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9. ABSTRACT

Since 1971, the Office of Housing of AID has been conducting preinvestment surveys in countries where housing investment guaranty programs are anticipated in order to provide the background and framework for its intervention. These surveys are, in fact, increasingly sophisticated analyses of the shelter sector of each country. Each report is intended to provide the Office of Housing with the information necessary to enable it to answer three primary questions about a specific country:

- . What is the country's capacity to undertake a large-scale housing program?
- . What is the effective demand for housing at a given price level?
- . What is the country's capacity to repay a foreign loan?

To paraphrase the introduction to the scope of work for a recent survey, its objectives are to determine the need for housing at all socio-economic levels of society, to determine the ability of each socio-economic group to pay for housing; to assess the capabilities of the Government to plan and manage large scale housing programs and projects; to analyze the impact of large scale foreign borrowing on the country's economy and its ability to repay; and to assess the ability of the country to absorb large sums of money into the shelter sector industries.

These objectives have been realized with varying degrees of success. Some of the more recent surveys, in particular, provide broad panoramas of the country housing sectors. Some of the earlier ones are more limited in scope and cover only a part of the sector.

These reports provide valuable orientation for anyone becoming involved in housing sector in one of these countries. They should also be useful for comparative studies of housing programs and policies on a regional or world-wide basis.

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HOUSING GUARANTY PROGRAM
TAIWAN 1971

PREPARED FOR:
THE AGENCY
FOR INTERNATIONAL
DEVELOPMENT
U.S. DEPARTMENT
OF STATE

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PART I

BACKGROUND

AND

FINDINGS

INTRODUCTION

In May of 1971, the Office of Housing received a request from the American Embassy in Taipei that a team be sent to Taiwan to study local housing conditions and to assess the feasibility of a housing investment guaranty program. An assessment was also to be made of management problems in the AID Union Villa housing project. This request was subsequent to a visit to Taipei by Mr. Milton Drexler in April and marked the first expression of interest from Taiwan in the housing guaranty program since the inception of its worldwide responsibility. The team arrived in Taiwan on July 18, 1971. It was headed by Osborne T. Boyd, Housing Consultant, AID; assisting were Joseph E. Wright, Housing Management Consultant, Department of Housing and Urban Development; Leo J. Morawski, Project Engineer, National League of Insured Savings Associations, and James O. Wright, Jr., Project Economist, National League of Insured Savings Associations. Mr. William Morell, Jr. and Mr. James A. Klemstine of the Economic Section of the U. S. Embassy in Taipei, provided initial support for the team's work in Taiwan. The team is also especially indebted to Mr. Zee-Nan Lee, Deputy Director, Urban Development Division of the Council for International Cooperation and Development, and his staff and Mr. Glynn T. H. Ing of the Taipei Housing and Real Estate Association. Previous studies by U. N. Consultants, Alex A. Rosental and Mrs. D. Monson proved invaluable as a background to the team's study.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

It is apparent, both from interviews with many officials in Taiwan and this study, that the economic climate exists for a H.I.G. type housing program involving large-scale projects and self-liquidating financing. Economic prosperity, rising per capita incomes, and projected financial market conditions would clearly justify this. In addition, a significant savings inclination and

capacity is reflected in the recent growth of various savings instruments which can only be expected to continue for some time. Unfortunately, however, the Government of the Republic of China is not receptive to a guaranty program at this time. The existence of large foreign exchange balances which have recently been a primary cause in money supply growth leads the Central Bank and GRC Finance Ministry officials to feel that foreign investment for housing, most of the materials for which are produced locally, would be inflationary at this time. Bad experiences with inflation in the past leads to a firm determination among GRC finance officials to maintain price stability. Last year the continuing influx of foreign capital even led to the initiation of a selective screening process for new foreign investments. But by the same token there is a desire to stimulate all possible savings instruments as part of the same anti-inflation campaign. Housing investment would be desirable but only if the large majority of it were financed by local resources. Immediate interest in foreign capital would only be forthcoming to finance those few imported machinery items necessary in the construction industry.

Under these conditions, the most logical way to accumulate capital resources for housing primarily from local sources would be a savings and loan-type institution. Beyond mere logic, however, it is evident from this study that a substantial middle-income market exists to be serviced by such an institution, and it is clear that savings are growing and that the growth of savings institutions is actively being supported by the government. Indeed, a primary justification for the often harsh restrictive monetary policy necessary to maintain prices stability is that savings for development are thus allowed to accumulate. In this regard, the Minister of Finance himself, other ministry officials, officials of the Central Bank, and urban development experts have all

expressed interest in a savings and loan system for Taiwan. Local builders have also indicated a willingness to cooperate. We would recommend, then, that technical assistance be provided or channeled to Taiwan to lead towards the establishment of such a mortgage finance system. Potential savings and housing markets would merit it, and contacts with responsible housing and finance officials could thus be maintained. In addition, the very financial conditions which inhibit the establishment of a H.I.G. program today could be quite different in the future, leading to possible institution supporting investments at that time.

BACKGROUND

The island of Taiwan, Republic of China, only slightly larger than the State of Maryland, lies 90 miles east of the China mainland and 200 miles north of the Philippines. While somewhat less than one-third of the island's 35,961 square km. can be considered arable, this fertile farmland is nonetheless Taiwan's greatest natural resource. High forested mountains cover most of the rest of the island. Taiwan's climate is sub-tropical in the north and tropical in the south. Hot humid summers last from May to October and winters are mild and humid. Occasional earthquakes have caused little or no damage, but typhoons have been known to bring serious floods and damage to crops and homes in the late summer.

The first census in Taiwan in 1904 showed the island's population at just under 3.0 million, consisting largely of Chinese descendants of 18th and 19th century immigrants from the China Mainland and a few aboriginal tribes. After the end of the fifty year Japanese occupation period, the 1948 census showed the population at 6.6 million. Population figures in 1970 recorded a total of 14.6 million, of which 84% were Taiwanese, 14% "Mainlanders" and 2% aborigines.

The current annual population growth rate is 2.5% and density is 1,054 persons per square mile, ranking the island only after Hong Kong and Singapore among Asia's most densely populated areas.

Taiwan's modern economic growth dates back to the period of Japanese occupation (1895-1945) when basic improvements were made in economic infrastructure, transportation and education. More recently, in 1965, it became the first A.I.D. recipient country to attain "self-sustained economic growth" and the A.I.D. program was phased out. Recent economic growth rates have been quite high, surpassed in Asia only by Japan and South Korea.

Major industries have been spurred in recent years by large amounts of foreign investment, averaging over \$100 million per year, and a booming export economy. Americans, Japanese and overseas Chinese have invested more than a billion dollars in electronics, chemicals, and textiles, providing jobs and capitalizing on wage rates which are one-third those of Japan and two-thirds those of Hong Kong. Foreign trade has climbed rapidly, increasing by one-third last year to \$3.1 billion with a trade surplus of \$34 million.

URBANIZATION AND HOUSING CONDITIONS

As in most rapidly developing economies, urbanization is progressing in Taiwan at a very rapid rate. While rural land reform and increased agricultural productivity have improved rural living standards somewhat, the simultaneous influx of people into the cities have caused considerable over-crowding. In 1900 total urban population was only 400,536 or 13.3%, but by 1958 urban population had grown to 3,274,980 or 32.6%. In 1962 urban population represented 42.6% of the total and 1971 statistics show the urbanized population at 8,810,000 or 58.6% of the total. The number of urban centers has also grown. In 1900 there were only eight urban centers with populations of more than 10,000, but

by 1962 there were 83 such centers. In 1966 there were five municipalities on Taiwan and 361 cities, towns and villages within 16 counties (hsiens) and one special district (Yangming-shan).

While urbanization in the entire island of Taiwan is clearly proceeding rapidly, the development of Taipei City is even more dramatic. The population was only 107,616 in 1906 marking an increase of over 1,000 per cent to its present level. Density is also rising. Taipei City had an average of 7,521 persons per square kilometer in 1950 which had risen to 13,115 by 1960.

