750	1,655 39	<u>13,700,000</u>
<b>TOTAL</b>	<b>\$26,901,000</b>	<b>\$211,100,000</b>	<b>\$190,061,913</b>	<b>\$4,309</b>	<b>111,095</b>	<b>\$437,062,913</b>

Source: Foundation for Cooperative Housing; Cooperative Housing and the Minimum Shelter Approach in Latin America, volume II.

HOUSING STATISTICS

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Table 1: POPULATION GROWTH AND HOUSING INDICATORS FOR SELECTED CITIES

Country	City	Population of City 1970 (000)	City Population as % of Urban Population of Country	Annual % Growth of City 1960-1970	Urban Population as % of Total Population of Country (1970)	GNI Per Capita (1970) (US\$)	% of National Income Received by Lowest 40% of Households in Country	GINI of Country	GINI of Urban Population of Country	GINI of Rural Population of Country	Residential Construction as % of Country GDP	Residential Construction as % of Country GDF	Gross Population Density of City	Urban Housing Condition in Country 2/	Slums and Squatter Settlements as % of City Population 3/
<b>Relatively High Income:</b>															
Venezuela	Caracas	2,290	39	5.3	76	980	15.7	5240 H	4194 H	4419 H	4.32	17.74	1,186/Km <sup>2</sup>	---	40 (1969)
Venezuela	Maracaibo	727	19	5.3	76	266	15.7	5240 H	4194 H	4419 H	4.32	17.74	---	---	50 (1969)
Venezuela	Barquisimeto	293	4	4.0	76	960	15.7	5240 H	4194 H	4419 H	4.32	17.74	---	---	41 (1969)
Venezuela	Ciudad Guayana	133	2	3.8 4/	76	980	15.7	5240 H	4194 H	4419 H	4.32	17.74	---	---	40 (1969)
Panama	Panama City	418	62	4.9	47	730	15.7	5368 E	3459 H	---	4.40	20.96	197/Km <sup>2</sup>	38.3 (1960)	17 (1970)
Chile	Santiago	2,623	38	3.1	71	720	15.7	4868 H	4335 H	4403 H	2.82	18.79	---	---	25 (1964)
Hong Kong	Hong Kong	3,550	97	2.9	100	970	15.7	4300	4300 H	---	---	---	---	16 (1969)	
Mexico	Mexico City	3,026	11	2.3	58	670	9.5	5380 H	4487 H	5125 H	---	---	---	47.4 (1960)	46 (1970)
Lebanon	Beirut	700	61	2.9	60	590	9.5	5375 H	---	---	---	---	---	---	1.5 (1970)
Singapore	Singapore	2,072	100	2.6	100	920	9.5	---	---	---	---	---	---	---	15 (1970)
<b>Middle Income:</b>															
Zambia	Lusaka	279	27	6.1 4/	26	400	16.3	4681 H	---	---	---	---	---	---	48 (1969)
Ivory Coast	Abidjan	437	44	7.6	29	310	16.3	4325 P	---	---	---	---	---	---	60 (1964)
Korea	Seoul	5,536	46	6.7	39	250	16.3	3923 P	---	---	2.71	10.93	9,031/Km <sup>2</sup>	58.9 (1960)	30 (1970)
Korea	Pusan	1,881	16	3.2	39	250	16.3	3923 P	---	---	2.71	10.93	---	58.9 (1960)	31 (1970)
Malaysia	Kuala Lumpur (Metro Area)	741	46	5.5	36	350	12.8	3633 H	4593 H	4988 H	---	---	---	---	37 (1971)
Honduras	Tegucigalpa	232	35	5.9	46	280	12.8	3979 H	4433 H	4645 H	---	---	---	---	25 (1970)
Philippines	Manila (Metro Area)	2,942	22	4.3	23	210	12.8	4195 H	---	---	---	---	5,116/Km <sup>2</sup>	30.1 (1967)	35 (1972)
Peru	Lima	2,877	42	6.1	46	450	8.5	5714 E	---	---	---	---	4,380/Km <sup>2</sup>	33.7 (1961)	40 (1970)
Peru	Arequipa	195	28	3.9	46	450	8.5	5714 E	---	---	---	---	---	33.7 (1961)	40 (1970)
Peru	Chimbote	103	15	3.3 4/	46	450	8.5	5714 E	---	---	---	---	---	---	67 (1970)
Brazil	Rio de Janeiro	4,252	8	1.4	54	420	8.5	5534 H	5327 H	4729 H	---	---	---	2.8 (1969)	30 (1970)
Brazil	Belo Horizonte	1,106	2	6.3	54	420	8.5	5534 H	5327 H	4729 H	---	---	---	2.8 (1969)	14 (1970)
Brazil	Recife	1,045	2	4.9	54	420	8.5	5534 H	5327 H	4729 H	---	---	---	2.8 (1969)	50 (1970)
Brazil	Torres Alegre	1,870	2	7.5	54	420	8.5	5534 H	5327 H	4729 H	---	---	---	---	2.8 (1969)
Brazil	Brasilia	277	1	13.5	54	420	8.5	5534 H	5327 H	4729 H	---	---	---	2.8 (1969)	41 (1970)
