

## CHAPTER 9

### Policy Issues and Current Policy Instruments

Information collected in this study helps to illuminate a number of shelter policy issues. This chapter reports and interprets the views of those interviewed, particularly the government officials responsible for designing and implementing housing policies.

Of greatest concern here are two objectives most often referred to by government officials: adequate housing for all and the conservation of agricultural land by controlling and containing urban growth. The achievement of these objectives requires an understanding and possible management of a series of relative shortages or demand/supply relationships: land, labor and materials. Central and local government have at their disposal a number of policy instruments to manipulate market forces to achieve the overall objectives: negative controls, mainly the design and enforcement of laws prohibiting certain actions; and positive inducements to encourage appropriate development.

#### 9.1 Adequate Shelter for All

The widely quoted National Housing Plan estimates a shortage of 3.6 million dwelling units by the year 2000:

	<u>Million Units</u>
Population growth	2.196
Replacement	0.576
Upgrading and homeless	<u>0.828</u>
Total	<u>3.600</u>

This means that an average of 180,000 units per annum have to be constructed. A senior Ministry of Development official thought present capacity to be 60,000 units per annum, although it is apparent that the capacity of the informal sector is considerably greater.

Turning from the national picture to Cairo, the governorate was not very active prior to 1970. An official reported that between 1955 and 1970 it built only 2,600 low income housing units and 255 middle income units. Over the same period only 4,500 requests for housing were received --although people only made requests when they read in the newspapers that

houses were available. This public housing was located on governorate land in Galat al-Kabsh, Ibn Tulun Mosque area, and Ain Sira (near Fustat). The governorate estimates 56,000 units per annum will be required in the 1980s, allocated as follows:

Population growth	39,000
Without homes	8,700
Liabile to collapse	7,000
To be demolished	300
To ease density	<u>1,000</u>
Total	56,000

Of the numbers required to accommodate population growth, 16,000 units will be for immigrants.

The governorate is currently building 50,000 units at Birket, to be completed in about two years time. Officials willingly admit they need the support of those now active in the informal sector, but insist that the law should be obeyed and infrastructure only provided to registered land for buildings with permits.

The Governorate of Qalyubiya will construct 2,000 units in 1982 for low to moderate income groups, with a LE 4 million subsidy. Last year it constructed 1,512 units with the same subsidy. The current shortage is thought to be 5,000 units. The governorate is providing 30 year loans at 3 percent interest with 20 percent as a down payment.

The Governorate of Beni Suef sees the most immediate pressing problem as the poor condition of many existing structures. It is thought that 40 percent in the city are threatened with collapse.

Governorate and other officials believe that housing programs should be targeted: public schemes for the poor, as much self help as possible, subsidies through infrastructure provision.

The cooperative movement was designed to help relatively low income groups, those planning 100 sq.m. or smaller units qualifying for 3 percent loans. The units constructed by the cooperatives tend to be too expensive for low income groups. Some members interviewed were disillusioned, having made deposits some years ago and seen nothing for their investment. The Ministry of Planning gave approval for LE 25 million in 3 percent loans to cooperatives in 1980.

There is a common view that the best way to solve the housing problem is merely to provide main line infrastructure links to vacant non-agricultural land on the urban fringe and then leave it to the private (largely now informal) sector to supply the housing.

However, the National Housing Plan does propose direct intervention and calls for 650,000 urban units to be constructed in the 1980/81 to 1984/85 Plan period: 55 percent "economic" housing, 37 percent "average," and 8 percent "luxurious." Forty percent is to be constructed by the public sector. For budgetary purposes the average price of these units is assumed to be LE 3,500 in 1980/81 rising to LE 5,500 in 1984/85. Fifty-thousand dwelling units are to be built in rural areas over the same period, with a total allocation of LE 250 million.

The Ministry of Planning's Construction Industry Department has estimated activity by public/private sector for Five Year Plan purposes. Figures are percentages of all projects approved by the Ministry of Planning.

<u>Executing Authority</u>	<u>Total</u>	<u>Housing</u>	<u>Other Projects</u>
Ministry of Development (Housing)			
Companies	46	5	41
Companies from Other Ministries	24	1	23
Private Sector	<u>30</u>	<u>6</u>	<u>24</u>
Total	100	12	88

Only a small proportion of the Plan's construction funds is going into housing, half of the housing allocation to the 2,500 or so private contractors working on government projects, most of the overall total to the 31 public sector contractors, who may be the only ones geared up to handle large projects, mainly infrastructure.

Aside from expressing concern with the potential role of the public sector, many officials were concerned with the role of the private sector, particularly with regard to factors that tended either to inhibit production or increase costs. Land prices were an almost universal concern, for example. As discussed earlier, recent rates of increase of from 25 to 40 percent annually have not been uncommon. Interviewed officials often suggested that price rises were in part the result of the failure of serviced land to keep pace with the demands of the population, and that schemes to increase the rate at which infrastructure is extended and

land serviced would help to moderate future increases.<sup>1</sup>

Some such development schemes involve a mix of housing types and the principle of cross-subsidization to write down land costs for low income groups. In a recent study Dr. Hussein Fayege Subour (Al-Ahram, June 19, 1981) called on the government to encourage the participation of the private sector in housing construction by providing suitable land for construction. He proposes that the Government develop accessible land, providing it with facilities and dividing it among the three types of housing according to need. The Government would then sell the lots designed for luxury housing at higher than the cost of preparing it (although still at a cost lower than that of land bought from the private sector). Land for middle income housing would be sold by the Government at cost; and the land set aside for low income housing would be provided below cost, with the revenues from the sale of luxury construction land used to cover the losses from selling the third category of land below cost. He would also have the government levy taxes or fees on luxury housing to be used as subsidies to those investing in low cost housing. Thus, government subsidies in selling the land it developed below market price would involve a sliding scale, with the subsidy to luxury construction at 10 percent, to middle income housing at 20 percent, and to low or economy housing at 60 percent.