Although statistics on existing housing conditions are sketchy at best, it is obvious that present housing is overcrowded and grossly inadequate. In 1961 there were more than 23,000 squatter units in Taipei City alone which had grown by more than 100% by 1963 to an estimated 50,000 units. A 1965 sample housing survey showed that about 17 1/2% of household monthly expenditures was spent to cover housing costs. The average housing unit had a total value of NT \$30,000 of which NT \$11,000 represented land value and NT \$19,000 building value. Average floor space per household was 18 pings. Of all housing units 17% consisted of two rooms or less; 34% three to four rooms; 28% five or six; and 21% seven or more with an average of 5.5 persons per household. Of all housing units, 38% were of ferro-concrete or brick, 25% of wood, and 37% of bamboo, clay, or grass. More detailed housing statistics were accumulated in the 1966 census and are available in Tables 6 and 7.

More recent estimates by the Taipei Housing and Community Development Commission place the average living space within the city at 2.4 pings per person. Four pings per person is thought to be a minimum acceptable standard. An average of 1.6 households live in each dwelling unit.

Estimates of the total housing needs in Taiwan for the next several years

vary between 120,000 and 130,000 units. While these estimates are, of course, of a very general nature, given a natural population growth of 300,000 per year, and an average family size of five, a reasonable estimate of housing needs is broken down in Table 8.

The Taipei Housing and Community Development Commission estimates the shortage within the city at 200,000 units presently, with a need for a total of 377,440 new units by 1981.

It is estimated that thirty-three per cent of housing in Taipei is rented. Much of this is small-scale subletting of one or two rooms within a unit which accounts for the crowded living conditions averaging more than one family per dwelling unit. Large scale rental housing projects are practically impossible because of a legal process which protects tenants. Rents must be at least two years delinquent before foreclosure procedures can be initiated.

HOUSING POLICY

Housing policy in Taiwan has been vague and has lacked central coordination. If it has had one overall orientation, however, this had been to view housing as a social welfare problem to be solved through government subsidies and other special fund schemes. There has been a reluctance to adopt a market approach to housing finance.

In 1958 a Housing Planning Committee was set up in the Taiwan Provincial Government and a Housing Division in the Taiwan Provincial Government's Department of Social Affairs. The Director of the Department of Social Affairs is concurrently chairman of the committee which has no staff and little central direction.

A Housing Fund was set up in 1959 which was to derive most of its income from the Urban Land Value Increment Tax. This tax is a capital gains tax charged on increased land values at resale and is based on the philosophy of

Dr. Sun Yat-sen, founder of the Republic of China. The idea is that increased land values resulting from population increases and urbanization should accrue to the public. From 1959 to 1966 all of the Land Value Increment Tax was allocated to the Housing Fund and after 1967 no less than 25 per cent of the tax was to be used in housing. Other sources of the housing fund and its uses as of 1965 are shown in Tables 9 and 10. Most of the housing has been at subsidized interest rates (6%) for 15-20 years down-payment. An increasing percentage of these loans have been at no interest to low income squatter families.

Since 1968 Taipei City has been administered as a special district apart from Taiwan Province and housing policy has been managed separately. Within the City of Taipei the Housing and Community Development Commission has worked as part of the above outlined program. It consists of twenty-one members all of whom have other primary functions and has infrequent meetings. Table 11 outlines housing construction carried out under this program.

The Council for International Economic Cooperation and Development, the economic data gathering and policy formulating agency of the Executive Yuan (Branch), has an Urban Development Division which should be mentioned. Its function is to gather data and make proposals, the most comprehensive of which has been for a new housing law which is still pending in the Legislative Yuan and may be delayed for some time. The new law, as proposed by Mr. Lee of the Urban Division, would facilitate privately financed housing, but this provision is expected to receive little priority from the legislature.

To date, then, because of government involvement at virtually every stage of these programs, there has been no effort to relate savings or market interest rates to housing investment, and little focus on effective demand. Government policy has focused almost entirely on low-income groups and government

employees. Virtually all residential construction visible in Taipei is for these groups, the only exception being privately financed high income luxury dwellings and some lower priced, privately financed apartments in crowded industrial areas. These are, however, only available at restrictive high interest rates with at least fifty per cent downpayments on short terms. Bank loans in all of Taiwan outstanding as of May 1, 1971, for "purchasing, construction or reconstructing dwellings" numbered only 24,785 for a total balance outstanding of NT \$2,988,220. Interest rates for these loans, although quite high (11 1/2 - 12%), have declined from higher levels (14% in 1966) and are predicted by the Ministry of Finance to continue falling.

An overlapping system of downpayments and construction financing is also symptomatic of the limited capital available. Private builders often finance a large portion of construction costs through a series of downpayments made by prospective homeowners at the outset and during various phases of construction. Under this system most units must be contracted for sale before construction begins, but the builder needs seek less construction financing. Most buyers have large amounts of savings, often as much as 60-70% of total unit value, which they are willing to allocate to downpayments during the construction period. Some interim financing is available for builders for the remainder at market terms from state and commercial banks, but large established builders have an advantage because of their ability to offer real estate and other holdings as collateral for loans for construction.

It is obvious that the Government housing program, while making some inroads, have failed to fulfill the needs of growing urban populations. Privately financed efforts have been even less adequate leaving a wide gap between the 15,000 - 20,000 total units presently financed per year and the 120,000 - 133,000 projected "need." The rate of investment in housing is only 2 - 2.5%

of GNP compared with the 4-5% found in countries which are solving their housing problems through large-scale programs. The annual ratio of new housing units to population in Taiwan is about 2 per 1000 instead of the 8 to 10 units per 1000 set as a target for developing countries by the United Nations.

LAND PRICING AND TAXATION - a special problem

Land prices and taxation, although discussed in further detail in the technical section, cannot be divorced from financial considerations as well. The overwhelming population density of Taiwan demands a policy of maximum land use and would itself be a major reason for high land prices. But unbridled land speculation has forced land prices in Taipei often as high as in Tokyo or New York City. This is due to a previous history of inflation and the lack of other profitable investment channels. The doubling and tripling of land prices within two years, especially in the vicinity of other recently improved land, is a common occurrence. Due to the high land price ratio to building costs, builders often must enter into partnership with land owners. (This is also done to avoid certain land taxes.) High land prices are the leading inhibiting factor making market financed housing unavailable to lower income families.

There have been several worthwhile studies of urban land taxation in Taiwan. (See A. Rozental "Industry of Free China," Feb., 1971.) The consensus of these studies as well as of local experts consulted is that present land taxation policy tends to exacerbate the speculation process. Vacant land is seldom taxed in a way to discourage speculative and inefficient land use, and existing tax regulations are improperly enforced. Moreover, the land value increment tax is only assessed at the time of land transfer, so increased land values are capitalized into snowballing prices. An urban land tax reform program has been

proposed only to become mired in legislative channels. Such reforms should, however, accompany any comprehensive new housing program.

HOUSING MARKET

It becomes readily apparent upon examining price and income data that while a large absolute "need" exists the "effective demand" or number of families who can afford new housing is considerably less. Nonetheless, it can be demonstrated that a substantial number of families would be able to purchase new homes if financing were available at reasonable terms. Income data in Taiwan is sketchy and of limited usefulness. The best estimate of present income distributions can be obtained from the 1966 census. Table 12 shows the income distribution of non-farming households in Taiwan according to this census. Most experts agree that the data reported was about 20% under-estimated. Furthermore, per capita income has been increasing since then at a rate of about 7% per year. Figure 1 takes these factors into account increasing income for all income groups by 45% (20% underestimation plus 6% X 4 years = 45%). The original curve from 1966 with a mean income of NT \$2.43 thousand per month and a standard deviation of 1.13 thousand is now updated to an estimated present income distribution curve with a mean income of NT \$3.62 thousand and a standard deviation of 1.64. The new curve, in the absence of better data, assumes that income for each level increases by 45% from 1966, i. e. that population growth and urbanization through the period had little effect on income distribution.

Figure 1 also shows the estimated percentages of non-farm households at various income levels in NT's. Those with incomes from \$2,800 - \$3,500 constitute 17.2% of the total incomes, from \$3,500 to \$4,250 are 11.8%, \$4,250 to \$5,000 are 7.8%, and \$5,000 to \$5,800 are 5.2%. Incomes above \$5,800 are 10.9% of the total. Table 13 shows the income necessary to afford a certain priced house,

given interest rates and repayment terms. We can assume roughly, then, that incomes below \$3,500 could not afford housing on market terms, between \$3,500 and \$4,250 can only afford inexpensive housing; \$4,250 to \$5,000 can afford somewhat better housing; and incomes ranging in the \$5,000 - \$5,800 can afford moderately expensive housing depending on the terms. Table 14 explains the type of house available for the prices derived from Table 13.