Colombia	Bogota	2,463	19	7.3	55	340	8.5	5417 E	5231 H	4527 H	3.76	20.01	---	---	60 (1969)
Colombia	Calli	874	6	6.5	55	340	8.5	5417 E	5231 H	4527 H	3.76	20.01	---	---	30 (1969)
Colombia	Buenaventura	119	1	4.1 4/	46	340	8.5	5417 E	5231 H	4527 H	3.76	20.01	---	---	80 (1969)
Iraq	Baghdad (Metro Area)	2,055	49	4.4	36	320	8.5	6068 E	---	---	---	---	---	---	29 (1965)
Ecuador	Quayquil	742	31	5.9	38	290	8.5	6567 E	5071 H	6008 E	---	---	---	39.9 (1962)	49 (1969)
Senegal	Dakar	650	66	6.0	27	230	8.5	5640 P	---	---	---	---	---	---	60 (1971)
Guatemala	Guatemala City	778	49	5.0	37	360	---	---	---	---	---	---	---	---	30 (1971)
Turkey	Ankara	1,209	9	5.9	31	310	---	---	---	---	3.97	22.16	---	29.2 (1965)	60 (1970)
Turkey	Istanbul	2,247	17	6.8	31	310	---	---	---	---	3.97	22.16	---	29.2 (1965)	40 (1970)
Turkey	Emir	521	4	7.6	31	310	---	---	---	---	3.97	22.16	---	29.2 (1965)	65 (1970)
Turkey	Emir	865	30	6.8	34	310	---	---	---	---	4.76	40.95	---	---	53 (1968)
Ghana	Accra	478	45	4.5	44	250	---	---	---	---	---	---	---	---	14 (1971)
Liberia	Monrovia	96	63	10.4 4/	30	240	---	---	---	---	---	---	---	---	50 (1970)
Morocco	Casablanca	1,445	31	4.2	35	290	---	---	---	---	---	---	---	34.4 (1971)	70 (1971)
Morocco	Rabat	485	10	9.2	35	330	---	---	---	---	---	---	---	34.4 (1971)	60 (1971)
Cameroon	Douala (Metro Area)	250	20	4.1	13	130	---	---	---	---	---	---	---	---	80 (1970)
Cameroon	Yaounde	165	13	6.8 4/	13	180	---	---	---	---	---	---	---	---	90 (1970)
<b>Poorest:</b>															
Sri Lanka	Colombo	590	24	2.8	17	110	15.2	3730 H	4080 H	3405 H	---	---	---	---	43 (1968)
India	Calcutta (Metro Area)	6,881	6	1.8	19	110	15.2	3998 H	4532 H	3523 H	---	---	---	---	33 (1971)
India	Bombay	5,839	5	2.2	19	110	15.2	3998 H	4532 H	3523 H	---	---	---	---	25 (1971)
India	Delhi (Metro Area)	3,524	4	3.0	19	110	15.2	3998 H	4532 H	3523 H	---	---	---	---	25 (1971)
India	Madras	2,446	2	2.2	19	110	15.2	3998 H	4532 H	3523 H	---	---	---	---	19 (1971)
India	Baroda	450	0.5	3.6	19	110	15.2	3998 H	4532 H	3523 H	---	---	---	---	---
Pakistan	Karachi	3,442	25	5.6	16	100	15.2	4373 H	4825 H	3395 H	---	---	---	59.0 (1960)	23 (1970)
Afghanistan	Kabul (Metro Area)	483	36	3.2	7	80	15.2	---	---	---	---	---	---	---	21 (1971)
Indonesia	Jakarta	4,174	21	4.7	18	80	15.2	---	---	---	---	---	---	---	26 (1972)
Indonesia	Bandung	1,098	5	4.6	18	80	15.2	---	---	---	---	---	---	---	27 (1972)
Indonesia	Makassar	555	3	3.9	18	80	15.2	---	---	---	---	---	---	---	33 (1972)
Kenya	Nairobi	535	48	6.2	9	150	16.0	---	---	---	2.92	15.88	---	41.1 (1962)	33 (1970)
Kenya	Nairobi	255	23	5.8	9	150	16.0	---	---	---	2.92	15.88	---	41.1 (1962)	66 (1970)
Togo	Lome	448	58	8.2	17	140	16.0	---	---	---	---	---	---	---	75 (1970)
Malagasy	Tananarive (Metro Area)	358	32	5.6	11	130	16.0	---	---	---	---	---	---	---	33 (1969)
Nigeria	Ibadan	736	6	3.0	21	120	16.0	---	---	---	---	---	---	---	75 (1971)
Sudan	Port Sudan	106	7	3.5	8	120	16.0	4279 H	---	---	---	---	---	---	55 (1971)
Tanzania	Dar es Salaam	334	43	9.0	8	100	16.0	5040 P	---	---	---	---	---	---	30 (1970)
Zaire	Kinshasa	1,331	21	3.4	9	90	16.0	---	---	---	---	---	6,589/Km <sup>2</sup>	---	60 (1969)
Ethiopia	Addis Ababa	737	25	3.9	7	80	16.0	---	---	---	---	---	---	---	90 (1968)
Malawi	Blantyre	160	54	10.1 4/	5	60	16.0	---	---	---	---	---	---	---	56 (1966)
Nepal	Katmandu	240	26	7.9	5	80	16.0	---	---	---	---	---	---	---	22 (1961)
Somalia	Mogadishu	206	35	6.0 4/	24	70	16.0	---	---	---	---	---	---	---	77 (1967)
Upper Volta	Ouagadougou	101	50	7.1 4/	5	60	16.0	---	---	---	---	---	---	---	70 (1966)

