

URBAN LAND POLICY, INCOME DISTRIBUTION
AND THE URBAN POOR

by

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PREFACE

This paper is an attempt to bring together various aspects of the problem of urban land allocation in less developed countries. It surveys a diverse literature on urban problems and particularly as they relate to the urban poor. In so doing various broad generalizations are made from the available evidence, inadequate though it often is. They are made, partly with the hope that further research will be stimulated to test such generalizations and to offer some theory in an area which is particularly lacking in theory.

I am indebted to the I.B.R.D. Urban and Regional Economics Division in the Development Economics Department for providing me with research facilities and access to their documents which are a wealth of information in an area where information is hard to come by. In particular, I am indebted to Orville F. Grimes, Jr. for making this possible. He also helped greatly in introducing me to various aspects of the literature and in providing detailed comments on the first draft.

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All views are my own and no agency or individual should therefore be held responsible for them.

SUMMARY

This paper is concerned with sharpening the issues in the allocation of urban land particularly as they affect the distribution of income. The problems are introduced by providing a view of the role of urbanization in economic development and the distribution of income in less developed countries (LDCs). Section 2 discusses the potential of economic analysis to deal with these problems. Limitations of economic theory in providing policy guidelines are first discussed. Generalizations about location of people by income classes are offered and a typology of LDC cities suggested. Urban land is viewed as a heterogeneous good whose demand is derived from its various characteristics. Specifically, an approach to its income distribution effects is suggested by first analyzing it as an asset and then as a consumption good. That different income groups see urban land in different ways is emphasized. Finally, the working of urban land markets is described with an emphasis on the causes and consequences of speculation. The effects of the rise in price of urban land on the poor are discussed. Section 3 reviews various land policies in light of the framework suggested in the earlier section. An argument is made for urban planning to be particularly careful in the presence of fast changing conditions in LDC cities. Planning should also take account of the preferences of the people it affects. Policies directly affecting the poor are critically reviewed and a consumer oriented approach suggested. Section 4 is a summary of policy directions suggested and of the fruitful avenues of research.

1. Introduction: Poverty, Urbanization and Economic Development

As a prelude to discussing urban land policy, we need to make clear the role of cities in development and to recognize certain patterns in their growth. The first fact to accept is that the last two decades have seen an explosive growth in the size of cities in almost all LDCs. Table 1 illustrates this for selected cities in Asia, Africa and Latin America. This growth can in large measure be attributed to rural-urban migration reacting to poor conditions in the countryside or expectation of higher incomes in the city. There is, in general, no sign that these cities are slowing down in growth although some of the largest are, perhaps, tapering off. So land policy has to recognize that one of its primary aims is to provide space and services for a fast increasing population. There has to be an expansion of the supply of urban land and more crowding. While the supply of land is obviously inelastic (except for reclamation), supply of urban land is not. Conversion of rural land to urban use does this as does the release of undeveloped lands in urban areas. We regard both of these as constituting an increase in the supply of urban land.

The converse of the above is that city size should be contained by some means and that urban land policy should be such as to discourage growth. Indeed, this is the view of many policy makers and the result is that attempts are made to find measures discouraging the growth of cities.¹ The growth of cities, however, proceeds unabated and the result of such attitudes is only to exacerbate the situation by not providing for growth. That the form, nature and structure of cities in poor countries is an area

¹Such attitudes are, for example, found in Brazil (Gardner, 1973); Argentina (Tobar, 1973); Morocco (Johnson, 1970, 1973); Kenya (Werlin, 1974); Chile (Robin & Terzo, 1973); and Indian Plan Documents.

TABLE 1
POPULATION AND GROWTH RATES OF SELECTED CITIES

<u>City</u>	<u>Population</u> (Estimated 1970) <u>in millions</u>	<u>Growth Rates</u> (% per year)	
		1950-60	1960-70
<u>Africa</u>			
Casablanca	1.5	4.1	4.2
Cairo	5.6	4.1	4.1
Lagos	.8	4.6	6.7
Nairobi	.5	7.4	6.2
<u>Latin America</u>			
Mexico City	3.5	2.4	2.3
Rio de Janeiro	7.2	4.4	4.4
Sao Paulo	8.2	6.4	6.4
Bogota	2.5	7.4	7.3
Lima	2.5	4.8	5.1
Buenos Aires	9.4	5.0	3.0
Santiago	2.6	4.1	3.1
<u>Asia</u>			
Hong Kong	4.1	7.0	2.9
Seoul	4.7	5.2	6.7
Manila	4.1	4.3	4.3
Ankara	1.3	8.4	6.8
Bombay	5.9	2.1	3.2
Delhi	3.1	2.9	3.0

Source: Kingsley Davis: World Urbanization 1950-1970, Vol. I, Table E.

neglected in research as well as action is one aspect of this result.

Since:

- a. large cities are here to stay anyway, and
- b. their growth cannot be slowed -- the position adopted

in this paper is that urban land policy must accept this and respond accordingly. We hold this position because we believe that the opposite view (viz. containing cities) is erroneous (or dubious at best) for development and income distribution concerns. The latter view is usually based on two beliefs popularly held:

1. The poor in cities are particularly disadvantaged and they would be better off elsewhere.
2. Cities beyond a certain size involve diseconomies of scale in the provision of services.

After examining the available evidence, we call into question both of these beliefs.

First, it seems that large city per capita incomes are usually about twice as large as those for rural areas. Table 2 gives urban and rural mean incomes for various countries for which data are available. Although the sources are varied (and the definitions) the differential between urban and rural incomes is clearly very large. We also observe that according to the Gini ratios inequality is higher in urban areas. Understatement of rural incomes because of non-traded goods, and overstatement of urban incomes because of higher prices in cities, also increases the observed urban-rural difference. Nonetheless, there is such a large difference in the means that we can say, with some justification, that the average level of well-being is higher in urban areas. This is also supported by various

TABLE 2
URBAN AND RURAL MEAN INCOMES IN SELECTED COUNTRIES

<u>COUNTRY</u>	<u>TYPE OF POPULATION</u> ¹	<u>YEAR</u>	<u>URBAN</u>	<u>RURAL</u>
Bangladesh	HH	1963-64	Rs2900 (.48)	Rs1680 (.34)
Brazil	Econ. Active Population	1960	3300 New Cruz. (.46)	1450 N.C. (.41)
		1970	4650 N.C. (.53)	1650 N.C. (.43)
Colombia	Income Recipients	1970	16,270 pesos (.52)	7030 pesos (.45)
Honduras	HH	1967-68	3560 Lempiras (.48)	660 Lempiras (.46)
India	HH		Rs2700 (.45)	Rs1360 (.35)
Pakistan	HH	1963-64	Rs3035 (.43)	Rs2050 (.35)
Ceylon	HH	1969-70	Rs5300 (.41)	Rs3600 (.37)
Malaysia ³	per capita HH	1970	M\$744 (.46)	M\$456 (.45)
Philippines ²	HH	1971	₱7785	₱3736
Thailand	HH	1970	21600 Baht (.43)	8800 Baht (.37)
Tunisia	per capita	1961	U.S.\$160 (.46)	U.S.\$75 (.44)
Uganda	Adult male employees	1970	3120 sh (.38)	1780 sh (.25)

(Figures in parenthesis are Gini coefficients).

Main Source: Shail Jain and Arthur Tiemann, Size Distribution of Income: Compilation of Data.

I.B.R.D., Development Research Centre Discussion Paper 4, August 1973.

¹Type of population refers to the different units reported in various studies:
Income Recipient - Individuals who receive income of any kind
Economically Active Population - Individuals who are able to work; both employed and unemployed.

HH - Household

Table 2 (cont'd)

²Philippines - IBRD Manila Urban Sector Survey July 1974. Section 2, p. 15 (mimeo)

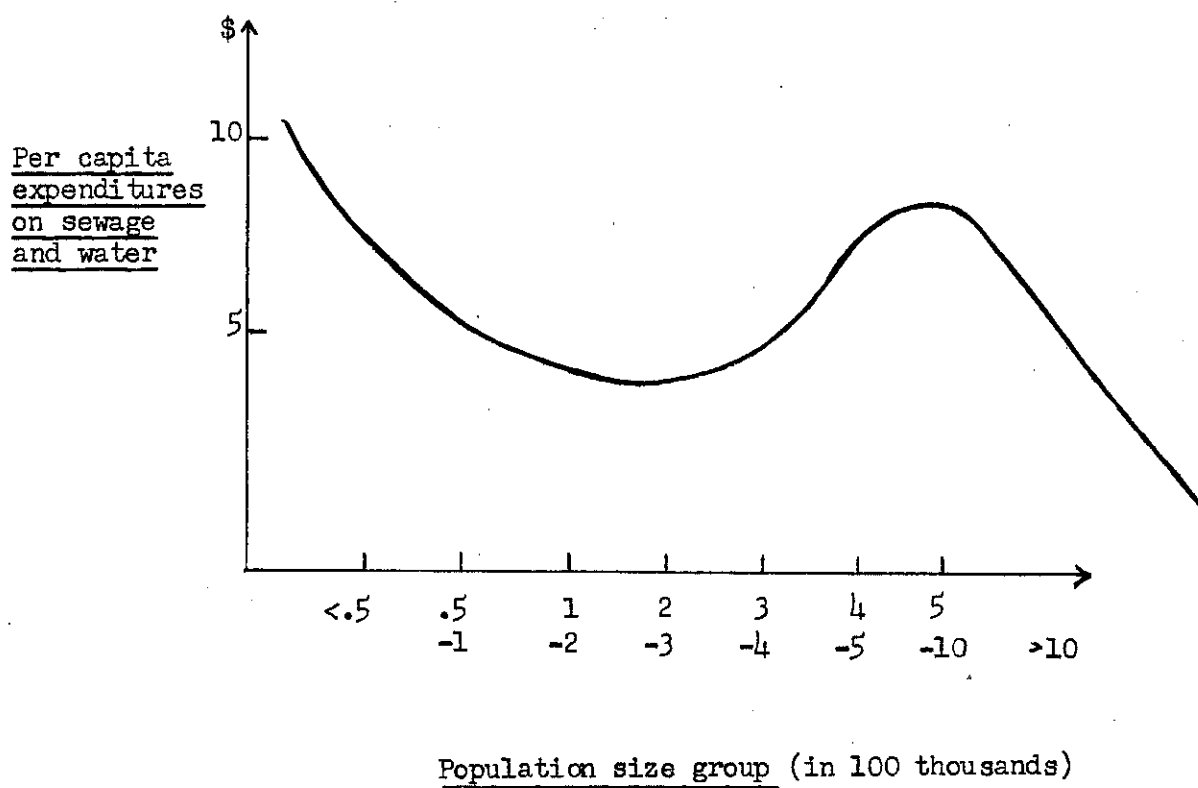
³Malaysia - Sudhir Anand (1973), p. 40.

surveys of poor migrants who express no willingness to return to their places of origin. The assertion is not that all is well in cities but that the poorest are even worse off in rural areas. Secondly, Sovani (1964, 1966), Kamerschen (1969) and others have found that the degree of urbanization is very strongly related to industrialization. This association is stronger for LDCs now and for western countries in the last century than for rich countries now. Furthermore Kamerschen (1969) and Mera (1973) demonstrate that there is a positive correlation between the growth of large cities and economic development in LDCs. Large cities are more productive and the largest cities are likely to be more productive relative to others in an LDC. In Hoselitz's (1955 b) terms cities are generative rather than parasitic. It is then no wonder that there is a stream of migrants from rural to urban areas. Land policy should, consequently, attempt to improve their welfare.

The belief about diseconomies of scale is also not well supported. Figure 1 is a stylized (highly generalized) representation of some U.S. data. It indicates that there may be economies of scale for at least part of social overhead cost expenditures. We note that per capita expenditures for sewage and water decline precipitously for cities over 1 million. For LDCs Alonso (1968 c) and Mera (1973 c) demonstrate that per capita income rises much faster than per capita local government expenditure. Even if social overhead costs do rise for large cities, their productivity rises even faster.