These calculations seem to substantiate the observation that the market for high-priced (NT \$400,000 to NT \$1,000,000) housing has been surfeited, having been small to begin with. The fact that many people can afford such large down payments leads to the conclusion, however, that a much larger middle-income housing market would exist with more reasonable purchasing terms. We can note, then, that while only 24.8% of non-farm households can be estimated to comprise a middle-income effective demand group, this is a larger percentage than in most developing countries, and should consist of well over 400,000 families in Taiwan. Several factors point to the potential of an even greater effective demand. First, most Taiwanese experts surmise that middle and upper-middle income Chinese families would be willing to spend more than 25% of income on housing because of the special emphasis Chinese culture places on home ownership and because the purchase of housing as a capital asset is considered a form of saving. Secondly, population growth, urbanization, and rapidly increasing per capita income can only have a positive effect on effective housing demand in the near future, and thirdly, wiser land use and urban land taxation policies could curtail some land speculation and bring housing prices down to the level of households of more moderate means.

FINANCIAL INSTITUTIONS

As noted, most housing investment is made from the Government Housing Fund. Aside from Loans by the Land Bank and the Central Bank to the Housing Fund, only

24,785 bank loans for housing were recorded. Presently most of these loans are made by the Land Bank of Taiwan which holds a balance of about NT \$1 billion and the City Bank of Taipei with a balance of about NT \$100 million. Terms currently range from three to seven years, with interest rates of 11-12%

All financial institutions in Taiwan are under jurisdiction of the Ministry of Finance and are subject to examination by the Central Bank. Table 15 is a list of financial institutions in Taiwan.

a. Government Financial Institutions related to the housing field are:

The Central Bank of China which makes deposits to the Housing Fund and must approve exchange transactions relating to housing finance.

The Land Bank of Taiwan is entirely owned by the government and specializes in land and agricultural financing. It has 39 branches throughout the island. In the housing field it is the most important financial institution on the island. It acts as fiscal agent for the Housing Fund, receives from and makes deposits to that fund and makes the largest number of market interest mortgage loans. The balance of housing loans, both public and private, made by the Land Bank at the end of 1970 was NT \$2,556,466,000 of which NT \$1,692,374,000 were made in the public housing program from deposits by the Taiwan Provincial Government. The Land Bank also acts as mortgage administrator of many public and private housing loans including the AID Union Villa Housing Investment Guaranty project.

The City Bank of Taipei has become increasingly important since the establishment of Taipei City as a special administrative district. Established in January, 1969, it now administers those aspects of the National Public Housing Program which pertain to Taipei City much as the Land Bank acts for Taiwan Province. It also grants some market interest mortgage loans and acts as mort-

gage administrator for several projects within the city.

The Central Trust of China, another wholly government owned institution acts as mortgage administrator in some interest subsidy housing projects for government employees.

The Bank of Taiwan is a provincial government institution with 33 branches on Taiwan and the offshore islands. It is engaged in limited short term mortgage financing outside the city of Taipei.

b. Foreign Banks

Six foreign banking institutions have branches in Taiwan, including the First National City Bank, the Bank of American, and the American Express Co., Inc. but foreign banks are limited by law to exchange and other external transactions.

c. Commercial Banks

Commercial Banks are engaged in only a limited way in mortgage lending. Table 16 is a list of these institutions

d. Credit Cooperatives

There are 83 credit cooperatives with 128 branches in Taiwan. Their operations include acceptance of deposits from members and the extension of loans most of which are for short-term consumer and agricultural credits.

e. Mutual Loans and Savings Companies in Taiwan have little resemblance to U.S. Savings and Loan Associations; they are really only unique neighborhood capital pools used for short-term credit. No possibility is seen of their being used to provide housing credit.

f. Insurance Companies

Both the number and assets of insurance companies have increased rapidly in recent years. There are now twenty-five insurance companies with twenty-seven branches in Taiwan. Only one of these, however, the Cathay Insurance Co., Ltd. has ventured into the building construction and mortgage finance field because of its affiliation with the Cathay Building Company. Some construction loans and medium-term (5-7 years) mortgage loans have been made in the luxury housing field, but this action is being contested as illegal by other builders.

SAVINGS

The growth of savings in Taiwan has been one of the most noteworthy achievements of the Chinese economy in recent years. Increasing real per capita income, a virtual elimination of inflation compared to past excesses, and a growing confidence in the future are cited as the primary reasons for this growth. Table 17 shows the record of recent price increases.

Under these stable conditions and with an extensive savings promotion program currently underway, savings have expanded rapidly. Table 18 shows the recent growth of the two main categories of savings.

Interest rates paid on deposits by the postal savings system are representative of the entire savings market. Passbook savings pay 4%, while one year fixed savings pay 9.25%, and 2-3 year fixed savings pay 9.5%. As with loan rates, the past years have witnessed a downward trend in deposit rates, and this downward trend is expected to continue.

The management of the postal savings system foresees a bright future. Success to date is attributed to the simple procedures of the system, the wide network of offices available to savers (636 offices and 1,529 postal agencies), and the long daily business hours offered to the public. These factors together with continued price stability and prosperity have brought about a 45%

increase in savings in the last year and should continue to spur growth in the future.

TABLE 1
EAST ASIA POPULATION

	<u>Population</u> <u>(millions)</u>	<u>Density</u> <u>Persons per</u> <u>Square mile</u>	<u>Percentage</u> <u>Urban</u>
Taiwan	14.6	1,054	64
Japan	103	725	68
United States (for comparison)	205	57	70
South Korea	31.8	838	39
Hong Kong	4.1	10,256	80
Singapore	2.1	9,165	86
Total East Asia	418	224	35

Source: A.I.D. Data

TABLE 2
RECENT GROWTH IN GNP IN TAIWAN

	<u>GNP</u> <u>(thousands 1968 dollars)</u>	<u>Percent</u> <u>Change</u>	<u>GNP/Capita</u> <u>(thousands</u> <u>1968 dollars)</u>
1958	1,720	+ 9.4%	164
1966	3,463	+10.1%	279
1967	3,814	+10.1%	300
1968	4,200	+10.0%	322

Source: A.I.D. Data

TABLE 3

FASTEST GROWING MAJOR INDUSTRIES

Base 1966=100	<u>1967</u>	<u>1968</u>	<u>1969</u>
Synthetic Fibers	162.2	308.6	499.9
Electrical Machinery	144.0	329.2	170.4
Gas	132.0	199.7	290.9
Ship Building	178.5	192.1	263.3
Paints and Dyes	139.0	177.3	231.3
Rubber Products	124.0	197.0	211.3
Glass	176.8	191.7	211.3

TABLE 4

POPULATIONS OF FIVE LARGEST URBAN CITIES (1966)

	<u>POPULATIONS</u>	<u>No. of HOUSEHOLD</u>
Taipei	1,262,014	246,573
Keelung	291,793	57,125
Taichung	393,959	69,060
Tainan	431,170	76,090
Kaosiung	674,715	126,617

TABLE 5

URBAN POPULATION TOTALS

	<u>TOTAL POPULATION</u>	<u>RURAL</u>	<u>URBAN</u>	<u>% URBAN</u>
1970	14,560,000	6,104,000	8,456,000	57.8
1971	14,880,000	6,070,000	8,810,000	58.6

TABLE 6

SQUARE METER AREA OF EXISTING HOUSING (1966)

<u>1966</u>	<u>No. of Units</u>
Less than 11 square meters	220,445
11-15 m ²	166,761
16-20	251,376
21-25	94,238
26-30	249,096
31-40	422,545
41-50	228,391
51-60	202,494
61-80	245,759
81-100	111,167
101-150	52,490
151-200	10,780
201-300	2,987
301+	<u>1,006</u>
	2,259,535

TABLE 7

FACILITIES OF EXISTING HOUSING STOCK (1966)