Note: In most cases population data are for the cities rather than metropolitan areas. The city populations are used where data for slums and squatter settlements are available for cities only.

1/ Figures refer to population within municipal boundaries unless otherwise indicated, and thus represent varying proportions of total urban populations. Their usefulness for comparative purposes is therefore in this sense restricted.

2/ Percentage of occupied dwellings with three or more persons per room in urban areas.

3/ These figures are notional since definitions vary widely across countries; they are used to indicate rough orders of magnitude.

4/ Growth rate of urban population of country.

Sources: "Size Distribution of Income: Compilation of Data", R. Jain and A. E. Niemann, EBRD, 1973.

"The Role of Housing in Economic Development", L. Grubler, Paper Prepared for the Third World Conference of Engineers and Architects, Tel Aviv, December 1973.  
World Bank Atlas, 1980.  
World Housing Survey, United Nations, January 1974.



Table 2: COST OF RESIDENTIAL CONSTRUCTION FOR LOW AND  
MEDIUM DENSITY HOUSING IN SELECTED DEVELOPING  
COUNTRIES

Country	GNP/Capita (1970)	Basic Construction Costs US\$ per sq m. (1970 prices)
Kuwait	3860	64.86
Venezuela	980	34.00
Trinidad & Tobago	860	33.00
Uruguay	820	33.00
Chile	720	42.00
Mexico	670	40.00
Jamaica (Kingston)	670	73.60
Lebanon	590	32.52
Costa Rica	560	30.00
Peru	450	47.00
Saudi Arabia	440	48.41
Brazil	420	35.00
Guatemala	360	25.00
Colombia	340	24.00
Iraq	320	35.84
El Salvador	300	29.00
Ecuador	290	33.00
Syria	290	32.25
Jordan	250	39.69
Korea (Seoul)	250	61.00
Philippines	210	51.03
Bolivia	180	26.00
Sri Lanka	110	42.33
India	110	25.00

Sources: Foundation for Cooperative Housing, Cooperative Housing and the Minimum Shelter Approach in Latin America, (Latin American data). Study of International Housing, Reports from U.S. Agencies and International Organizations, prepared for the Subcommittee on Housing and Urban Affairs of the Committee on Banking, Housing and Urban Affairs, U.S. Senate, Washington D.C., June 28, 1971, pp.228-229, (Middle Eastern and Asian data). Country data (Jamaica and Korea).

Table 3: COST OF BASIC CONSTRUCTION, LAND SERVICING AND RAW LAND AS PERCENTAGE OF TOTAL HOUSING COST FOR LOW AND MODERATE INCOME HOUSING 1/, SELECTED CITIES

