

Land for Housing the Poor
Angel . Archer . Tanphiphat . Wegelin . Editors

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Edited by Shlomo Angel, Raymon W. Archer,
Sidhijai Tanphiphat and Emiel A. Wegelin

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03-15, Tanglin Shopping Centre

19, Tanglin Road, Singapore 1024

Tel: 737-8295 Cable: SELBOOKS Telex: RS 38419

Typeset by Compute Design and Print Co. Ltd.
Bangkok, Thailand

Printed by The Craftsman Press Ltd.
Bangkok, Thailand

ISBN 9971-83-550-9

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VIII
There are realistic mechanisms
for sharing the land

Slum reconstruction: land sharing as an alternative to eviction in Bangkok

*Shlomo Angel with Thipparat Chirathamkijkul**

Introduction

The aim of this paper is to test the validity of one particular method of granting land tenure and improving the housing conditions of slum dwellers in the urban areas of developing countries. This method is referred to as "slum reconstruction", which is the process of rehousing slum dwellers on land which they currently occupy. While there are many alternative schemes that could come under the category of slum reconstruction, in general the concept of slum reconstruction is distinguished by the following five important principles:

(a) *Land sharing.* The principle of land sharing requires that part of the area of the slum be cleared for the development of commercial properties, and that slum dwellers be rehoused on the remaining part of the site.

(b) *Densification.* Rehousing slum dwellers on a smaller plot of land requires an increase in residential densities, either through infilling of vacant plots or through rebuilding of existing structures.

(c) *Rebuilding.* In many cases, densification will require the demolition of existing structures and rebuilding at higher densities. High-density row houses will allow for sufficient densities in the majority of cases.

(d) *Community participation.* The transformation of existing slums into permanent residential communities will require the active participation of people in decision making, particularly during negotiation, allocation of plots, demolition of structures and reconstruction.

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(e) *Cost recovery.* For slum reconstruction to be economically feasible, external subsidies must be minimized and cross-subsidies must be maximized. The marketing of commercial properties must generate sufficient surplus to cover the deficit resulting from the people's inability to pay for much of the cost of land and housing.

Slum reconstruction is not a panacea for halting eviction. It is, at best, a tool with a limited applicability under specific conditions. Its value lies in directing the attention of the public, the slum dwellers and the authorities to the possibility of letting slum dwellers stay where they are and affording them a permanent place to live. In so far as this possibility can be realized in one or more slum areas in a given city, slum dwellers at those sites benefit in fundamental ways which otherwise are inaccessible under programs of ordinary slum upgrading or slum improvement. Upgrading usually tends to improve environmental conditions without really affecting land tenure conditions. Slum reconstruction aims at creating solid structures and land tenure agreements that cannot be revoked.

From the strategic point of view, the implementation of slum reconstruction, even on a modest scale, may serve to strengthen community organization in slums under eviction, and to consolidate public opinion against eviction. Under current circumstances, slum dwellers find themselves in the weak position of resisting urban development without having a positive alternative to proposed development plans. Slum reconstruction provides a positive direction towards which public opinion, official support and community energies can be channeled. Even one or two showcase projects may increase the pressure on landlords wishing to evict slum residents to propose alternatives which take into account the residents' need to be rehoused.

This paper focuses on Bangkok, the capital of Thailand, where slum reconstruction appears to hold promise in a number of slums currently under the threat of eviction. Many conditions existing in Bangkok today are favorable for initiating slum reconstruction. Land values are still relatively low in many parts of the city, and development pressures, although on the increase, still leave many slum areas undisturbed. Most land on which slums are located is in private hands, being held for speculation,

or in public hands, being held by government agencies which can sometimes sell or lease their land to the private sector for commercial development, using the income from such transactions to finance their official programs.

Government attitudes towards slums are improving. Both the National Housing Authority and the Bangkok Metropolitan Administration are working actively on slum upgrading, and are seeking to experiment with more permanent solutions to slum problems. A number of political parties display considerable interest in slum improvement and seek involvement in programs which may produce real impact on living conditions in the slum areas. The media are alert to the plight of slum dwellers and report regularly on eviction struggles. Officials are wary of engaging in forced evictions, and prefer to seek compromise solutions. The city of Bangkok has access to many sources of funds. Incomes of residents in the slum areas are considerably higher than those of their rural counterparts in Thailand or their urban counterparts in other Asian cities.

While these conditions appear favorable for the initiation of slum reconstruction, they may not be favorable for replicating it on a large scale in the city. Many of the procedures for slum reconstruction are complicated and cumbersome, and considerable energy and enthusiasm will be required to implement reconstruction activities successfully. Some energy can be harnessed through demonstration and example. Some procedures may be streamlined and improved, and some innovative arrangements may be discovered through testing the concept in the field.

The need to generate alternatives to eviction in Bangkok is becoming more serious year by year, as land values and prices of construction materials soar, and as the pressure to evict mounts. While conditions for limited slum reconstruction appear favorable at this historical juncture, its applicability may be obliterated in the near future. In this important sense, action on eviction is required now. It cannot, unfortunately, wait for social, economic and political conditions to improve, and must accept existing circumstances, which are in many ways severe, as starting points for constructive work in the slums.

It is therefore proposed that a pilot slum reconstruction project be implemented in Bangkok. A possible location has

been selected for this pilot project, the Soi Bhavana slum, which contains 120 households and occupies a two-acre plot of land. This paper uses existing conditions and the reconstruction plan for the Soi Bhavana slum as an illustration of the concepts outlined above.

I Slums on private land in Bangkok

The majority of slum dwellers in Bangkok are not squatters. Out of a total population of over five million people living in the city, almost one million live in slums, but less than 15 per cent of these people occupy land illegally. The majority of slum dwellers build their wooden houses on legally rented land, either renting from private landlords or from public agencies.

The term "slum" or "salam" is used by Bangkok residents to describe a plot of land, usually a few acres in area, on which wooden structures are arranged haphazardly. These structures are usually close to one another and are connected by walkways made of wooden planks. Secondhand materials are often used for construction, and corrugated iron is the most popular material for roofs. Plots of land are small, measuring 40 to 80 square meters. Houses are one or two stories in height and overall densities are usually 20 to 30 families per rai, or 125 to 188 families per hectare. The land on which slums are located is generally unfilled and subject to flooding, which sometimes inundates the houses themselves. There is usually no drainage, and no piped sewage system. Garbage collection is inadequate. Electricity and water supply, however, are commonly supplied by the landlords.