Increases in building costs, both labor and materials, were also cited as objects of concern in and of themselves and also as factors inhibiting production. Accusations of hoarding of materials were heard by some officials and contractors, with the implication that crackdowns on hoarding and speculation would help to reduce prices.

Materials shortages are admitted by officials. Some believe the main job of the Ministry of State for Housing is to ensure adequate supplies of materials. The Ministry plans to increase cement production from 3.7 million tons to 12 million tons in 1985 (at present 3 million tons are imported). Steel output will rise from 200,000 tons to 1 million tons by 1985. Brick substitutes are to be encouraged: a call for tender has been issued for the construction of 20 new brick factories

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<sup>1</sup>Land development problems are the subject of another related study --the "Cairo Land Use/Infrastructure Development Study." USAID and Dames and Moore.

and 8 sand/lime brick factories. Gypsum production is to be increased from 370,000 tons to 1.5 million tons over the same period. Brick production will remain largely a private sector activity and the rest, public sector donor assistance has been requested to help increase the potential of the contracting sector by introducing new techniques and equipment and developing better management.

Of particular concern to many officials and legislators was the effect of the rent control law on new production. Under pre-1981 laws rents were set to permit rates of return of 5 percent on building costs and 3 percent on land. Cost figures were, however, determined administratively, often resulting in cost bases lower than actual construction costs. The resulting nominal returns are well below current rates of return in banks or other investments. Hence, many are concerned about the potentially inhibiting effect of rent control on new rental housing construction.

In response to such concerns and with other general concerns about housing costs and perceived shortages, the National Assembly passed a 1981 law to encourage expansion of the housing sector (see Appendix 4 for a translation). Article 1 of the law permits an increase in rents which raises the rate of return on units to be built and rented henceforth to 7 percent. At the same time, Article 1 calls for two-thirds of units in new buildings to be set aside for rental rather than sale. Property owners also receive property tax concessions and tax free status of rents. These provisions are widely advanced as a stimulus to the private housing sector and, in particular, for low-to-moderate income rental housing.

Several aspects of the new law have, however, been subjected to criticism. The most serious criticism has been directed at Article 1, emanating especially from owners and small contractors in the private sector. But some criticism has also come from those who maintain that housing for the poor should be the responsibility of the public sector. Private sector interests claim that the 7 percent ceiling on rents is too low to encourage investment in non-luxury housing. They maintain that the 7 percent rate must be compared with interest rates on certificates of deposit which pay (as of the end of July 1981) 12 percent on Egyptian pound accounts and up to 19 percent on dollar deposits. In fact, given the magnitude and prevalence of key money payments, it is not clear that average rates of return in real estate investment are not already well above 7 percent. Moreover, as some owner/builders pointed out, the 7 percent rate is approximately

half the interest rate they must pay to the banks for construction loans. Finally, the added restriction fixing the proportion of units which must be offered for rent as opposed to sale or renting "furnished," makes investment in low to medium level housing a losing proposition in their eyes. One of these owner/builders expressed his apprehension in an interview as follows:

"If you leave your land vacant, you pay 2 percent of its value in taxes annually. If you get a loan to build on it, the bank will charge you 14 percent compound interest. If you make an agreement with the bank that you will pay back the loan from the sale of the units, you are confronted with the provision that limits what you can sell to one-third of the space, while having to rent two-thirds at no more than 7 percent of the property value at the time you built. You are getting 7 percent, paying the bank 14 percent. Do you think that is going to encourage anyone to invest in housing? How can the Government limit the private sector builders to offering one-third of the space for sale, when it is selling its own buildings (construction by the public sector) without restriction? If they insist on these restrictions, they should make loans available at the same rate to those who want to build. Otherwise it is like everything else; a lot of talk that is never going to solve anything."

The response of Government to these charges is that their advocates do not take into account property appreciation which, when added to the 7 percent revenue from rent, offers sufficient incentive. The owners, however, see appreciation as a future, undetermined benefit achieved only if and when the property is sold. The investors say they are looking for income rather than equity.

On the surface, many of these criticisms appear to be valid. Thus one should be skeptical that the new law, by itself, will have a major impact on either increasing housing supply or tilting the distribution in favor of less-well-off households.

One other provision of the law, however, holds promise, if it is adequately supported. Article 15, which supports cooperative housing, provides, in part, that "individuals desiring to add stories to their houses, to complete unfinished construction, or to invest in 'economy' housing will have access to low interest loans provided by the government or the banking institutions." In light of current trends of vertical expansion of the existing housing stock, especially in the informal sector, active implementation and adequate funding for this provision could be extremely cost effective as a way of producing additional units.

## 9.2 Conservation of Agricultural Land by Controlling and Containing Urbanization

Every official contacted affirmed the conservation of agricultural land as a cornerstone of Egyptian development policy. None considered urbanization a more efficient use of that land. The rationale for this policy objective includes:

1. Egypt is becoming more dependent on imported food--for example, it imported 5 million tons of wheat in 1979, twice the level of domestic production. While population has increased by about 2.5 percent annually since 1965, agricultural output has increased by 2 percent annually;
2. The use of reclaimed lands as a substitute for old lands lost to urbanization is likely to reduce average yields and increase real costs.<sup>1</sup>

The rate of loss of agricultural land concerned many interviewees. Between 1972 and 1978, urban land use in Qalyubiya doubled and 6,900 feddans of agricultural land were lost to urbanization.<sup>2</sup> The 1950 1:5,000 map of Cairo shows very little urbanization along the road to the Pyramids in Giza. The 1978 maps to the same scale show a strip of urbanization along the road over 1 km wide, with fingers reaching into more agricultural land.

