

Technical Report 3:

THE DOWN-MARKET TREND IN HOUSING
PRODUCTION IN BANGKOK, 1980-1987

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ABSTRACT

The private sector has moved down-market in 1986, initiating at least 37 new projects which offer housing at prices ranging from 150,000 to 250,000 baht. A sales office survey was conducted in all these projects, as part of the Bangkok Land Management Study. These 37 projects are now producing more than 6,800 low-cost housing units, usually single-storey and two-storey row houses on small, individually-owned plots of land. The bulk of the houses are in the 175,000 to 200,000 baht range, with average down payments of 52,000 baht, and monthly payments of 1,750 baht on 15-year mortgage loans bearing an 11.75% interest. A significant number of houses are in the 150,000-175,000 category, with average down payments of 46,000 and monthly payments of 1,500 baht. A comparison of rates of sale shows that these low-cost houses are now selling three times as fast as other land-and-house packages on the market.

If we assume, as is the common practice, that new home buyers will be willing to pay 25% of total household income for housing, then households with a monthly income of 6,000 baht can now afford a house in Bangkok. A comparison with conditions in the housing market in 1980 shows that at that time, almost no household with a monthly income of less than 10,000 baht could afford a house produced by the private sector. At that time 85% of the households in Bangkok, had incomes below that figure. Given the growth of household incomes, the reduction of house sizes and plot sizes, the increased availability of long-term financing, the reduction of interest rates, the increased prevalence of installment plans for down payments, and the willingness of developers to cater to the low-income market, only 25% of the households in Bangkok could not afford to buy a small house in 1986-87. One-third of the population living in slums can now afford to own a small house.

The private sector is now producing houses for sale at prices which are right in the middle of the price range of houses offered for sale by the National Housing Authority. If the NHA wants to continue to operate in its traditional markets, it can no longer assume that it can independently determine what it wishes to produce with the assurance that low-income people will purchase whatever it has to offer. More realistically, it may find itself having to respond in a flexible and creative manner to the changing demand and supply conditions in Bangkok's dynamic housing market.

บทคัดย่อ

ในปี พ.ศ. 2529 ได้มีการเคลื่อนไหวตลาดที่อยู่อาศัยของภาคเอกชน โดยภาคเอกชนได้เริ่มจัดทำโครงการจัดสรรบ้านราคาถูก จำนวนโครงการที่ดำเนินการอยู่ขณะนี้อย่างต่ำที่สุดมี 37 โครงการ ราคาขายระหว่าง 150,000 ถึง 250,000 บาท การศึกษาโครงการบ้านจัดสรรราคาถูกนี้ เป็นส่วนหนึ่งของโครงการจัดการที่ดินในกรุงเทพมหานคร สำหรับวิธีการศึกษาได้ใช้วิธีสำรวจโครงการและสัมภาษณ์พนักงานขาย จากจำนวน 37 โครงการที่ศึกษามีจำนวนหน่วยที่ก่อสร้างทั้งหมด 6,800 หน่วย แบบบ้านส่วนใหญ่จะเป็นบ้านแถวชั้นเดียว หรือบ้านแถวสองชั้น ถ้าหากจะแบ่งประเภทบ้านจัดสรรราคาถูกตามระดับราคาจะสามารถแบ่งออกได้เป็นสองประเภทใหญ่ ๆ คือ ประเภทแรก บ้านส่วนใหญ่อยู่ในระดับราคาระหว่าง 175,000-200,000 บาท เงินค่าน้ำโดยเฉลี่ย 52,000 บาท ผ่อนชำระเดือนละ 1,750 บาท ระยะเวลา 15 ปี อัตราดอกเบี้ย 11.75% ส่วนอีกประเภทหนึ่งมีราคาระหว่าง 150,000-175,000 บาท เงินค่าน้ำ 46,000 บาท และผ่อนชำระเดือนละ 1,500 บาท จากการเปรียบเทียบอัตราการขายระหว่างโครงการบ้านจัดสรรราคาถูกกับโครงการบ้านจัดสรรอื่น ๆ ที่ขายอยู่ในตลาดขณะนี้พบว่า บ้านจัดสรรราคาถูกนี้ขายได้ดีกว่าถึงสามเท่า

ถ้าหากจะใช้ข้อสมมติฐานซึ่งนิยมใช้กันอยู่ทั่ว ๆ ไป คือ ครัวเรือนที่เพิ่งซื้อบ้านใหม่นั้นมีความสามารถในการจ่ายเกี่ยวกับเรื่องที่อยู่อาศัยประมาณ 25% ของรายได้ครัวเรือนนั้น หมายความว่าครัวเรือนที่มีรายได้ 6,000 บาทต่อเดือน สามารถซื้อบ้านได้สำหรับสถานการณ์ตลาดที่อยู่อาศัยปัจจุบัน ถ้าเปรียบเทียบกับสถานการณ์ที่อยู่อาศัยในปี 2523 ซึ่งพบว่าครัวเรือนที่ซื้อบ้านจัดสรรเอกชนได้จะต้องมีรายได้ 10,000 บาทขึ้นไป ถ้าคิดเป็นจำนวนครัวเรือนจะมีจำนวนถึง 85% ที่ไม่สามารถซื้อบ้านจัดสรรของภาคเอกชนได้ แต่สำหรับปัจจุบันนี้ปัจจัยต่าง ๆ คือ รายได้ของครัวเรือนที่เพิ่มขึ้น ขนาดของบ้านและแปลงที่ดินที่มีขนาดเล็กลง การให้มีเงินกู้ระยะยาว และอัตราดอกเบี้ยที่ลดลง และการให้มีการผ่อนชำระเงินค่าน้ำเป็นงวด ๆ ประกอบกับความตั้งใจจริงของภาคเอกชนในการจัดสร้างที่อยู่อาศัยให้กับผู้มีรายได้น้อย ปัจจัยเหล่านี้มีผลให้ครัวเรือนในกรุงเทพมหานครที่ยังไม่สามารถซื้อบ้านหลังเล็ก ๆ ได้ มีจำนวนเพียง 45% ในปี พ.ศ. 2529-2530 และหนึ่งในสามของจำนวนครัวเรือนดังกล่าวอาศัยอยู่ในชุมชนแออัด

ขณะภาคเอกชนได้จัดทำโครงการบ้านจัดสรรในระดับราคากลางของราคาบ้าน
ซึ่งดำเนินการโดยการเคหะแห่งชาติ ซึ่งถ้าหากการเคหะแห่งชาติจะดำเนินโครงการอย่างที่เคย
ดำเนินการในอดีต การเคหะแห่งชาติไม่ควรจะตั้งข้อสมมติฐานว่า สามารถที่จะกำหนดหรือจัดทำ
โครงการตามความพึงพอใจแต่เพียงอย่างเดียวอีกต่อไป โดยมั่นใจว่าผู้มีรายได้น้อยจะซื้ออะไร
ก็ตามที่การเคหะแห่งชาติขาย หรืออีกนัยหนึ่งน่าจะได้พิจารณาให้ใกล้เคียงกับความเป็นจริงยิ่งขึ้น
คือ การเคหะแห่งชาติควรจะหาแนวทางที่จะตอบสนองต่ออุปสงค์อุปทานของตลาดที่อยู่อาศัยโดย
วิธีการที่สร้างสรรค์และสามารถยืดหยุ่นได้ เพราะตลาดที่อยู่อาศัยของกรุงเทพมหานครนั้นเป็นตลาด
ที่มีความเคลื่อนไหวอยู่ตลอดเวลา

I INTRODUCTION

As long as the public sector can justifiably claim that the private sector is ignoring low-income house buyers and focussing its marketing efforts on the rich, it can fruitfully engage in the production and sale of low-cost houses without competing directly with the private sector. Indeed, there is usually a broad segment of the housing market, a specific market 'niche', in which housing authorities can operate without significant competition from the private sector. Lack of private-sector interest in this niche leads to the conclusion that it is unprofitable, and provides the rationale for central government budgets, concessions, subsidies and foreign loans which are all required to assist housing authorities in providing houses to those in need despite the losses it entails. One of the key questions being explored by the Bangkok Land Management Study is whether or not such a niche exists in Bangkok at the present time.

The findings of the Study indicate clearly that the private sector now provides housing arrangements that are marketed to all income groups without exception, and that almost all the housing packages produced by the National Housing Authority, with the possible exception of its basic core houses, must compete, to a greater or lesser extent with private-sector housing.

The recent emphasis of the Thai Government on the 'privatization' of its public enterprises in general, and the National Housing Authority (NHA) in particular, calls for operating the Authority as a self-financing institution, without the traditional support from the central government in the form of subsidies, but still with special concessions and with access to foreign loans. This essentially requires the NHA to fend for itself and to operate on a no-loss basis, with the income from the sale and management of housing estates covering its expenses. Given the dynamic nature of the private housing sector in Thailand and its rapid incursion into new markets, the NHA has no choice but to face direct competition from the private sector.

The NHA, given its size, will have to maintain a certain market share. To do so, it can engage in any one of three complementary strategies: Direct competition in the more lucrative markets, cooperation and income-sharing with the private-sector in the limited number of arrangements which can satisfy both parties, and movement further down-market where it may have a relative competitive advantage. There is no doubt that the NHA will attempt to explore all three strategies. Regardless of which one takes precedence, all three require a keen market orientation and a deeper understanding of current market operations.

The Land Management Study seeks to provide the NHA with a broad perspective of the present housing market, as well as with more detailed studies of specific segments of the market which focus their efforts on low and middle-income groups, traditionally considered the market 'niche' of the NHA. Four such active market segments have been identified:

(1) The low-cost land-and-house market, which is the

subject of this Working Paper:

- (2) The informal land subdivision market, offering unfilled large plots with minimal services - a traditional form of 'sites-and-services' (See Working Paper 5);
- (3) The land rental market, offering small plots for the construction of temporary shelter, mostly in the 'slum' category (see Working Paper 4); and
- (4) The low-cost rental market, offering small rooms and apartments usually in row houses and low-rise apartments.