City	Housing Type	Low-income Housing			Moderate-income Housing		
		Basic Construction %	Land Servicing <u>2/</u> %	Raw Land %	Basic Construction %	Land Servicing %	Raw Land %
Mexico City	Single Family	44.9 (A1) <u>4/</u>	9.3	45.8 <u>5/</u>	58.8	3.8	37.4 <u>5/</u>
	Multi-Family	79.9 (A3)	6.3	13.8 <u>5/</u>	80.1	4.7	15.2 <u>5/</u>
Hong Kong <u>3/</u>	Multi-Family	68.1 (B3)		29.4 <u>5/</u>		N.A.	
Nairobi	Single Family	64.5 (C6)	21.5	14.0 <u>5/</u>		N.A.	
Bogota	Single Family	69.5 (D6)	12.2	18.3 <u>5/</u>	78.5 (D10)	9.1	12.4 <u>5/</u>
	Multi-Family	91.5 (D9)	3.8	4.7 <u>5/</u>	95.6 (D11)	1.9	2.5 <u>5/</u>
Seoul <u>3/</u>	Multi-Family		N.A.		71.4 (E3)	15.0	6.9 <u>5/</u>
Ahmedabad	Single Family		N.A.		68.7 (F5)	8.4	22.9 <u>6/</u>
	Multi-Family	84.1 (F1)	8.6	7.3 <u>5/</u>	77.5 (F4)	8.0	14.5 <u>6/</u>
Madras	Single Family	48.1 (G2)	23.0	28.9 <u>5/</u>		N.A.	
	Multi-Family	76.9 (G3)	12.4	10.7 <u>5/</u>	80.4	6.1	13.5 <u>6/</u>

1/ With individual toilet and services.

2/ Includes utilities and land development.

3/ Percentages do not add up to 100 because administrative cost not included.

4/ Number indicates type of unit from Table 13, Background Paper.

5/ Located at periphery of the city.

6/ Located inside the city.

Sources: Studies on Employment in the Mexican Housing Industry. (C. Araud, et al., OECD, 1973); Hong Kong Housing Authority; National Housing Corporation, Kenya; DANE and Caja de la Vivienda Popular, Bogota; Korea Housing Corporation; Gujarat Housing Commission; Tamil Nadu Housing Board.

Table 4: ESTIMATES OF THE MONTHLY HOUSEHOLD INCOME  
REQUIRED TO PURCHASE THE EXISTING CHEAPEST  
COMPLETE HOUSING UNIT <sup>1/</sup> AND THE PERCENTAGE  
OF HOUSEHOLDS UNABLE TO AFFORD IT,  
SELECTED CITIES

City	Cost of Cheapest Housing Unit (\$US, 1970 Prices)	Interest Rate = 10 Percent			Interest Rate = 15 Percent		
		Monthly Payment (\$US) <sup>2/</sup>	Monthly Household Income Required (\$US) <sup>3/</sup>	Percent of Households Unable to Afford	Monthly Payment (\$US) <sup>2/</sup>	Monthly Household Income Required (\$US) <sup>3/</sup>	Percent of Households Unable to Afford
Mexico City	3,005	27.6	184	55	38.8	259	66
Hong Kong	1,670	15.4	103	35	21.5	143	57
Nairobi	2,076	19.1	127	68	26.8	178	77
Bogota	1,474	13.6	91	47	19.0	127	61
Ahmedabad	616	5.6	38	64	8.7	58	79
Madras	570	5.3	36	63	7.3	49	79

<sup>1/</sup> With individual toilet and services.

<sup>2/</sup> Assuming a repayment period of 25 years.

<sup>3/</sup> Assuming no downpayment and 15 percent of household income devoted to housing.

Source: Background Paper Tables 13, 14.

Table 5: REDUCTION OF HOUSING COST AND THE PERCENTAGE OF HOUSEHOLDS THAT CAN BE SERVED, 1/  
SELECTED CITIES

	Percent of Households Unable to Afford Lowest Cost Housing Unit at:				Percent Reduction of Present Cost Required to Reach All but Lowest		
	Present	10%	20%	1/3	40%	20%	10%
	Cost	Reduction	Reduction	Reduction			
Mexico City	55	52	47	37	28.4	53.7	62.4
Hong Kong	35	30	22	14	0	22.6	45.3
Nairobi	68	66	63	53	49.8	69.1	81.2
Bogota	47	42	37	26	13.8	43.2	60.2
Ahmedabad	64	58	56	51	41.9	52.3	78.9
Madras	63	52	45	31	25.6	44.7	54.2

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1/ Assuming 15 percent of household income devoted to housing, a repayment period of 25 years, no downpayment and 10 percent interest.

Source: Background Paper Tables 13, 14.