<u>Kitchen:</u>	Independent	1,586,816	73%
	Sharing	346,244	16%
	No Kitchen	<u>226,475</u>	<u>11%</u>
<u>Bathroom:</u>	Independent	740,743	32%
	Sharing	332,806	14%
	None	<u>1,185,986</u>	<u>54%</u>
<u>Toilet:</u>	Independent-flushing	241,252	10%
	Flushing-sharing	147,549	6%
	Non-flush	1,224,237	55%
	None	<u>646,497</u>	<u>29%</u>
<u>Water Supply:</u>	Running	1,101,783	49%
	Non-running	<u>1,157,752</u>	<u>51%</u>
<u>Electricity:</u>	With	2,115,202	94%
	W/O	<u>144,333</u>	<u>6%</u>

TABLE 8

TAIWAN HOUSING NEEDS PER YEAR

Natural population growth	
(300,000 persons).....	60,000
Replacement housing.....	33,000
	15,000
Earthquaks, Typhoons damages.....	15,000
Squatter resettlement.....	<u>25,000</u>
	133,000 yearly

TABLE 9

SOURCES AND USES OF DEPT. OF SOCIAL AFFAIRS HOUSING FUNDS

<u>Catagory</u>	<u>No. of Units</u>	<u>Loan (NT\$)</u>	<u>Percentage Housing</u>
Housing for city dwellers, government employees, and teachers	19,280	693,614,368.00	29.43
Housing for laborers	6,500	121,843,200.00	10.06
Housing for farmers and fishermen	4,177	76,873,400.00	6.37
Reconstruction in disaster areas	31,256	255,559,600.00	47.73
Construction by private investors	4,199	174,692,458.00	6.41
Total	65,502	1,322,083,026.00	100.0

Note: Figures listed cover the period between July, 1955 to April, 1965.

TABLE 10

SOURCES OF CAPITAL SUPPLY FOR NATIONAL HOUSING PROGRAM

	<u>Amount (NT\$)</u>	<u>Percentage</u>
US aid and grants	104,973,708.00	7.83
Land value increment tax	584,109,318.00	44.20
Bank of Taiwan savings bonds	43,000,000.00	3.25
Land Bank of Taiwan loans	90,000,000.00	6.81
Central Bank loans	300,000,000.00	22.70
Bank of Taiwan loans	200,000,000.00	15.21
TOTAL	1,322,083,026.00	100.0

TABLE 11

THE TOTAL NUMBER OF DWELLINGS CONSTRUCTED BY THE HOUSING

<u>YEAR</u>	<u>HOUSING UNIT</u>	<u>COMMITTEE, DIRECTLY AND INDIRECTLY</u> (Taipei city only)		<u>TOTAL CONSTRUCTION COST</u>
		<u>TOTAL FLOOR AREA</u>	<u>TOTAL SITE AREA</u>	
1950	50	495.00	693.00	80,262.94
1951	40	759.00	1,062.60	295,479.62
1952	573	20,755.30	29,047.45	5,198,749.76
1953	290	10,572.40	14,801.36	4,936,978.19
1954	147	5,066.35	7,092.89	2,107,376.99
1955	241	11,901.78	16,662.50	7,572,483.10
1956	560	20,932.98	35,765.44	19,695,171.40
1958	834	50,355.26	68,478.19	51,490,284.00
1959	223	36,876.50	12,327.32	19,706,981.80
1960	132	4,371.58	3,658.19	3,618,973.29
1961	1,475	33,903.00	82,730.00	140,530,830.00
1962	1,232	28,624.00	39,710.55	93,040,536.94
1963	1,905	96,270.15	55,517.98	99,718,965.36
1964	3,048	154,926.37	239,893.83	147,908,962.45
1965	240	9,226.84	4,076.01	14,542,159.10
1966	2,708	189,688.37	78,347.85	211,330,666.13
1967	978	60,669.70	46,989.75	62,898,777.62
1968	1,180	68,501.14	43,277.60	87,100,048.40
1969	431	22,218.34	8,395.11	36,911,198.30
1970	2,034	72,314.08	24,648.09	238,875,521.05
TOTAL	18,321	898,428.14 m²	813,175.71 m²	1,247,560,406.44

TABLE 12

1966 INCOME DISTRIBUTION IN TAIWAN

<u>MONTHLY NT\$</u>	<u>No. OF HOUSEHOLDS</u>
Below 500	9,884
500-1,000	103,290
1,000-1,500	238,090
1,500-2,000	305,023
2,000-2,500	271,890
2,500-3,000	186,990
3,000-3,500	121,655
3,500-4,000	81,031
4,000-4,500	58,874
4,500-5,000	52,069
5,000-5,500	39,807
5,500-6,000	21,212
Above 6,000	85,741

TABLE 13

MONTHLY INCOME NECESSARY TO AFFORD VARIOUS PRICES OF HOUSING

	Interest		11%		10%		9%		
	Down payment	20%	25%	20%	25%	20%	25%	20%	25%
LIVING UNIT	130.00	4580	4290	4293	4024	4014	3763	3744	3510
	150.00	5285	4954	4954	4644	4632	4343	4320	4050
PRICES	170.00	5989	5615	5614	5263	5250	4922	4896	4590
	190.00	6694	6276	6275	5882	5867	5501	5472	5130
NT \$	200.00	7046	6606	6605	6192	6176	5790	5760	5400
	220.00	7751	7267	7265	6811	6794	6369	6332	5940

TABLE 14

HOUSING AVAILABLE AT REPRESENTATIVE PRICES; NT\$

- | | |
|---|---|
| <p>1. 130,000
22 ping, 3rd or 4th Fl. W/U over small factory. Bathroom, but no interior walls. No exterior lot. San Chung City</p> <p>2. 150,000
22 ping, 2nd Fl.
Same Type as No. 1</p> <p>3. 170,000
20 ping, 4 story apt. fringe of Taipei. PVC tile floor (similar to Union Villa). 40% open land</p> | <p>4. 190,000
20 ping, 2 story apt. Similar to No. 3</p> <p>5. 200,000
20 ping, similar to No. 3 but closer to downtown</p> <p>6. 220,000
25 ping apt. Similar to No. 3</p> |
|---|---|

TABLE 15

FINANCIAL INSTITUTIONS IN TAIWAN AS OF JANUARY, 1969

<u>Category</u>	<u>No. of Institutions</u>	<u>No. of Branches</u>	<u>Total</u>
Banking Institutions	20	352	372
Credit Cooperatives	83	128	211
Credit Department of Farmers' Associations	293	2	295
Mutual Loans and Savings Companies	8	99	107
Insurance Companies	26	27	53
TOTAL	430	608	1,038

TABLE 16

TAIWAN COMMERCIAL BANKS

<u>Bank</u>	<u>Capital (NT\$)</u>	<u>Branches</u>
The First Commercial Bank of Taiwan	\$128 million	87
Hua Nan Commercial Bank, Ltd.	120 million	67
Chang Hua Commercial Bank	120 million	79
Overseas Chinese Commercial Banking Corporation	107 million	2
Shanghai Commercial and Savings Bank, Ltd.	160 million	1
China Development Corp.	180 million	1

TABLE 17

INDEX OF URBAN CONSUMER PRICES

1967	111.32
1968	118.30
1969	124.29
1970	128.73
1971 (June)	130.97

TABLE 18

SAVING DEPOSITS

	<u>Time and Fixed Savings Deposits</u>	<u>Postal Savings (in Millions of NT\$)</u>
1965	15,382	2,457
1966	20,690	3,372
1967	25,296	4,360
1968	28,409	4,969
1969	35,582	6,135
1970	45,608	8,693
1971 (June)	51,858	10,626

PART II

TECHNICAL

BUILDING CONSTRUCTION INDUSTRY

a. Housing Developers and Contractors

There are only a few large building developers in Taipei all of which also have building contractor divisions. The largest of these are Continental Engineering Corporation, Cathay Engineering Corporation, and Pacific Engineering Corporation. Also of significant importance are Taiwan Development Corporation, Hwa Mei Engineering Corporation, and Hsin Cheng Enterprises, Ltd. There are a number of smaller developers of various sizes.

Continental Engineering is the largest independent builder of both commercial and residential construction. Wei Dah Development Corporation is its associated developing and planning company. Continental also owns a substantial part of Pacific Engineering.

Cathay Engineering Corporation is associated with Cathay Insurance Corporation and it obtains some financing through its insurance affiliate. It has the highest dollar volume of construction business in the Taipei area, constructing hotels, commercial buildings and apartments.

Pacific Engineering Corporation is a newer company founded by former employees of Continental from which it has received some of its working capital.