Of the slums on rented land in Bangkok, more than two thirds are on private land and less than one third are on government land. Slums on government land are usually on land which cannot be used by the agency which owns it. Crown Property land, however, is an important exception, as the Crown Property Bureau can use its land for income generation. Many of the slums on government land are located on Crown Property land.

Landlords who own slum land are usually small landowners who are not necessarily rich or influential. Plots of land available for slum use have been in cultivation before and belong to

local residents of the area. Renting plots for house construction on the periphery of the city has been more profitable than rice cultivation. Rents are usually low, amounting to US\$ 2 to 5 per month per plot, but landlords make considerable additional incomes from the sale of water and electricity to the residents.

Temporary housing on undeveloped land is usually tolerated by the authorities, and some slum communities have existed for more than 50 years. Although the construction of houses does not follow municipal codes or regulations, landlords can obtain water and electricity for the residents. Most houses have been able to obtain house registration numbers as well, usually during election periods, although municipal regulations require that houses be constructed properly before they can be registered. House registration allows residents access to local schools and other public services.

Slums on private land house the great majority of the low-income population in the city, although the population in any given community is not all poor. Income variations in slums are significant, and some families earn as much as ten times the income of their nearby neighbors. The slums offer housing for people of all occupations, both in the formal and the informal sectors. They are found everywhere in the city, ranging in size from a few houses to a few hundred houses, but very rarely containing more than a thousand houses. They usually occupy the more inaccessible sites in any neighborhood. Many are found along canals and back alleys, but very few can be seen on the major thoroughfares of the city which are usually lined with shophouses.

II Eviction and urban development

Slums on private land are held as speculative urban properties, and landlords make sure that residents understand that their stay in the area is temporary and that they must leave if the landlord wishes to sell the land. Permanent structures are not normally constructed, and timber structures are constructed in a manner which makes it possible to dismantle them and rebuild them elsewhere.

While there is no shortage of urban land in Bangkok, land

values continue to rise in accessible locations, creating pressures on landlords to sell their land for commercial development. Slums on private land which have existed for many years become subject to eviction. A recent study of eviction in Bangkok estimates that one third of the total population has been evicted or subject to the threat of eviction during the past three years.¹ Approximately two thirds of the occupants of government lands, particularly Crown Property lands which can be developed commercially, fall into this category, as well as one fifth of the occupants of private lands.

Eviction in Bangkok follows established patterns. Residents on private lands are usually willing to move voluntarily once the landlord asks them to leave. Landlords of established communities, however, appear reluctant to evict the residents and many evictions are initiated by heirs of older landlords. In many cases, small compensation is offered for the dismantling and transportation of the houses to new locations.

Generally, there is no organized resistance to eviction. Communities are loosely structured and have no formal organization. Legally, people have no right to stay on the land once their leases expire and they are given notice to leave. In some cases, people have appealed to the landlord or to the government on humanitarian grounds to allow them to stay. There is a strong tendency in such cases to avoid open conflict and to arrive at a satisfactory settlement, usually through increased compensation payments. In some cases, however, landowners and developers have resorted to misinformation, provocation and arson to accelerate slum clearance.

In most cases of clearance, people dismantle their houses and move them to another slum, some having had to move five or six times during the last 20 years. Movements are usually toward the periphery of the city. With the accelerated development in the city and the growth of organized land development companies which buy up large tracts of land, however, many small landholders can now sell their land as an alternative to slum development. Within the urban area, there is virtually no new private land which is being brought into use for slum development.² New land for temporary housing is available only in the rural areas surrounding the city, away from established

neighborhoods, economic opportunities and social services.

III Government intervention in slums

Temporary housing in slums on private land responds to market and speculative forces and is not subject to government regulation. The National Housing Authority has been improving environmental conditions in private slums since 1978, but has not altered the essentially temporary nature of the slum communities. While walkways, drainage, water supply and fire protection are improved, land tenure remains largely unaffected.³ Government agencies have no legal mechanism to prevent eviction or to refuse to participate in eviction procedures, regardless of the length of stay of residents in the area.

The government itself is subject to the operation of market forces, and there are no effective mechanisms of obtaining land for housing at lower than market value. Low-income housing projects initiated by the government largely follow the practice of private slum developers, and move to the outer fringe of the city to buy cheap land. Earlier attempts to build flats for evicted families have been unsuccessful. The amounts of subsidy required for apartment construction in central locations were found to be too high, government land was found to be in short supply, and slum dwellers have found apartments unsuitable. Many have sold their right of occupancy to higher income families and moved to new slums.

Evicted families have, therefore, had to accept farther locations, resulting in higher transportation costs, less time available for income earning because of long commuting times, less flexibility in organizing family schedules, and access to fewer contacts and opportunities. The earlier system of land use, prevalent in many Asian cities, allowed for rich and poor to live in close proximity to each other and to benefit from each other. As the pressure for commercial development increased, the mixed land-use system has broken down. There are no zoning and planning regulations which can effectively maintain the mixed land-use system, ensuring that sufficient land remains in low-income housing use throughout the city. Consequently, the poorer segments of the population are being or will be pushed

out of most of the urban area without effective means of resistance.

In some cases, government officials or politicians are asked to intervene on behalf of people being evicted who have nowhere else to go. The National Housing Authority is often asked for alternative accommodation for evicted families, but is usually prevented by its existing plans and projects from offering acceptable alternatives at short notice. In the past, it has sometimes been able to offer flats or serviced plots to evicted families, usually at considerable distance from the original location. In one important case, however, the Rama IV slum which is situated on Crown Property land, agreement was reached recently between the residents, the developers and the government to rehouse the slum dwellers on part of the land, leaving the rest of the land for commercial development. The agreement contains some, although by no means all, of the basic principles of slum reconstruction, which is the subject of this paper.

The five principles of slum reconstruction: land sharing, densification, rebuilding, community participation and cost recovery, are discussed in detail in the following sections.