We, therefore, see that policies aimed at containing city size have, at best, dubious underpinnings. Plans encouraging new towns around an existing city (e.g. Delhi Master Plan, 1961) or completely new towns in the

Figure 1: PATTERN OF SOCIAL OVERHEAD COST BY SIZE
OF CITY IN THE U.S.



Source: Carson et.al, p. 51-52.

Note: This is a stylized version of Carson's figures.

hinterland (e.g., Ciudad Guyana in Venezuela) are examples of policies encouraging urban decentralization. Clearing of slum and squatter areas is another. That they often fail is, perhaps, because they go against the pressure of basic economic forces.

For all these reasons our orientation in this paper is that urban land policy should not be geared to containing city size but should rather be aimed at providing the best structure possible to the growing city. In terms of income distribution, the argument above does pose a dilemma. On the one hand large cities tend to help along economic growth in general while on the other regional inequality is increased. The high urban immigration rates are a response to this imbalance and constitute one solution to the problem. However, this paper does not consider such problems any further and they are mentioned at the outset to place the issue of urban land policy in perspective. The rest of the paper is limited to the effect of urban land policy on the intra-city distribution of income.

2. The Redistributive Effects of Land Policy: Some Simple Analytics

2.1 The Problem in Perspective

Here we are primarily concerned with issues of urban land policy as they relate to income distribution. We touch mainly on intra-city distribution and neglect inter-regional and other related problems. The explosive growth of cities in the last 2 decades is the primary reason why land allocation has become important. The rapid influx of migrants - usually in the lower income groups - necessitates the evaluation of the impact of such allocation on income distribution. Our orientation is clearly a normative one directed towards improvement of the current distribution of income.¹

We do, however, need to make clear the process by which land policy can affect the distribution of income and to be aware of its limitations. While the distribution of land ownership may be a major determinant of income distribution in rural areas it is not likely to be so in urban areas. The reason is that land is primarily a productive resource in agriculture, while it is a heterogeneous commodity in urban areas, as is elaborated later in the paper. It is a productive resource i.e., an asset, as well as a consumption good. The determinants of its price are therefore complex and their analysis correspondingly difficult.

¹Questions concerning the measurement of income distribution are not being addressed here. There are two reasons for this neglect. Firstly, such questions are too technical in nature to be merely mentioned. They must be discussed in depth if discussed at all, as is being done by specialized papers at this conference. Secondly, the level of analysis offered in this paper does not warrant fine calculations of the effects on income distribution. Rough evaluations of degree of effects only will be made.

The problem is compounded by the fact that demand for urban land is really derived from the demand for housing, recreation, space for manufacturing, commercial and administrative activities, and for assets. It is therefore a demand for various characteristics of the land rather than for land itself as a commodity. Thus the income elasticity of demand for land will be a combination of the various elasticities of demand for these characteristics. These elasticities are difficult to measure. The economic theory of land price and rent is, as a consequence, not very well developed. The theory we have is mainly derived from experience in Western cities, mainly American, and it is not yet clear how universal it is in application.

One reason for suspecting that any economic theory behind LDC cities will be difficult to find is their current chronic state of disequilibrium. Urban economists have recognized the difficulty of applying competitive equilibrium analysis to urban phenomena because the durability of structures prevents equilibrium from being achieved. They believe, nonetheless, that long term trends and adjustments can be analyzed in this way as long as the limitations of the analysis are recognized (E.S. Mills, 1972, p. 76.) The change in LDC cities is, however, so fast that it is probably erroneous to use equilibrated markets, land in particular, to characterize reality. The rapid population growth ranging from 3.5% a year in urban areas in India to 7-10% a year in various Latin American and African countries makes continuous expansion of urban land and reallocation necessary. The change in price of urban land is correspondingly volatile and consistently ahead of the general price index in almost all countries. Segmented markets and extensive public intervention also makes market analysis suspect. This, however, must not be overstated. Land markets do

work and the resulting price and rent of land is some indication of its social value. The message here is that the market is not efficient enough to make all proper allocations yet any public land allocation must observe and take account of the signals it has to offer.

2.2 Spatial Settlement Patterns in Cities.

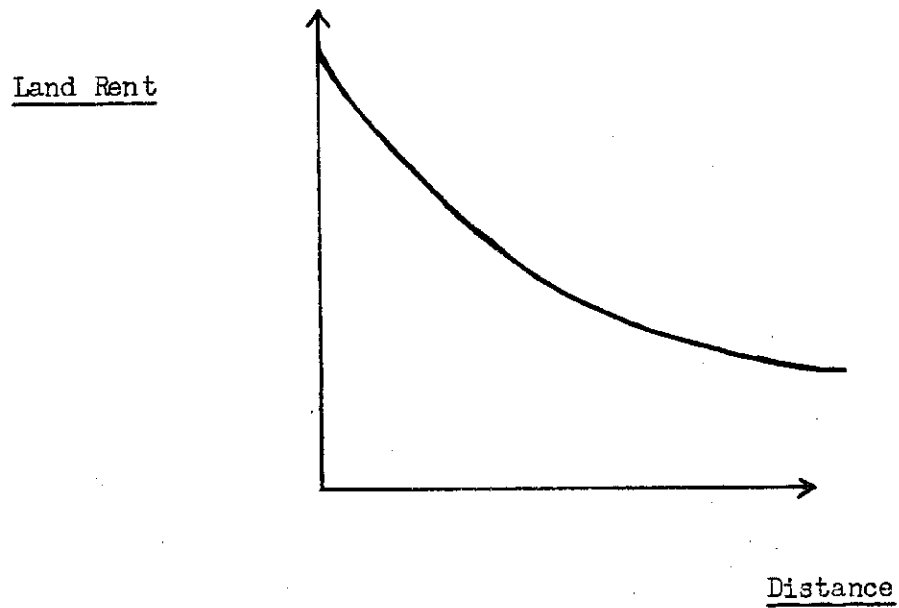
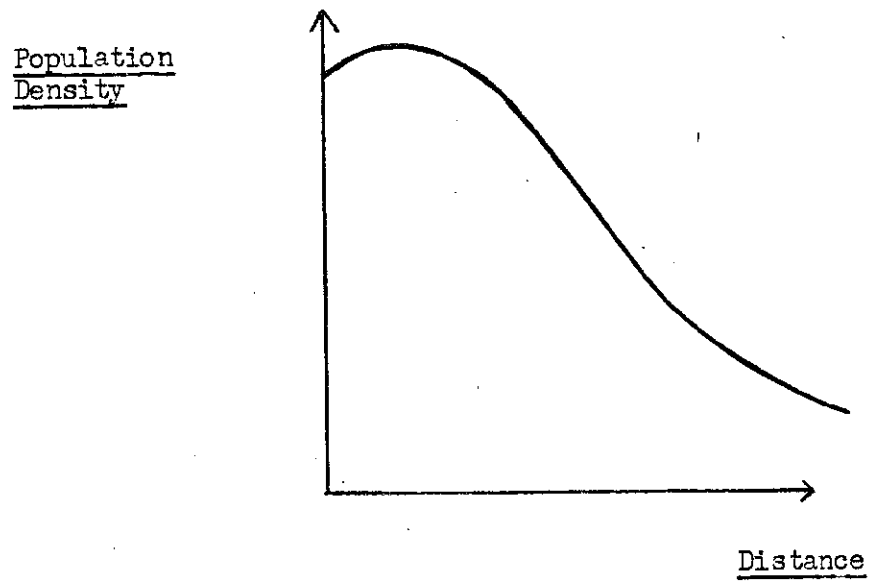
In designing urban land policy which favors the poor we need to know the existing structure of cities. We are particularly interested in finding out patterns of residential location and why people live where they live.

In general, cities conform to the pattern shown in Fig. 2. This is a stylized representation from scanty data. Kimani (1972) confirms it for Nairobi - particularly the land value-distance relationship where his formulation is

$y = ax^b$ where y is land value and x is distance and a and b are constants. b is negative and significant. Peter Amato (1969, 1970) provides similar confirmation for Bogota, Lima, Quito and Santiago. John Brush (1974) provides evidence for population densities in Indian cities. Orville Grimes (1974) tested the land value-distance relationship to be true for Kinshasa. Information on land values and population densities in Hong Kong and Singapore in D. J. Dwyer (1971) and Yeung (1974) tend to conform to the same pattern. In this respect they do not differ much from Western experience and theory.

As soon as we descend from this level of generalization we find significant differences within LDCs and systematically from Western cities. Firstly, geographically each continent has significant differences from the others. Latin American cities, African cities and Asian cities can

Figure 2: STRUCTURE OF LDC CITIES: VARIATION IN
POPULATION DENSITY AND LAND RENT WITH
DISTANCE FROM CITY CENTRE



each be classed as a group. Latin America is more urbanized than either Asia or Africa; the cities tend to be large (i.e., many with over 1 million inhabitants) and have high growth rates. Their distinguishing feature though is that they are expanding in area faster than in population (Peter Amato (1973), Ford Foundation Surveys). African cities tend to be small (few with population more than 1 million), but also with high growth rates. They are almost all colonial cities and as such have residential areas highly segregated by income as well as race. They are also characterized by low population densities except in some cities of West Africa. Asia's cities are very densely populated, and not growing as fast as African and Latin American ones. Land supply is a major problem and land use in these cities is very mixed, i.e., residential, commercial and industrial uses are often contiguous.

Secondly, we class these cities as

(i) cities which represent a mixture of the industrial city and pre-industrial city. Examples of these are Ibadan in Nigeria, most cities in India (but excluding Bombay, Calcutta and Madras).

(ii) Large port cities which acted as the main colonial importing and exporting centers, e.g., Singapore, Hong Kong, Calcutta, Bombay, Madras, Rio de Janeiro.

(iii) Administrative cities which have grown mainly as capital cities, e.g., Brasilia, New Delhi, most African cities.

(This classification is adapted from T. G. McGee (1971) Chap. 2).

Category (i) tends to have two urban nodes, i.e., a traditional commercial center and a modern one. The traditional center is very crowded and specializes in intense trading on a small scale. These trading activities are characterized by negligible overhead costs and small profit margins. They also serve as centers for the wholesale food grain market.

The modern center has usually been established by the colonial power and has the modern commercial activities (banks, insurance companies, modern consumer goods) and administrative offices. These cities may have two nodes in their rent-distance and population density functions but often get merged into one.

The second category is rather like a Western city in land use but with three differences: much more crowded, with more mixed land use and, of course, much poorer.

The third category can be called created cities. They usually have low population densities and are in the process of becoming industrial and commercial centers.

It is now received urban economic theory for American cities that the poorest live in the center of cities and richest furthest out with various gradations in the middle. The evidence on this is very scanty for LDC cities in systematic form and such a generalization may not be possible. A perusal of various maps (Seoul, Bombay, Calcutta, Bogota, Singapore, Hong Kong, Mexico City, Lima) and a reading of descriptions of these cities coupled with impressionistic observation yields the following patterns:

1. Income classes are much more integrated in LDC cities spatially. A poor slum is quite likely to be adjacent to a rich neighborhood.
2. The residential areas nearest the city center is likely to have high income residents interspersed with poor.
3. The next group is the middle class usually very densely packed in.
4. The rich are again the next group in their equivalent of suburbanization but still not very far from work places.