Officials have identified the major obstacle to dealing with informal development as the removal of their power to regulate subdivision of any kind when that development occurs on land which has been defined as "agricultural."

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<sup>1</sup>See AID/Pacific Consultants New Land Productivity Report.

<sup>2</sup>See National Urban Policy Study LANDSAT Analysis.

They attributed this limitation to the enactment of the 1978 Agricultural Law which vests power of authority in the Ministry of Agriculture to develop any land defined as agricultural by the Land Reclamation Act. Before 1978, local officials nominally had the authority to regulate subdivision and infrastructure provision on such land. In principle, local and governorate officials agree with the policy of land reclamation and expansion of agricultural land outside the city cordon, but the reality is that agricultural land is being illegally converted to residential use on a widespread basis throughout Egypt. Many officials would prefer a return to a system of greater local control of such development.

### 9.3 Current Policy Instruments and Attitudes

There is a heavy current reliance on negative controls: forbidding development in certain areas and controlling the market by limiting supplies (the effect, if possibly not the intention). These controls have not achieved the policy objectives of stimulating the supply of adequate housing or of controlling conversion of agricultural land.

#### Negative Controls: Law Enforcement

If over 70 percent of the housing is informal and builders without permits use non-subsidized materials, then it is evident that the government is only controlling supplies to a small proportion of the market. Building continues on agricultural, illegally subdivided land, without permits.

The problems of those who wish to enforce the law were described in Chapter 3. There it was indicated that the level of informal activity is high and enforcement officials simply overwhelmed by their job. Even when enforcement officials nominally perform their jobs, citing offenders of subdivision and building permit laws, these activities can backfire. For example, "ownership" is claimed by means other than official registration. When a Manshe'it Sadat subdivider obtained a court order supporting the sale of his land, he considered that sufficient legal title. This is a common device. People grasp at straws of ownership: one owner was pleased to receive a "ticket" and LE 10 fine from a policeman, since it officially recognized him as owner.



The government even has problems with its own land. Some time ago an official attempt was made to repossess 64 feddans of government land in Manshe'it Sadat for the water company. Occupants were sent an official, registered letter asking them to leave; they would be paid LE 10 sq.m. for the land, LE 3 for the buildings. The occupants were pleased that the authorities officially recognized them as owners of this government land (some of which had been traded many times). They also went to court against the government repossession and won.

Many senior government officials interviewed want the law to be vigorously enforced. One thought donor agencies should provide bulldozers (two Cairo region governorates do not own one). But the magnitude of the informal sector makes significant enforcement impossible. In the relatively few cases of houses demolished by the government, owners generally rebuild them. Some think it more reasonable to reduce the inclination to violate laws by encouraging development in socially suitable areas and framing more realistic and appropriate standards. New regulations concerning land use master planning currently under consideration by the People's Assembly, are examples of this type of thinking.

#### Positive Controls: Financial Support and Infrastructure Provision

Although none of the participants in the supply process cited any particular financial problem, their level of activity could have been raised if more credit were available. It is very clear that the rate of informal construction is directly related to the supply of personal, private, local savings and that those savings tend to be transitory.

A large fraction of Cairo and Beni Suef families interviewed in the household survey gave as their main complaint insufficient rooms, implying they did not have access to enough funds. Examples were given of buildings going up very quickly (one month per floor) but others took many months to construct because funds were not available. Almost every single contractor and subcontractor accumulated the capital necessary to start his business either by selling/subdividing inherited land or by spending some years in another Arab country. Almost none of the suppliers had surplus funds to store, hoard and speculate in materials.

The formal financial sector has no direct impact on the informal housing sector, therefore, no impact on most low to moderate income housing. Even the subsidized cooperative loans tend to go to reasonably well-off

members of the communities (many of the upper middle class seem to be members, often through nominees, as are some middle and upper-lower income people).

The materials subsidies also tend to go to the middle income earners since they are only available for private formal and public housing, although some of these materials filter down to the lower income groups through the black market.

The recent draft report of the USAID Housing Finance Mission<sup>1</sup> lists a number of problems restricting the involvement of the private sector in housing:

- Rent controls;
- High taxation of bond interest income resulting in the absence of a bond market;
- Disparity between incomes and real market costs;
- Short term investment bias, abetted by the rapid inflow of new wealth and by government intervention.

The prospects for increased activity by the private formal financial sector are not thought to be good.

The Helwan project has pioneered relatively low interest loans (7 percent) to low income groups (target income LE 900 per annum) with affordable rates of repayment (25 percent of income per month) through an existing institution (Credit Foncier).

The owners are providing most of the finance which initiates the informal housing process: they give advances to contractors who pass them on to subcontractors. The Helwan project is following this pattern. It might be worthwhile to experiment with additional "targets" such as contractors and subcontractors so that they require lower deposits from owners. This would mean that local banks (which would have to be set up) would have to deal with fewer individuals and transactions, leaving it to the contractors to ensure the credit-worthiness of the owner.