IV Land sharing

The slums of Bangkok house hundreds of thousands of people in good locations, are in close proximity to middle and upper-income residential areas, and are an integral part of the fabric of the city. People of different income groups have access to each other, and can be of most use to each other. This closeness is particularly important for low-income people who hold many occupations in the informal sector of the economy, and who can take advantage of temporary and even non-recurring economic opportunities in the city. The informal economy functions best when the mixture of income groups is allowed. In Thailand, where the patron-client system of contacts still flourishes, this is of special significance. In this system, closeness to people of influence can mean survival. Building contacts within and outside the community is the essence of participation in the economy.

Such a system of contacts thrives best in communities that

have been established over a period of time, and suffers a severe blow when communities are destroyed and evicted. The option of allowing people to remain in the same location permits them to preserve the system of social contacts they have developed over the years, and forms the basis for the principle of land sharing.

Land sharing means that slum dwellers, instead of being evicted, share the area on which the slum is located with the planned commercial properties. While the people normally cannot afford to purchase the land because of its high market value, they might be able to afford to own part of it, if the rest of the land is used for commercial property development, and if that development can generate sufficient surplus revenues to bear the major burden of the cost of the land.

In a mixed land-use system such as the one existing in Bangkok, using land for mixed commercial and residential development, or mixed residential development for different income groups poses no serious social problems. Small grain land uses are common throughout the city, with high-income residences bordering on lower-income areas, separated only by a wall. The degree of class antagonism remains low, and the level of safety and security appears to be approximately equal throughout the city.

In the Soi Bhavana slum reconstruction plan, the principle of land sharing takes the form of dividing the land into two parts. The houses of the residents occupy 60 per cent of the site, while commercial townhouses occupy 40 per cent. With land sharing, it is possible to rehouse all the residents of the community that wish to remain there, and more than half of the resident families that are still undecided. Of a total of 120 families, 73 families plan to stay, 16 families plan to move out, and 31 families are undecided. An estimated 89 families are to be rehoused in the reconstruction scheme. Ten additional units, mostly in the lowest income category, are also provided in the plan as a contingency. It appears, therefore, that all residents who may wish to be rehoused in the same location can be rehoused. Land sharing can thus mean redevelopment without eviction.

V Densification

Land sharing can only be effective if it is possible to house the slum dwellers on a smaller plot of land than they have been occupying. This requires an increase in residential density. Current densities in Bangkok's slum areas are of the order of 20 to 30 families per rai, equivalent to 125 to 188 families per hectare. Houses are usually one or two stories in height, and a number of houses shelter more than one family. House sizes vary considerably. Some houses are as small as 10 m² in floor area, and some are as large as 200 m². The majority of houses, however, fall into the 30 to 80 m² range. Most houses are constructed as independent structures with small, unutilized spaces between them.

Densification can take two major forms:

(a) *Infilling*: leaving most houses where they are, and shifting the location of some houses to make space available for commercial properties.

(b) *Rebuilding*: clearing the old houses and reconstructing the area with either high-rise flats or high-density, low-rise houses.

The actual form of densification is subject to considerations of cost recovery which are discussed below. In general, infilling is possible where the existing density is low and only a relatively small area is needed for commercial development to bring the land cost into the range of the people's ability to pay. Rebuilding with high-rise flats will be necessary only where existing densities are high, and where a considerable portion of the area is needed for commercial development to make the project financially feasible. In most cases rebuilding with high-density, low-rise row houses appears to be feasible. Combinations of infilling and rebuilding are also possible particularly in the larger slum areas.

The existing density in the Soi Bhavana slum, for example, is 22.3 houses per rai or 140 houses per hectare (see figure 1). As can be seen in the figure, there is considerable variation in house size. The average floor area is 52.8 m² per house. The reconstruction plan for the area (see figure 2) has resulted in increasing the density in the housing area (excluding the area for townhouses) to 28.5 houses per rai, or 178 houses per hectare.



Figure 1: Existing situation in the Soi Bhavana slum reconstruction project, Bangkok, 1981