Figure 3: RESIDENTIAL LOCATION BY INCOME CLASSES

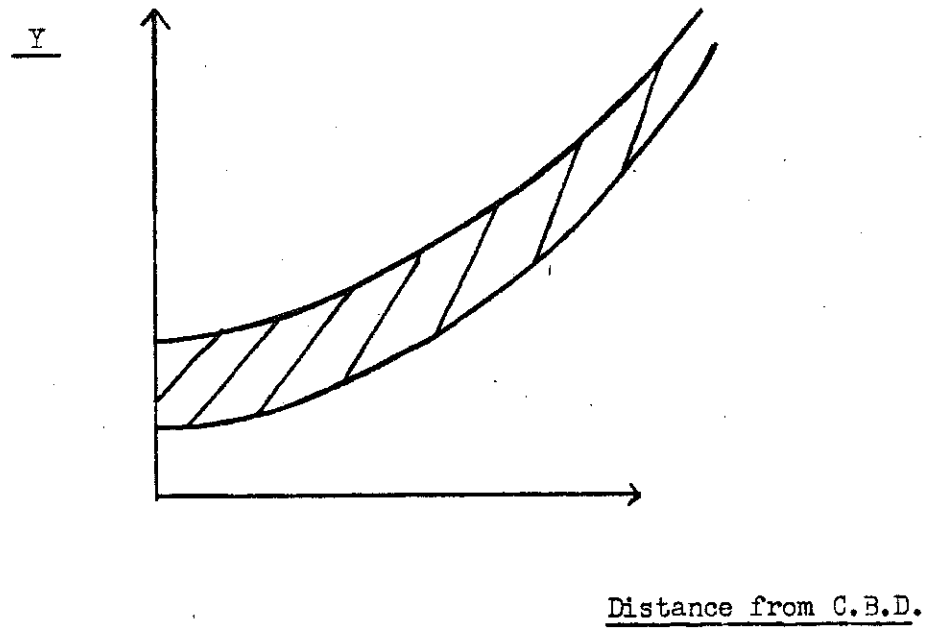


Figure 3a: RECEIVED WESTERN URBAN PATTERN

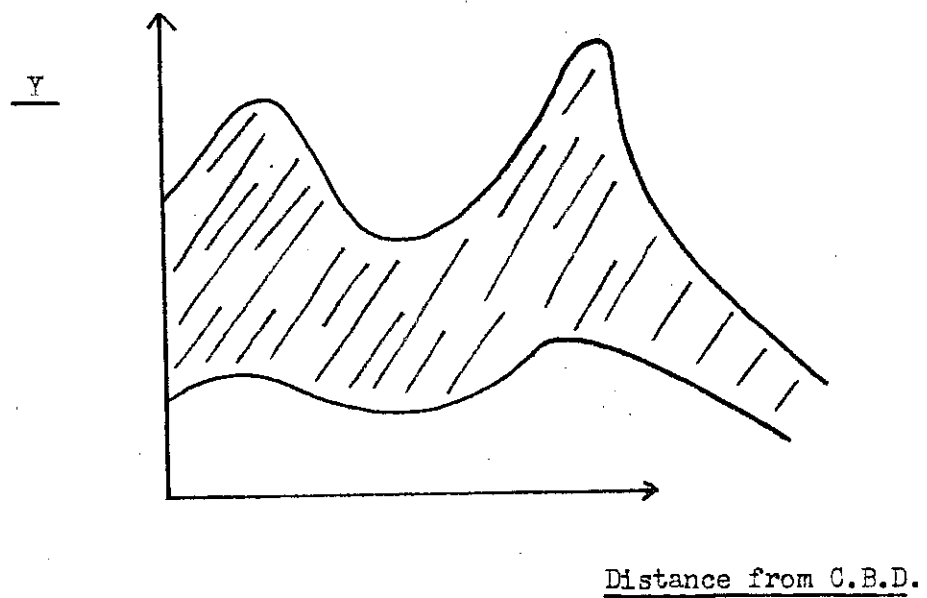


Figure 4b: STYLIZED PATTERN FOR AN LDC CITY

5. The farthest out are squatter settlements housing the next to poorest groups but not the poorest.

6. The poorest are interspersed in slums all over or sleep on the streets as in Calcutta.

Figure 3 gives the usual stylized representations. It must be emphasized that these representations are conjectures based on scanty information. In an LDC city, the pattern can be represented as the "poor are everywhere."

The rich occupy the areas with highest amenity qualities like scenic areas, locations with good views, etc.¹

The poor are relegated to the most inhospitable terrain like steep slopes and marshes. This suggests that amenities are highly valued by the rich who are also willing to pay for them.

We can now begin to analyze how urban land policy affects income distribution. We may define urban land policy as constituting those public decisions (usually governmental) whose effects influence the allocation of urban land between different uses and different people. We first look at land as an asset and then as a consumption good.

2.3 Land as an Asset

In the most general formulation we can write

$$Y = f(\text{human capital; physical capital; access to opportunities})$$

where Y can be household income or personal income broadly conceived as permanent income. The last term in the function is a catch-all to make the formulation all inclusive. It can be regarded as a stochastic error term or as a systematic influence of the prevailing social structure depending on one's

¹e.g., Nairobi (personal observation; Werlin, 1972; O. Ornati, 1968) Bogota, Lima, Quito, Santiago (Amato, 1972), Kinshasa (Grimes, 1974), Kano (Ornati, 1968).

political persuasion and social beliefs. Land influences this function only when seen as an asset. Urban Land Policy has minimal influence on the distribution of human capital except indirectly, e.g., population density has health effects and the planning of extra dense areas for poor people could have a detrimental effect on children's development in particular.

Land as physical capital, however, clearly affects the income distribution. In the absence of well developed capital markets land is seen as an important asset in LDCs and is often a major component of people's portfolios. Its ownership, however, is limited to a relatively small percentage of the population so its distribution is clearly more unequal than that of income. Thus any policy which reduces the concentration of ownership clearly improves income distribution. The concentration of landownership could be because of historical reasons (e.g., most land being owned by the earliest urban settlers) or because of market imperfections causing difficulties of access to land markets for people with lower incomes. The creation of appropriate financial credit mechanisms for lower income people would then be an important component of land policy. Other mechanisms for increasing the supply of urban land could be high taxes on holdings beyond a certain size or direct expropriation (with or without compensation) and subsequent redistribution. All such policies aimed at improving asset distribution would clearly be beneficial for income distribution as well. The case of government expropriation would provide a good example for an analysis of the type offered in Cauas and Selowsky (1974). The limitation to all such policies and analysis is that such distribution is likely to affect only the top two to five deciles in an LDC city - depending on the country. The poorest are not able to enter the capital markets, however

concessional the rates may be. Their level of literacy, etc., does not warrant a view of land as an asset. Their primary interest is in land as shelter and security. When ownership of land is primarily for the purpose of residence (with or without a structure) it can be regarded as an income producing asset by imputing additional income to the owner or as a consumption good, which is considered below. To sum up, while the redistribution of urban land as an asset is regarded as desirable its effects are not seen to be very important in overall income distribution.

2.4 Land as a Consumption Good

Now we consider the other side of the picture: people's consumption patterns. We can write an individual's or household's utility function as

$$U = U(\text{shelter, security, amenities; other things}).$$

The three requirements - shelter, security and amenities - are those services the demand for which results in the demand for land. These are taken from Turner (J. F. Turner, 1967, 1968).

Now consider Fig. 4a representing standard consumer theory. Conceptually, urban land policy affects the welfare of the poor only if it raises the poor household from point P_1 on I_2 to, say, P_2 on I_3 a higher indifference curve. This happens either if the budget line itself moves up to CD or it rotates to AE (Fig. 4b). Thus if we make land availability easier i.e., make price of land lower we would be raising people to higher indifference curves. The problem is, however, not so simple. Firstly, we would have to keep the rich out of the market, for unless land is an inferior good, they would be helped too. Secondly, we have to look into the preference structures of different groups to be really certain of what we are doing. There is a reasonable amount of evidence from surveys of

squatter populations, slums,¹ etc., that the preference structure of the poorest is rather like Fig. 4c. The diagram shows that paying for land is low on their priority list. This is not to claim that the poor would not undergo a certain amount of inconvenience to get better shelter. We are suggesting that they are not willing to pay for land in monetary terms because other subsistence necessities have higher priority for monetary expenses. Land would, therefore, have to be made drastically cheap (AF) for the poor to be willing to pay something for it. We have begged the question of who we mean by the 'poorest'. Clearly, in India this might be something like the bottom 40% while in Latin America it may be 5%. Other essentials, mainly food, are higher on their preference list and in this stylized representation we are describing the case where a squatter is occupying land without paying for it: he is at A. Thus a policy which relocates him, in say, a site and services project with a charge for it is, in fact, making him worse off. P_3 in Fig. 4c. It is then easy to see why many relocated squatters give up their new piece of land as soon as they get it - usually sub-leasing it to an individual with a higher income. They return to free squatting, i.e., move back to A at a higher utility level.

The upshot of this analysis is that the determination of the impact of urban land policy on income distribution necessarily involves a knowledge of the preference structures of different income groups. An individual's true income goes up when he is able to ascend to a higher indifference curve. An increase in income clearly does this unequivocally. When we are considering indirect methods like that of urban land policy we have to look beyond conventionally measured income. The individual's utility increases only when the good being provided is being desired by

¹See Turner (1967, 1968), Mangin (1968), J. C. Brown (1972).

him. In the case of land, Turner (1967, 1968) has hypothesized that people demand land because of 3 functional priorities:

1. Location
2. Security of Tenure
3. Amenity

The poorest (e.g., fresh migrants) are mainly interested in location. They want to be near job markets. In their highly uncertain situation the only security they are interested in is job security. Their meager income only allows for food consumption and other bare essentials in a kind of lexicographic ordering. The only amenity they need is space for sleeping. The next income group which has a reasonably stable income but is still not well off is interested in security of tenure. This group is willing to trade location for security of tenure. A temporary loss of job or other economic misfortune does not then mean displacement of residence as well. They are also more interested in space rather than amenity and that is what they are willing to pay for. Finally the richest income group is more interested in amenity having got a high stable income and subsistence essentials being accounted for. Electricity, plumbing, well designed houses and recreation then become important and will be demanded by this group.

This is one stylized version of different preference structures of different income groups. It is not entirely clear which of the revealed preferences are because of a different preference structure and which because of different budget lines. Indeed, it is possible that the existence of a low budget line for a group of people dictates their preferences which may change when the budget line changes.