Table 6: ESTIMATES OF COST (US\$, 1970 PRICES) OF HOUSING UNITS OF VARIOUS STANDARDS AND LOCATIONS AND PERCENTAGE OF HOUSEHOLDS UNABLE TO AFFORD THEM, 1/ SELECTED CITIES

Housing Type	Mexico City		Hong Kong 2/		Nairobi		Bogota		Ahmedabad		Madras	
	Cost	Percent	Cost	Percent	Cost	Percent	Cost	Percent	Cost	Percent	Cost	Percent
Present Cheapest Housing Unit	3,005	55	1,670	35	2,076	68	1,475	47	616	64	570	63
Periphery												
Single Family, 3/ Individual Services 4/	1,243	14	-	-	1,860	66	754	17	531	58	747	77
Single Family, Shared 5/ Services	1,117	10	-	-	1,566	59	665	14	469	55	670	73
Single Family, Basic 6/ Services	991	6	-	-	1,272	52	576	11	408	51	592	68
Multi-Family, 7/ Individual Services	1,181	12	1,734	38	1,836	65	1,086	36	605	64	651	70
Multi-Family, Shared Services	975	7	1,568	32	1,496	58	884	23	491	58	541	65
Multi-Family, Basic Services	768	4	1,402	25	1,156	47	681	15	377	41	430	38
Intermediate Zone												
Single Family, Individual Services	18,786	95+	-	-	2,468	72	2,884	73	1,888	91	837	81
Single Family, Shared Services	18,660	95+	-	-	2,174	69	2,795	72	1,826	91	760	78
Single Family, Basic Services	18,534	95+	-	-	1,880	66	2,706	71	1,765	91	682	73
Multi-Family, Individual Services	4,685	72	1,850	45	1,958	67	1,512	58	676	76	669	72
Multi-Family, Shared Services	4,479	70	1,684	35	1,618	61	1,310	42	762	72	559	63
Multi-Family, Basic Services	4,272	69	1,518	30	1,278	52	1,107	36	648	65	448	44
City Center												
Single Family, Individual Services	256,438	95+	-	-	18,930	95+	10,234	95+	2,263	95+	1,100	88
Single Family, Shared Services	256,312	95+	-	-	18,636	95+	10,145	95+	2,201	95+	1,023	87
Single Family, Basic Services	256,186	95+	-	-	18,342	95+	10,056	95+	2,140	95+	945	82
Multi-Family, Individual Services	52,220	95+	12,485	95+	5,250	90	2,982	74	951	79	722	75
Multi-Family, Shared Services	52,014	95+	12,319	95+	4,910	89	2,780	72	837	75	612	68
Multi-Family, Basic Services	51,807	95+	12,153	95+	4,570	87	2,577	70	723	70	501	63

- 1/ Repayment period of 25 years, no downpayment and 15 percent of household income devoted to housing.  
2/ Peripheral and intermediate land prices are those prevailing at existing low cost housing estates; city center land prices are estimates for areas adjacent to the city center.  
3/ Single family detached housing unit with 20 sq m. of livable space and 75 sq m. of land.  
4/ Individual water, toilet and kitchen.  
5/ Communal water supply, sewerage and other services; site preparation and lighting.  
6/ Single family: centrally located water and pit latrines plus minimal security lighting and site preparation.  
Multi-family: greater sharing of facilities.  
7/ Multi-family housing unit with 20 sq m. of livable space and 15 sq m. share of land in a 4-storey building.

Source: Background Paper Tables 34-38.

Table 7: PERCENT OF HOUSEHOLDS UNABLE TO AFFORD CHEAPEST DWELLING  
AT VARIOUS ASSUMED SPACE STANDARDS, SELECTED CITIES 1/

Space Standard		Mexico City	Hong Kong	Nairobi	Bogota	Ahmed-abad	Madras
A	Intermediate location, individual services <u>2/</u>	72	45	67	58	76	72
A	Peripheral location, individual services	12 <u>2/</u>	38 <u>2/</u>	65 <u>4/</u>	17 <u>3/</u>	58 <u>3/</u>	70 <u>2/</u>
A	Intermediate location, basic services <u>2/</u>	69	30	52	36	65	44
A	Peripheral location, basic services	4 <u>2/</u>	25 <u>2/</u>	47 <u>2/</u>	11 <u>3/</u>	41 <u>2/</u>	38 <u>2/</u>
B	Intermediate location, individual services <u>2/</u>	62	35	66	43	72	70
B	Peripheral location, individual services	7 <u>3/</u>	31 <u>2/</u>	64 <u>3/</u>	12 <u>3/</u>	51 <u>3/</u>	68 <u>3/</u>
B	Intermediate location, basic services <u>2/</u>	51	23	52	23	58	41
B	Peripheral location, basic services	3 <u>2/</u>	18 <u>2/</u>	46 <u>4/</u>	8 <u>3/</u>	36 <u>3/</u>	35 <u>2/</u>

Space Standard A = (Single family: 20 sq m. livable space, 75 sq m. land  
(Multi-family : 20 sq m. livable space, 15 sq m. share of land

B = (Single family: 20 sq m. livable space, 40 sq m. land  
(Multi-family : 20 sq m. livable space, 10 sq m. share of land

1/ Multi-family or single family, whichever is lower cost.