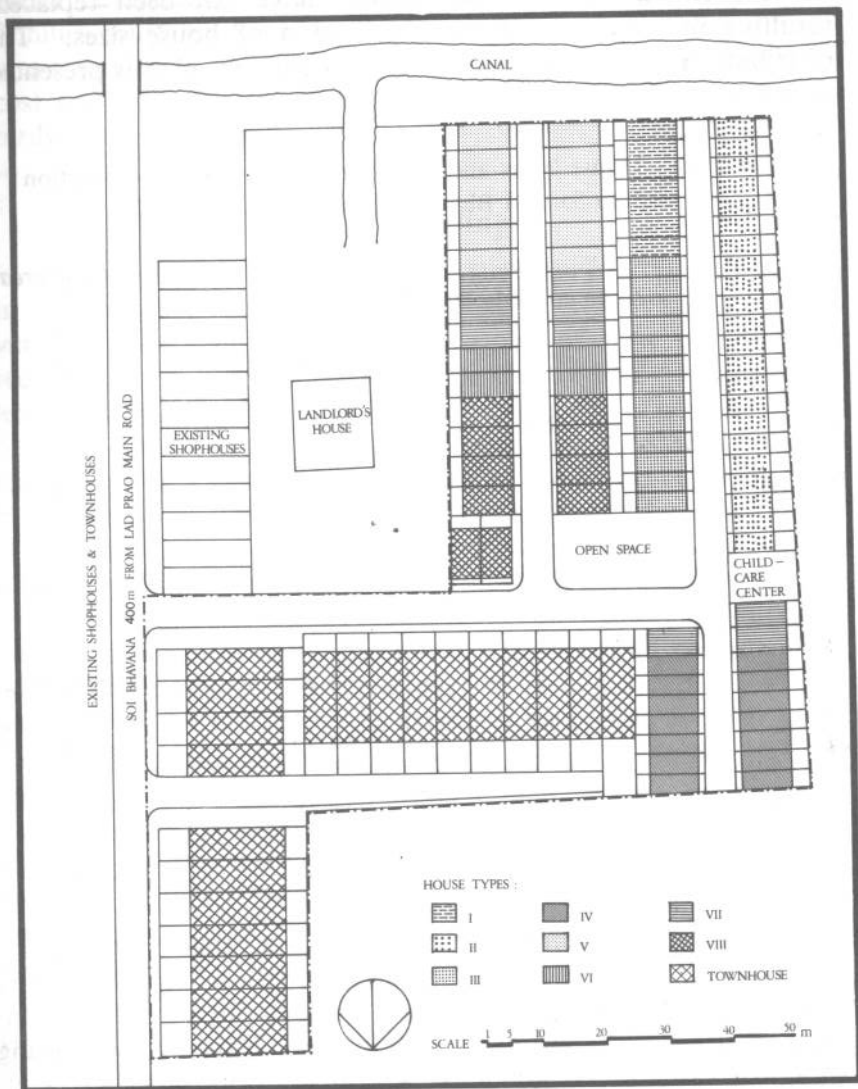


Figure 2: Plan of the Soi Bhavana slum reconstruction project, Bangkok, 1981

The average floor area per unit has remained the same, 53 m², but the smallest and largest houses have not been replaced, resulting in a more uniform distribution of house sizes. The distribution of house sizes in the reconstruction plan is presented in table 1.

Table 1: House types and characteristics in the reconstruction plan for Soi Bhavana slum, Bangkok, 1982

<i>Type</i>	<i>No. of units to be constructed</i>	<i>Unit plot area (m²)</i>	<i>Unit floor area (m²)</i>
I	14	17.92	25.60
II	22	30.72	40.96
III	13	35.84	51.20
IV	14	35.84	51.20
V	12	44.80	64.00
VI	9	44.80	64.00
VII	4	44.80	64.00
VIII	10	53.76	76.80
Townhouse	21	119.60	145.60

In general, a number of row-house arrangements can be designed to reach densities similar to those of four-storey apartment buildings. The existing density in a recently constructed, five-storey apartment block project in the Huay Khwang area, for example, is 40 units per rai (250 units per hectare). From the point of view of the residents, row houses are to be preferred to walk-up apartment buildings. Living on the ground allows for a more traditional Thai lifestyle, makes it possible to own land, and makes it easier to care for children, to associate with neighbors, and to take advantage of economic opportunities.

Finally, in case densification is not sufficient to rehouse the entire community, overspill areas need to be arranged and families must be offered compensation to relocate their houses into these areas. Compensation should form part of the project cost and be sufficient to encourage families to relocate voluntarily.

VI Rebuilding

The decision to rebuild rather than infill is a critical decision in slum reconstruction. Infilling has certain important advantages over rebuilding from the point of view of managing reconstruction. It involves more moderate changes because it leaves many houses undisturbed. It allows for a greater variety of house sizes and shapes, and it considerably reduces financial requirements. Rebuilding, on the other hand, can better respond to the need for densification, and, particularly when the quality of existing houses is low, can produce housing at higher standards. Higher standards of housing can meet the rising expectations of residents, and can move toward meeting the codes and standards of municipal authorities. An important consideration in rebuilding is reducing the danger of fire. Effective fire protection in slums is difficult to attain, since people cook on open stoves and houses are made of highly combustible materials and are located in close proximity to each other.

Rebuilding, as noted earlier, must respond to the special needs of low-income families, and to the special requirements of the local culture. Ownership of land and living on the ground are highly valued in Thailand. Two-storey house structures, with sleeping areas above and living and working areas below, seem to respond best to the cultural requirements and the hot and humid climate of the country. Most slum houses are built with the participation of the residents, and rebuilding can take advantage of the residents' participation in construction.

While there are not many examples of slum rebuilding, important progress has been made in this field by the Urban Community Development Program of the Municipal Corporation of Hyderabad, India. Its "Habitat Hyderabad" program started in 1971. Between 1971 and 1981 it organized the re-

building of 3,210 houses in 29 slum areas. The new phase of the program, with housing finance from the Housing and Urban Development Corporation of India (HUDCO), includes the rebuilding of 3,218 additional units in 25 slum communities by 1982.⁴ In Hyderabad, the municipal government identifies unobjectionable slums, to be distinguished from objectionable slums which must be evicted in the future. Welfare organizations of residents are created in all unobjectionable slums. Community organizers work in the community to explain the procedure of rebuilding, to reach agreement on layout, and to discuss building loans and land tenure agreements.

Once plans and agreements are finalized, the residents demolish their old houses and build temporary shelters on nearby land specially allocated for this purpose by the municipality. Residents then proceed to build new houses on plots allocated to them in the plan. Local banks provide loans for the purchase of building materials, and the municipality supervises the quality of construction. Building material loans are provided in stages. To begin with, residents themselves buy materials for foundations which, once completed, are considered by the banks as a down payment. The banks then provide staged loans, geared to the progress in construction.

Experience in self-help permanent house construction is slowly being accumulated in Bangkok as well, although outside the slums. An experimental self-help housing project in the city, the Building Together Project, is currently underway. It plans to rehouse approximately 120 low-income families from nearby slum areas. While located on a virgin piece of land and not on slum land, it has provided important insights into the ability of people to build good-quality houses, with minimal training and supervision. The Project uses a special building system, developed especially for self-help users.⁵

Eight different row-house types are provided in the Soi Bhavana reconstruction plan. Simplified floor plans of these houses are provided in figure 3. Type I, the cheapest housing unit, is a two-storey condominium arrangement, with one family living downstairs and one family living upstairs, both families sharing the ownership of the land. All other types are two-storey row houses on private land. The floor area and plot area of each