The low-cost housing market in Bangkok is definitely a new phenomenon, so new in fact that no study or assessment of it exists. This Working Paper is the first attempt to describe it, to provide an initial explanation for its rise, and to begin to assess the policy implications of its future growth.

II THE DOWN MARKET TREND

1. Methodology

The analysis of the down-market trend in housing production in Bangkok is based on data from four major sources:

- (1) The 1980 Housing Market Survey carried out by the NHA;
- (2) The 1987 survey of low-cost housing projects carried out by the Bangkok Land Management Study team;
- (3) Income distribution data, mostly from surveys by the National Statistical Office (NSO); and
- (4) NHA house prices data from the Department of Finance of the NHA.

The 1980 Land Market Study: The NHA conducted an extensive housing market survey in August of 1980, under the direction of Mr. Alain Bertaud. The study, entitled "Present Standards and Prices on the Housing Market in Bangkok (August 1980)" was based on the analysis of sales office interviews in 126 land-and-house projects, excluding luxury housing estates.

The 1987 Low-Cost Housing Survey: The Bangkok Land Management Study team conducted sales office interviews in more than 120 projects, including all projects that could be identified in the city, whether from newspaper or television advertisements, or from windshield surveys, that were selling land-and-house packages for less than 250,000 Baht. A total of 37 such projects were located during January and February, 1987 (see Annex 1). Valuation surveys were carried out by a team of trained valuers in several projects, with the purpose of determining their cost components and profit levels.

Income Distribution Data: The National Statistical Office has published two reports on incomes in the Greater Bangkok area, which includes the Bangkok Metropolis, Nonthaburi, Pathum Thani and Samut Prakan. These reports provide data on the income distribution in 1975-76 and in 1981. An interim report on average income, but not its distribution, in the first quarter of the year was published by the NSO in 1986. These three sources were used to interpolate the income distribution in 1980 and to estimate the income distribution in 1986. Additional income data from 160 slums surveyed by the NHA in 1985, and consumer price indices published by the Bank of Thailand were used to complement the NSO data (see Annex 2).

NHA House Price Data: Data on house prices of all units built in Bangkok on land purchased and developed by the NHA were assembled by the Study Team from files in the Finance Department of the NHA. Prices of 18,000 housing units put on sale by the NHA between 1981 and 1985 were compared with prices of low-cost houses currently produced by the private sector (see Figures 15 and 18, and Annex 3).

2. The Down Market Trend

Between 1974 and 1984, private-sector land-and-house projects in Bangkok expanded at an unprecedented rate. The total number of housing units in these projects increased from a mere 20,200 in 1974 to 113,800 in 1984, an increase of 460%, and an annual increase 19%. <1> This rapid increase in the number of houses offered for sale over the past decade, first to high-income and later to middle-income families, resulted in a saturation of this market and the slowing down of sales in the more-expensive housing categories.

By 1986, while economic conditions and purchasing power improved, and while developers could gain access to cheaper capital and home-buyers to lower interest rates, there still appeared to be an excess capacity in the housing construction sector. As a result, a number of pioneer developers, some new to the field and some already established and experienced in the production and marketing of houses in the city, attempted to capture new markets by appealing to lower-income families. This resulted in the creation of new housing estates in 1986, where some or all of the houses were targeted at groups which were previously excluded from the private-sector housing market.

Low-cost houses in these new estates differed markedly from the typical houses produced in 1980, and documented in the NHA 1980 Housing Market Study in several important aspects:

- (1) Floor areas were smaller;
- (2) Houses were almost exclusively row houses;

<1> Results of a comparison of air photographs taken in 1974 and 1984 for the Bangkok Metropolitan Region Study, and later analyzed as part of the Bangkok Land Management Study.

(3) Plots were smaller; and

(4) Projects were located further.

In addition, houses became more affordable because of recent changes in economic conditions:

- (1) There was marked increase in liquidity in local financial markets, improving access to capital for construction, and inducing many newcomers into the housing sector;
- (2) There was a marked reduction in interest rates;
- (3) Many local commercial banks, finance companies and insurance companies started to compete in the long-term mortgage loan market;
- (4) Paying for the down payment in several installments, over a period of six months and more, became much more prevalent; and
- (5) Household incomes have increased, both in nominal and in real terms.

A comparison of actual changes in the averages values of these key parameters between 1980 and 1986 reveals that floor areas in the new low-cost projects measure less than 50 square meters, compared with 86 square meters in 1980 - a 42% reduction in house size. Average plot sizes are 19 square wah (1 square wah = 4 square meters) in 1986, compared with 44 square wah in 1980 - a 56.5% reduction.

In addition, the sale price per square meter of completed houses changed from an average of 3,500 Baht in 1980 to 2,600 Baht in 1986. This change was partly due to a significant reduction in the cost of construction financing because of lower interest rates and faster construction times, and possibly because of a somewhat lower quality of the finished product. Developed land prices, on the other hand, increased from an average of 2,800 Baht per square wah in 1980 to 3,400 in 1986, even though projects were located further away.

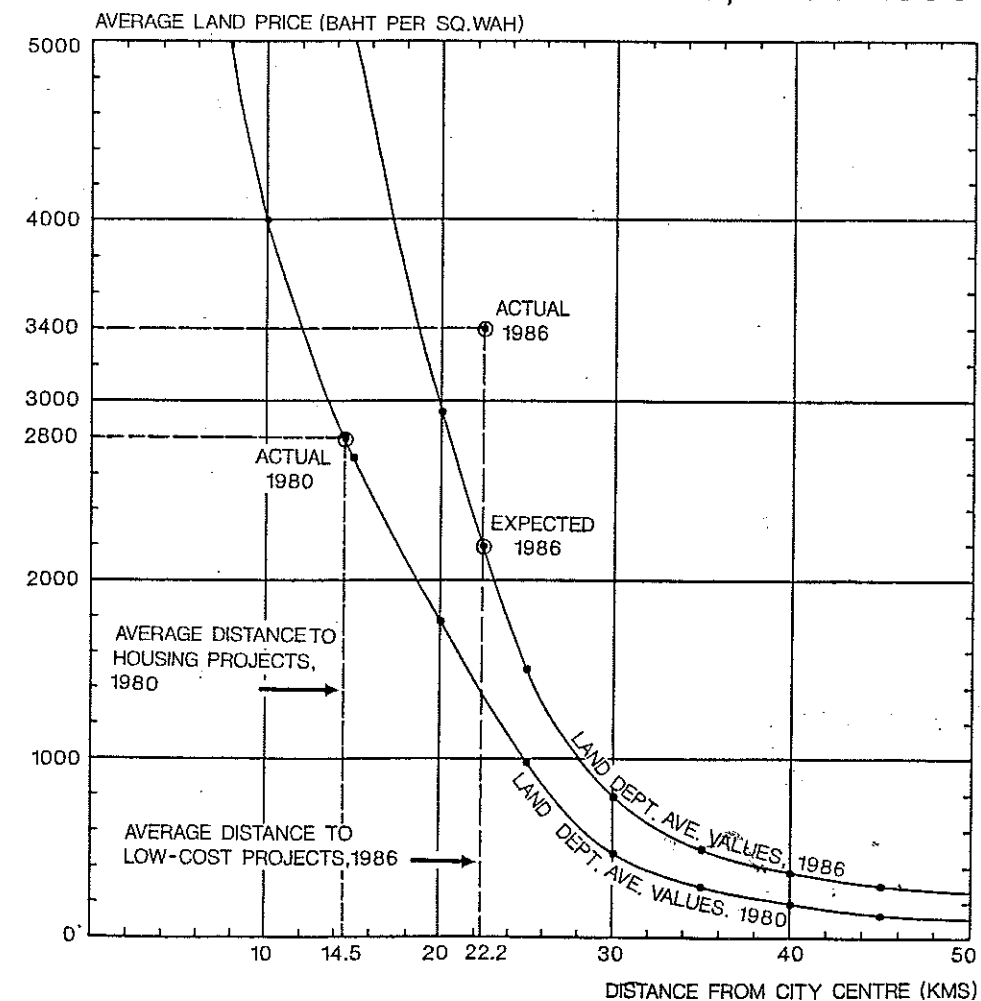
In 1980, the average distance of land-and-house projects from the city center was 14.5 kilometers. This distance did not increase appreciably for new land-and-house projects that were not in the low-cost category. In 1987, the average distance of these new land-and-house projects from the city center was 15.7 kms. Low-cost land-and-house projects, on the other hand, were located at an average distance of 22.2 kilometers from the city center (see attached map).

Average land prices per square wah for each sub-district (kwaeng) in Greater Bangkok were estimated from assessed market values published regularly by the Department of Lands. <2> These values were then plotted against distance from the city center to obtain a curve of average land price as a function of distance from the city center. The land price curves for 1980 and 1986 are shown in Figure 1 below.

When we examine the increase in land prices between 1980 and 1986

(the shift from the 1980 to the 1986 curve) and combine it with the reduction in land prices due to increased distance from the center (movement along the 1986 curve), we find that the increase in land prices in the new low-cost projects is considerably higher than expected. As can be seen from Figure 1, land prices should have decreased from 2,800 Baht per square wah in 1980 to 2,200 in 1986 at the new locations. Instead, they increased to 3,400. This tends to suggest that on average developers were making considerable profits on the sale of developed land in these projects. In individual terms, some developers which bought land and sold it soon afterwards made large profits, while others sold some of their land holdings at cost prices to reduce their land inventories.