2/ Multi-family is lower cost.

3/ Single family is lower cost.

4/ Multi-family and single family are equally low cost.

Source: Background Paper Tables 13, 14

Table 8: PERCENT OF HOUSEHOLDS UNABLE TO AFFORD CHEAPEST DWELLING  
AT ASSUMED LOW SPACE STANDARD, SELECTED CITIES 1/

Space Standard		Mexico City	Nairobi	Bogota	Ahmed-abad	Madras
C	Intermediate location, individual services <u>2/</u>	35	36	14	28	18
C	Peripheral location, individual services	2 <u>2/</u>	33 <u>4/</u>	5 <u>3/</u>	14 <u>3/</u>	14 <u>3/</u>
C	Intermediate location, basic services <u>2/</u>	28	18	8	22	10
C	Peripheral location, basic services	1 <u>2/</u>	17 <u>4/</u>	3 <u>3/</u>	11 <u>3/</u>	8 <u>2/</u>

Space Standard C = (Single family: 10 sq m. livable space, 20 sq m. land  
(Multi-family : 10 sq m. livable space, 5 sq m. share of land

1/ Multi-family or single family, whichever is lower cost

2/ Multi-family is lower cost.

3/ Single family is lower cost.

4/ Multi-family and single family are equally low cost.

Source: Background Paper Tables 13, 14

Table 9: EFFECT OF COST CHANGES ON PERCENT OF HOUSEHOLDS UNABLE TO AFFORD CHEAPEST DWELLING AT ASSUMED STANDARDS, SELECTED CITIES 1/

Cost Assumption	Space Standard	Mexico City	Hong Kong	Nairobi	Bogota	Ahmed-abad	Madras
One-third Reduction (= 20 percent of income spent on housing)	B	1 <u>2/</u>	8 <u>2/</u>	29 <u>4/</u>	4 <u>3/</u>	13 <u>3/</u>	11 <u>2/</u>
	C	1 <u>2/</u>	n.a.	12 <u>4/</u>	2 <u>3/</u>	9 <u>3/</u>	6 <u>2/</u>
One-third Increase (= allowance for administrative and maintenance costs, interest during construction and 20 percent rate of default on rental payments)	B	7 <u>2/</u>	34 <u>2/</u>	61 <u>4/</u>	13 <u>3/</u>	53 <u>3/</u>	68 <u>2/</u>
	C	3 <u>2/</u>	n.a.	26 <u>4/</u>	5 <u>3/</u>	25 <u>3/</u>	13 <u>2/</u>

Space Standard: B = (Single family: 20 sq m. livable space, 40 sq m. land  
(Multi-family : 20 sq m. livable space, 10 sq m. share of land

C = (Single family: 10 sq m. livable space, 20 sq m. land  
(Multi-family : 10 sq m. livable space, 5 sq m. share of land

1/ Peripheral location, basic services. Multi-family or single family, whichever is lower cost.

2/ Multi-family is lower cost.

3/ Single family is lower cost.

4/ Multi-family and single family are equally low cost.

Source: Background Paper Tables 13,14.