Although the government has little role in financing informal housing construction, it plays an important role in providing infrastructure. Up to 1977, sewer and water connections were made by govern-

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<sup>1</sup>"Housing Finance: An Analysis of Prospects for Increased Activity," March, 1981; USAID.

ment authorities to some informal housing. Since then, such connections have been forbidden by law, although as discussed in Chapter 4, private residents may organize themselves to connect with water and sewer lines installed nearby prior to the 1977 decree. One of the results of this situation was that a foreign loan approved to provide water for 40,000 low-income Cairo families was never drawn down because most of the settlements concerned were found to be illegal and so the governor refused authorization for the hookup to the main system.

The matter seems to be solved periodically by the government declaring all informal settlements formal. That such effective political pressure can be brought to bear shows how well organized many of these informal settlements are. For example, the Cairo Governorate council recently passed a decree which would allow water and sewerage hookups by illegal homes. The water and sewerage authorities are presently making plans to do so, subsequent to approval of the decree by the People's Assembly. Each area will submit plans to the governorate, which will tentatively approve them and pass them on to the respective authorities. The main limiting factor will be sewerage. In-home water connections will only be permitted if hookup to sewer mains is also possible. Otherwise, cesspools and public fountains will be provided. A national organization for water and sewerage is expected to be set up soon to facilitate cooperation in providing these two infrastructure elements.

Most officials interviewed believed that the solution to the illegal subdivision problems would be for the government to purchase, subdivide and resell non-cultivable agricultural land within the cordon.<sup>1</sup> This would, in turn, facilitate the provision of infrastructure and protect productive agricultural land. Beni Suef officials believe that an effective way to increase agricultural lands and protect existing ones on the urban periphery could be achieved by requiring that agricultural landowners subdividing land within the city cordon compensate the government per parcel as a precondition for developing their land. The funds collected could then be used for government reclamation of agricultural land on the periphery and beyond. By giving landowners in the city this option, hundreds of

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<sup>1</sup> Considerable evidence was adduced in interviews to the effect that much agricultural land had become non-cultivable--because of pollution or salinization of ground water supplies or because drainage canals had been filled in.

feddans would be opened up for residential development and the haphazard encroachment on agricultural land decreased. Informal neighborhoods usually form around existing villages on the urban periphery where there is little or no infrastructure, and between these areas and the city once where infrastructure capacity is strained. The consolidation of development in controlled subdivisions would lessen basic service provision costs and contain urban development within the cordon.

Evaluation and Recommendations

Recommendations concerning informal housing should be based on a recognition of both the accomplishments of the informal sector and the problems associated with it. This chapter first recapitulates some of the salient findings of the study concerning the accomplishments and problems of the informal housing sector and then discusses a number of ways in which policies, programs, and procedures might be modified to build on the strengths of the informal housing process or deal with the problems created by the sector.

### 10.1 Principal Findings

Principal findings of the study are:

1. The bulk of housing currently being supplied in Egypt is informal housing.

Of units built between 1970 and 1981, 84 percent in Cairo and 91 percent in Beni Suef were estimated to have been informal. These estimates accord remarkably well with those of a recent World Bank/GOHBPR study of the construction industry in Egypt which indicates (when adjusted) that of units built between 1966 and 1976, perhaps 81 percent of urban and 89 percent of rural units were informal. It is significant that altogether different techniques were used in estimating informal building activity in this study and in the World Bank/GOHBPR study, lending credence to the results of each.

2. The quantitative contribution of the informal sector has been essential in maintaining parity between increases in population and increases in the housing stock.

In Beni Suef, the housing stock has recently grown (1976-81) at about the rate of population; in Cairo, housing has grown even more rapidly than population. In each city these trends represent the continuation of housing and population trends observed between the 1966 and 1976 censuses. In each case, had it not been for the contribution of the informal sector, substantial housing shortfalls would have occurred. Instead, the housing stock has expanded not only at a rate high enough to accommodate new household formation and in-migration in each city, but also to accommodate some moves by established households simply changing their place of residence. In Cairo, the stock has recently expanded to such a degree that a vacancy rate of 5.5 percent of the occupied housing stock has been created, the majority of which is concentrated in predominately informal areas. Much of this expansion has

come from vertical expansion of existing buildings, a particular feature of the informal sector. Indeed, as much as half to two-thirds of all housing units added to the Cairo housing stock between 1976 and 1981 was estimated to have come about through vertical expansion.

3. Informal housing is similar in many ways to formal housing.

Building designs, building materials, and interior amenities such as kitchens, toilets, and number of rooms are similar for many informal and formal households. In Cairo this results in roughly comparable levels of expressed satisfaction with their dwelling units by formal and informal occupants.

4. Recently built informal housing is of better structural quality than average existing housing in both Cairo and Beni Suef.

Much older housing in both cities is of poor structural quality. New informal housing, while not of comparable quality to new formal housing, is nevertheless of far better average quality than older existing housing. Consequently, recently built informal housing has, on average, added to the overall quality of the housing stock in each city.

5. Informal housing is significantly less well supplied with infrastructure than formal housing.

Most informal households first obtain their land or building with no utility connections; most formal households obtain property with utility connections. Over time these differences often become smaller at least in Cairo, but do not disappear. This process, however, is neither inexorable nor universal. In Beni Suef, for example, the level of infrastructure provision is much lower than in Cairo, with informal households even more poorly served. Differences in access to infrastructure between formal and informal households persist over time. Also, in some case study areas in Cairo, levels of infrastructure provision were found to be surprisingly low given city-wide levels of access. This suggests that political considerations affect decisions to extend infrastructure to informal areas, and that classifying an area as informal and thus not deserving of infrastructure lines may simply be a convenient rationale for rationing scarce infrastructure resources.