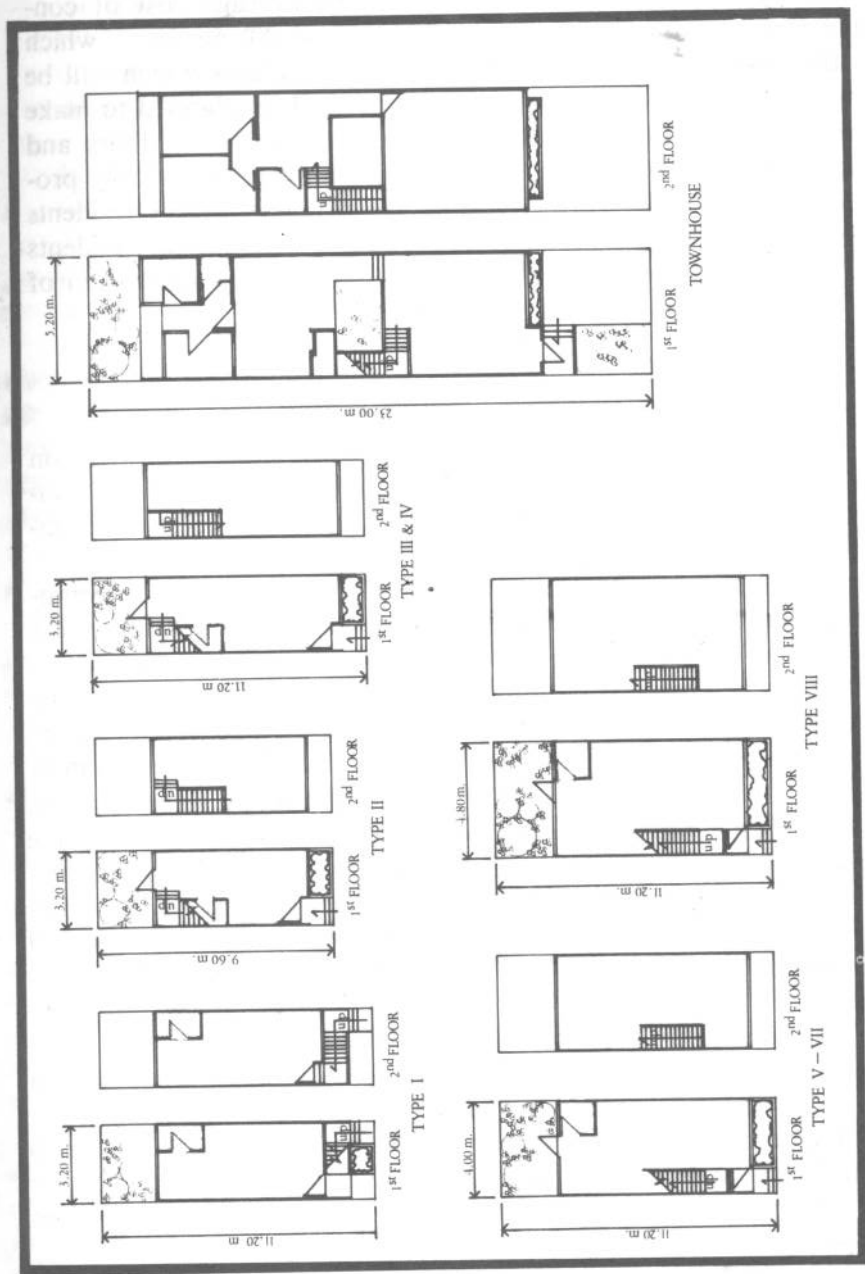


Figure 3: House types in the Soi Bhavana slum reconstruction project, Bangkok, 1981

house type are shown in table 1. The average cost of construction is estimated at 1,000 baht (US\$ 43.00) per m^2 , which is the cost required to produce unfinished houses which will be completed by the residents at a later date. It is planned to make maximum use of old materials for floors, facades, doors and windows, and room partitions. The concrete shells only provide support structures for further construction by the residents over time. The entire process of rebuilding involves the residents of the area and requires the consensus and the participation of the community at all stages of reconstruction.

VII Community participation

Community participation is essential for slum reconstruction to be successful. In fact, total participation is necessary, involving all households in the community in the process of reconstruction.

Slum communities are not naturally organized along democratic lines, and the process of reconstruction requires the initiation and strengthening of a democratic community organization. In Hyderabad, community workers are sent into the slum areas to discuss plans for reconstruction, to spread information, and to identify leaders. Once sufficient momentum is gained, communities hold elections and formally select leaders. The Urban Community Development Program then issues the community with a letterhead bearing the name of the community and its leaders. Correspondence with the authorities proceeds through the elected leadership. Reconstruction and community organization are seen as mutually supportive activities.

Participation of community members is necessary in a number of key decisions during the reconstruction process. In some decisions it appears to be mandatory, and in others it can be introduced to strengthen the confidence of the people, and to build trust and cooperation among the people and the initiators of the program. The decisions in which such participation appears to be necessary are:

- (a) identification of bonafide community members;
- (b) selection of leaders and allocation of responsibilities;

- (c) negotiations with landlords and outside agencies;
- (d) agreement on layout and house design;
- (e) allocation of plots among households;
- (f) agreement on contracts for loans, land tenure and work commitments;
- (g) organization of construction work;
- (h) clearing of the site and the erection of temporary shelter;
- (i) self-help house building;
- (j) settlement of disputes;
- (k) initiation of community development activities.

Failure to involve the people in any of these decision areas may result in serious errors, as well as in resistance of community members to participate actively in those stages where their resistance may endanger the success of the reconstruction program. In this sense, the failure to organize and involve the people may spell the failure of the reconstruction effort. Participation must, therefore, be made effective and efficient, making maximum use of the people's limited free time. Community organizers must understand their role and their mandate clearly, and must be trained especially for the purpose of initiating and implementing reconstruction. Leaders must be carefully identified, supported and trained. The people must be well-informed, and their views must be incorporated into all the important decisions. All organizational work must be oriented toward building a strong consensus in the community, and avoiding factional and sectarian conflicts.

A model for organizing slum reconstruction in the Soi Bhavana community has yet to emerge. It appears that a stronger orientation towards individual self help, rather than organized mutual aid, may enhance efficiency in participation. In a self-help scheme, individual families can assume more direct responsibility for managing and working on their houses, thus reducing the burden of management by outside organizations. Careful planning and agreement on all important issues prior to the initiation of clearance and reconstruction will be essential to ensure the success of the project. Once clearance and reconstruction actually begin, any delay will limit the chances of the project succeeding in economic terms. Losses, waste and high interest payments may jeopardize the chances of attaining cost

recovery, and thus curtail the possibilities of replicating the project on a large scale in other locations in the city.