1: ACTUAL AND EXPECTED LAND PRICES AT AVERAGE PROJECT LOCATIONS, 1980-1986



<2> Department of Lands, Assessed Market Land Values for Bangkok Metropolis, Nonthaburi, Pathum Thani, Samut Prakan, Samut Sakhon and Nakhon Pathom, Central Valuation Office, Department of Lands, Ministry of Interior, Bangkok, 1980 and 1986.

3. The Increase in Affordability

Except for the increased distance from the city center, coupled with the increase in developed land prices, all other parameters acted together to make land-and-house packages more affordable. The percentage of the total cost required as a down payment remained approximately the same, but it has now become a general practice to pay it in installements ranging from 3 to 15 months. Interest rates, which averaged 16% per annum in 1980 are now averaging 11.75%. In addition, average household incomes in Greater Bangkok increased by 37% during this period, while the Consumer Price Index increased by less than 32% <3>

The overall effect has been a marked reduction in the price of houses offered by the private sector, an additional reduction in monthly payments because of the lower interest rate, and an additional increase in housing affordability because of the rise in incomes.

The effect of these key parameters on monthly payments is illustrated in Table 1 below. The average values for each parameter in 1980 were replaced, one by one, by the new values for 1986, and their effect was calculated using the compound interest formula for monthly payments. The reduction of floor area resulted in a 28% reduction in average monthly payments and the reduction in plot size in 14%. The reduction in the sale price per square meter resulted in a reduction of 15%, and the increase in developed land price resulted in a corresponding increase in monthly payments of 9%. Finally, the reduction in interest rates

TABLE 1: A COMPARISON OF AVERAGES OF KEY HOUSING PARAMETERS AND THEIR EFFECT ON MONTHLY PAYMENTS, 1980-1986

PARAMETER	AVERAGE VALUES			THE PERCENT EFFECT ON MONTHLY PAYMENTS <1>
	1980	1986	% CHANGE	
FLOOR AREA (SQ.M.)	85.7	49.7	-42	-28
PLOT SIZE (SQ.WAH)	44.4	19.3	-57	-14
HOUSE PRICE (BAHT PER SQ.M.)	3500	2600	-26	-15
LAND PRICE (BAHT PER SQ.WAH)	2800	3400	+21	+9
INTEREST (PERCENT)	16.05	11.76	-27	-17
MONTHLY PAYMENT (15 YEARS)	4380	1760	-60	-60

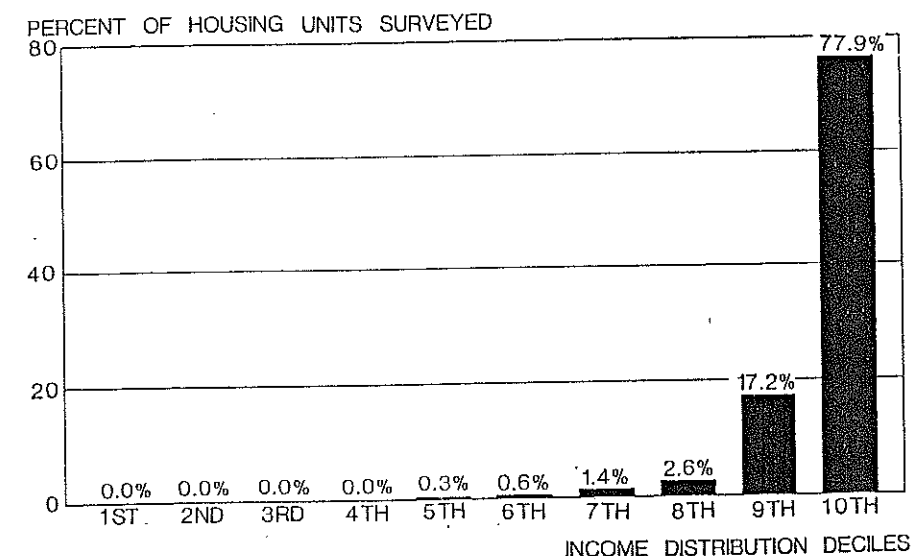
<1> The percent effect on monthly payments was calculated assuming all other parameters remain unchanged, and using the compound interest formula for monthly payments.

<3> Bank of Thailand, Quarterly Bulletin, Vol.26, No.3, September, 1986, Table 54, p.84. resulted in an a reduction of 17% in monthly payments. The

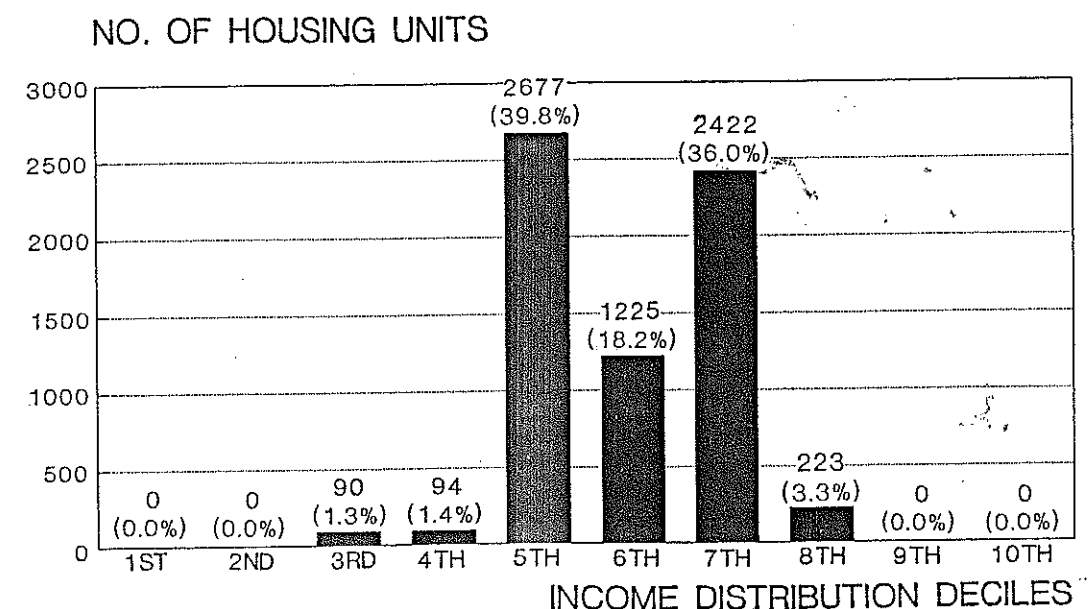
overall reduction in average monthly payments amounts to 60%, which does not mean that houses were now 60% cheaper, but rather that new houses in the 150,000 - 250,000 Baht range are now being offered at monthly payments which average 40% of the prevalent monthly payments in 1980.

If we assume, as it commonly done, that new home buyers are willing and able to spend 25% of their monthly household incomes on monthly payments, we can examine the target income groups for

2: TARGET INCOME GROUPS FOR PRIVATE-SECTOR HOUSING IN 1980



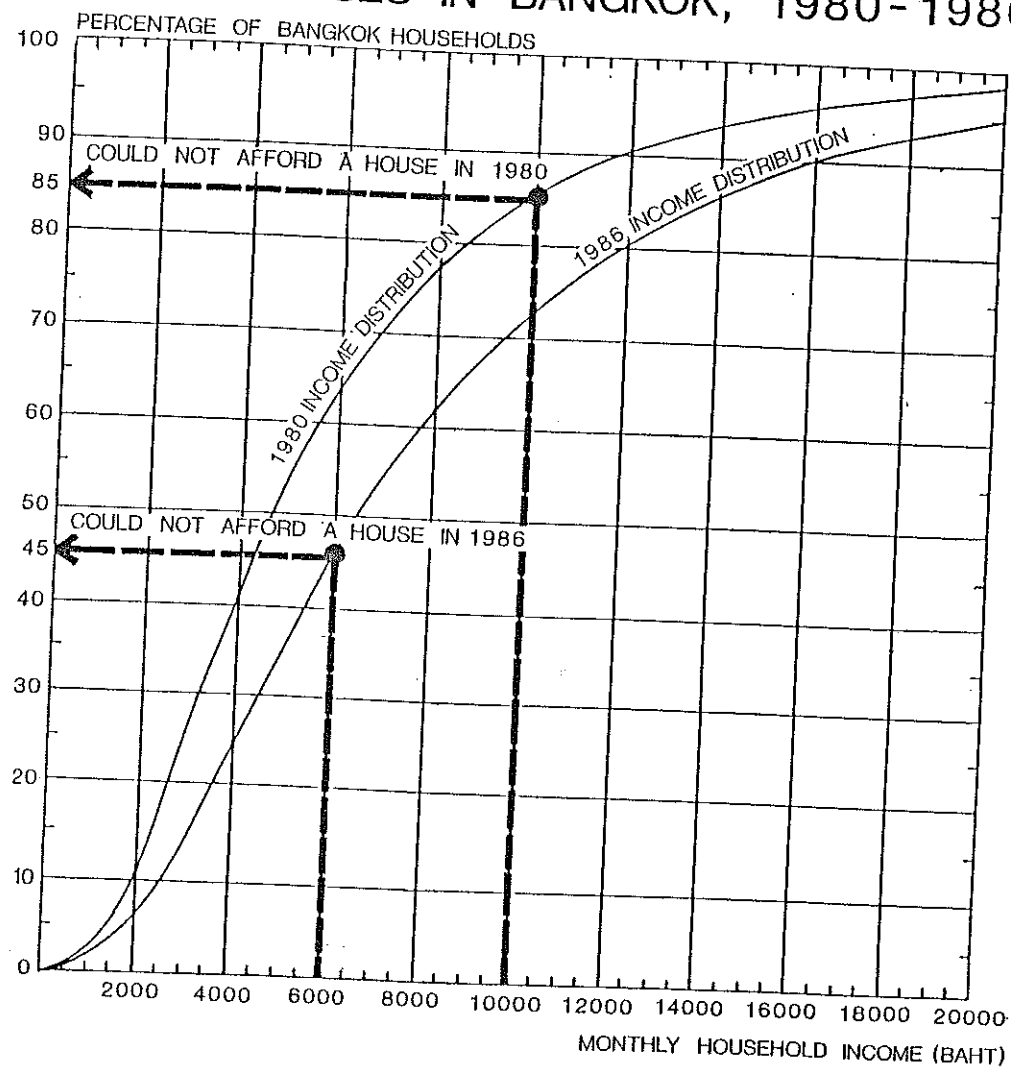
3: TARGET INCOME GROUPS FOR LOW-COST PRIVATE SECTOR HOUSING, 1986-1987



private-sector houses in 1980 and for low-cost private sector houses in 1986. As Figure 2 above demonstrates, most houses offered for sale in 1980 were targeted at the 9th and 10th decile of the income distribution. Indeed, as the 1980 NHA study noted, 85% of the households in Bangkok, those with incomes below 10,000 Baht per month, could not afford to purchase a house at that time. In other words, 85% of the houses offered for sale required monthly payments of more than 2,500 Baht.