Table 10: IBRD/IDA DEVELOPMENT PROJECTS

December 1974

PROJECT	APPROVAL DATE	AMOUNT OF CREDIT (C) OR LOAN (L) (US\$ million)	TARGET POPULATION (PERCENTILE OF INCOME DISTRIBUTION)	NUMBER OF PLOTS	OF WHICH		TOTAL PROJECT AREA (ha)	PLOT DIMENSIONS (m <sup>2</sup> )	UPGRADING	CORE HOUSING (PLOTS)	ON-SITE INFRASTRUCTURE			OFF-SITE INFRASTRUCTURE	ON-SITE COMMUNITY FACILITIES	INDUS-TRY	TECH-NICAL ASSIST.	MONITORING AND/OR EVALUATION
					SITE AND SERVICES	TRA-DITIONAL					WATER	SEWERAGE	OTHER <sup>1/</sup>					
SENEGAL SITES & SERVICES	June 1972	8.0 C	48.5 - 87	15,600: Dakar 14,000 Thiès 1,600	Dakar 14,000 Thiès 1,600		Dakar 400 Thiès 60	Dakar 150 Thiès 200	Dakar: 10 ha.		Standpipes: 85% Individual: 15%	Pit Privies: 85% Septic Tanks: 15%	a, c	a, b, c	A, B, C, D, E, F, G, K, L, N		X	X
NICARAGUA, EARTHQUAKE RECONSTRUCTION, SITE & SERVICES COMPONENT	May 1973	8.0 C	20 - 45	5,900: Managua 2,250 Masaya 850 Granada 870 Leon 830 Jinotepe 700 Un-allocated 400	all <sup>3/</sup>		140	110		5,900	Individual	Individual	a, c, d	A, C, D, E, F, G, M	X	X		
INDIA, CALCUTTA HOUSING AND AREA DEVELOPMENT	August 1973	6.7 C																
1. Bustee Improvement 2. Baishmabghata-Patuli Site & Services				1,200 families			4 130	70	4 ha.	1,000	Individual	Individual	c	a, b	A, C, D, E, F		X	
BOTSWANA, FRANCISTOWN URBAN DEVELOPMENT PROJECT	April 1974	3.0 C	Site & Servs. 63 - 92; Traditional 0 - 62; Upgrading 0 - 92	1,800	800	1,000			1,000 house-holds		Standpipes	Aqua Privies	a, c	a, b, c	A, C, D, L, Q	11 ha.	X	X
JAMAICA SITE AND SERVICES	May 1974	15.0 L	33 - 66	6,000: Kingston 3,940 Montego Bay 660 Spanish Town 560 May Pen 840	6,000 <sup>4/</sup>		120	94	2,750 house-holds	800	Individual	Individual	a, b, c, d	b, c, d	A, C, D, E, G, J, K, H, Q	X	X	X
TANZANIA, NATIONAL SITE AND SERVICES	July 1974	8.5 C	16 - 90	10,600: Dar 7,450 Mwanza 2,300 Mbeya 850		10,600	865: 625 Upgrading: 600	288	8,800 dwellings		Standpipes: 90% Individual: 10%	Pit or Aqua Privies: 90% Individual: 10%	a, b, c, d	A, C, D, L, M, R		X	X	
ZAMBIA, LUSAKA SQUATTER UPGRADING AND SITE & SERVICES	July 1974	20.0 L	15 - 100 (basic and normal plots) 8 - 100 (overspill plots)	4,400 + 7,600 overspill plots	4,400		470	210-324	77,000 plots		Upgrading: Standpipes Site & servs.: Standpipes 1,200 Individual 3,200	Upgrading: Pit Privies Site & servs.: Pit Privies 1,200 Individual 3,200	a	a, b, c	A, C, D, L, M A, C, D, L		X	X
INDONESIA, JAKARTA URBAN DEVELOPMENT PROJECT	September 1974	25.0 C	20 - 50	8,000	8,000		130	80-200	1,950 ha.	7,500	Upgrading: Standpipes Site & Servs: Individual	Upgrading: Communal Sanitary Units Site and servs.: septic tanks plus individual	a, b, c, d	a			X	X
EL SALVADOR, SITE AND SERVICES	October 1974	6.0 C 4.0 L	17 - 55	8,000	8,000 <sup>5/</sup>		134	60-120		4,000 <sup>5/</sup>	Individual	Individual	a, b, c, d	a, b, c, d	A, C, D, E, G, M, S		X	X
KOREA, SITE AND SERVICES COMPONENT OF SECONDARY CITIES REGIONAL PROJECT	January 1975	3-4 L	20-40	1,934	1,934		36	115-247			Individual	Individual	a, b, c	a, b				X

1/ Codes: a: road improvement  
b: water supply extension  
c: power distribution network  
d: storm water runoff

2/ Codes: A: primary school  
B: secondary school  
C: health center  
D: community center  
E: recreation  
F: commercial  
G: small scale industry  
H: religion

J: police  
K: fire protection  
L: refuse collection  
M: market

N: public transportation  
P: post office  
Q: other public buildings  
R: nutrition education  
S: sports field

3/ Sanitary and shelter core units. Plus 500 sanitary core units in Managua.

4/ Plus 3 service level options.

5/ Plus 2 service level options.

Source: IBRD Appraisal Reports.