VIII Cost recovery

Bangkok has over 400 slum communities. The threat of eviction looms over many of them. There is currently no feasible alternative to eviction and no hope for the slum dwellers to be able to stay in the area once landlords decide to develop their properties. The option of organizing to resist eviction remains meaningless as long as no alternatives to eviction can be pointed out. For slum reconstruction to be a feasible alternative, it should be replicable throughout the city. Replicability depends on whether the concept can be shown to work in the variety of circumstances in which the slum dwellers find themselves. A key condition for success is the conscientious use of limited resources.

The main reason for the failure of public housing programs in the past has been the need for large subsidies in order to make up the difference between what the residents can afford to pay and what the projects cost to construct. Subsidies on a large scale for housing the poor no longer appear feasible. Slum reconstruction must, therefore, proceed on a cost-recovery basis. The cost of construction must be recovered from the sale of properties. If there are to be subsidies, they must be sufficiently low to afford repetition of the program in other locations in the urban area.

For cost recovery in slum reconstruction to become a reality, six conditions must be met:

- (a) A good price must be negotiated for land.
- (b) The people's ability and willingness to pay must be maximized.
- (c) Cost of construction must be controlled.
- (d) Commercial properties must be effectively marketed.
- (e) Subsidies must be minimized and cross-subsidies must be maximized.

(a) *Negotiating a good price for land.* Developers are not generally interested in buying land which is occupied by slum dwellers. In Bangkok, for example, eviction of the residents may

entail paying compensation, sometimes of the order of 10,000 baht or more per house. Over and above the payment of compensation, stubborn residents may refuse to vacate the site, leading to major delays and additional costs. Furthermore, alienated residents who feel that injustice has been done to them may take violent action against the landlord or the developer, which the latter is anxious to avoid.

The price of slum land, therefore, is below the market price for similar properties in the vicinity. Slum landlords may wish to sell their land for a price lower than its ostensible value, in order to avoid having to face the risk of not being able to evict the settlers. Clearly, the more resistant the settlers are to eviction, the lower is the real price of the land.

The threat of compulsory acquisition by the National Housing Authority, which already has the power to expropriate land for low-income housing, may also serve to lower the negotiated price of the land. In the case of slum reconstruction, long drawn-out expropriation procedures will be to the disadvantage of landlords, and since the residents will continue to stay in the area, the government will not suffer from delays. Initiation of large-scale expropriation procedures, coupled with freezing of the current status of slum lands, might create a strong incentive to landlords to sell their properties for slum reconstruction.

In the Soi Bhavana Slum Reconstruction Project no negotiations with the landlord have taken place so far, although the landlord has indicated his willingness to sell the land. The price of land in the vicinity of the existing slum was estimated by a land assessor to be of the order of 750 baht (US\$ 33) per m², and the price of the land in the slum to be of the order of 625 baht (US\$ 27) per m². The value of 700 baht (US\$ 30) per m² was taken to be a realistic value for purposes of calculating the feasibility of cost recovery.

(b) Promoting maximal ability and willingness to pay. Insecure land tenure and the threat of eviction forces slum dwellers to perceive their houses as mere shelter, a place to stay in close proximity to work opportunities. People currently living in slums have considerable ability to pay for housing which now remains untapped. It remains untapped because of the lack of opportunities to invest in their housing, and because of the lack

of financial institutions which can provide long-term credit to house buyers. In the Soi Bhavana slum, for example, which is a typical Bangkok slum, incomes and abilities to pay for housing vary considerably among residents. While some families earn as little as 1,500 baht (US\$ 65) per month and can afford monthly payments of 345 baht (US\$ 15) for housing, other households earn as much as 11,500 baht (US\$ 500) and can afford monthly payments of up to 2,645 baht (US\$ 115) as shown in table 2 below. Most people in the slums do not have substantial savings for housing. While their ability to pay may be substantial, their willingness to pay will be determined by the attractiveness of the proposition and by the value of the properties they receive. They may or may not be interested in buying rebuilt houses on the site at the proposed prices, and are likely to bargain for lower prices. Their preferences and their willingness to pay must be taken into account before the feasibility of the project can be established.

(c) Controlling the costs of construction. Low-cost construction involves a number of considerations. The building system must utilize available low-cost materials and make full use of the materials in current use in existing houses. Construction must be simple enough for people to manage and build themselves. Building procedures must be clear and simple. All construction must proceed at the same time to avoid long delays. Overhead costs of management and supervision must be kept sufficiently low. Whenever possible, subcontractors may be involved to execute well-defined building tasks. In short, the management of construction and the design of the houses and the building system must be efficient.

In the Soi Bhavana Slum Reconstruction Project, cost estimates from the Building Together Project have been used as a base for calculation. The costs of the various house types are given in table 3. A cost comparison with other structural alternatives has not been attempted, but there appear to be various means of further reducing these costs in the future.

(d) Marketing commercial properties. Cost recovery in slum reconstruction is based on the creation of surplus value which can be realized from the sale of commercial properties in the urban housing market. Effective marketing of commercial properties is the key to recovering the portion of the cost which

Table 2 : Monthly household incomes and ability to pay for housing in Soi Bhavana slum, Bangkok, 1981

Group	Number of households	Present average monthly income (฿) ^a	Estimated monthly payments ^b (฿)	Present value of monthly payments ^c (฿)	Available capital (including down payments) ^d (฿)
I	6	1,500	345	25,429	27,000
II	22	2,500	575	42,381	48,000
III	13	3,500	805	59,333	70,000
IV	14	4,500	1,035	76,285	90,000
V	12	5,500	1,265	93,238	110,000
VI	9	6,500	1,495	110,190	130,000
VII	4	7,500	1,725	127,143	150,000
VIII	2	8,500	1,955	144,095	170,000
IX	4	9,500	2,185	161,048	190,000
X	3	11,500	2,645	194,952	235,000

a US\$ 1.00 = ฿ 23.00 in 1981

b Estimated at 20 per cent of monthly household incomes, assuming an increase of 15 per cent in incomes by the time houses are transferred.

c At current bank lending rates of 14 per cent per annum for 15 years.

d With down payments of approximately 20 per cent of the present value of monthly payments (6% and 13% only for groups I and II respectively).