6. Attempts to control the informal sector have largely not succeeded.

Denial of infrastructure to informal areas, fines, harassment by authorities, and occasional demolition of informal buildings have not kept the informal sector from expanding greatly. Few, if any, households express any anxiety about the consequences of having failed to register land or buildings, or having failed to obtain a building permit. Informal

areas continue to expand into agricultural land at a high rate (although to the degree that vertical expansion occurs this rate is lower than it might otherwise be).

7. The informal sector appears to be affected by general market conditions in much the same way as does the formal sector.

Building costs have increased in much the same way for informal and formal sector households. For example, when informal sector contractors were asked to recall recent changes in building costs, estimated rates of change were nearly identical to those of similar changes in "official" building cost indices. Even more importantly, land costs have increased as much in informal areas as in formal areas (once having controlled for characteristics of land such as access and neighborhood features, estimated land prices are no different for formal and informal areas).

8. Housing cost increases that have occurred recently have placed an extreme burden on households wishing to become owners or renters for the first time or to change their place of residence; low income, large families have been most seriously affected by these changes.

Households that have moved into a unit within the past several years are spending twice the fraction of their income on housing as average households that have not moved recently. For households in the lowest income quartile, this has meant a doubling from about 15 percent of income to about 30 percent of income. With food consumption requiring between 60 and 70 percent of income among the poor, this placed low-income households in an extremely precarious financial position. Similarly, the food requirements of large families sometimes leave them with less disposable income for housing and other goods than is the case for smaller households; cost increases jeopardize their finances in a way similar to the case of low-income households.

9. The most significant factor responsible for housing cost increases in recent years has been increases in land costs, although costs of construction materials and labor have also increased rapidly.

Land price increases at compound annual rates of from 25 to 40 percent have not been uncommon in Cairo during the past decade. A major factor in these cost increases appears to have been the rapid increase in remittances from workers abroad which are channeled into land and housing construction at a high rate. Costs of building materials and labor

have increased less rapidly (at annual rates of from 15 to 20 percent) but have nevertheless outpaced general inflation. These trends have resulted in a situation in which typical land costs exceed costs of constructing a single modest dwelling unit in most areas of Cairo.

Costs of construction per se are made up of from 10 to 30 percent in construction wages and the remainder materials and profit. Thus reductions in land costs have the potential for achieving the greatest overall reductions in housing costs, followed by reductions in materials and labor costs respectively.

These findings provide a useful background against which to consider possible changes in policies, programs, and procedures to improve the lot of low-to-moderate income households and to support the general policy objectives of the Egyptian government.

## 10.2 Recommendations

Recommendations were considered with regard to aspects of the planning process, legal and administrative procedures, housing finance, and the building process. These are discussed below:

### The Planning Process

#### 1. Low/Moderate Income Housing Design

One allegation is that much informal housing is "overbuilt" relative to minimum essential structural requirements. If true, there may be a possibility to reduce costs by more careful design and materials usage. Technical assistance to builders in informal areas should be considered, as well as expansion of technical training of greater numbers of construction workers.

A somewhat different worry is that continuing pressures for vertical expansion and economizing on building materials may overstress existing structures, leading to structural disintegration and collapse. Again, technical assistance in informal areas and expansion of knowledge concerning appropriate materials and structural standards may be in order. This could be done, for example, as part of programs similar to the USAID Helwan Upgrading and Home Improvement Program or the upcoming Neighborhood Urban Services Program.



It is observed that interior facilities of informal housing are not terribly different from those of formal housing. Little or no action needs to be taken to improve designs per se.

When households are dissatisfied with their dwellings, it is most often because of lack of sufficient rooms. Again, little action is called for. New building and vertical expansion are occurring at high rates, enabling many households to reduce crowding burdens by moving or by expanding existing dwellings. Population trends toward somewhat smaller urban families should alleviate some of the crowding burden, and continued expansion of the housing stock with measures to hold down cost rises should also be of help, since lower unit costs of housing should lead naturally to increases in average size and quality of units. The most important cost element to bring under control is land costs since these are likely now to comprise the major share of new construction costs for housing in most areas of Cairo and much of Beni Suef city. This will require a vigorous combination of policies on both the supply and demand sides of the housing, land, and infrastructure markets (see "Housing Finance" below).

## 2. Provision of Infrastructure

This is the vital need of many informal areas. While areas are, in general, well served in Cairo, and becoming better served over time, there are a number of areas that are well below general levels of infrastructure access.<sup>1</sup> Residents of informal areas are aware of lack of infrastructure, and cite it as a key area of needed improvements for which, often, they express a willingness to pay.

The major problems here are the timing, financing, and placement of infrastructure. Regarding timing, there appears to be no compelling reason for providing infrastructure in advance of development, although there are arguments on both sides.<sup>2</sup> The present development pattern in informal areas

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<sup>1</sup>See Appendix 7 for a tabulation of infrastructure provision in sample enumeration districts.

<sup>2</sup>As part of the Cairo Land Development/Infrastructure Project benefits and costs of "urban infill" and peripheral development were estimated. Net costs and benefits provide no clear choice between these two options (See Dames and Moore, 1981, Appendix I). This is clearly an area for more research. Two sorts of activities appear to be called for--site-specific benefit-cost studies of upgrading vis-a-vis peripheral development and development of a series of parametric economic planning models that could be used to evaluate both specific and general alternatives.

matches the temporal patterns of income and savings of area residents. While some informal area residents may express dissatisfaction with areas as a result of low service levels, this is far from the rule. Indeed, a higher proportion of Cairo informal area residents claim to be "very satisfied" with their areas than do formal area residents. Putting in infrastructure after development may be economically more efficient than prior servicing of vacant areas. This can come about if more households can be served per LE of expenditure in denser, developed areas than in low-density developing areas. Moreover, not only might unit costs be lower but ability to recover costs would be higher since more households would be served per connection in denser, built-up areas than would be the case in fringe areas. Higher densities could be achieved either through vertical development or more efficient cluster development land use. While some downstream demolitions and marginally higher servicing costs could be offset by economies realized by serving more households for a given level of expenditure and enhancing cost recovery prospects. It should be emphasized, however, that infill and upgrading, on the one hand, and peripheral expansion, on the other, are not mutually exclusive choices. What is at issue is a question of balance--of costs and benefits and of efficiency and equity issues.