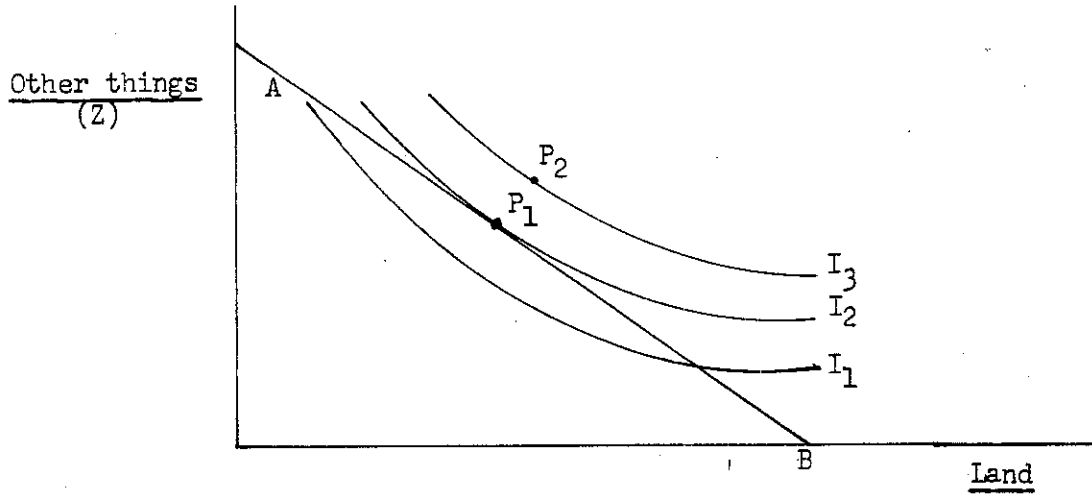


Figure 4a.: THE "NORMAL" CASE

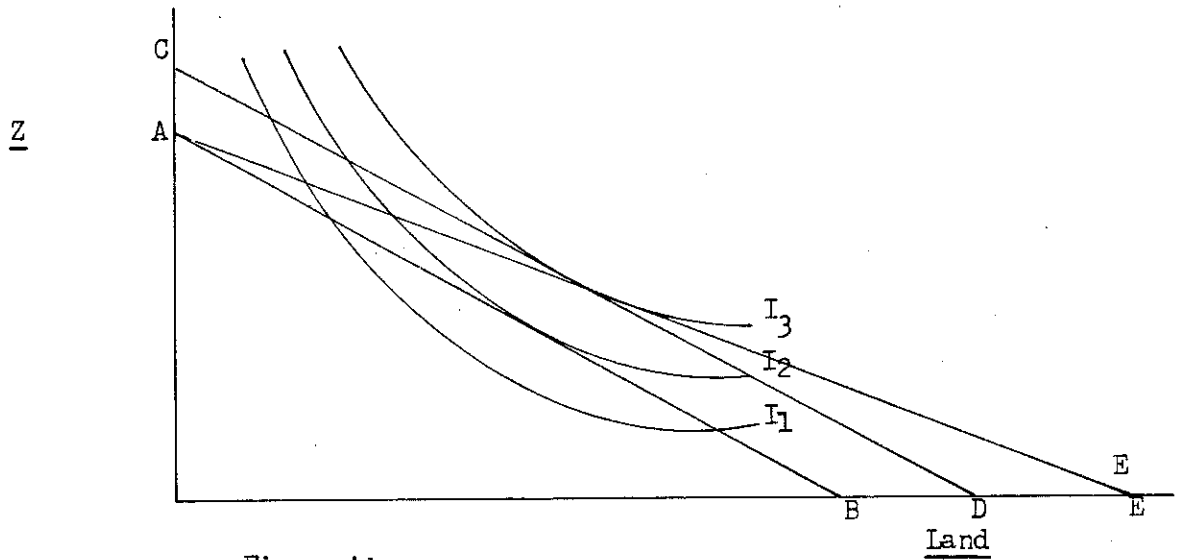


Figure 4b.: MAKING LAND CHEAPER

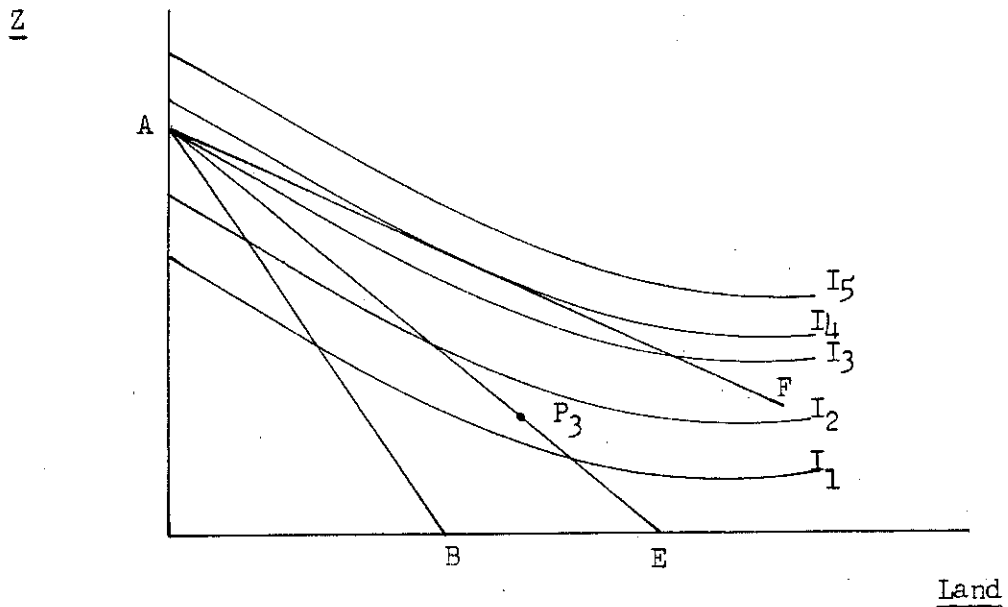


Figure 4c.: PREFERENCE STRUCTURE OF THE POOR

Clearly, the number of such income groups can be increased to, say, deciles and that urban land policy would be improving income distribution which operates on the preferences of the lowest income groups. What has happened more often than not is that planners' own high income preference structure is imposed on the poor of whom we have little knowledge.

2.5. Urban Land Markets and the Price of Land

We do not, in this paper, wish to deal in any detail with the theory of urban land price determination and of land rents. The essentials are, however, necessary since much of urban land policy is concerned with altering the price of land (implicitly or explicitly). Here we will highlight the features special to LDCs and for income distribution.

Whether land is viewed as an asset or consumption good its price can be regarded as the discounted sum of the income stream yielded by it

over time:

$$P_{Lo} = \sum_{t=0}^T \frac{R_t}{(1+r_t)^t}$$

where,

P_{Lo} is the price at time t (marginal product as an asset, proportional to marginal utility as a consumption good).

R_t is rent at time t (yield of an asset, service of a consumption good) and r is the relevant discount rate.

This formulation is deceptively simple since both R_t and r_t themselves are determined by a host of other variables. The role of expectations in both these variables is the key to understanding the land market. Future rent depends on the attractiveness of the location in the future which is determined by factors outside the control of the suppliers and demanders. The appropriate discount rate at time t depends on the rate

of interest at time t , the rate of inflation, and an individual's subjective rate of time preference. In LDCs there is a considerable amount of uncertainty surrounding both these expectations and speculation is the natural result. Here we use the word "speculation" in a neutral manner merely describing the uncertainty component in the actions of suppliers and demanders.

Figure #5 illustrates various time patterns possible of trends in the price of a piece of urban land. The owner who holds land wants to maximize the present worth of his asset. He would sell it at the time its present worth is maximum. Thus the supply schedule of urban land depends crucially on the expectations of the land suppliers. If the expectations correspond to Figure 5.1, where the PV lines are constant present value lines and P_t is the expected time trend of land price, the land would appear in the market at time t_1 . If the expectations are as in Figure 5.2, there is no rational time at which it would be released and in Figure 5.3 it is ambiguous because there may be another point of tangency in the future. We can expect different people to have different expectations and these vary with each location. Furthermore, the P.V. lines themselves shift around depending on the pattern of discount rates. Here we are mainly talking about unimproved land. When the owners are making decisions about when to build the problem is further complicated. Although we talk about the price of land independently of the structure on it these are difficult to separate in practice. Unimproved land is more valuable since using it does not involve the tearing down of an existing structure. There is, however, a trade-off between the rising value of unimproved land and the return that could be obtained by combining capital with it (i.e., building a structure on it.)

Speculation is generic to the operation of the land market. Most policy documents and pronouncements concerning urban land reveal the popular belief that speculation is rife and is instrumental in raising prices to undesirable levels. Various policy instruments are then prescribed to control such "speculation".

To evaluate these policies we need to examine the validity of this belief. Speculation, viewed neutrally, is merely the maximization of present worth in a situation of uncertainty. For the activity itself to affect the price we would expect that either,

- a) the situation is as in Figure 5.1 and there is a monopoly so that one person's expectations or a small group's expectations dictate constricting supply, or
- b) the situation is as in Figure 5.2 so that everyone's expectations are such that land should be held back from the market.

There is little evidence of (a). While land ownership is concentrated it is dispersed over a reasonably large number of people so that a monopoly situation does not exist in most LDC cities - unless the monopolist is a public authority, itself. We can expect different peoples' expectations to be different and their discount rates to be different so that we should observe a range of t_1 's (in Figure 5.1) in the market.

Case (b) is more realistic and is probably the nub of the problem that most land policy is up against. Past trends would predict such a price trend and the land owner is faced with a decision making problem. Behind the price trend is the expected income stream from the asset. If the asset is held off from the market indefinitely there is no income stream. The land owner must, therefore, allow development at some point to get any

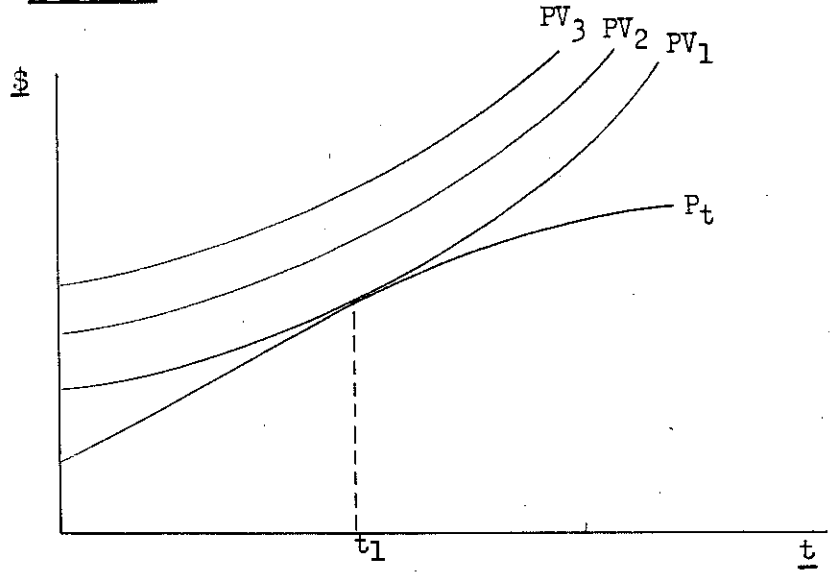


Figure 5.1

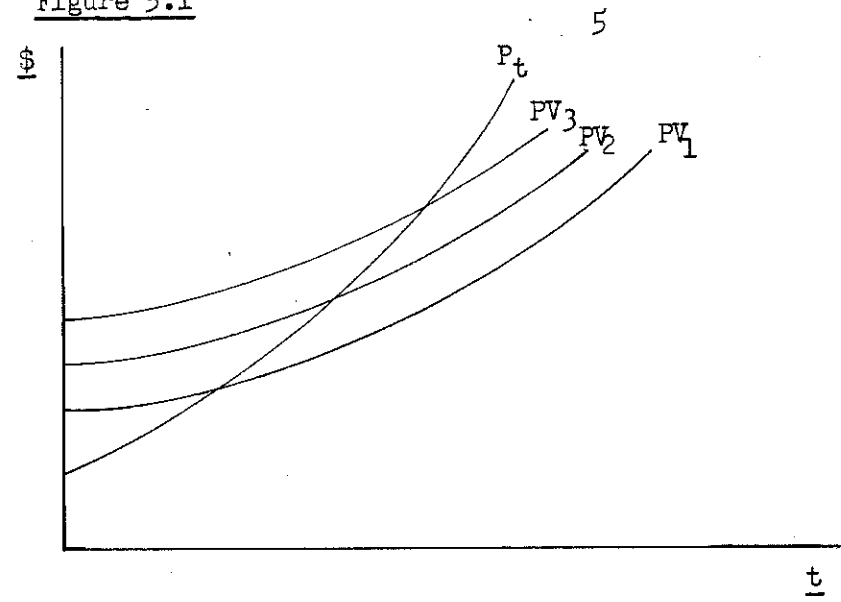


Figure 5.2

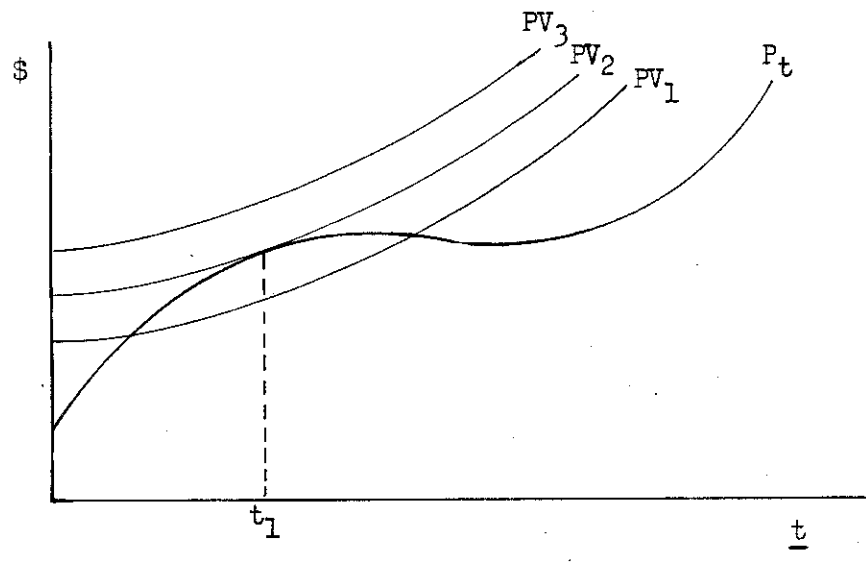


Figure 5.3

return. He can do this by building himself or by leasing the land to a developer. It is in his interest to sell the land only if he perceives the trend to be as in Figure 5.1. How is speculation then affecting price? In the short run, when everyone wants to reap capital gains from price rises, restriction of supply itself feeds back into the price which increases further as a result. It is this price rise that should be called an undesirable speculative price rise and which needs to be controlled. We have to be clear about the following:

- i) that speculation arises initially because of expected real price increases reflecting rising productivity of the land.
- ii) that if price rise expectation is not widespread, different people will be releasing land at different times and speculation will be performing the useful function of "land husbandry". Speculation will be holding out of development that land which is needed for higher density purposes later.