Taiwan Development Corporation has several negotiated contracts for building homes for legislators of the central government. These are mainly two story duplexes on the outskirts of the city. Taiwan Development Corporation entered the construction business four years ago with a project adjacent to the AID Union Villa project financed through PL 480 funds.

The remaining large developers are relatively new. Hwa Mai Engineering Corporation is in the later stages of a high rise building which will consist of commercial, office, and luxury apartment space. Plans exist for two similar buildings to be started in the near future. It has previously built several apartment projects.

Hsin Cheng Enterprises Ltd. was founded for the purpose of building a large hillside development about ten miles south of Taipei. The development is very luxurious, but the company is reportedly in financial difficulties due to inadequate market. The project is largely being financed by overseas Chinese investment.

Small corporations are commonly formed to build single projects and then fade out of existence. This avoids any problems arising after sale.

The numerous building contractors are classified into three groups: A, B, and C. (The classification is to be revised to be based on capitalization.) Class A license holders must have the capacity for projects valued over NT \$1,200,000. There are over 150 builders of this size in Taipei. Class B contractors must have the capacity for projects of at least NT \$600,000 while Class C contractors comprise the smallest ones.

Some other building is done by entities with no formal affiliation with the building industry. For example, an individual or a company, such as a rice mill may accumulate land and/or capital with the end of speculating in housing construction. Small builders are then contracted to follow plans approved by local architects, but which are almost standardized and without imagination.

b. Architectural and Engineering Professions

There are many architects and engineers in Taiwan a number of whom have studied in the United States. However, the critical shortage of skilled managerial personnel, aggravated by the large number of students who stay in foreign countries, draws many qualified engineers into other management and government positions.

There are only three large A and E firms employing over one hundred professionals. Many smaller firms with about ten professionals are available, as well as two to three-man shops and small home-based operations.

c. Current Housing Development Activities

Most new private developments consist of higher priced condominiums. High rise luxury apartments range from U. S. \$10,000 to U. S. \$25,000. Four story walk-ups are most common at the lower end of this range. Lower floors of these buildings are commonly reserved for commercial purposes. There has been much overbuilding on the higher price ranges; it is estimated that there are about 10,000 "luxury" units unsold in Taipei.

Government subsidized low-cost squatter relocation units constitute the only other major category of residential construction to the privately built four and five story walk-ups, but apartments are smaller and in large buildings. Ground floors are for small shops with second floors for combination living and commercial space. Higher floors are residential, but as is common in the Far East there is also much individual "cottage industry."

Little developing is being done on the steep hillsides within ten miles of the city. One large 1250 unit luxury development is under construction in the south, where even some high-rise buildings are being

constructed on high ground. Hillside building is more common to the north of Taipei where much of the foreign community lives. Roads to outlying areas, even in the close vicinity of Taipei are narrow, winding and generally insufficient for commuter traffic.

Some lower cost private housing is being developed on the outskirts of the city. This is especially common in San Chung City across the river from Taipei where land is cheaper, flat, low and subject to flooding. Construction quality is poorer than in higher priced units but still adequate. Buildings are close together on narrow streets, and services are minimal, posing a problem for ongoing maintenance. Much of this low-cost housing is in long narrow structures with small factories occupying ground floors. (Plans and photos accompany the report.) Buyers of these units are typically small businessmen who work in factories downstairs and live upstairs. More affluent purchasers may buy the three floors above their factories and rent out the upper two.

d. Builders Associations

There is one main builder's organization in Taipei, the Housing and Real Estate Association. Most of the major developers are members. The group seemed quite receptive to progressive concepts including the formation of a savings and loan system. Many expressed interest in individual competitive AID Housing Guaranty projects, desiring to bypass government bureaucratic procedures. This is, however, not possible at this time given opposition to this type of foreign investment.

AVAILABILITY OF LAND FOR HOUSING PROJECTS

a. Ownership

Most land is privately owned. In a comprehensive land reform program in the 1950's large private and government land holdings were broken up and distributed to small farmers. Consequently, most undeveloped land on the outskirts of cities suitable for development is owned in small parcels by relatively large numbers of landowners, often making consolidation difficult. Lack of publicly owned land is also a major problem in Taipei. Much of the little existing public land has been occupied by squatters forcing the government to use some of it for resettlement housing.

b. Methods of Acquiring Land for Development

When land is bought for a project, prices are often so high that landowners must be brought as partners into the development scheme. This can also be a way to avoid some land increment taxes (capital gains). Projects are often planned and partially sold well in advance of construction; downpayments and subsequent installments are then used to finance building costs.

c. Land Values

Land is limited due to the high population density and the fact that much of the island consists of high, steep mountains. Every available piece of land is used; terracing has been developed to a maximum to increase arable land. These conditions naturally would lead to high land prices. The problem is aggravated, however, by speculation. Land taxes do not sufficiently penalize holders of vacant or under-utilized land, and alternative profitable investment channels are often not available. Examples of the resulting high land prices are listed in Table 1.

TABLE 1
LAND PRICES IN VICINITY OF TAIPEI

	<u>NT \$/PING</u>	<u>\$1 ft</u>
Downtown Taipei		
Commercial	80,000	56.00
East Side (best area)	50,000	35.00
Residential	20,000	14.00
Near airport and city perimeter	over -- 5,000	3.50
8-10 km out (good land)	3,600	2.50
San Chung City, level, near Taipei, but subject to flooding	3,000	2.10
Hillsides in developed areas	2,300	1.60
Hillsides away from city and facilities	1,000	0.70

d. Physical Characteristics of Available Land

There is a fairly large amount of open level land close to Taipei, most of which is under intense cultivation. A large amount of land in the downtown area is under utilized, occupied by one, two and three story wooden buildings. Land subsidence in the city is a major problem partly caused by pumping out ground water from wells. The city apparently has no solution to this problem except to build higher dikes along the river and thus avoid some of the resulting flooding.

San Chung City across the river to the west is being developed, but it is on a plain, subject to flooding during typhoons and heavy rains. Level land throughout the Taipei area is limited with steep hills and mountains surrounding the city on three sides. Some building has been started on hillsides, but they are still largely covered with thick underbrush.

The airport occupies a large tract of level land adjacent to the city. Besides holding land out of use, the height of building around it is restricted, thus contributing to congestion.

A detailed ambitious plan for a new town development called Linkou has been proposed. It was to be on a plateau to the west of Taipei and thus safe from flooding, but for now the idea seems to have been set aside.

e. Land Planning and Zoning Requirements

A planning office exists in Taipei which is the only city on the island to have one. This office has developed a formula for zoning but it is yet to be officially approved. Japanese regulations and codes are often still used and are now grossly inadequate. (See newspaper clipping Fig. 2)

An area of over 300,000 ping near the airport has been replatted, consolidating irregular parcels of land into a more logical plan for development. Under this consolidation process odd shaped little patches of land are first combined; equivalent regular shaped plots are then redistributed to the original owners to thus facilitate the development of roads and other community facilities.

METHODS OF CONSTRUCTION

a. Typical Construction Methods

Virtually all new construction is of reinforced concrete columns and beams with brick filler and plastered walls. A very few steel frame buildings are being erected in Taipei, and technology is not advanced in this field. Except for some single story construction several outside of Taipei which is considered very luxurious, all building is multi-story. The lowest rise new houses being built are two-story duplexes in a project for legislators

near the city, but much more common are four story walk-ups. From this level buildings graduate abruptly to ten to twelve story high rise structures. More expensive buildings are finished with colored glazed tiles, but most are left with exposed grey concrete exteriors.

Manual labor is cheap and used in lieu of more capital intensive methods wherever possible. Even reinforcing steel is lifted by hand pulley to the tops of twelve story buildings. Long ramps are built with bamboo scaffoldings for laborers to carry materials up to walking levels. Mechanical elevators are used to lift concrete on high rise buildings, but this is practically their only use.

Traditional construction ranges from wooden structures with tile roofs, found throughout the cities, to mud and bamboo houses in rural areas. This is only found in old buildings, as new construction is virtually all of the kind previously described above.

b. Pre-Fabrication Methods

The only pre-fabrication done is some pre-casting of concrete beams. A Japanese pre-fabrication technique has been experimented with, but without success.

c. Availability and Extent of Equipment Utilization

All types of construction equipment are available in Taiwan, most of which is imported from Japan, and some of which is purchased used. Equipment is frequently seen idle and appears to be under-utilized much of the time.

d. Research of Building Materials and Methods

New construction reflects little recent innovation, due partly to the lack of modern building codes. The new Garden City project shows the most

architectural innovations. using mainly traditional reinforced concrete construction methods, high-rise structures, stepped buildings, and semi-detached and single units are being constructed on steep hillsides.