Regarding infrastructure financing, costs do not appear to be recovered on any form of infrastructure (Wheaton, 1981). This limits the ability of systems to expand and maintain existing service levels. A significant fraction of surveyed households complained about infrastructure capacity and maintenance problems--power and water outages, and sewage backups. Moreover, it creates an inequitable and inefficient distribution of services. Nevertheless, it appears that the potential for increased cost recovery is great. Utility tariffs are currently a very modest fraction of incomes; consideration should be given to raising them. As important, the short supply of infrastructure may create (in part) large rents in the form of exorbitant land values in well-serviced areas.<sup>1</sup> The

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<sup>1</sup>Evidence on this point is, however, ambiguous. See, for example, the discussion concerning the determinants of land value (Table 8-4). More careful empirical research is needed to quantify the role of different elements of infrastructure in influencing land values.

government does little or nothing to capture these betterment related rents, despite the precedent for such a policy in other developing countries. Thus, two changes in the existing infrastructure pricing system should be considered--appropriate cost-based pricing and betterments taxation. Each could be used to generate funds for upgrading antiquated infrastructure in some areas and extending it to developing areas.

The placement of infrastructure should be guided by both equity and efficiency considerations. The basic needs of all households should be recognized without being limited by arbitrary distinctions between formal and informal areas. Current infrastructure shortfalls in Cairo and Beni Suef informal areas appear not only inequitable but also unnecessary as many informal area households appear to have both the inclination and the means to pay for infrastructure extensions. Efficiency considerations should involve proximity of needy areas to existing networks, density, and specific area problems of health and sanitation.

### Legal and Administrative Procedures

#### 1. Building Approval

Building approvals are largely not now obtained, with 80 percent or more of construction by the informal sector, nor in many cases do approvals seem necessary since informal housing tends to be not only similar to formal housing but as some allege, may even be overdesigned. An emergent problem, however, is that increased pressures to economize on materials and, at the same time, to increase densities, leads to potential structural problems. Allegations of new buildings falling down were heard frequently by interviewers. This suggests that stringent regulation of building height might be more appropriate than general regulation of building. Alternatively, a much more heavily targeted set of enforcement activities could be planned, focusing principally on those building types likely to provide greater health and safety risks such as high rises, those being built on poorly drained soil, in areas polluted by industrial waste, etc. The emphasis would be much more on avoiding catastrophic health and safety failures than is now the case.

Restrictions on agricultural land conversion are widely flouted; land changes hands quite freely. In Cairo, much of agricultural land now being urbanized is on the intensive margin--of enormously greater value as commercial, industrial or residential land than as agricultural land. Often agricultural land value has been eroded because of lack of irrigation, poor drainage, or industrial pollution of water supplies. Conversion is profitable and, in many cases, desirable.<sup>1</sup> Land being urbanized is generally accessible to infrastructure networks and thus not overly expensive to service. Consideration should be given to returning subdivision control in agricultural areas to the local level, particularly within the city cordone. It seems likely that inframarginal development on agricultural land is economically rational in many cases, but this determination should be made locally.

### Housing Finance

Judging from the overall level of performance of the housing sector, finance is in many respects adequate. Much of that finance derives from earnings of workers abroad, which are used to finance land purchases and construction; sales of property (common in agricultural fringe areas); sales of jewelry; and savings in informal credit associations (the latter being more often used to finance key money than land and building purchase or construction). Formal credit mechanisms are hardly used at all.

The main problem of housing finance is not the same as that in some other developing countries with alleged housing shortages (i.e., that the overall level of investment in housing is too low). In fact, given the recent supply-side related housing inflation, the desirability of further fueling the fires of housing inflation by large doses of unneeded credit is questionable. Rather, the problem is distributional--low income households just entering the housing market experience high and increasing housing burdens which they cannot escape by becoming homeowners. The transition to homeownership is difficult and becoming more difficult over time because housing costs are rising more rapidly than incomes. Also, households without access to repatriations are severely handicapped in competing in land and housing markets. Problems have been accentuated

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<sup>1</sup>This is suggested not only by the Dames and Moore Cairo Land Development/Infrastructure report (1981) but also in a carefully documented paper by Wheaton and Shishido (1978) which examines the economic rationale for Egypt's New Town policy.

recently because of the rise in the prevalence and level of key money as a housing cost component. While in previous years households could pay rents out of current incomes, the rise of key money now requires significant payments from assets, as well, which are steered toward higher income groups, thereby creating a serious distributional problem.

What is basically required is a set of policy mechanisms to bring housing costs to an affordable level. This can be done either on the demand side of the market, by providing subsidies to target group households to enable them to buy or rent at a fraction of market cost, or on the supply side, by attacking the causes of inflation in housing costs. Demand side policies could take the form of direct cash payments to households, providing housing "in-kind" with subsidized rents (as in the case of current public housing schemes), providing serviced land at a subsidized price (perhaps with a cross-subsidy from higher income groups or commercial land users), providing subsidies under the rubric of a savings mobilization plan with subsidized interest rates and either bonus payments or the granting of housing mortgages or materials loans for successful completion of a contract savings plan, or simply granting subsidized mortgages for land and/or buildings. All of these sorts of policies need to be considered, though by themselves they will do little to help the problem of continually rising housing costs.