In 1986-1987, low-cost land-and-house packages were targeted at the 5th - 7th income decile, as shown in Figure 3 above. Significant numbers of these are available for monthly payments of less than 1,500 Baht and thus affordable by households earning less than 6,000 Baht per month. By 1986, therefore, given the reduction in monthly payments and the increase in incomes, only 45% of the households could not afford a house offered for sale by the private sector. This is illustrated graphically in Figure 4.

4: INCREASE IN AFFORDABILITY OF PRIVATE-SECTOR HOUSES IN BANGKOK, 1980-1986



Thus in a span of six years, there was a major increase of housing affordability in the city. Private sector houses became considerably more affordable by middle and low-income groups, and even by large segments of the slum population. An initial examination by the Land Management Study team of the income distribution in 1985 of more than 1,000 slum households in the more established slums in Bangkok (those improved by the National Housing Authority, which normally do not include the lowest-income squatter communities) shows that one-third of this slum population could now afford a low-cost house, provided they were willing to move out of the slums. The average distance of the slums from the city center, however, is less than 9 kilometers, suggesting that many low-income people place an important value on access to income-earning opportunities, despite the miserable environmental conditions and the insecure tenure in the slums in which they live. To take advantage of the new housing opportunities, they will have to trade their present proximity to the city center for a better house and a more secure land tenure in a more distant location.

While it may be difficult to determine actual preferences, it is clear that there is considerable demand for these low-cost houses at the present time, and that distance does not pose an insurmountable barrier to sales. A comparison of rates of sale in the 37 projects surveyed with 35 other housing projects in the city selected at random, shows that the rate of sale of low-cost housing projects averaged 13.5% per month, compared with only 4.5% per month in other land-and-house projects. In other words, low-cost housing projects are sold out on average in 7.5 months, three times faster than other land-and-house projects, which are sold out in 22.5 months.

III THE MAIN SURVEY FINDINGS

1. Number, Location and Size of Projects

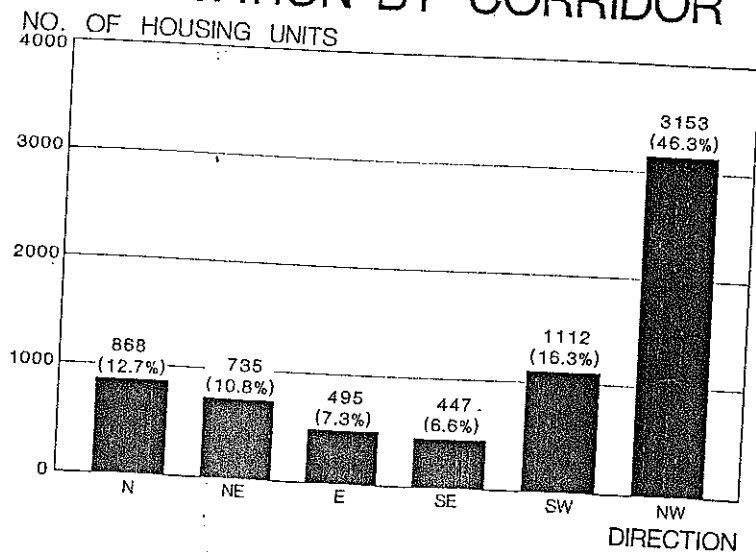
The number of projects: The study attempted to identify all projects currently selling houses for less than 250,000 Baht in the Greater Bangkok area. Most of the projects advertized in the media, some had posters on busses, and some had billboards on major highways. Altogether, 37 projects containing low-cost houses were identified, but it is suspected that there are at least 50 such projects in the city at the present time and that their number is growing rapidly. The Bangkok Land Management Study identified more than 500 land-and-house projects currently selling houses in the city, which would mean that low-cost projects now form some 10% of the total number of projects. Unfortunately, these are only rough estimates. A more detailed windshield survey carried out by the Study Team in the northern corridor area of Greater Bangkok, extending northward from Ramindra and Cheong Wattana Road to the northern border of Pathum Thani province also tends to suggest a 10% order of magnitude.

The location of projects: The location of the 37 projects surveyed is given in the attached map. As mentioned earlier, the average distance of projects from the center of Bangkok (taken to be the Hualampong Railway Station) was 22.2 kilometers. Most projects were located on the edge of the urbanized area, but at

least one third were located in the less developed communities within the boundary of the urbanized area.

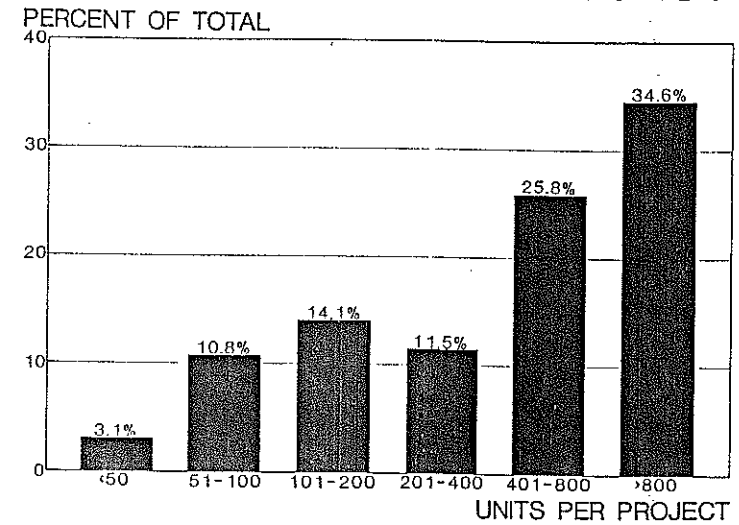
Bangkok is expanding along seven established corridors - the northern corridor following Vibhavadi highway towards Ayuttaya, the northeastern corridor expanding towards Minburi and Nong Chok, the eastern corridor expanding towards Lad Krabang and beyond Chonburi, the southeastern corridor expanding towards Samut Prakan, the southwestern corridor expanding towards Phrapadaeng and Ratburana, the western corridor expanding towards Buddhamonthon and Nakhon Pathom, and the northwestern corridor expanding towards Nonthaburi. While almost half of the new low-cost units were located along different corridors in eastern Bangkok, more than half were located in the northwestern corridor, in newly-accessible areas in Nonthaburi, opened for development by the new Ratanathibet Road bridging over the Chao Phya river. This is illustrated in Figure 5 below.

5: LOCATION BY CORRIDOR

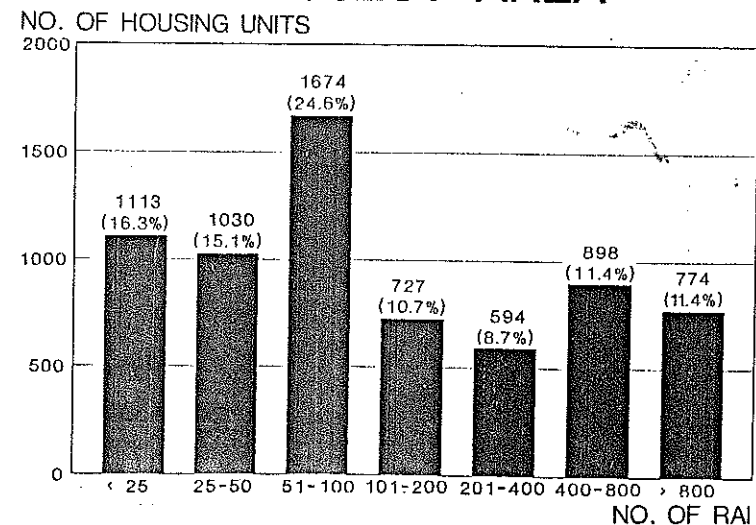


The actual area of projects was much larger than suggested by the number of low-cost units offered for sale. The average area of projects was 150 rai (1 rai = 0.4 acres), but there was no typical project size as can be seen from Figure 7 below. Project areas tended to be almost evenly distributed in all size categories, from as little as a few rai to as many as 1,100 rai. At a conservative density of 12 low-cost units per rai, an average project could accommodate up to 1,800 units, more than 10 times the number of units now being offered. Altogether, there were a total of more than 5,500 rai of land in the 37 projects surveyed. This land could provide a potential reserve for more than 50,000 low-cost housing units if they proved marketable and profitable.