The short run nature of the speculative price effect has to be considered. It has been argued that land will not be held from development indefinitely. Either it must be sold at some point or developed to give any return to the owners. As more and more land is developed demand is satisfied. Here we recall the distinction between land as an asset and land as a consumption good. Much of urban land demand is for housing or shelter and such demand is met by the renting of land. Furthermore, we can expect peripheral lands to come into the urban market if current urban land is kept from it. This would have a price depressing effect and the uniform price expectations would be belied. Thus the speculative component of the price rise would be curbed by expanding supply in the rental market and in peripheral lands.

INCREASE IN LAND PRICES AND DISTRIBUTIONAL IMPLICATIONS

To the extent that the land market works well and supplies and demands adjust in the "normal" way we should not be concerned with the price level. In equilibrium, the price would reflect the land's marginal productivity and the land would be in its best use. As mentioned earlier the problem is that, in fact, the urban land market in LDCs is in characteristic disequilibrium and, therefore, considerable uncertainty surrounds its operation. Not only is there uncertainty about the future but information is imperfect about the present. Buyers and sellers are both not well-informed because of great variability of physical properties and location and the infrequency of market transaction experiences by buyers and sellers (R. B. Andrews, 1971, Ch. 1). Efficient operation of a market requires quick responses to changing conditions. The supply responses in the land market are sluggish. Some of it is built up and, therefore, cannot change use quickly while some is undeveloped and, therefore, is not amenable to quick urban use. Zoning also hampers the speed of response since use is restricted to certain kinds in the zoned areas.¹ On the demand side, where the demand is as a consumption good, it has a high price tag as a proportion to total expenditure. It is this lumpiness that engenders caution and retards market clearance.

Land prices have risen faster than the general price index in almost all cities. This is not a matter of concern if prices reflect the rising productivity of land. It is, however, an income distribution issue because,

- i) If income growth is lagging land price growth then the access

¹This is not so important in LDCs since zoning is not very strict and where it exists is popularly disregarded.

to land is getting more and more restricted and we can expect further concentration of wealth depending on the initial ownership distribution.

ii) The rise in productivity is not due to any action of the owners while they reap the benefit. The rise is owing to general economic trends and specific activity by the government concerning urban services. Part of the price rise is owing to expenditure from tax revenues and, therefore, that part should accrue to public account.

These concerns issue from land seen as an asset. In addition, price-rise has distributional implications for consumption-good demanders:

i) Again, if income growth is lagging land price rise people either spend higher and higher proportions of their income on housing or live in more and more crowded buildings or both. Figure 6a illustrates this. With slower income growth the demand curve rises slower than the supply curve. Thus $Q_3 < Q_2 < Q_1$ and $P_3 > P_2 > P_1$, i.e., there is less and less land consumed per capita. The precise results depend on the magnitude of the relevant demand and supply elasticities. Nonetheless, the likely effects will strike different income groups disproportionately. The lower income groups' expenditures on shelter are constrained by expenditures on other essentials, mainly food. Health is affected by lower expenditures on food and by higher overcrowding. Schorr (1960) documents instances of such overcrowding that people have to sleep seriatim so that children only get 5 hours sleep a night with severe effects on health. The long term consequences on human capital distribution and thereby on income distribution are obvious. The important point is that the rich are not similarly affected. They also have to live in more crowded conditions and pay more for housing but there is no

effect on nutrition and health.

ii) Figure 6b illustrates an extension of the argument above. Deriving from Figure 4c, (p. 23) say, for the next to lowest income group, members of which consume Q_1 of land with the price line at P_2^A we find that a rise in price to P_2^B pushes them to P_2 , i.e., reduces their consumption to zero and to the lower indifference curve I_2 . The result is that a higher proportion of people can be expected to be squatters outside the housing market with rising land prices. This analysis applies equally to people attempting to rent or to buy land for shelter.

iii) A corollary of the above is that the poor look for cheaper land. As noted earlier rents decline with distance from the central business district (c.b.d.) and by the quality of amenities. The result is that with rising land prices the poor locate

- a) further and further away, and
- b) in marginal locations like steep hill slopes and marshes. This accounts for the "urban sprawl" that so disturbs planners and the phenomenon of the poor living on peripheral lands. (James A. Gardner, 1973).

The analysis above indicates that even if we believe land prices to reflect true productivity (however measured) we have reason to be disturbed about its distributional implications and need policy measures to alleviate these problems.

3. Issues in Land Use and The Urban Poor

3.1 Land Use Planning and the Market: Need for a Symbiotic Relationship

We need urban land policy to help the market overcome these difficulties and to do those things that the market cannot do. To

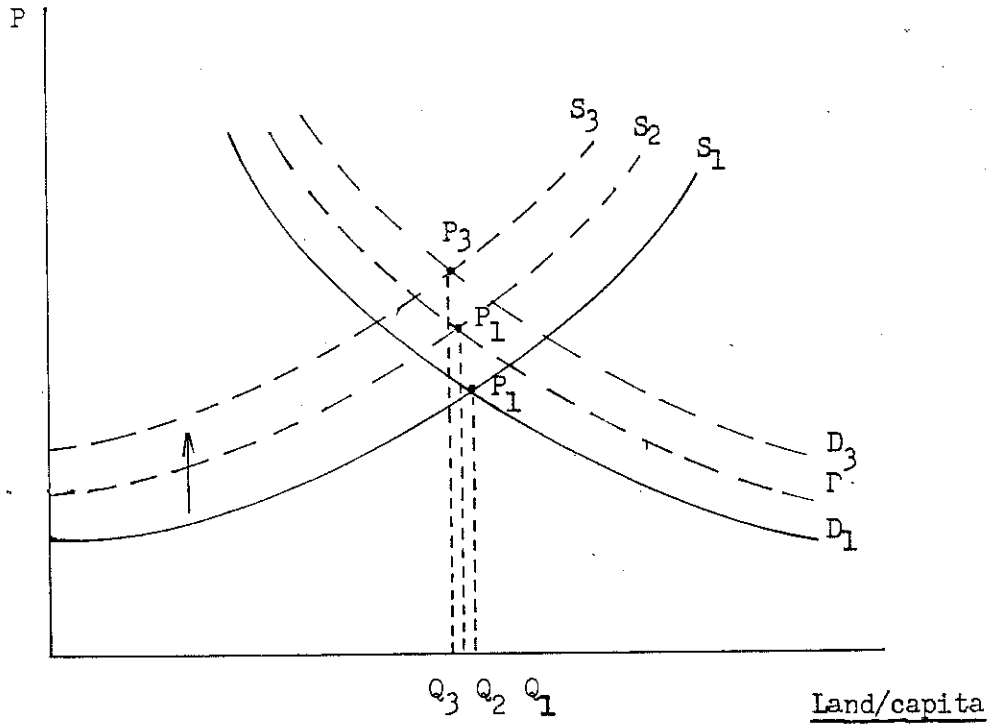


Figure 6a.

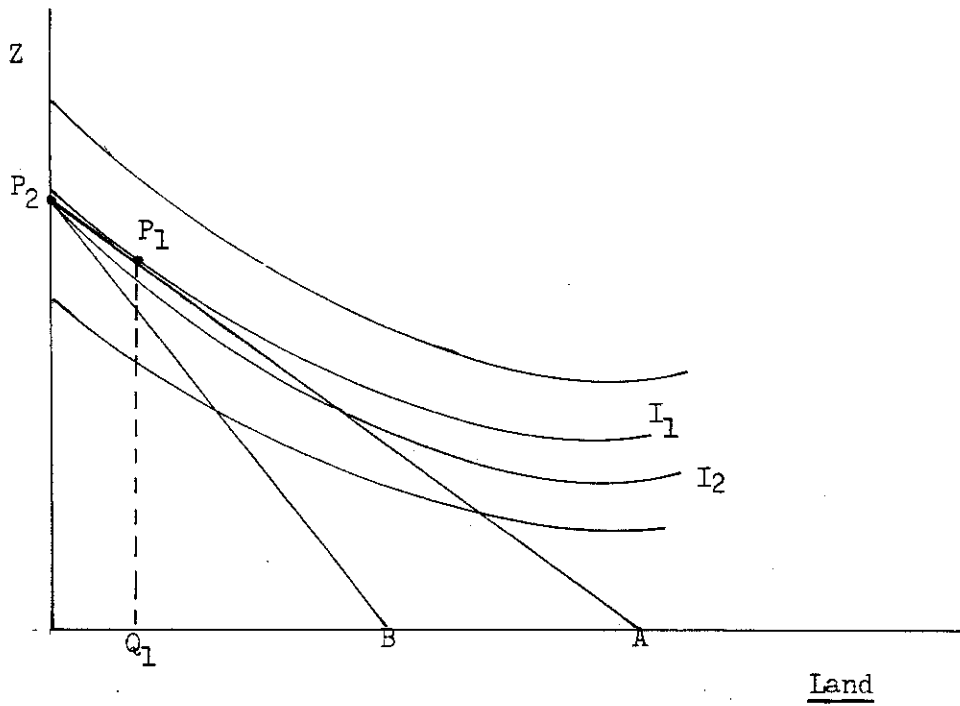


Figure 6b.

paraphrase Andrews (1971), we need land policy to establish conditions conducive to land use cooperation and controlled competition. Unless the whole economy is planned and prices, in general, are not seen as important information signals about relative scarcity, urban planning must take account of the land market and peoples' preferences. Most LDCs fall into the category of mixed economies so this structure can be regarded as a general one. The attempt to do comprehensive urban planning has met with failure in most cities where it has been tried. The reason is not difficult to find. As has been emphasized, the characteristic state of LDC cities is a state of flux. Planning must, of necessity, be done by a small group of individuals. Their attempts to predict the future contain a large element of their own sets of preferences which are not shared by everyone else. New political systems are not able to transmit the wants of people very well to planners. Planning methods themselves are not adequate for the needs of cities. The process of planning itself takes a finite amount of time during which the base conditions change and the plan becomes somewhat outdated as soon as it comes out. The problem is further complicated by the market itself responding to an enunciated plan. Services like roads, drainage, sewerage, water supply and electricity are supplied by a public authority. Their planned provision affects the expected value of land crucially. Speculators, developers, and others alter their activities in response to a declared plan quickly, sometimes constructively and sometimes perversely. These decisions cannot be predicted with any precision so an exercise in urban planning can easily have unintended results inimical to its objectives. Yet we must have some planning for

decisions that cannot be made in the small (the analogy is of finding the global optimum rather than a local one): the general form of a city needs to be guided; services need to be provided; recreation areas and parklands have to be protected or provided; long term investments have to be coordinated (e.g., construction of a major connecting bridge); and a watch kept on the distribution of welfare. The market does not do these things well. We, therefore, need a dynamic, symbiotic relationship between urban planning and the urban land and housing market. Planning should use private energies which are being offered and not usurp their functions.

3.2 Synthesis of Policy Prescriptions

We can now classify land policy instruments according as they operate through the market or as direct measures allocating land to different groups. Within the group of instruments operating through the market we can distinguish those which are specifically aimed at curbing undesirable speculation since this is an issue that receives prominence in land policy. In addition to efficient allocation of land we can regard the aim of land policy as the curbing of price rise because of the concerns outlined in the earlier section. Mere control of price is really a control of productivity if we assume the price to reflect productivity. Policy which curbs price rise through the market can really be regarded as a supply curve pushing exercise. With the constant tendency of the supply curve of land per capita to be pushed upwards with the fast urban population growth, the task of land policy is to push it down. It can do this by expanding supply or by facilitating market clearance activities. We consider each policy instrument in such a context.