Table 3 : Costs of construction of different house types in Soi Bhavana slum reconstruction project, Bangkok, 1982

Type	Land cost (B) ^a	Infrastructure cost (B)	Construction cost (B)	Interest, transfer and contingency	Total cost (B)
I	17,803	4,729	25,600	15,334	63,446
II	30,519	8,107	35,960	19,701	94,287
III	35,605	9,458	46,200	22,666	113,929
IV	35,605	9,458	61,200	25,167	131,430
V	45,506	11,823	64,000	27,942	149,271
VI	45,506	11,823	74,000	29,942	161,271
VII	45,506	11,823	84,000	31,942	173,271
VIII	53,408	14,187	86,800	34,000	188,395
Townhouse	118,816	31,562	291,200	88,868	530,446

^a US\$ 1.00 = B 23.00 in 1981

the residents cannot pay themselves.

The construction of commercial properties and their disposal in the market must, therefore, be subject to the forces and trends operating in the urban property market. The selection of the types of commercial properties to be constructed is essential for successful marketing. So is the choice of designs. The location of the slum and its relative advantage must be taken into account in evaluating market potential.

In Bangkok, the construction of shophouses as commercial properties in slum reconstruction appears to hold the greatest mutual benefit for both residents and shopowners. There is, however, a large surplus of vacant shophouses on the market currently, and the restriction of credit has created serious difficulties in disposing of the vacant properties. The market in townhouses, however, appears to be in a better condition. For this reason, in the Soi Bhavana Slum Reconstruction Project, 21 townhouses are to be constructed as commercial properties to be sold on the open market. Townhouses of the expected quality of construction in this location can be sold for as much as 650,000 baht (US\$ 28,200), given sufficient advertising and time for disposal of the units.

(e) *Limiting subsidies and maximizing cross-subsidies.* As noted earlier, slum reconstruction requires that existing residents be rehoused on the land. Most slum residents may not be able to afford the price of land, and this requires the construction and sale of commercial properties on the site, and the cross-subsidizing of the land cost from the surplus profit on the sale of properties in the open market.

Such an arrangement assumes that no profit is to be incurred from the development of the site, other than possible profits to subcontractors engaged in various tasks.

The surplus value of commercial properties should, in theory, cover all losses resulting from the people's limited ability to pay. This is a difficult requirement to satisfy. In the Soi Bhavana Slum Reconstruction Project, for example, limited cost recovery is possible with an infrastructure subsidy from the National Housing Authority of 12,000 baht (US\$ 521) per housing unit. This level of subsidy is the same as that currently budgeted in the National Housing Authority's slum upgrading

projects. In these projects, the National Housing Authority provides improved infrastructure - roads and walkways, drainage channels, and fire protection - without charging the beneficiaries. With this level of subsidy, the project is financially feasible, given current price estimates. The cross-subsidies required for each house type are given in table 4. The over-all income and expenditure estimates for the project are given in table 5. It appears that, given a limited subsidy from the National Housing Authority, slum reconstruction can be pursued in principle. The actual implementation of slum reconstruction projects may still require further thinking.

IX Implementation

A number of questions regarding the implementation of slum reconstruction, particularly questions dealing with community participation and cost recovery, have been dealt with in earlier sections. Five important questions require further clarification, as follows:

- (a) What are the sources of support for and resistance to slum reconstruction?
- (b) What organizations are appropriate for executing slum reconstruction?
- (c) How should pilot projects be initiated?
- (d) What are the criteria for selecting slums for reconstruction?
- (e) What are the issues requiring further study before implementation commences?

(a) *Sources of support for and resistance to slum reconstruction.* Generally speaking, slum dwellers form a significant portion of the metropolitan electorate. This is true in Bangkok as well, and political interest in slum affairs in Bangkok is on the increase. Politicians are beginning to realize the value of development work in the slums, and a number of parties have recently become active in this field. Initial expressions of interest in slum reconstruction by party politicians, both inside and outside the government, have been encouraging. Such interest may gain momentum in the future, if pilot projects in reconstruction are successful. Currently, however, interest is probably limited

Table 4 : Costs, house prices and subsidies in the reconstruction plan for Soi Bhavana slum, Bangkok, 1982

Type	No. of units to be constructed	Unit cost (฿) ^a	Affordable price (฿)	Infrastructure subsidy (฿)	Cross subsidy (฿)
I	14	63,446	27,000	12,000	24,446
II	22	94,287	48,000	12,000	34,287
III	13	113,929	70,000	12,000	31,929
IV	14	131,430	90,000	12,000	29,430
V	12	149,271	110,000	12,000	27,271
VI	9	161,271	130,000	12,000	19,271
VII	4	173,271	150,000	12,000	11,271
VIII	10	188,395	170,000	12,000	6,395
Townhouse	21	530,446	650,000	—	-119,554

^a US\$ 1.00 = ฿ 23.00 in 1981

Table 5 : Summary of incomes and expenditures, Soi Bhavana Slum Reconstruction Project, Bangkok, 1982

<i>Income</i>	
1. Sale of houses: 98 units at an average cost of ฿ 88,510 per unit	฿ 8,394,000
2. Sale of townhouses: 21 units at ฿ 650,000 per unit	13,650,000
3. Infrastructure subsidy from the National Housing Authority: ฿ 12,000 per unit for 98 units	<u>1,176,000</u>
<i>Total</i>	฿ 23,220,000
<i>Expenditures</i>	
1. Land purchase: 8,605.50 m ² at ฿ 700/m ²	6,023,850
2. Infrastructure: land preparation and fill (60 cm), roads, water supply, electricity and drainage	1,600,000
3. Construction of houses: 98 units at an average cost of ฿ 54,745 per unit	5,244,920
4. Construction of townhouses: 21 units at a cost of ฿ 291,200 per unit	6,115,200
5. Transfer costs: at an average of ฿ 7,000 per unit for 119 units	833,000
6. Interest (18% per annum) :	
a. On land (average 7.5 months)	656,600
b. On infrastructure (average 10 months)	236,800
c. On house construction (ave. 5.5 months)	413,825
d. On townhouse construction (ave. 6 mos.)	<u>528,353</u>
	1,835,578 1,835,578
7. Contingency: 12% of the cost of construction of houses and infrastructure	<u>1,567,452</u>
<i>Total</i>	฿ 23,220,000

US\$ 1.00 = ฿ 23.00 in 1981

to the pilot projects themselves which will have a greater visibility and a greater potential promise than an actual long-range program.