6: NO. OF UNITS PER PROJECT



7: PROJECT AREA

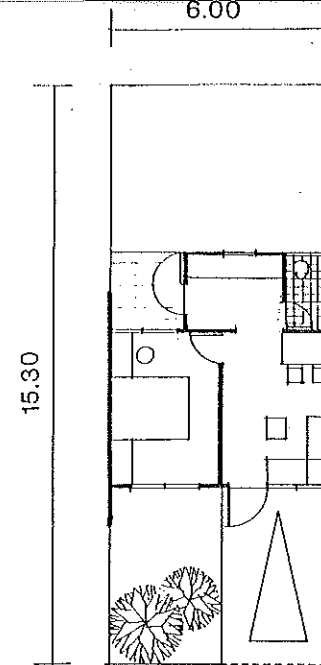


Low-cost housing projects are conspicuously absent from the Taling Chan district along the western corridor, where many new housing projects catering to higher-income groups are now being built. This area has been the target of intense speculative purchase of land, particularly along the newly-opened highway to Buddhamonthon, and except for the very far locations along the highway, land appears to be too expensive for low-cost projects.

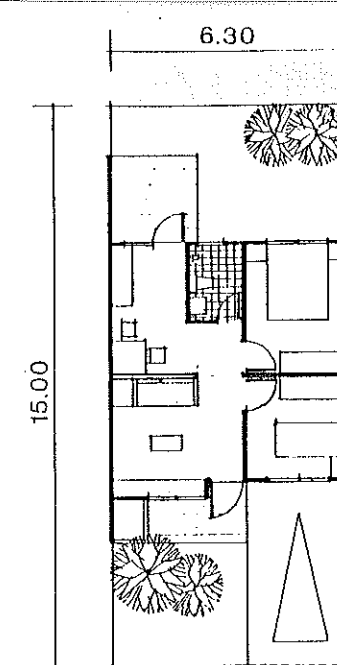
Project size: Many, if not most, of the projects surveyed contained low-cost housing units as well as medium-cost ones. The average number of low-cost units per project was 184, but the numbers varied from as little as 10 to as many as 1,400. The distribution of the number of units per project appears in Figure 6 below, showing that the larger projects contained most of the units offered. In fact, some projects offered a very small number of low-cost houses for sale as a means of attracting customers to their sales office, only to find out that all the low-cost units were already sold.

2. Plots and Houses

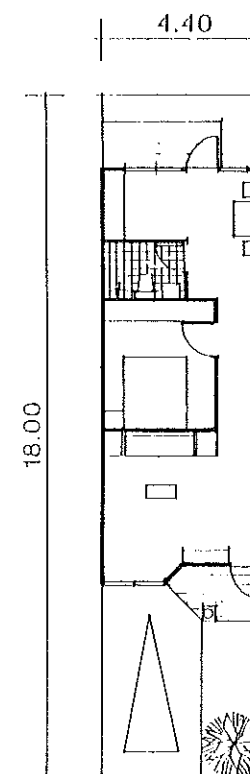
House types: More than 96% of the houses offered were row houses, and of those three quarters of the units were one-storey and one-quarter were two-storey row-houses. The remaining 4% were duplex houses of one or two-storeys, and all the duplex houses sold for more than 200,000 Baht. Several typical variations of row-house floor plans are shown in Figure 8 below. The smaller ones contain two rooms, plus a kitchen and a bathroom, and the larger ones an additional room. Typical perspectives of low-cost houses are shown in Figures 9 and 10.



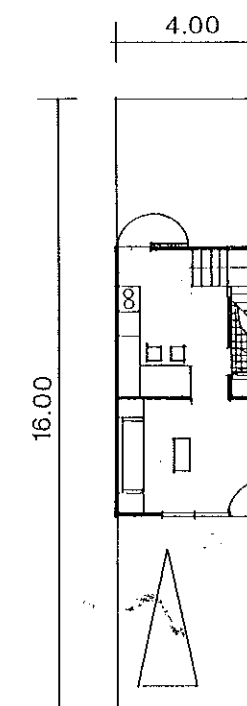
18A: HOUSE 29 SQ.M. 132,500
 LAND 23 SQ.W. 57,500
 TOTAL 190,000



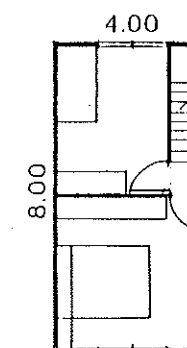
20A: HOUSE 42 SQ.M. 119,000
 LAND 24 SQ.W. 60,000
 TOTAL 179,000



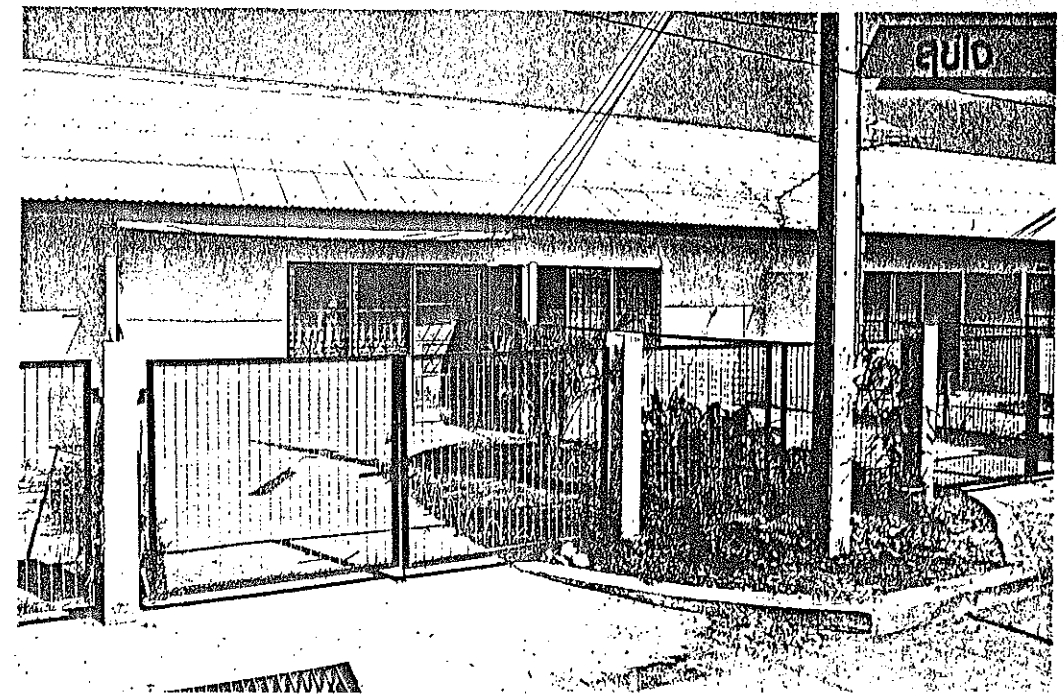
1B: HOUSE 40 SQ.M. 99,000
 LAND 20 SQ.W. 60,000
 TOTAL 159,000



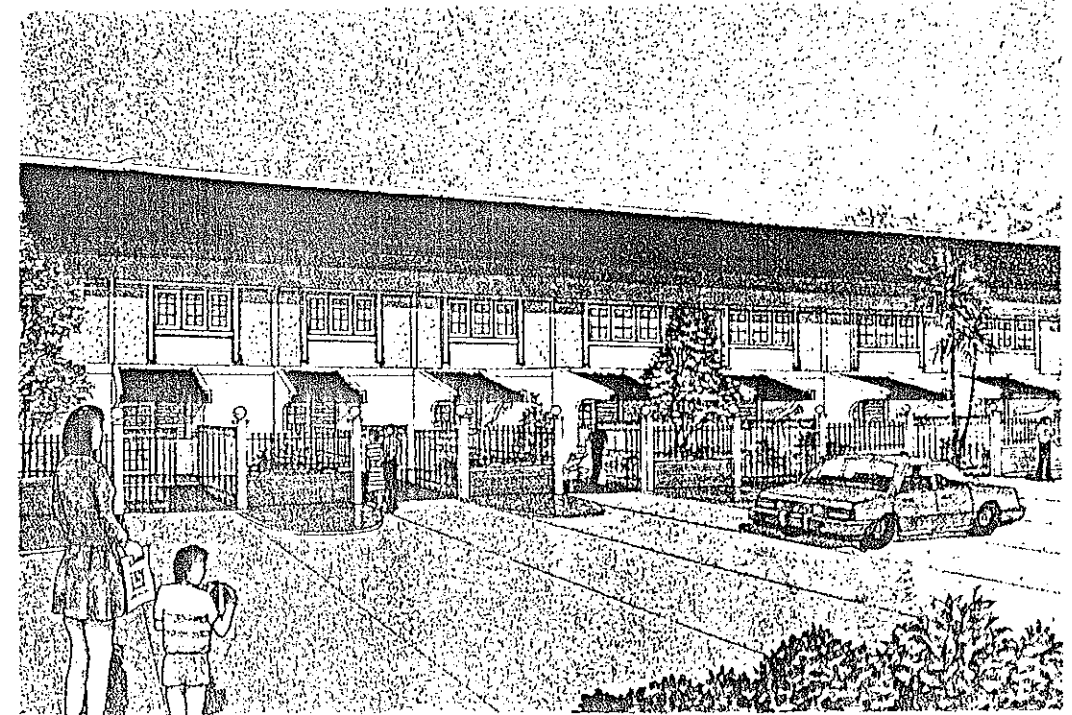
36A: HOUSE 60 SQ.M. 131,000
 LAND 16 SQ.W. 48,000
 TOTAL 179,000