HOUSE AND URBANIZATION DESIGNS

Because of crowded conditions, lack of suitable land and high land costs, high rise construction is the only logical solution to the housing problem. Only the extremely wealthy are able to afford a detached house on a large lot. The normal desire of the rising middle class is to buy a two to three bedroom condominium apartment of at least twenty ping (66 square meters). Typical layouts are of ordinary design similar to many built under the HIG program in Latin America with small bedrooms, one bath, and a living/dining room. Chinese cooking requires a well ventilated kitchen which should be separated from the dining area and open to the outside. A terrace is usually provided as a clothes drying area. In smaller houses, the use of tatami (Japanese style sleeping mats) makes living areas convertible for sleeping.

AVAILABILITY OF CONSTRUCTION MATERIALS

All materials necessary for usual construction are produced locally. Cement is manufactured by 12 plants at present and some one million tons a year are available for export. Concrete is usually delivered ready-mixed to construction sites. Numerous kilns produce bricks in abundance. Aggregates of all sizes are in plentiful supply, and the grey local aggregates impart color to many buildings. Reinforcing steel bars are produced locally, mostly from imported scrap. Cast iron, galvanized iron, and plastic pipe and all fittings are manufactured locally. Although the pipe is of slightly inferior quality it is still serviceable. Sufficient lumber and plywood are produced

locally as is glass. Plumbing fixtures, hardware, and electric fixtures are fabricated locally, but some high quality hardware must still be imported, mainly from the U. S. and Japan.

AVAILABILITY OF CONSTRUCTION LABOR

a. Manpower

Skilled labor is quite competent and in ample supply. Supervisory personnel are also readily available, but higher level management talent is somewhat lacking.

b. Wages and Salaries

The Taiwan Development Corporation quotes daily wages at NT \$160 for skilled workers and NT \$120 for unskilled. The "Commodity-price Statistics Monthly" lists carpenters and masons' services at NT \$115 per day. Management and supervisory personnel receive from NT \$6,000 to NT \$16,000 per month. Social benefits taxes are graduated and range from 10% to 20%.

c. Labor Unions

Labor Unions exist but are very weak. Strikes are against the law which still recognizes a state of emergency; there have been none since the Nationalist Government evacuation to Taiwan in 1949.

d. Reliability and Performance of Labor Force

The Chinese people have a proud reputation for being diligent and industrious workers, and Taiwanese are no exception. Labor losses are minimal, and pilferage is not common. Materials such as bricks, cement, steel, and lumber are left in open areas at construction sites.

WATER, SEWAGE DISPOSAL, ELECTRIC POWER

a. Water Supply

Water is supplied by Municipal Water Works. The Taipei water treatment plant is located on the Hsin Ten River before it enters the south side of the city. Contaminated water supplies, caused mainly by industrial waste, are a more serious problem during dry summer periods when water levels drop. The City has not been able to keep up with increased demand simply by expanding existing lines, and the percentage of the population served by city water has thus actually dropped in recent years. Water for industrial use and air conditioning is often pumped from wells adding to the major problem of subsidence. Areas of Taipei's city have subsided several feet in recent years.

b. Customary Sanitary System

Traditional sanitary systems are non-existent. Sewage is disposed of as "night soil" fertilizer.

In Taipei there is no sewage treatment system except for the plant at Union Villa. Disposal is normally to the nearest available storm drain or open ditch. Numerous ditches, formerly for irrigation, cross the city from south to north. At the north ends where they re-enter the river, they are black, open sewers. A large city project is underway to cover these ditches in heavily populated areas, and sewage collection systems are being built in the expanding western part of the city, but there are no plans now for treatment. The situation is similar in other cities on Taiwan.

A comprehensive sewage collection and treatment plan was developed fifteen years ago by local engineers, but it rapidly became obsolete. A

new plan was recently completed by the firm of Camp, Dresser, and McKee of Boston, but it disregarded political considerations. A regional system including San Chung City was proposed but ran into interjurisdictional problems and is now dormant.

c. Electrical Systems

Taiwan has abundant cheap hydroelectric power, but new hydroelectric sources are rapidly being exhausted. Thermoelectric plants now supply over half the power output and a large new thermal plant is nearing completion. Except for periods of drought when hydroelectric capacity is less, electricity is not in short supply.

Taipower, an almost entirely owned Government corporation, supplies all electricity at very low rates. The average rate per kwh in 1966 was only 1.24 cents including taxes. Usual distribution systems are overhead on concrete poles; power is 120 volts, 60 cycles.

CONSTRUCTION COSTS

Construction costs are quite low in general. Labor costs which make up 22% of construction cost are very low. Furthermore, the most common building materials - cement, bricks, sand and stone, are in abundant supply and are cheap. Typical construction costs for a moderate to high priced unit in a four story walk-up are NT \$7,000 ping (U. S. \$53/M²). More detailed prices and unit costs for buildings and urbanization are given in appendix 7.

Typical architectural and engineering fees are 3.5% to 7% of the contract price. Usually these are reduced if the contract is over NT \$1,000,000. There is a land transfer fee of about 9% of sales price paid by the buyer at time of sale. This fee must be paid each time the land is sold.

LOCAL REGULATIONS*

a. Local Agencies Responsible and Steps Necessary for Approval of a Project

Project proposals must go through the following steps to secure approval:

1. The planned project is presented to Taipei City Planning Commission under the Construction Department, for engineering study and recommendations. Little architectural consideration is given at this step.
2. The project must be approved by the Central ROC, Executive Yuan Branch. This process often takes several months.
3. The Land Department of the City Government publishes land redistribution plans.
4. The Land Department receives objections from interested parties; land consolidations are negotiated.
5. The Land Department registers new plotting.
6. Building Permits are issued by the Construction Department.

b. Zoning Regulations and Building Codes

Copies of proposed new "Taipei City Plan" and "Construction Regulations" are included in the reference library.

The attached clipping, Figure 2, from a Hong Kong newspaper sums up the situation quite well. The proposed new regulations have not yet been officially adopted and are already in need of revision and in the absence of new ones the obsolete Japanese codes are still used.

c. Type of Inspection Performed by Local Authorities

The Department of Building Control checks steel placement and tests concrete using standard concrete testing methods. All construction is supposed to be checked regularly by this department. The builder may not proceed with

*Information in Parts a-f below was mostly provided by Mr. Raymond J. M. Hwang, Director of Building Control, Public Works Bureau, Taipei City Government. Mr. Hwang was previously Head of the Planning Department at the time of the inception of the Union Villa project.

additional floors until the most recently poured floor is tested. This is usually a 14 day test. The architect is held primarily responsible for the safety of construction.

d. Local Agencies Responsible for Receiving and Maintaining Utilities and Facilities

The Land Department appropriates approximately 45% of the total land in a new project for streets, sidewalks, parks, etc. In the city, municipal authorities build streets and drains. A Roads Department maintains the streets; the electric and water departments install their respective utilities. Donating land and facilities to the local agencies and having them accept responsibility is, therefore, not a problem.

A new department is being created be responsible for the maintenance of parks and green areas bordering streets, including street lighting, but maintenance of these areas has been inadequate in the past.

e. Efficiency and Adequacy of Utilities Operations by Local Authorities

Generally the maintenance and operation of utilities and community facilities is good. Roads are kept in repair electricity and water are supplied, and street lights usually work. Garbage collection, however, is inadequate as trash often accumulates in vacant areas.

f. Customary Guarantee Against Construction Defects

The customary construction guarantee period is one year. Enforcement is only feasible, however, with the most reputable companies because many building entities are desolved after project completion.

g. Amount of Property Taxes and Method of Collection and Assessment

For a detailed description of Land Taxes see "Land Taxes of the Republic of China" in the Economic Review (Bank of China) May-June and June-July 1969.

Annual Land Value Taxes are levied on urban lands within city planning areas. The taxes are progressive and start at 1.5% of the land value (as determined below). If the land value is higher than a "progressive starting value" set by government, then the tax rises incrementally to a maximum of 7%. (See figure 3). A Vacant Land Tax of two to five times the Land Value Tax should be paid when the landowner fails to use his land within a time limit set by the government, but this apparently is seldom enforced.