A. Facilitating Information Exchange

The problem of information is an important one in LDC land markets. We have emphasized uncertainty as the main cause of speculative activities. Although we have been talking about the urban land market, in reality one should talk about many urban land markets. It has been mentioned earlier that the demand for urban land is a derived demand from that for various characteristics. Each location has different characteristics thus the market is highly segmented. Part of this segmentation, though, is because of lack of information on alternatives and because of uncertainty about future characteristics of various locations. Market clearance is helped along if such information increases:

1) Planning Notification: Since a public authority must provide various services, of which roads, transportation, electricity and water are the most important, uncertainty about the future is decreased if future plans for these services are announced much in advance. Both buyers and sellers then have better information on which to base their actions. As far as the price of land is concerned this is a two edged instrument. Recall that

$$P_{Lo} = \sum_{t=0}^{\infty} \frac{R_t}{(1+r_t)^t}$$

Planning notification makes the expectation of R_t more determinate. The result is that it can decrease or increase and some owners gain while others lose. Tracts of land which are expected to increase in value (because of, say, provision of a new road) may be kept out of the supply because of higher expectations for some time. In such a case we have to be clear that the price rise is a reflection of true value increase. The

question to debate is who should benefit from this increase. Various tax and other measures can be devised to deal with that question. Demanders' locational decision are helped as well as suppliers decisions on when to release the land. Efficiency of land use is likely to increase assuming that the planning decisions are good. The distributional implications are ambiguous because:

a) There are classes of both gainers and losers because of increased determinacy of R_t . These classes also depend on the particular taxation provisions.

b) The overall effect on prices is probably against the rising trend since the risk element is reduced. This helps all land demanders.

As mentioned earlier, planning is a difficult process because conditions are always changing. In this case the mere announcement of a plan causes land prices to change and therefore the assumptions of the plan. Simulation exercises can incorporate such changes but these changes are notoriously difficult to predict. In an LDC context we also have to remember that planning skills are in short supply and characteristically, planners are not economists, and even if they are economists their training does not help in predicting the devious workings of a land market.

ii) Informing Demanders: The land market is often lopsided since suppliers are often developers or "professional" landowners while demanders are merely consumption good demanders. The suppliers, therefore, have better information (an element of monopoly) and can affect the price. Two kinds of measures can be effective here. Firstly, within the market, intermediaries specializing in advising consumers can improve the information gap.

There are, for example, real estate brokers (pokdokpang) in Korea who perform this function. Secondly, government can run such an advisory service. The government can supplement this by monitoring prices in various areas and publishing fair prices for each location in a city. Both have their drawbacks. The private intermediaries could collude with suppliers since their commissions would normally depend on the price. Price announcements would be based on some kind of assessment practices which are notoriously difficult to standardize. Both Tokyo and Stockholm have variants of such price announcements and monitoring which are generally regarded as successful. (S. Passow, 1970; D. Keare, 1971). We should expect beneficial effects on integration of segmented markets and on market clearance. Since demanders are helped and some monopoly elements are undercut the distributional effects are positive.

iii) Land as Hedge against Inflation: Land is often held as an asset for the want of better assets in the face of considerable uncertainty surrounding inflation. This is important in LDCs and in particular in Latin America. The problem is again the absence of information about the future which leads to speculation. Not much can be done to improve prediction, but measures can be taken to:

- a. reduce losses due to inflation and
- b. provide alternative forms of assets

If monetary indexing is introduced, losses due to inflation are reduced considerably and interest bearing assets become viable alternatives. Interest rates can then be real interest rates rather than being nominal rates incorporating uncertainty about inflation. The indirect effect of this is that demand for land as an asset decreases and, therefore, more is

available for development as a consumption good: the demand curve and supply curves both tend to shift downwards and the upward drift of land price is therefore checked. This is really a wider monetary policy issue and we are only concerned with delinking the demand for land from uncertainty about inflation rates.

B. Expanding Supply of Land

Measures to expand supply of land are both direct as well as indirect.

i) Municipal Land Banks: Sweden and the Netherlands provide the prime example of the device of using municipal land banks to control price of land as well as controlling form of the city. If a public authority owns tracts of land in various parts of a city and in the periphery it can use them in much the same way as buffer food stocks are used. Firstly, such lands can be bought before development so that they are bought at undeveloped prices. They should, for example, be bought before a planning notification is issued. The public authority then makes gains from later price rises. Secondly, when private owners are holding back land such lands can be released to have a depressing effect in prices. The expectations could then be changed from the pattern in Figure 5.2 (rising continuously) to figure 5.1 (logistic trend) or 5.3 (uncertain): in either case more land would then come on the market and price rise slowed. Such a policy is also not easy in an LDC because:

- a. Public funds are sunk as "unproductive" capital until a gain is actually made. They are justified if the capital gain and effect on prices is large enough to be competitive with alternative public investment possibilities.

- b. The administration of such policies needs a considerable amount of skill and lack of corruption. In present LDC conditions both these requirements are difficult to fulfill.
- c. Its success requires that public sector better forecasts optimum development than private sector.

If price of land is kept stable (as it has been until very recently in Sweden and the Netherlands) by such a policy the access of lower income groups is clearly improved and the tendency of people being shut out of the housing market because of land price is arrested. Some method has to be found, however, to restrict access to the rich since a curb in price helps them as well. One other distributional effect of such policies is usually ignored. Acquiring or buying undeveloped land prior to urban development deprives the original owners of gains that would otherwise occur. It can be argued that these gains should not accrue to them in any case but the fact is that such lands on the periphery of a city are often owned by relatively poor agriculturists. The gainers (those who eventually get the developed land and urban people in general through the income effect of lower prices) are, usually, richer than the agriculturists. The results depend on the income levels of the particular owners in each case. Such concerns are important in densely populated Asian cities while not in African and Latin American cities.

ii) Government Participation in Land Market: This is distinguished from the above in scale of operation. A municipal land bank operation can be seen as a benign monopoly. A public authority or a multiplicity of public agencies can deal in the land market much like any other private

developer. The idea would be to make gains from land price increases for public account and to provide competition to private developers. We refer back to figure 5.2 (p. 27) where a great amount of land is being held back from the market. In such a situation a public agency can reduce the speculation by supplying land that it owns. The idea is to reduce the feedback effect of speculation by initiating supply of land in conditions of speculative supply restriction. This can also be done by joint partnerships with private developers. The advantage of a multiplicity of public or joint agencies over one public authority is in the reduction of monopoly effects. When there is one public authority dealing in the land market private developers and owners watch its actions closely and respond in a volatile fashion which itself feeds back into the price. The actions of each of many agencies would not be viewed in a similar fashion. Stockholm has even used decoy agents for the public authority to perform the same function, as have some LDCs.

C. Taxation Measures to Control Price

i) Capital Gains Taxation: That owners of land should not reap all the benefits from price rise has been alluded to often enough. However, as long as one is operating in a market economy there is no reason to discriminate against land as an asset as compared with other assets. Land owners bear the risk of holding land for future use. They should then be permitted to gain an adequate return on their investment which, in the case of undeveloped land, is only through capital gains. Thus taxes on capital gains from land should take account of an adequate return and then tax the rest. In that case the attractiveness of land as an asset will be reduced as compared with other assets and the speculative element in price removed.

ii) Taxation of Vacant Holdings: Taxation of vacant holdings is considered here because it is another device to control land price. It is often suggested that vacant holdings should be taxed at penal rates so that "speculation" would then be decreased. If this were done all land would be available at the same time and none left for future use. Such a measure has few equity effects: only distortions of efficiency. The role of speculation in the maintenance of land inventory has already been discussed. As long as there is a sensible capital gains tax an additional tax on vacant holdings is unnecessary except to selectively encourage development at a particular time. At the same time, there should not be any special exemption from the prevailing property taxes.

iii) Tax on Land Transfer: Most countries have a registration tax at the point of sale. This is usually based on the sale price. Its effects are limited except in increasing transactions costs and therefore slowing down market clearance. Its distributive impact is uncertain unless we assume that property transactors are the relatively rich and that the tax revenues are used for general welfare. It must be mentioned, though, that part of transactions costs are in bureaucratic delays which do weigh more heavily on the poor. It does give an incentive to understate transaction prices which then affect all taxes based on property value. It cannot be seen to have any effect on speculative price rise except the negative one of slowing down market clearance by discouraging supply.

D. Direct Price Controls

i) Price Freezing: Price freezing can only be justified if prices are seen to be "unduly high" for some reason. Unless this is so price

freezing is tantamount to restricting productivity. With low frozen prices the land is then underdeveloped and allocation is clearly inefficient. One of the natural consequences is the development of a black market so that official prices remain frozen while actual transaction prices follow the market. The Government loses on all taxes based on property and the cause of equity is not served either. If, of course, price is frozen and land bought by a government agency for redistribution to the relatively poor, income distribution is clearly improved. If price is expected to be frozen for a long time we should also expect landowners to be supplying more land. This is really expropriation and should be seen as such. Because of political uncertainties price is seldom expected to be frozen for too long a time.

ii) Rent Controls: Rent controls are merely another form of frozen prices but are discussed separately since they are so widely practiced. Almost every country has had some form of rent controls since the end of World War II and they have been consistently criticized by economists. It is not always the case that tenants are poorer than landlords. If we are really interested in subsidizing the poor at the expense of capital owners why should landlords be singled out? Old settlers are protected at the cost of recent migrants, the young and mobile tenants. Maintenance of old buildings is discouraged thereby causing unnecessary depletion of housing stock. In terms of economic efficiency it is inefficient because it is a tied subsidy: the tenant might wish to use the subsidy for other purposes were he given the choice. The analysis in early sections suggests that the really poor do not value housing very highly anyway.

The deterioration of central cities, e.g., Mexico City, has in part been caused by rent controls. (Oldman, et al., 1967). Indeed, one is hard pressed to find a good word for rent-controls anywhere except from those who occupy such properties. It is a genuine puzzle that they have persisted for more than 25 years in the face of such widespread condemnation from economists and often administrators.

One other deleterious effect on the distribution of income is that property taxes suffer because of rent controls. Assuming that tax expenditures on urban services benefit everyone and that properties are only owned by the higher income groups (which is largely true) income distribution is clearly worsened. In the case of Mexico City, Jane Cowan Brown (1972) does suggest that the relatively poor live in the rent control areas and that they have benefitted. The resulting distortions in land use are difficult to weigh against these beneficial effects.

All of the preceding discussion has been concerned with land policies attempting to keep the price of land down. It can be summarized by the following:

- a. "Artificially" controlling the price of land (as of any other commodity) is a short run policy with short run distributional effects but long run allocational effects.
- b. Supply expanding policies "naturally" control the price and are therefore preferred. Allocation of land is not distorted while distributional effects, if any, are long term through the distribution of wealth.

- c. If the rising trend of land price is arrested distribution is improved because the lower income groups' access to the market is improved. This effect is greater if higher income groups are somehow restricted from the market.
- d. We recall the distinction of land as an asset and as a consumption good. It has to be re-emphasized that the really poor are usually more interested in land as a consumption good and, in particular, as a free consumption good. All these price controlling measures then do not affect the lowest group except in keeping this group from expanding.

We now discuss land policies that can be regarded as direct or physical measures. They would affect land prices also but that is not their aim.

A. Restrictions on Land Use.

i) Zoning: Conceptually zoning has the effect of expropriating part of owners' property rights. To that extent the value of zoned land is depressed since the set of possible uses is restricted. That, however, is not the whole story. It has been mentioned earlier that zoning is not very important in LDCs. The reason is that LDC cities characteristically have very mixed land use and therefore attempts to segregate uses do not meet with much success. Not much can be said about the distributional effects of zoning on an a priori basis. What can be said is that where there is zoning it usually goes against the poor. In the U.S. it has usually been used to "protect property values" by keeping high income at low densities. This keeps low income, often black, people out and property values high.