8: TYPICAL FLOOR PLANS AND HOUSE PRICES (IN BAHT), SCALE 1:200

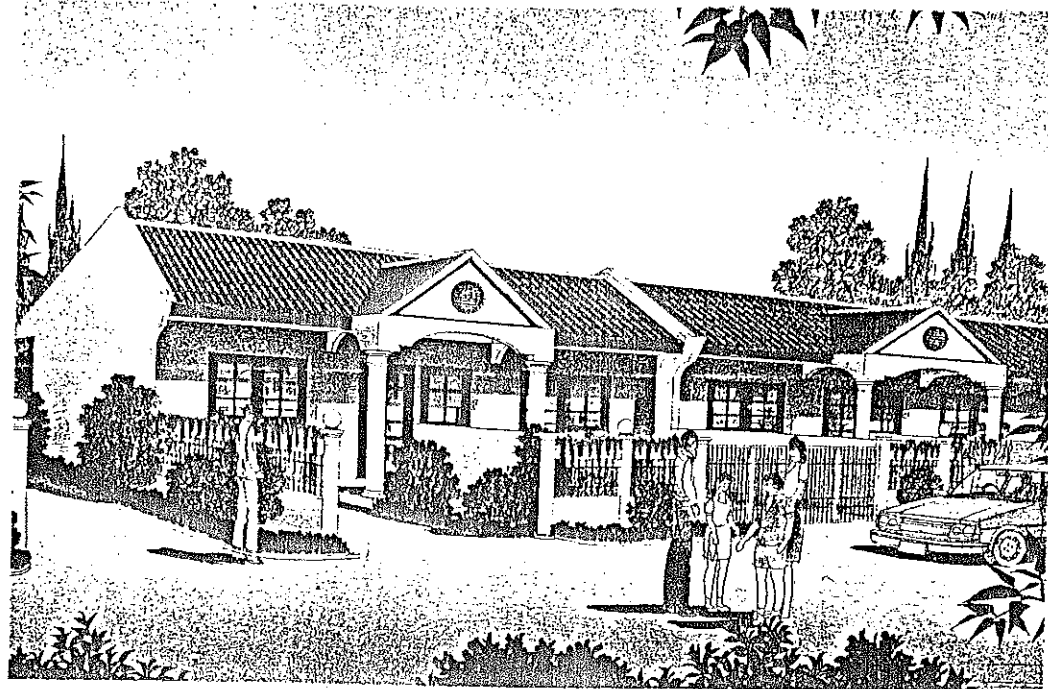


1A: HOUSE 37 SQ.M. 65,000
 LAND 20 SQ.W. 60,000
 TOTAL 125,000

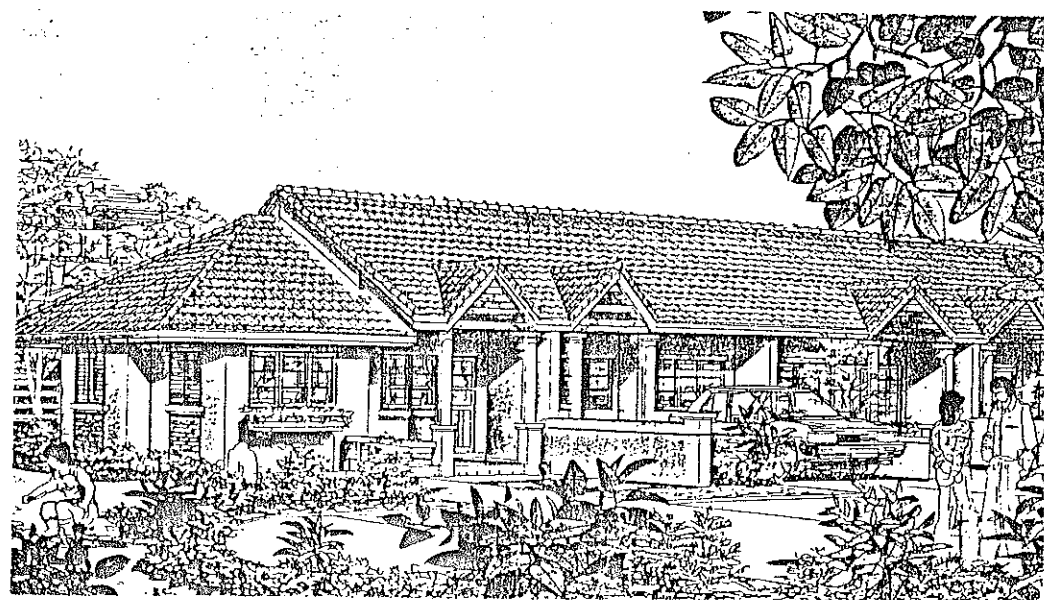


36A: HOUSE 60 SQ.M. 131,000
 LAND 20 SQ.W. 48,000
 TOTAL 179,000

9: TYPICAL PERSPECTIVES



3A: HOUSE 40 SQ.M. 130,600
 LAND 18 SQ.W. 68,400
 TOTAL 199,000



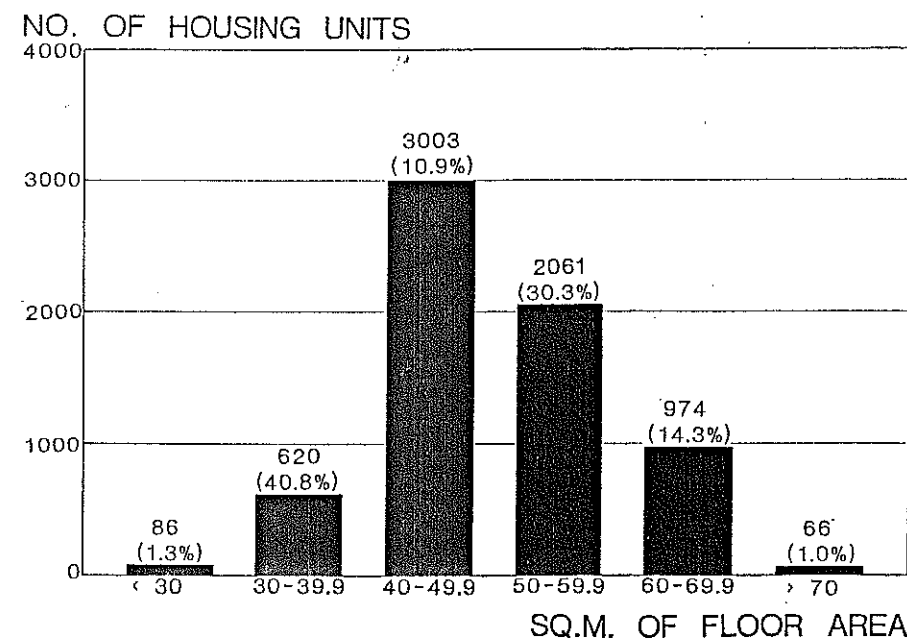
32A: HOUSE 42 SQ.M. 153,000
 LAND 20 SQ.W. 76,000
 TOTAL 229,000

10: TYPICAL PERSPECTIVES

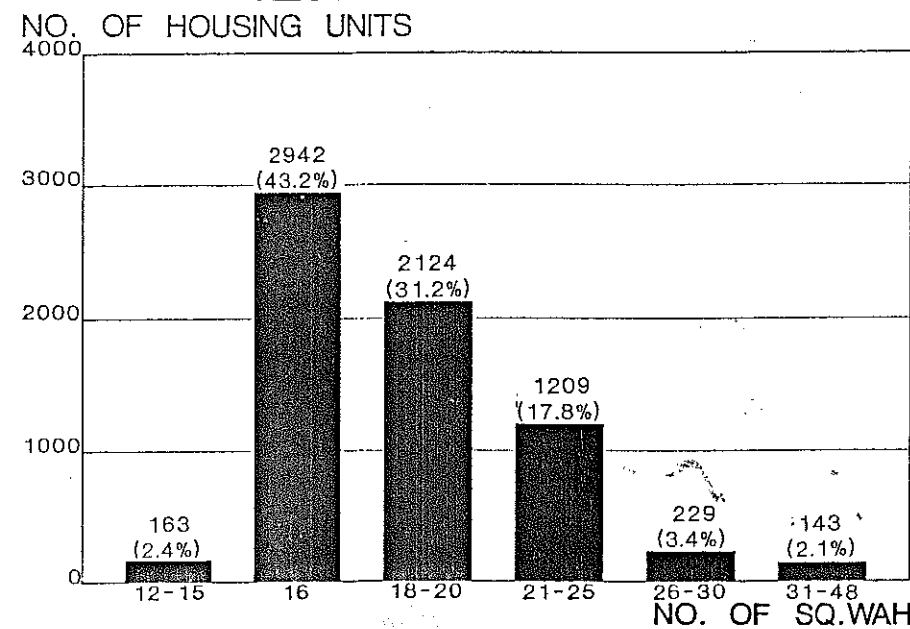
Floor areas in these houses average 50 square meters, but almost a third of the houses offer 50 - 60 square meters and an additional 15% offer more than 60 square meters, as shown in Figure 11 below.

Average plot size was slightly higher than 19 square wah, but more than 43% of the plots were 16 square wah, the most typical plot size, as shown in Figure 12 below.