There are several exceptions to the above Land Tax. First, self-owned residential land under three acres is only taxed at 0.7%. Lands used for factories and urban areas used for agriculture are exempted from the progressive rate above 1.5%. In the agricultural area or green belt there is only a 1% flat, and where public improvements have not been constructed there is only a 1.5% flat. In 1964 there were only 263,000 taxpaying units.

The urban Land Value Taxes apply to only about 0.5% of the total area of Taiwan while Rural Land Taxes apply to other areas except forest land which is not taxed. The Rural Land Tax is another holdover from the Japanese occupation and is actually a produce tax paid in kind, generally rice or sugar. It varies widely and is quite inequitable compared to the urban Land Tax.

Land values, according to Dr. Sun Yat-sen's teachings, should be reported by the landowner. In practice, however, the government assesses a value, and the owner should report a value within a 20% range of the assessment. If the owner fails to report a value, the standard value is used. If he thinks the value is too high, he may request the government to buy the land. If more

than half the owners in an area think the assessment is too high they may petition for review.

Land value are assessed by block and district within urban areas and are reassessed every three years. Within a given area random properties are picked and their values assessed. From the average value a land value is established for the entire area which is used as a basis for the Land Value Tax.

The Land Increment Tax is a type of capital gains tax imposed at the time of sale of property which also applies only to urban lands. It is paid on the amount of appreciation in value realized from sale of the land. It starts at 20% of the value increase realized and increases to 80% of any increment over 300% of the original cost. (See figure 4.)

There is an additional land transfer tax of about 9% on the sale price to be paid by the purchaser.

TYPICAL HOME OWNERSHIP

Most people in Taiwan would like to own their own home or, in urban areas, their own apartment. About 33% of all households rent their living quarters, but many of these are only renting part of another owner's home. Almost no new rental apartments are being built because current laws and recent Chinese tradition highly favor tenants over landlords. A tenant must be at least two years delinquent in rent payments before he can be evicted. Furthermore, judgments against tenants are often lenient.

Most apartments are sold as condominiums often in advance of construction with over 50% downpayment. Often new owners rent apartments as a means of short-term mortgage loans.

CUSTOMARY FACILITIES

Few facilities are normally provided by contractors in new projects.

Under the compulsory education system schools should be provided by local governments. Contractors do not usually provide parks, playgrounds or places of worship. The Taipei City Government open land requirements stipulate that no more than 60% of total lot area may be covered, but that a one meter wide balcony may be extended over the open land. Thus, a typical 20 ping (66 m²) apartment must have only nine square meters of open land per family.

Shopping areas often occupy the lower floors of new apartments developments. Statutes require bomb shelters in each apartment development, but the space is usually used as a market. Thus, there is often an underground market, a first floor of shops, and three to four floors of apartments. In lower rent districts small scale commercial activity can be found even in upper floor apartments.

CUSTOMARY UTILITIES AND SERVICES

a. Utilities

Utilities and services are provided by government-run organizations. Electricity and water are the only normal utilities; sewage is channeled into storm drains. Electricity for home use currently costs slightly less than NT \$1.00/kwh and the water use fee is about NT \$18.00/month per household.

b. Services

Garbage disposal is a problem. Removal equipment is old and inadequate to make sufficient collections. Waste is disposed of in available open areas such as dry river beds near the city of Taipei. Municipal governments provide garbage removal and fire protection with no extra assessment to homeowners.

c. Public Transportation

Busses provide cheap and reasonably efficient public transportation. Taxis in Taipei are quite expensive and are commonly used even by less wealthy people.

A P P E N D I X

APPENDIX

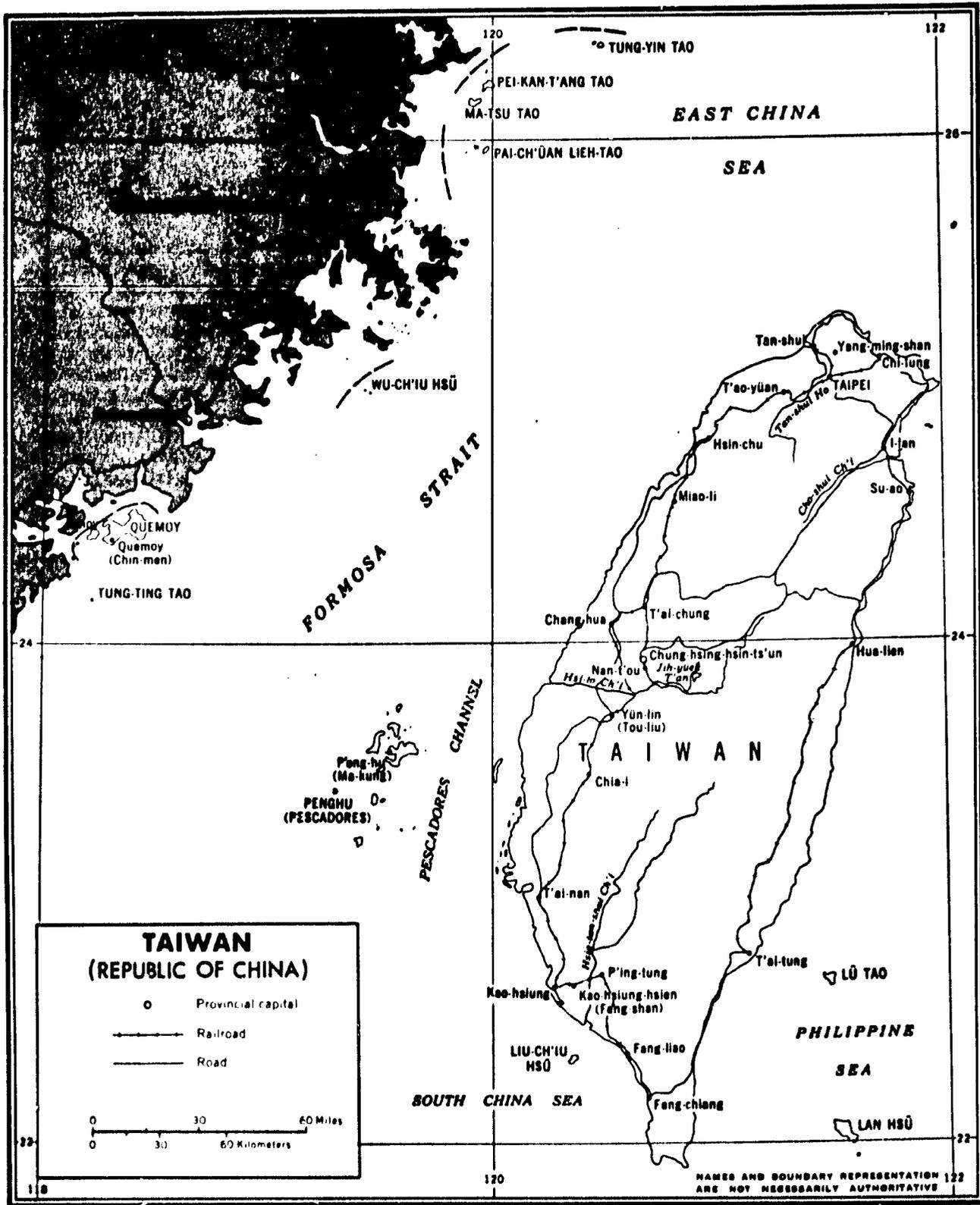
1. Conversion Factors
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APPENDIX 1

CONVERSION FACTORS AND GLOSSERY

NT\$	The new Taiwan Dollar usually called N.T. (EnTee) and written NT\$ equals \$0.025 US or NT\$40 = \$1.00 U.S.
Ping	The common unit of area, the ping, sometimes spelled pien, is roughly equal to the area of two tatami sleeping mats or $1 \text{ ping} = 35 \text{ sq. ft.} = 3.3 \text{ Sq. Meters}$
Hsien	County
Yuan	Major branch of government of the GRC. There are five, Executive, Legislative, Judicial, Control, and Examination.

APPENDIX 2



APPENDIX 3

Narrative Report

Housing Investment Survey Team - Taiwan
July 19 - August 9

The team was briefed at the American Embassy Monday morning, July 19 by Mr. James Klemstine, Second Secretary - Economic Officer of the Embassy.