Zoning tends to freeze land use and is, therefore, likely to have harmful effects in the context of fast changing LDC cities.

ii) Building codes: Urban planners and local administrators often recommend building codes to maintain high standards in housing quality and to "protect" tenants from shoddy houses. The problem is that such codes are usually too high for LDC standards and are derived from administrators' preference structures. The result is that legal residential land use gets restricted to relatively expensive housing thereby shutting out the poor to extra-legal options.

B. Restrictions on Land Ownership.

i) Ceilings on Land Holdings: Imposing a ceiling on land holdings essentially limits the use of land as an asset. The negotiability of land would then be limited since no one would be able to hold more than a certain amount. The distributional effects of such a measure are difficult to work out. People holding more than the ceiling would sell the excess and convert it to other forms of wealth. In static terms we merely expect the composition of people's portfolios to change with the distribution of wealth remaining constant. Since land rises in value over time, the dynamic effects are more problematical. What is clear is that concentration of land ownership is reduced and thereby monopoly power, if it exists, in the land market. The access of slightly lower income groups to the land market is made easier. If these income groups get a higher return from land than from other assets they were previously holding then we expect an improvement in the distribution of wealth. There are, however, other problems. We have noted the function of holding land for inventory purposes. Individuals

(usually rich) bear the risk of holding land for future higher land use. Where there are land ceilings who will perform this function? If the government does it we have to consider the problem of sunk capital and the government then has to bear the risk. Further, there is loss of tax revenue which also has to be considered.

In the case of built up properties which are over the ceiling there are severe administrative problems on their subdivision. This is so regardless of whether the ceiling is in physical terms or value terms. There is the further problem of the ownership of large commercial and industrial properties.

In sum, imposing land ceilings, while possibly theoretically attractive for distributional purposes, poses insuperable practical problems.

ii) Expropriation of Vacant Lands: Expropriation of vacant lands is often suggested as a measure to combat speculation in the land market. Expropriation is clearly justified where there is extreme concentration of land ownership causing monopoly power over the market. The distributive effects depend on what is done after expropriation and the terms of expropriation. The price effects of the reduction of monopoly power through expansion of land supply have already been discussed. The expropriating authority will have to exercise a great amount of judgment on which lands to expropriate. To curb uncertainty, reasonably clear guidelines will have to be issued. Indeed, the threat of expropriation could be instrumental in keeping vacant lands to a minimum. The question of use after expropriation is discussed in a later section.

iii) Nationalization of Land: Those who believe,

- a. that the urban land market does not work at all
- b. that land is a special commodity, in some sense too valuable to be privately owned,

suggest that land should be nationalized. If the economic analysis of nationalization of industry is difficult so is it of land. Cauas and Selowsky's paper (1974) suggests avenues of analysis for industry that is owned by local nationals. Their approach has been criticized because industry in LDCs is often owned by foreign nationals. In the case of urban land, their paper is particularly relevant since most urban land is locally owned. Complication in analysis is caused by the fact that value of land is characteristically rising over time and compensation formulae are difficult to arrive at. The pricing of nationalized land services is rather more problematical than of industrial products. Redistributive effects depend on past nationalization policies. If land is acquired with less than value compensation and its use made available to a larger subset of the total population than the nationalized owners we are certain to have beneficial distributive results.

In the absence of a totally controlled economy we have also to consider effects of land nationalization on other sectors. Investment might be retarded because of uncertainty concerning other future nationalization of other sectors. The unpredictability of city growth and the difficulties of comprehensive land planning have been emphasized earlier. The nationalization of land clearly involves detailed comprehensive planning since the allocation functions of the market have been usurped.

Those who believe that the land market does not work propose nationalization for precisely this reason. I consider comprehensive land planning to be particularly untenable in a mixed economy but not if the whole economy is planned.¹

As a compromise between these two poles there is a continuum of possibilities of the degree of property rights that can be allowed subsequent to land nationalization. The mechanism of limited time leases gives control of the leased property to the lessee within constraints imposed by the lease. These constraints include:

i) time of lease: shorter the operation of the lease, more restricted property rights.

ii) restriction on land use.

iii) restrictions on land transfer.

All these can be of varying degrees but the more flexible the better for dynamic land use planning. The market can be allowed to optimize within the constraints imposed by the lease conditions. The public authority is then relieved of making detailed decisions while guiding over all land use. The device of limited time lease provides a useful way of preventing freezing of land use where this is deemed to be harmful. Capital investment on the land is crucially affected by the length of lease since it has to be at least long enough to make the capital worth investing. The duration of lease must not also be too long for its very purpose of introducing flexibility in land use

¹When an economy is fully planned priorities are either imposed or arrived at by the methods other than prices. The same can be done for land.

will then be thwarted.

3.3 Provision of Shelter for the Poor

We have emphasized the different preference structures of different income groups. Policies directed at the consumer, therefore, have to be group specific. Much of the preceding discussion has been concerned with smoothing out the rough edges of the urban land market but mostly from the supply side. From the demand side we mainly consider land as a consumption good required for shelter purposes. Demand for land for industrial and commercial purposes is neglected because land policy mainly affects its location and not many general comments can be made in the context of income distribution. It is relevant only from the viewpoint of job accessibility, access to markets, etc., and that is covered under residential location.

Land demanded for shelter is not a trivial commodity so we expect consumers to be particularly thoughtful in their land consumption decisions. For this reason revealed preference of different income groups should be deemed as particularly important by policy makers. We can divide land consumers into 3 operational income groups: the highest who do not need any help from policy makers; the middle income group who participate in the land market but have access difficulties; and lastly, the lowest income groups who are effectively shut out of the urban land market. The first group can be left to its own devices except that they should be taxed. Here we only consider the second and third groups. The second group only needs marginal help to participate more effectively in the land market. In LDCs the main problem such groups face is that of limited access to

capital markets as mentioned by Oldman, et. al. (1967). The thrust of land policy for this group is provision of adequate financial institutions to provide mortgages, etc., and provision of information of the kind suggested in an earlier section.

In this section we are mainly concerned with the third group. Most land policies considered until now do not affect this group. The reason for this was illustrated in figure 4c where it was shown that the preference structure of the poor is such that prevailing land prices cannot allow them any expenditure on land. The market produces a corner solution which is being found unacceptable by policy makers. It must be made clear here that the correct solution is an increase in the disposable income of the poor. This has to be stated even at the risk of sounding trite. When we are trying to raise the income of the poor through urban land policy we are either saying that direct income increments are too difficult to provide or that provision of shelter is particularly important as compared with other things.

People shut out of the land market are generally called squatters although each country has its own descriptive word, e.g., colonias proletarias, in Mexico, poblaciones callampas, in Chile, villas miseria, in Argentina, favelas, in Brazil, jhuggis and bastis, in India. The exact implications of each term vary according to local circumstances. The order of magnitude of the problem is indicated by the following rough estimates of proportion of squatters to total population for various cities around the world:

Ankara 45%, Istanbul 21%, Manila 20%, Singapore 15%, Lusaka 37%, Caracas 38%, Santiago 25%, Lima 25%. These estimates should only be seen as indicative

since they are for different years and different definitions (sometimes unclear).

The phenomenon of squatters is usually associated with high migration rates although it is not clear that they, in fact, are the most recent rural-urban migrants. Their problem has received most attention in Latin America where a vast social science literature has developed on characteristics of squatter populations and settlements. There is, however, little in the economics literature about them.

We seek to increase squatters' income by providing more land as a consumption good to raise them to higher indifference curves. The analysis of figure 4c has shown that the poorest get worse off if they are moved from land they are occupying free to a site where they have to pay for it in monetary terms. This is so even if the new site has superior services. As mentioned by Vernez (1973), the poor are price oriented while the rich are location oriented. This is consistent with the analysis offered in Section 2.4. One further problem in the relocation of the poor is distance from job opportunities. Once again, they cannot afford to pay for transportation but they are willing to walk. There is some indication that people are willing to walk 2-3 miles (40 min. to 1 hr.), but not much more. (Muench, in Koll, 1972). People slightly better off can afford bicycles and can, therefore, live farther away. Land policy for shelter of the poor has to take account of such considerations to be realistic and to be effective. For the very poorest we may have to provide land at zero money cost or they will find such land anyway. We use Anthony Leeds' (1973) terminology to discuss policies aimed specifically at the poor.

A. Producer Orientation

Policies which place essential programming, construction, designing, planning, financing and administration of residence building in the hands of a small number of large enterprises specialized in such building may be called producer oriented policies. Such policies have the following pattern:¹

- i) Slum or squatter eradication by force.
- ii) Development of high density housing of high construction quality but low environmental quality on the fringe of the city.
- iii) Relocation of removed slum dwellers and squatters in these new estates at subsidized rates.

The reaction of the relocated people is usually

- i) to disappear between time of removal and relocation and appear in some other slum or squatter area or,
- ii) To take possession of the new dwelling and then to sub-lease it at the earliest opportunity to a member of a higher income group. They return to the most convenient location near their original one.

In the latter reaction income distribution of the direct kind is the end result and may well be efficient although not intended by the scheme. The reasons for these reactions are summarized by figure 4c but in addition we conjecture,

- i) Such developments are usually way out on the periphery of the

¹This pattern has been distilled from: Lagos (Mabogunje, 1968, Ch. 10); Nairobi (Werlin, 1974); Rio de Janeiro (Gardner, 1973); Buenos Aires (Tobar, 1972); Singapore (Yeung, 1973); Hong Kong (Dwyer, 1971); Delhi (D.D.A., 1961; Bose, 1972); Bogota (Pineda, 1972).

city while economic opportunities are not similarly located. A long commute becomes necessary. It is in the nature of such developments that they be built on the cheapest land available so it is a logical consequence.

ii) The preference of the poor is for space. Such developments are usually very cramped; again dictated by economic requirements. LDCs happen to be in largely warm climates. A great part of the lives of the poor is conducted outdoors. It is simply too uncomfortable indoors without some kind of cooling or air circulation which they cannot afford. Slums and squatter areas are usually low rise developments though very tightly packed in. Outdoor life gets very restricted in the new developments.

In sum, planners' preference structure is imposed which, even if it is imaginative imposes uniformity. Housing built in such a manner minimizes the social and cultural meanings and roles of housing, curtails values and interest expression of users and, generally, restricts adaptability for the varied needs of users.

This critical approach to "producer orientation" must not be regarded as a questioning of the motivation of those who initiate it. It is, rather, a logical consequence of this orientation. Large scale public projects require capital, managerial and coordination activities in addition to labor. All these have to be paid for from public funds so economies have to be made at all opportunities. The result, however, is that a great amount of money is spent with little increase in utility of those for whom it is intended.

With the magnitudes indicated above it is not surprising that such an orientation can only touch a few of the squatters, given normal governmental budget constraints in an LDC. Indeed, all the evidence

(e.g., Mexico City, (Cornelius, 1973); Bogota (Vernez, 1973); Singapore (Yeung, 1973), points to the fact that public housing goes to low middle and upper lower class, never to the poorest. Even in Singapore, where public housing expenditure amounted to 43% of the total development plan it did not go to the lowest income groups. (Yeung, 1973). The Singapore housing program, basically producer oriented, does seem to be approaching success otherwise. About 40% of the population is not in public housing.

We note, however, that Singapore is a city state where the form of the city is very important and urban land supply is inelastic so that detailed planning is necessary. Furthermore, per capita income of Singapore is higher than most LDCs (about U.S. \$900) so that the government budget is more easily able to afford a really large scale program.

B. Consumer Orientation

Following John Turner it is increasingly being accepted that squatter settlements form the most viable solution for providing shelter to the poor. Squatter settlement implies occupying land without payment. No higher redistribution can take place as far as urban land is concerned. Figure 7 illustrates this. The act of occupying a site moves the consumer from P_1 (consuming no land) on I_1 to P_2 (consuming L_1) on I_2 , a higher indifference curve. He can do better only if he is actually paid to occupy a site (i.e., pay a negative price for the land).