11: HOUSE SIZE



12: PLOT SIZE

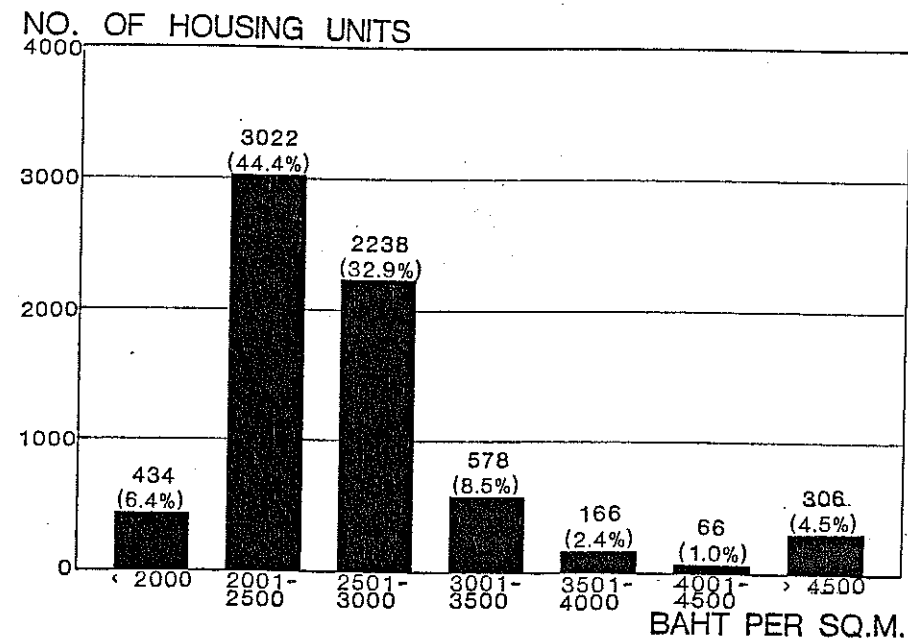


Land and house prices: Bangkok developers typically quote a separate price for the plot of land and a separate price for the house. The price of the house is almost always the actual construction price plus a small percentage of profit. The land price usually includes the raw land price, the cost of infrastructure development, the cost of management and supervision and expenses on promotion, marketing and sales, as

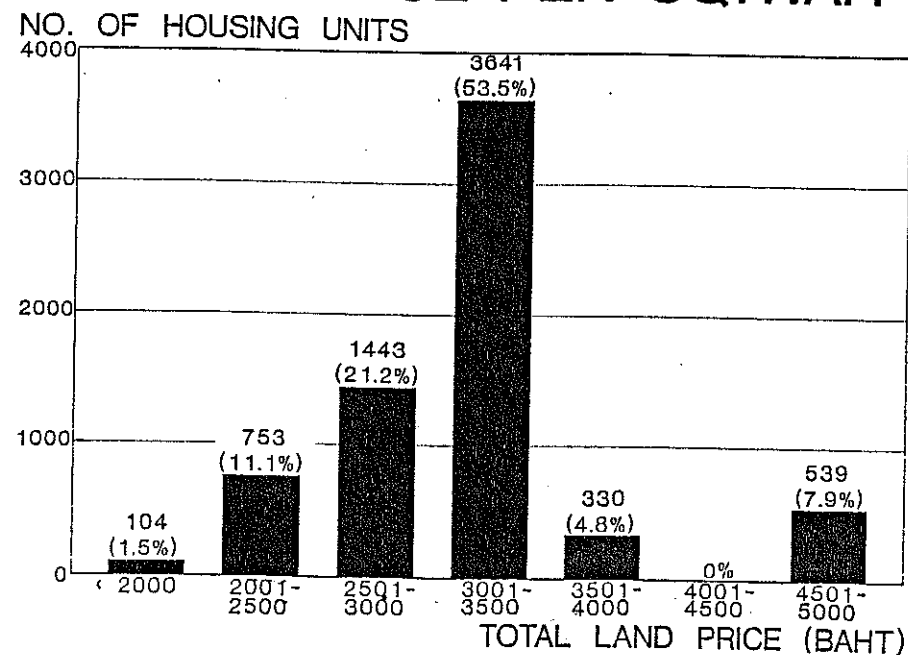
well as the developer's profit. This enables developers to sell vacant plots in their projects, realizing almost all their profit from the sale of the plot itself. Developers interviewed by the study team went as far as saying that they build houses in order to sell plots.

As mentioned earlier, the average price per square meter of a built house was 2,600 Baht in 1986. However, as can be observed in Figure 13 below, more than half of the houses were sold for less than 2,500 Baht per square meter. The average price for developed land was found to be 3,400, and more than half of the plots were sold for 3,000 - 3,500 Baht per square wah, as shown in Figure 14.

13: HOUSE PRICE



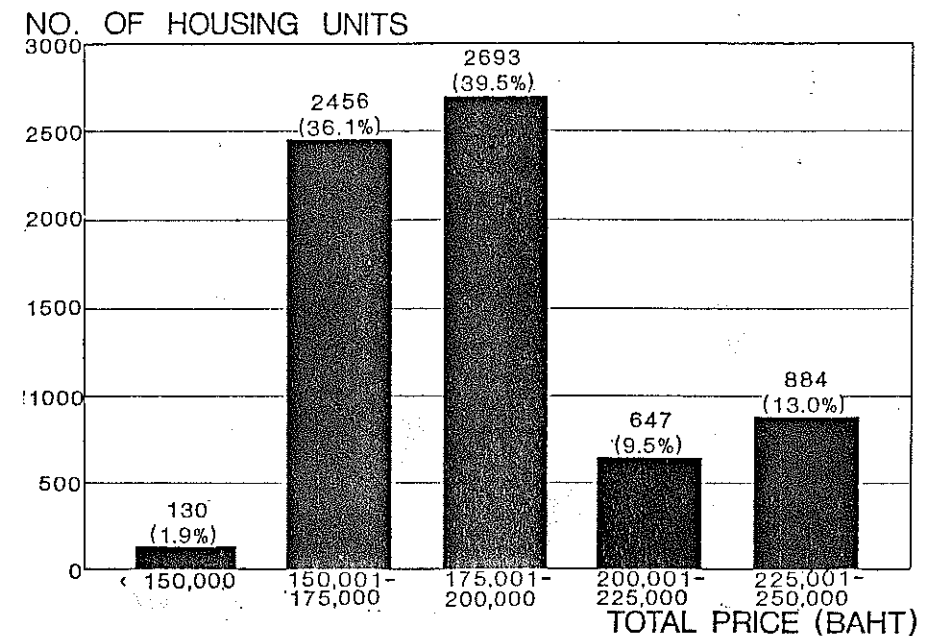
14: LAND PRICE PER SQ. WAH



Given these prices, more than three-quarters of the low-cost

housing units surveyed sold for less than 200,000 Baht. In fact, 38% of the units sold for less than 175,000 Baht, as shown in Figure 15 below.

15: LAND AND HOUSE PRICE



Down payments and monthly repayment: One of the major obstacles to the purchase of houses by low-income households in the past has been the insistence a down payment, amounting to approximately 25% of the total price of the housing package. Thus, while many households could in fact afford the monthly payments, they could not assemble sufficient savings for the down payment. This obstacle appears to have been overcome. Almost 99% of the developers offered installment plans for the down payment, ranging from 3 to 15 months. Most of them required 2,000 Baht as a registration fee, an average of 13,000 on the occasion of signing the contract, and installments averaging 5,500 Baht over a period averaging 9 months.

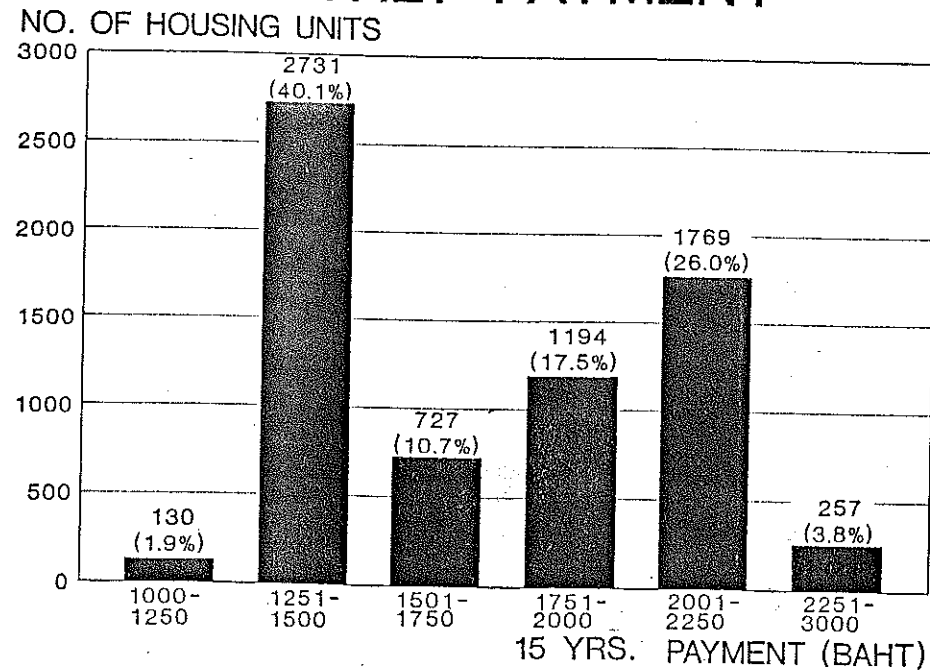
Long-term mortgage loans were offered in all projects without exception, with interest rates ranging from 11.25% to 14.00%, but averaging 11.75%. There were many sources for the loans. Besides the traditional predominance of the Government Housing Bank, all major commercial banks, as well as several finance and insurance companies offered 10-year, 15-year and sometimes 20-year loans at competitive interest rates.

Given the availability of long-term financing, typical 15-year mortgage payments averaged 1,750 Baht per month. But, as can be seen from Figure 16 below, 42% of the units offered for sale required monthly payments of less than 1,500 Baht. Assuming that new home buyers are willing and able to pay 25% of their monthly household income on house purchase, these units were affordable by families with monthly incomes of less than 6,000 Baht.