Supply-side policies would aim at reducing prices of housing cost inputs by expanding their supply. Domestic capacity for building materials could be expanded, technical training of construction workers increased, and the supply of serviced land increased by large-scale public or private land development.<sup>1</sup> Despite such measures, a fundamental problem will remain --that land is seen as perhaps the easiest and best investment that can be made by persons with excess money such as repatriations from abroad. The investment demand for land which now exists, and which is heavily fueled by repatriated earnings, is likely to continue at a high level for years, continuing to inflate land prices beyond the means of most people.

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<sup>1</sup>Notwithstanding earlier recommendations concerning the importance of infill and upgrading, large-scale land development in urban areas in Egypt is a necessity to accommodate population growth, migration, and household mobility within cities. Such development will tend to reduce upward pressures on land costs though appear unlikely to reverse current trends.

Unless the government can either create attractive alternative investment opportunities, effectively tax away potential capital gains on land sales, or effectively prohibit private land transactions (e.g., by undertaking massive land banking or expropriations of nearly all developable urban land) land prices will continue to increase.<sup>1</sup> All of these actions should be considered. Harsh actions to directly control land prices would be the single most important thing that could be done to reduce the rate of increase or even reverse recent increases in housing costs.

In the interim, an alternative is to realize that the bulk of Cairo households are, and will continue to be, renters, and that encouraging support of private units built for rental occupancy is highly desirable. In fact, vertical expansion is the major current source of growth in Cairo's housing stock--and most of those units are for rental occupancy. Supporting the adding of stories or completion of unfinished work as called for in Article 15 of the 1981 Housing Law is a good idea at this time. Most such recent additions have been concentrated among relatively small (one to three story) buildings and as such are within the structural capacity of such buildings. This strategy, as opposed to one oriented toward encouraging homeownership on new plots may appear to be somewhat more regressive than one focusing directly on low income renters seeking to become homeowners, though it clearly provides more housing sooner (the owner has already sunk land costs and thus confronts only construction costs)--thus permitting lower cost to the end user.

Financing of owner-built housing could occur either formally (through cooperatives, commercial banks, or the housing bank) or by permitting legal payments of advance rent or key money. Such advance rent is recognized by the new 1981 housing law, although the law requires subsequent reductions in monthly rents within a stipulated time.

Of more critical importance than housing finance would appear to be finance of infrastructure extension and upgrading, each of which is currently underfunded. This is discussed above.

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<sup>1</sup>More explicit consideration should be given by USAID and GOE to examining the experience of other countries in controlling land prices and speculation through tax and other fiscal and planning mechanisms.

## The Building Process

### 1. Organization of the Construction Industry

At present, the informal construction sector is highly competitive, though subject to vagaries of fluctuations in materials and labor prices. There are occasional shortages in building materials and in skilled labor, though generally contractors who are willing to pay the going rate appear able to obtain sufficient quantities. The sector is highly productive as evidenced by its ability to produce from five to six times the number of formal sector housing units each year. Other studies have recommended expansion of technical training and domestic production of building materials. These are good ideas and deserve to be encouraged. Given that materials comprise some 70 to 90 percent of construction costs, the greatest leverage in reducing costs will come from reducing materials costs. Although the relative cost of construction labor increased greatly in the mid-1970s, labor intensive construction methods are still desirable. Moreover, it appears that rates of construction wage increase may recently have dropped somewhat from mid-1970 levels, further supporting a focus on materials cost reductions.<sup>1</sup>

In addition, it would seem appropriate to decouple the building material subsidy system and the building permit system. Abuses and inequities of the present system are apparent. Many well-off builders are alleged to seek building approvals for access to building materials--which they subsequently sell. Even housing cooperatives are allegedly involved in this. It is manifestly clear that the current system is regressive both directly (in that it subsidizes better off households) and indirectly, in that it raises the price of materials to the informal sector.

Alternatives that should be considered include:

- Completely deregulate building materials markets;
- Target materials subsidies instead to owners/builders willing to build in designated locations, according to standard designs, or willing to rent to stipulated target group households.

### 2. Security of Tenure

This does not now seem to be a major problem--the informal sector is in some respects more willing to invest in housing than the formal

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<sup>1</sup>Recall, however, that total construction costs including costs of land may be dominated by land costs in many areas of Cairo and Beni Suef.

sector. The former includes a slightly higher proportion of owners, and a greater proportion of buildings with recent additions. Households do not appear to be concerned about failure to register land or buildings or to obtain building permits. When purchasers of existing buildings were asked why that had not made improvements, no-one ever mentioned concern with any aspect of security of tenure. Anecdotal evidence suggests that once households are established, it is difficult or impossible to dispossess them. Moreover, the government appears to routinely legitimate illegal settlements (e.g., Law 29). The only action that would appear warranted is to formally legitimate tenure (ownership) of illegal households, though the current system which permits disputed ownership to be litigated on a case-by-case basis may be preferable.

### 3. Zoning

Major zoning-like elements are height restrictions on buildings and prohibitions on conversions of agricultural land. The former should probably be more rigorously enforced because of problems of structural soundness, compatibility with infrastructure, and health and safety of tenants (problems were mentioned by interviewees with water pressure, sewage backups, etc.) Benefits of enforcing most other zoning like features of housing codes may be of less importance.