The National Housing Authority and the Bangkok Metropolitan Administration both wish to see more substantial improvements in the city's slums. Both have expressed strong support

for slum reconstruction, and both are likely to lend substantial assistance, financial and technical, as well as simplify the process of obtaining permits and exemptions. The active support of these agencies would greatly facilitate implementation.

Slum reconstruction may also be supported by landowners, both private and public, who may be able to obtain a realistic price for their land, without having to face the potential problems of eviction. Many landlords, on the other hand, may wish to hold out for increased prices in the future. The enthusiasm of landlords depends, to a large extent, on what they perceive as alternatives. The threat of confrontation with the community on the one hand, or expropriation by the government on the other, could make slum reconstruction an attractive alternative for landlords.

(b) Appropriate organizations for executing slum reconstruction. The interest of private developers in slum reconstruction is likely to be minimal as the largest segment of the profits from development will be used to cross-subsidize rehousing of the existing residents. In some projects it may be possible to engage developers on a limited-profit or non-profit basis. In the Republic of Korea, for example, large development companies participate actively in urban renewal activities on a non-profit basis. Their participation is usually linked to their expectations of being considered favorably by the government in the award of other contracts.

The difficulty with slum reconstruction is that it requires involvement in the commercial sector as well as in the low-income housing field. While private developers are enthusiastic and knowledgeable when it comes to commercial operations, they are not keen to become involved in low-income housing. The government, on the other hand, as well as non-profit voluntary organizations, can effectively work on low-income housing, but is not particularly experienced in market operations. The latter are less efficient and can waste all or most of the potential profits required for cross-subsidies by their inefficient management of construction and sale of properties.

While in some cases it may be possible to involve developers in slum reconstruction, it appears that one effective way of implementing it will be through non-profit organizations, both

governmental and non-governmental, using both self-help for house construction and subcontractors for the construction of commercial properties. There are a large number of subcontractors in various fields of construction in the city who work at competitive rates and are quite efficient in the execution of their contracts. The engagement of subcontractors, however, requires competent project management, by no means an easy requirement to satisfy:

It is difficult to assess the potential interest of governmental and non-governmental organizations in becoming actively involved in slum reconstruction. As mentioned earlier, in Hyderabad a form of slum reconstruction is being actively implemented by the municipal corporation. Instead of ruling out potential interested and capable parties, without examining the question in greater detail, one of the aims of the initiation of pilot projects should be the identification and inclusion of potential collaborators.

(c) *The initiation of pilot projects.* Since there is virtually no experience in slum reconstruction in Thailand, it is important to initiate one pilot project or more in order to test in detail the feasibility of the concept, to develop appropriate procedures for working on a larger scale, and to gather momentum and support. Substantial financial support from international and local banks, and from charitable organizations, for example, cannot be expected before detailed procedures are streamlined.

It is envisioned that once slum reconstruction activities become operational, the National Housing Authority will be able to conduct slum reconstruction using its own organizational and technical resources, or coordinating the work of local private contractors. In the early stages of implementation, it has been proposed that the National Housing Authority work hand in hand with the Building Together Association, a non-profit organization currently implementing the Building Together Project in Bangkok.

(d) *Criteria for slum selection.* There are a number of important criteria for the selection of slums for reconstruction. In Hyderabad, for example, the Urban Community Development Program has concentrated initially on slums where land was given freely to the residents, or has been purchased by the

residents from the landlords who lost hope of evicting them. A start in slums where land is given free by the public authorities is also possible. It must be remembered, however, that the program must continue after the first few slums have been improved. Initially, it may be advisable to select more typical slums rather than slums where land is freely available.

In general, slums where land is not in dispute are to be preferred. Where land is in dispute, eviction is not likely to occur for some time. Slums which are owned by one landlord, or at most two landlords, are to be preferred to those owned by many landlords. Slums where the community is better organized and the people are willing to participate in reconstruction are to be preferred to slums where people are apathetic and uninterested. Finally, slums that are relatively homogeneous and do not contain many large and valuable houses will be easier to reconstruct.

While typical slums should be selected for initial projects, slums where densities are above-average or where land values are particularly exorbitant should be avoided. Slums with medium densities should be preferred, at least in the early stages of the program. Both infilling and rebuilding techniques should be explored in detail. For infilling to be successful, attention must be focused on slums with lower-than-average densities.

(e) Issues requiring further study. Initiation and development of a comprehensive slum reconstruction program for Bangkok requires the resolution of a very large number of issues. Any one particular project may provide some insight as to correct procedures and estimated costs, but the variety of situations is so large that experience needs to be collected systematically over time, before real answers can be provided to many of the questions that still remain open.

In the long run, changes in economic conditions and in legislation may create a new environment in which the problem of eviction may be ameliorated. For the time being, no relief appears to be in sight. The search for practical alternatives to eviction must continue.

Styles of community organization and management must be carefully explored. Thai people largely prefer to remain free and unattached, and are unaccustomed to assuming formal responsi-

bilities. More experience is required in working with people, in creating simple systems for the people to manage their own affairs, and in promoting efficient and effective self-help and mutual-aid construction and community building.

Finally, sources of support for slum reconstruction must be discovered and consolidated. A key requirement for the success of a limited program of slum reconstruction in Bangkok is an effective coalition of interested individuals who can see the value of participating in the program, and who can together mobilize sufficient support to make it a reality. Without such a coalition, attempting slum reconstruction is courting both financial and social disaster.

Notes and references

1. See Boonyabancha, Somsook, "Causes and effects of slum eviction in Bangkok" in this volume.
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3. See Tanhiphat, Sidhijai, "Security of tenure for slum upgrading: a case study of Bangkok", paper presented to the Seventh Eastern Regional Organization for Planning and Housing (EAROPH) Congress, Kuala Lumpur, 9-15 March 1980.
4. Data obtained from Dr. T. Rajagopalachari, Director of the Urban Community Development Program, Municipal Corporation of Hyderabad, 20 August 1981. For a detailed study of the Habitat Hyderabad program, see Kumar, Yogesh, "An exploratory study of the progress of Habitat-Hyderabad", unpublished M.Sc. thesis, Asian Institute of Technology, Bangkok, April 1980.
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