Sales office personnel interviewed estimated the household incomes of buyers to be of the order of 5,000 - 7,000 Baht. This suggests that the 25% figure used for estimating housing

expenses for new home buyers is not altogether unrealistic. Consumer Price Indices for the Bangkok Metropolis issued by the Bank of Thailand <4> take housing expenses in Bangkok to be of the order of 23 - 24% at the present time.

16: MONTHLY PAYMENT



IV THE IMPLICATION FOR THE NHA

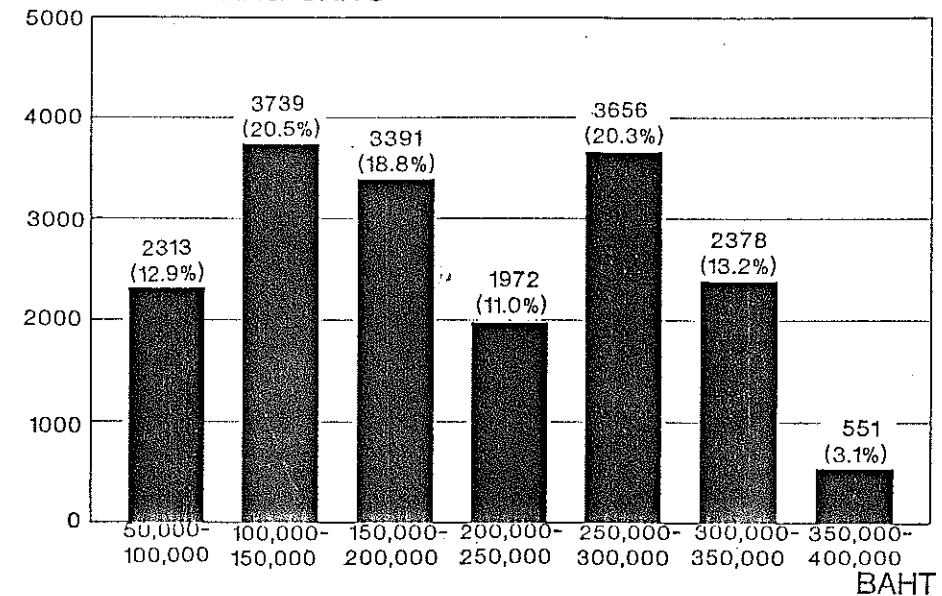
This Working Paper does not attempt to draw final conclusions from the above analysis, which forms only one part of the Bangkok Land Management Study. The policy recommendations of the Study will form an integrated whole and will be incorporated into the Final Report scheduled for publication in August, 1987. It is possible at this point, however, to draw an important implication from our major finding, namely that the private sector is now directly competing with the National Housing Authority, at the very core of its traditional market.

This is made evident by examining the sale prices and monthly payments of recent NHA housing projects in Bangkok. The Study Team has assembled sale price information for all projects located on land actually purchased by the NHA, rather than transferred free, which offered housing units for sale in the Bangkok area since 1981. All together, 18,000 units were offered in Thonburi I (1981), Thonburi III (1981), Hua Mark II (1982), Prachanives III (1982), Lad Krabang (1984), and Bang Plee I (1985). The details on prices and monthly payments are presented in Annex 2. The distribution of house prices in these projects is given in Figure 17 below.

<4> Bank of Thailand, Quarterly Bulletin, Volume 26, No. 3, September, 1986, Table 54, p. 84.

17: NHA HOUSE PRICES, 1981-1985

NO. OF HOUSING UNITS



While one third of the NHA units were indeed offered at lower prices than houses now being offered by the private sector, one third competed directly in the 150,000 - 250,000 price range, and an additional one-third was in a higher-price category altogether. Unfortunately data on present prices and monthly payments in new NHA projects is not available, as no project is currently on sale. Neither has it been possible to compare the actual products offered by the NHA with those of the private sector in terms of location, infrastructure services and amenities, floor and plot areas, finishes and quality of construction. NHA houses are traditionally unfinished structures with considerably better infrastructure and community services that those offered by the private sector. It may be quite possible that NHA products are indeed better than those offered by the private sector, but what is of issue here is their marketability. At present, the NHA may be losing an important market in the 150,000 - 250,000 category, without necessarily asserting itself in the higher-price housing market, particularly with its current emphasis on unfinished houses.

The above analysis does not necessarily imply new directions for the National Housing Authority. Instead, it aims at exposing the Authority to the fact that the private sector is moving into its traditional markets, and that in the future, in order to maintain its market share it would need to compete in the housing market place. Whether it aims at cooperating with the private sector or at pursuing its goals alone, it needs to become more aware of the situation in the housing market. Possibly for the first time, the NHA may find itself responding to market demand and supply pressures, rather than determining independently what it wishes to produce with the assurance that low-income people will purchase whatever it has to offer.

ANNEX 2: THE INCOME DISTRIBUTION FOR GREATER BANGKOK, 1980-1986

Income Decile	Percentile	Income Range (Baht)	
		1980	1986
1st	0 - 10	0 - 1955	0 - 2627
2nd	10 - 20	1956 - 2583	2628 - 3495
3rd	20 - 30	2584 - 3225	3496 - 4415
4th	30 - 40	3226 - 3937	4416 - 5387
5th	40 - 50	3938 - 4664	5388 - 6389
6th	50 - 60	4665 - 5497	6390 - 7611
7th	60 - 70	5498 - 6741	7612 - 9433
8th	70 - 80	6742 - 8488	9434 - 11820
9th	80 - 90	8489 - 11575	11821 - 16012
10th	90+	11576+	16013+

Source: The Bangkok Land Management Study, March 1987.
Calculated from National Statistical Office data for 1975-76, 1981 and 1986.

The National Statistical Office (NSO) published two socio-economic studies which contain income distributions for Greater Bangkok and for Bangkok's city core, one for 1975-6 and one for 1981. More recently, the NSO published a draft report on average incomes during the first quarter of 1986. These three sources were used to calculate the income distribution in Greater Bangkok for 1980 and 1986 shown in the above table. The 1980 income distribution was calculated by interpolation, assuming a constant rate of growth in all income categories.

Average monthly incomes in Greater Bangkok grew by 24% between 1981 and 1986, from 5,972 in 1981 to 7,410 in 1986. The 1986 income distribution was calculated by assuming a growth of 24% in all income categories.

Greater Bangkok includes the adjoining provinces of Samut Prakan, Nonthaburi and Pathum Thani where rural incomes are lower than the average incomes in the city core and in the suburbs. Bangkok city core incomes are 20 - 25% higher. In terms of housing affordability, therefore, a higher percentage of the city's households can now afford low-cost houses, possibly as high as 65% of the total.

The Bangkok Land Management Study has assembled household income figures from a survey of more than 2,000 households in 160 slum locations in Bangkok where the NHA has undertaken slum

upgrading. While these slums are not necessarily the poorest, as most of the poorest families live in squatter-slums where land tenure conditions do not allow the NHA to intervene effectively, these slums do represent the great majority of Bangkok slums which are in fact rental slums. While the average household size in Greater Bangkok was reported to be 4.2 in 1981 and 3.8 in 1986, slum households average 4.9 persons per household. 37% of these households has monthly incomes of more than 6,000 Baht and could thus afford a low-cost house.

ANNEX 3: PRICES AND MONTHLY PAYMENTS OF NHA HOUSING UNITS IN BANGKOK, 1981-1985

PROJECT NAME <1>	SALE YEAR	NO. OF UNITS	UNIT PRICE (Baht)	DOWN PMT (Baht)	INTE-REST (%)	YEARS TO PAY	MNTHLY CHARGE (Baht)	LOAN REPAYMENT (Baht)	TOTAL MNTHLY PAYMENT (Baht)
1. Thonburi I	1981	500	100100	14000	15	15	210	1205	1415
		1640	287598	15000	15	15	290	3815	4105
		264	386114	20000	15	15	375	5124	5499
2. Thonburi III	1981	650	160754	20500	15	15	210	1963	2173
		600	324400	45500	15	15	290	3903	4193
3. Hua Mark II	1982	990	229300	18000	15	15	210	2957	3167
		338	281800	42300	15	15	320	3352	3672
		806	296600	27000	15	15	270	3773	4043
		134	394500	73700	15	15	290	4490	4780
4. Prachanives III	1982	1811	188500	27400	15	15	235	2255	2490
		968	236200	30100	15	15	235	2885	3120
		1010	300300	35700	15	15	295	3703	3998
		153	392503	65000	15	20	285	4313	4598
5. Lad Krabang	1984	286	70700	7000	15	20	160	839	999
		767	77800	7500	15	20	170	926	1096
		272	101600	10000	15	20	180	1206	1386
		706	115800	11000	15	20	190	1380	1570
		134	134896	17000	15	20	195	1552	1747
		226	150000	19000	15	20	200	1725	1925
		455	154000	13000	15	20	200	1857	2057
		221	168200	20000	15	20	195	1951	2146
		254	195122	25000	15	20	210	2240	2450
		14	214143	30000	15	20	220	2425	2645
40	297500	40000	15	20	230	3391	3621		
6. Bang Plee I	1985	1260	79237	6000	15	20	200	964	1164
		1902	128118	12000	15	20	220	1529	1749
		832	250230	30000	15	20	255	2900	3155
		768	347201	42000	15	20	260	4019	4279
TOTAL		18000							
WEIGHTED AVERAGE		205640	22063	15	17.3	237	2516	2754	

Source: Bangkok Land Management Study, March 1987.

<1> Includes all housing units built on land purchased by the National Housing Authority in the Greater Bangkok area excluding shophouses, flats and units leased rather than sold outright.





LOCATION OF 37 LOW-COST HOUSING PROJECTS IN 1987

BANGKOK LAND MANAGEMENT STUDY
 NHA - ADB - PADCO