Table 11: PERCENTAGE DISTRIBUTION OF DEVELOPMENT COSTS FOR SITE AND SERVICES  
PLOTS IN 9 BANK GROUP PROJECTS (IN PERCENTAGE)

Country Year of Estimate Typical Lot	On-Site Infrastructure	Site Preparation	Land	Plot Development <sup>1/</sup>	Total	"Normalized Values" <sup>2/</sup>		
						Total On-Site Infrastructure	Site Preparation	Plot Development
1.0 NICARAGUA - 1973								
1.1 110 sq.m. plot in Managua; individual services; completed 20 sq.m. dwelling	23.85	4.10	13.91	58.14	100.00			
1.2 110 sq.m. plot in Managua; individual services; built sanitary core; materials loan	28.70	4.94	16.74	49.62	100.00			
2.0 SENEGAL - 1972								
2.1 160 sq.m. plot in Dakar; communal water and individual pit latrine	21.23	78.77	-	-	100.00	16.45	61.05	-
2.2 150 sq.m. plot in Dakar; individual services; built sanitary core	70.42	25.11	-	4.47	100.00	54.58	19.46	3.46
2.3 200 sq.m. plot in Thies; communal water and individual pit latrine	83.46	16.54	-	-	100.00	64.68	12.82	-
3.0 INDONESIA - 1974								
3.1 80 sq.m. plot in Gengkareng; individual services; 20 sq.m. core house; including sanitary unit	42.16	1.05	18.24	38.55	100.00			
3.2 140 sq.m. plot in Gengkareng; individual services; 20 sq.m. core house including sanitary unit.	42.48	1.08	18.69	37.75	100.00			
4.0 JAMAICA - 1973								
4.1 94 sq.m. plot in Marcus Garvey; individual services; materials loan	32.61	16.67	-	50.72	100.00	25.27	12.92	39.31
4.2 94 sq.m. plot in Marcus Garvey; individual services; built sanitary core; materials loan	28.86	14.75	-	62.98	100.00	22.37	11.43	48.81
4.3 94 sq.m. plot in Marcus Garvey; individual services; built dwelling; materials loan	21.21	10.84	-	66.50	100.00	16.44	8.40	51.54
5.0 BOTSWANA - 1973								
5.1 375 sq.m. plot in Francistown; communal water and individual aqua privy; materials loan	42.85	-	-	57.15	100.00	33.21	-	44.29
5.2 375 sq.m. plot in Francistown; communal water and individual aqua privy; "traditional area"	100.00	-	-	-	100.00	77.50	-	-
6.0 ZAMBIA - 1974								
6.1 210 sq.m. plot in Lusaka; communal water and individual pit latrine; materials loan	20.45	-	-	79.55	100.00	15.85	-	61.65
6.2 324 sq.m. plot in Lusaka; communal water and individual pit latrine; materials loan	53.40	-	-	46.60	100.00	41.39	-	36.12
6.3 324 sq.m. plot in Lusaka; individual services; materials loan	50.18	-	-	49.82	100.00	38.89	-	38.61
7.0 EL SALVADOR - 1974								
7.1 60 sq.m. plot in San Salvador; individual services; built sanitary core; materials loan	18.87	-	19.52	61.61	100.00			
7.2 120 sq.m. plot in the Secondary Cities; individual services; built sanitary core; materials loan	27.27	-	28.21	44.51	100.00			
8.0 TANZANIA								
8.1 260 sq.m. plot in Sinza, Dar-es-Salaam communal water and individual aqua privy; materials loan	25.85	-	-	74.15	100.00	20.03	-	57.47
9.0 KENYA								
9.1 120 sq.m. plot in Dandora Nairobi; individual services; built sanitary core; materials loan	30.22	5.45	-	64.33	100.00	23.42	4.22	49.86

<sup>1/</sup> Core housing and materials loans.

<sup>2/</sup> Assuming average value of land of 22.5 percent in all projects

Source: Site & Services Projects Survey and Analysis of Urbanization Standards and On-Site Infrastructure, P. Patel, August 1974, (Preliminary draft).

Table 12: URBAN AREAS BY SIZE CLASS FOR GROUPS OF DEVELOPING COUNTRIES, 1970

Country Group	0.2 - 0.5 million		0.5 - 1.0 million		1.0 - 2.0 million		2.0 million and over		Total Urban Areas
	Total		Total		Total		Total		
	No. of Urban Areas	Population ('000)	No. of Urban Areas	Population ('000)	No. of Urban Areas	Population ('000)	No. of Urban Areas	Population ('000)	
Relatively High Income <sup>1/</sup> (13 countries)	12	6,215	5	3,224	6	7,746	5	14,506	28
Middle Income <sup>2/</sup> (34 countries)	73	20,992	28	19,146	9	13,040	12	47,140	122
Poorest <sup>3/</sup> (31 countries)	76	23,370	28	18,303	9	13,007	6	25,896	119
78 Countries	161		61		24		23		269

<sup>1/</sup> GNP/capita 1970 - US\$450 - 1,000

<sup>2/</sup> GNP/capita 1970 - US\$150 - 450

<sup>3/</sup> GNP/capita 1970 - US\$150 and less

Source: Kingsley Davis, World Urbanization 1950-1970, Vol.I: Basic Data for Cities, University of California at Berkeley, 1969.