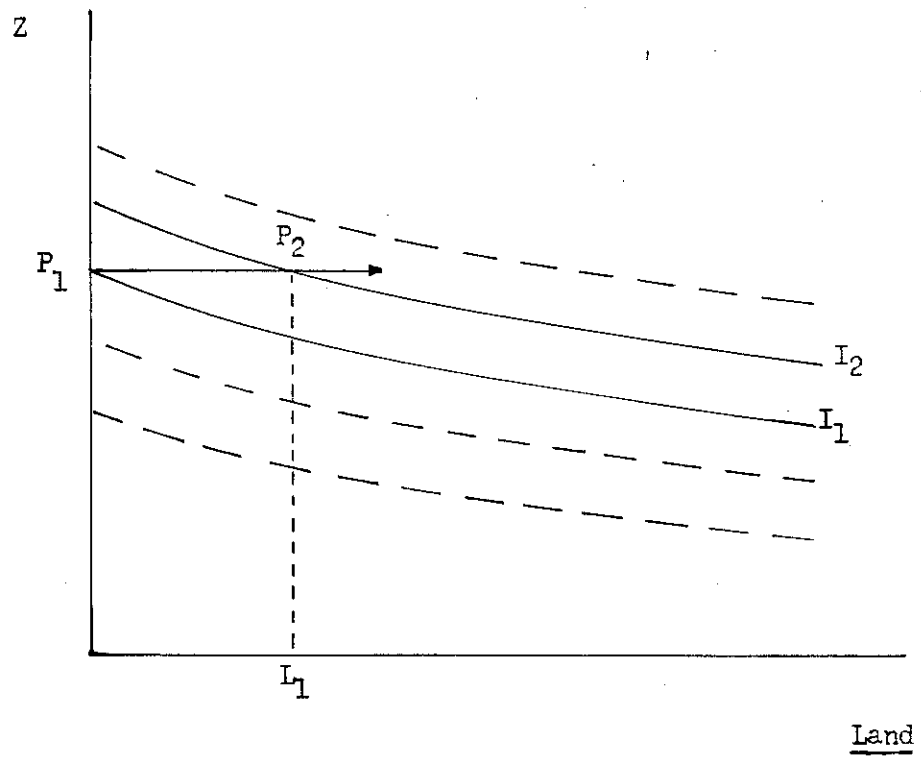
The sequences of the formation of squatter settlements are well established now for Latin America.¹ Squatters are not the most recent

¹This section draws from Turner (1967, 1968); Mangin (1968); Jane Cowan Brown (1972); Collier (1971); Ford Foundation Surveys; Leeds (1973); Michl (1973); Perlman (1973); Ray (1969); Schorr (1968); Werlin (1974).

migrants, nor the poorest. They are those who have been in the city for some time, and have reasonably stable incomes. It is only then that they think of the amenities provided by dwelling units of their own. Settlements are occupied by the very organized invasion which is planned in secret months in advance. Plots are laid out, allocations are made and legal work is done prior to occupation. Then a slow additive transformation takes place as houses begin to go up with progressive improvement of materials from, say mats and tin sheets to brick and reinforced concrete. In parallel, the settlement's urbanistic infrastructure unfolds. Street systems develop by self-help and self-financing but generally with some collectivity such as a group of neighbors. The accent is on providing maximum quality and flexibility with minimum cost.

Owner builders entirely avoid formal capital markets; consciously speculate about rising realty value; cut out cost of management and coordination and labor; eliminate cost of transport and storage; build according to their own task and style of household; and change progressively with the domestic life cycle. The result is that the living space is substantially cheaper than mass housing (50-60% for similar quality?) and consumers are following their own preferences. This process has been called incremental development (e.g., Vernez, 1973). Part of the reason for this preference is that the poor do not like to enter into long-term loan or mortgage contracts (e.g., Michl, 1973) because of greater uncertainty about the future. They prefer to build incrementally as their income increases. Vernez provides evidence for Bogota, which shows that the higher the income the higher the amount of contracted labor that goes into house building.

Figure 7: REDISTRIBUTION THROUGH SQUATTER SETTLEMENTS



That capital markets are not totally closed to squatters is seen from the fact that they are observed to have all kinds of consumer durables like T.V. sets, radios, and refrigerators in various Latin American cities. One can conjecture

- a. The squatters are willing to invest in such items since they are easily movable, and
- b. traders are willing to provide credit for these goods since they can readily be taken back in the event of default.

In the case of land for shelter, neither of the above is true as both sides are reluctant to enter into loan agreements.

Lest this picture look too rosy it must be pointed out that these settlements are not such as to pass any urban planner's approval. They are ramshackle, very densely populated, dirty, and "badly" laid out. Furthermore, the description above is mainly of Latin American conditions. There is, however, evidence of dynamic self-help by squatters and slum dwellers in Africa as well. Muench (in Koll, 1973) describes slums in Ibadan and how they have adapted to the rapidly changing world. Werlin (1974) describes the indigenous housing market and self-help by squatters in Nairobi. Indian slum dwellers help themselves according to Clinard (1962). Asian cities have a more difficult problem than Africa and Latin America since there is not much land available for free squatting. The extent of public land (preferred by squatters) is limited while it is not as critical in the other two poor continents. One is hard pressed to find such partial solutions for the high population Asian cities. The indication from Singapore is that rising income can solve shelter problems.

Having described the pattern of self-help the relevant question here is about the role of land policy. It is tempting to say that squatter settlements should be legalized readily and governmental help offered as technical assistance and for infrastructure. But the problem is not quite so simple. We want to maximize asset creation by self help since that creates physical capital as well as human capital through learning by doing with beneficial long-term distributional effects. There is some evidence that this is forthcoming individually and collectively most readily when then there is an adversary like a public authority. (The analogy is of a nation in wartime). That would suggest the maintenance of some tension between the government and squatters. On the other hand, there is conflicting evidence (Clinard, 1962, on India) that encouragement from the government activates slum dwellers for self help projects. So the conclusion is uncertain. One thing that can be stated unambiguously is that government must not substitute for private energies under any circumstances. We can look at this problem from the economist's viewpoint. Refer to figure 7. The price line is horizontal depicting free land. The question of optimization is begged in the diagram. Somehow L_1 is allotted to the consumer. The maintenance of some tension between the squatters and the authorities is like a price, albeit non-monetary. We can then conceptually tilt the price line somewhat and consequently optimize and find land allocations. In that sense the maintenance of some tension is good. We can tentatively conclude:

The government should legalize squatter settlements and provide technical assistance and other infrastructural help but not too readily.

We can summarize the contrast between the consumer and producer orientations by quoting Michael Koll (1972):

"It is waste to concentrate the scarce manpower and capital on the planning and constructing of a few housing projects; it is waste to allow uncontrolled city growth which leads to chaotic city structure; and it is waste not to improve by an input of technical assistance the peoples' own way of building houses. It is economical, on the other hand, to use the few available planners for the most important tasks - the allocation and control of land use. Government can never hope to solve the problem of housing by unilateral effort; the alternative is to mobilize the savings and initiative of the common people and to guide orderly city growth."

4. Directions for Policy and Research

This paper has emphasized repeatedly that urban land policy has to be made in the presence of great uncertainty about the future. Cities in poor countries are expanding in both area and population at unprecedented rates so the task of policy making is not simple. It has been suggested that we are more likely to help the urban poor if we accept their presence and try to understand their preferences and wants. We do not know enough about the urban poor. We need to find out how poor the poor really are to design effective land policy. This search should involve both (a) household surveys to determine income and consumption patterns, and (b) attitudinal surveys to investigate preference structures. It might seem an extravagance to gather such comprehensive information for designing urban land policy. It is justified on two counts. First, such surveys are necessary for understanding rural-urban migration and for understanding the urban economy in general. Secondly, land policy for the poor simply cannot be evaluated without more knowledge about the expenditure patterns and preference structures of the poor. In this search for information, well conducted case studies are particularly valuable. They give us a better appreciation of the behavior patterns of the urban poor and how they interact with the urban economy. When this kind of specific information is available, more comparative information about land markets in a variety of LDCs can be sought.

When we look at land as an asset, we regard it as one of a set of assets that an individual can hold in his portfolio. When treated in this way, it should be taxed as any other asset. Yet, it is common to find that it is treated as a special asset and a host of special taxes are put

on it. For equity purposes, the capture of increased land values to public account is suggested most often. The effectiveness of such measures needs to be examined critically. Specific studies are needed to measure the effect, say, of a betterment tax on land on peoples' portfolio decisions. That people make windfall gains from land investments is undeniable. What we need to know is the distribution of these gains among different income groups, as well as their effects on the development of the city. An often neglected aspect of discussions in this realm is the relative probabilities of gains and losses in land speculation. If speculators bear a great amount of risk, this must be taken into account in designing taxes. This kind of information can only be gained through detailed studies at the micro level. To obtain good information on speculators' activities and their actual gains and losses, research has to employ entrepreneurial methods (e.g., Ashish Bose, 1972). If we know the methods, aspirations, and objectives of developers and speculators, policy could better use their particular talents in conjunction with formal planning methods. This is one aspect of what is meant by a symbiotic relationship between planning and the market. Each can inform the other. Each also acts as a balance to the excesses of the other. The market does this automatically while planning needs to do it explicitly.

An understanding of the dynamics of land price in urban areas is very important for policies designed to help the poor. This can only come with the parallel development of theory as well as detailed information on the workings of land markets. If there is, indeed, a particular effect of speculation on price, this should be determined. The extent to which the government should participate in the urban land market will then be

clearer. We also need cost-benefit type studies of municipal land bank operations. Would it, for example, be better for the poor, if the rich bear the risk of land holding rather than government? If a land bank effort is instrumental in controlling prices, we need to weigh the benefits of this against, for example, losses in property tax revenues. Does the control of price, for example, really benefit the rich? For the purposes of distribution of income, such benefits and losses should be assigned to different income groups. If distributional weights are to be applied at all, we should know the preference structures of each income group: otherwise we end up with the researchers' preferences. In the latter case it would be better not to have any weights at all.

We also need to know much more about the effects of public service installations on land values, and the extent of cost recoupment possible by the public. By focussing on different income groups, a system of cross subsidies could be designed in the provision of public services. There is virtually no information on the impacts of water supply and transport improvements on land price in LDCs.

It has been suggested in this paper that the poorest should be provided shelter free of money cost. This prescription obviously varies with the level of income in the country concerned. In India, for example, where the very poorest have money incomes which are almost zero, such a prescription cannot be questioned if we are really interested in helping them through land policy. On the other hand, the poorest in the relatively richer LDCs may well be able to pay at least partially for their shelter. In such a case, the "free land" prescription should obviously not be taken literally. Whatever the degree of relative poverty, the full

cost of land to the poor is never quite zero. Non pecuniary costs like waiting times and paper work and other transaction costs have to be considered. There may well be a trade-off between money costs and other costs that a consumer faces. He may trade a saving in walking time for slightly higher money costs or, perhaps, risk of eviction from an illegally occupied plot. Here again we need more specific information on the decision making patterns of the poor. In land policy, as in all other policies designed to help the poor, the fundamental consideration is that the most direct way to relieve poverty is to increase the incomes of those who have very little. The challenge is to decide among alternative methods of increasing the real income of the poor.

Lastly, we need to mention that even if policies to help the poor are well known, their implementation may not be possible because of political and administrative constraints. Neither should be neglected relative to the other. But as these constraints change, so should land policy. Above all, urban land planning must incorporate a great amount of flexibility to cope with uncertainty about the future.

A Select Bibliography

There is relatively little economics research work on the form of cities in LDCs and on urban land policy as related to income distribution. So this is a rather wide ranging bibliography drawn from various disciplines.

The abbreviations used are:

Journals

A.E.R.	American Economic Review
A.J.S	American Journal of Sociology
E.D.C.C.	Economic Development and Cultural Change
E.J.	Economic Journal
E.P.W.	Economic and Political Weekly
J.A.I.P.	Journal of the American Institute of Planners
J.E.L.	Journal of Economic Literature
J.P.E.	Journal of Political Economy
Q.J.E.	Quarterly Journal of Economics
R.E. Stud.	Review of Economic Studies

Others

C.I.D.C.O.	City and Industrial Development Corporation, Bombay
I.C.S.S.R.	Indian Council for Social Science Research
IURD	Institute of Urban Research and Development
WP	Working Paper

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