### 4. Appropriate Technologies and Materials

Technologies and materials vary within the current housing sector depending to a considerable degree on the ultimate height of residential buildings. Concern was expressed by a number of officials interviewed that building collapse had become, or was becoming, a potentially major problem. As discussed earlier, this is a believable concern given increases in relative construction costs and pressures (because of high land values) for higher density development. As discussed above, this problem is likely to be most serious in case of tall building development, and possibly in areas with soils with poor drainage. Governorate officials could focus concern on growing areas where either of these conditions is likely to be present and both offer technical assistance and enforcement personnel to ensure building safety. The emphasis should be on highly selective assistance and enforcement to take best advantage of resources.



## 5. Economic Incentives for Efficiency/Subsidy Policy

Subsidies are pervasive in the housing sector, principally encompassing building materials, infrastructure capital and operating costs, public sector housing, and rent control. These subsidies are sometimes regressive, inequitable, inefficient, and cause problems in financing the orderly expansion of housing opportunities and access by all citizens to basic infrastructure.

The analysis suggests that building materials subsidies tend to go to better-off households and probably raise the prices of unsubsidized materials for less well-off households. It is suggested that decoupling the building approval-material allocation process or modifying it would be a more equitable and efficient way of addressing housing needs.

Infrastructure tends to be withheld from informal areas for some time, being supplied instead to formal areas. It appears that costs of supplying infrastructure are probably not fully recovered either for initial capital investments or for continued operations. This benefits better off households and limits the ability to extend infrastructure to other areas. Consideration should be given to modifying infrastructure pricing policies and to implementing a scheme of taxation of increments in land value created by infrastructure investments. Each of these changes can result in improvements in the equity and efficiency with which infrastructure is distributed.

Public sector housing presently constitutes a modest (9 to 10 percent) component of the housing stock, although there are plans to greatly expand its role. The analysis indicates that standards of public housing and its construction costs are well above those of average housing units, particularly with regard to infrastructure supply.

Public sector housing (at least in the sample here) appears nevertheless to be more crowded in terms of persons per room than average market housing. Rents are well below market levels and further below levels needed to recover costs, indicating that subsidies are large and, by some criteria, inequitable. The analysis supports the recommendations of other studies that have suggested major modifications in public housing dwelling and infrastructure standards, and that have suggested changes in the way it is priced.

Newly built informal housing, relative to public sector housing, is of lower quality but is, nevertheless, of better quality than average units of the existing housing stock. Informal housing is no more crowded than existing housing. It is of better structural soundness than existing housing and has similar interior amenities (toilets, kitchens, etc.). Its residents are as satisfied with their dwellings as residents of formal public and private housing, although in light of lower levels of neighborhood amenities, are sometimes less satisfied with neighborhood conditions. As such, the informal housing sector represents an alternative to existing public sector housing that is deserving of greater public support, particularly with regard to infrastructure supply and upgrading. Policies that encourage upgrading of existing informal areas, expansion of individual informal buildings, and provision of infrastructure to new areas for sites and services type projects are recommended as important complementary projects.

Rent control, which has been uniformly criticized in other studies, is shown by this analysis to have a more limited impact in some respects than its detractors would suggest, although it does clearly have some distorting effects on the housing market. For example, (1) rent control does not appear to have had a major effect on rates of new construction--new construction in Cairo appears recently to have outstripped demand. Moreover, no shift of the population away from being renters toward ownership is perceived. Rental units are still being produced and, indeed, a slightly higher fraction of recent movers are renters than are households who have not recently moved. (2) Maintenance of existing buildings appears in some respects not to have been greatly affected by rent control. Residents of rent controlled units often assume the financial burden of maintenance themselves, at least for their own units, spending on average a sizeable fraction of income for this purpose. Whether such expenditures extend to common areas or not could not be ascertained in this study.<sup>1</sup>

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<sup>1</sup>The locational impacts of rent control were also not ascertained here. In a very crude sense, locational choices appear not to have been affected--recent movers, for example, are no further away from their workplaces than are households that moved some time ago. A more detailed investigation than has been attempted here could, however, reverse this impression.

Rent control does, however, have a highly differential impact on residents of long standing and recent movers. For the former, rent control has indeed kept rents low; in fact, it has on average resulted in lower current rents than rents at the time households moved into their units. For recent movers, however, rent control has been widely circumvented by the payment of key money. Key money has risen over time in both amount and incidence, such that recent movers may be effectively spending from two to three times the fraction of their incomes on rent as similar households that have not moved, and as importantly, are forced to rely on sources of assets rather than current income in acquiring housing.

Recent increases in rents have reached a point where further increases in rent or cost burdens (either in key money or monthly payments) appear unlikely to be sustained. In the short run both supply and demand side factors should limit relative increases in costs. Current vacancy rates and construction backlogs should dampen supply-side price increases and, on the demand side, comparatively high required expenditures on food (60-70 percent of income) limit the fraction of income than can possibly be allocated to housing. Thus, it is expected that rents for recent movers will tend to stabilize at between 20 and 30 percent of income, a rate double that of the current average, but in line with many other countries at similar stages of development.

In view of the apparent impacts (or lack of impacts) of rent control, its outright abolition does not appear to be called for. Modifications along the lines of the new housing law of 1981, which stipulate advance rent payments and permit higher nominal return on investment to landlords but which allow even higher rates of return than the 1981 law should be considered as a way of encouraging a tilt in housing supply toward more low and moderate income units. Production of such units will, however, be somewhat limited in the short run by demand factors (tenants incomes and ability to accumulate key money), such that modifications in the rent control law will have at best marginal impacts.