Following the briefing, the team met with officials of the Department of Social Affairs, Taiwan Provincial Government; Ministry of Interior; and Land Bank of Taiwan at the Land Bank. The team outlined the purpose of its visit and then the officials of the Department of Social Affairs explained at some length the great need for housing in Taiwan, with particular emphasis on the need for housing low-income families and squatters. Before the meeting terminated it became obvious that the housing investment guaranty program was unlikely to play any role in the housing program of the Department of Social Affairs. The Department of Social Affairs wanted concessional 2% loans and appeared solely interested in subsidized housing for low income families. The team explained that such housing loans were not available from AID or any of the other international lending agencies. A list of the participants at the meeting follows:

Mr. Shi-ching Hsiao, Deputy Chairman, Economic Mobilization
Committee, TPG
Mr. Tsu-hsuan Chang, Director, Bureau of Public Works, TPG
Mr. Yuen-sheng Chen, President, Land Bank of Taiwan.

Mr. Cheng-ti Wang, President, Cooperative Bank of Taiwan

Prof. Ten-pi Tsai, Executive Secretary, National Housing & Community Development Committee, Taipei

Mr. Chang-hsi Wang, Director, Land Department, Ministry of Interior

Mr. Zee-nan Lee, Deputy Director, Urban Development Division, CIECD

Mr. Chiu, Chang-huan, Director, Social Affairs Dept, TPG

Mr. Tsing-ying Ku, Housing Office, Social Affairs Dept, TPG

Miss Sui-ching Chang, Chief, 4th Section, Social Affairs Dept, TPG

Mr. Lin Chieu-yeh, Chief, Housing Construction Department, Bureau of Public Works, TPG

After the meeting the team were guests at a luncheon hosted by the Director of the Department of Social Affairs. Mr. H. E. Su, the Chinese builder of Union Villa was present as well as some other officials who had not been present at the morning meeting which gave the team an opportunity to discuss further, the purpose of its visit and the housing situation in Taiwan.

That afternoon the team visited Mr. C. L. Chow, General Manager, Banking Department, Central Bank of China. After explaining the purpose of the team's visit and the nature of the housing investment guaranty program, Mr. Chow very courteously made it clear to the team that the Central Bank would not approve any dollar investment of this kind at this time. He explained that Taiwan now enjoyed a favorable balance of trade with the U.S.A., that in 1970 its exports to the U.S.A. totalled \$535 million as against imports of \$527 million and its present US dollar reserves were over \$750 million. He pointed out that postal savings in Taiwan were constantly increasing and that it was the Central

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Bank's policy to deposit a substantial amount of those savings in U.S. banks even though this policy involved a significant cost to the Central Bank. Interest yields on such deposits in U.S. banks being much less than the interest paid on postal savings in Taiwan. Mr. Chow emphasized that the Central Bank's policy was based on its concern for inflation and the general concern regarding inflation because of China's past history in this field. For these reasons he indicated that the Central Bank would not approve a housing investment guaranty which would create a flow of dollars to Taiwan at this time. He did agree with the team, however, that there was a need to create a savings and loan, or other system in Taiwan to attract savings and to provide long term financing for the construction of housing.

The team spent Tuesday morning, July 20 with Mr. Zee-nan Lee, Deputy Director, Urban Development Division, Council for International Economic Cooperation and Development, Professor Ten-pi Tsai, Executive Secretary, Taipei Housing and Community Development Commission, H.H. Tsai, Researcher, CIECD. Professor Tsai said that his Commission is made up of members or chairmen of other commissions and bureaus and just to arrange a meeting is a problem. The Commission has no coordinating authority and its members serve and attend meetings as they wish. This meeting was devoted to a discussion of the housing problem in Taiwan in general and an attempt by the team to obtain specific data regarding the housing market, construction costs, etc. It became clear that it would be difficult to obtain accurate, reliable data. Mr. H.H. Tsai confirmed the information the team had received from Mr. Klemstine that

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the only family income data available were from a 1966 census and that it was generally agreed that the incomes reported were under-stated by at least 20%.

The team were guests at a luncheon that day hosted by Mr. William Morell, Jr., Economic Counselor of the American Embassy at which they met several other Chinese officials and businessmen, including Mr. Glyn T.H. Ing - President of the Housing and Real Estate Association of Taipei who had just returned from Manila where a Regional South East Asia Association of builders and real estate men was organized. Mr. Klemstine informed us that Mr. Ing was an influential businessman, and if he and his group were interested in pushing a housing investment guaranty program it might be approved despite Central Bank opposition.

That afternoon the team made a tour of housing projects in Taipei, including housing projects under construction, completed but unoccupied, occupied-housing projects for resettlement of squatters, luxury apartments as well as the United Builders project. While the luxury apartments appeared to be reasonably well maintained, the maintenance of most of the projects visited was inadequate from U.S. standards. In fact, the public housing for resettlement of squatters had apparently become instant slums. The team had heard a number of criticisms of the maintenance of Union Villa but based on local standards, the conditions seemed somewhat better there than housing in the same price category in the general neighborhood. We were told the only complaint from owner-occupants had been that the open spaces, park areas, etc., were wasteful, but that in general, the owner-occupants were satisfied if not pleased with the project.

On Wednesday, July 21, the team met with the Taipei National Housing Building Committee at which time the total housing needs of Taipei were set forth in comparison with the actual rate of construction. It was obvious that there is a tremendous need for more housing in Taipei and that housing construction has not increased each year as have the other sectors of economic growth. The rate of housing construction has fluctuated considerably from year to year.

That afternoon the team called on Henry Kao, Mayor of Taipei. In the course of the conversation with Mayor Kao the team learned of his visit to Lima, Peru, July 28, and suggested that it would be useful for him to learn more of the housing investment guaranty and savings and loan programs in Peru. Therefore a telegram was sent to Lima (Pass to Guido Nadzo) Taipei 3582 regarding the Mayor's interest. Lima's prompt reply (Lima 4203) was helpful.

The entire morning of Thursday July 22 was spent with the Directors of the Housing and Real Estate Association of Taipei, headed by Mr. Glyn T. H. Ing. The idea of creating a savings and loan association and using the housing investment guaranty program both to stimulate the housing construction industry and the development of a local savings and loan system was well received. There was a very candid exchange of ideas and information. The objections of the Central Bank to a dollar investment for housing were discussed. The builders asked the team to help convince the Central Bank to approve such an investment. The team made it clear that it would try to be helpful and that assistance in preparing the necessary legislation, organization and operation of a savings and loan

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system were available. However, the team emphasized that the actual initiation of a savings and loan system and approval of a dollar housing investment would depend upon the decision of public officials in Taiwan and therefore it would be necessary for the Taiwanese builders to exert their influence with their government if any action was to be forthcoming. One of the Taiwanese builders commented that there were obviously four links - (1) the U.S. private investors (2) the U.S. Government (AID) (3) the Taiwanese builder (4) the Republic of China (the Central Bank). He went on to say that the mistake in the past had been that the Taiwanese builders had tried to deal directly with the U.S. private investors and had failed to recognize the necessity of obtaining the approval and support of the other two links.

The team then lunched with the builders who recessed after lunch to hold a further meeting that afternoon to decide on their next course of action.

On July 24 Joseph and James Wright met with Lee and Li, the attorneys to discuss the problem of the un-recorded mortgages at Union Villa. They were advised that the basic problem was that the plot plan for the project had not been approved by the appropriate municipal officials and without an approved plot plan the mortgages could not be recorded.

A typhoon hit Taiwan the night of July 25 and the Embassy and most local offices were closed on Monday July 26. Nevertheless, the team was able to meet with Mr. T. C. OuYang, Deputy General Manager, Land Bank of Taiwan. Mr. OuYang opened the discussion by asking two questions (1) Why had the team met with the Department of Social Affairs when the Department of Social Affairs is only interested in subsidized

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social welfare housing and would not be interested in dollar loans at current interest rates available under the H.I.G. program? (2) Why was the team visiting Taiwan at this time when he (Mr. OuYang) had informed Mr. Drexler when he was in Taipei recently in May that the Central Bank would not approve a housing dollar investment program at this time because of Taiwan's favorable dollar reserve situation? The team's answers to the two questions were that (1) The team was meeting with all groups public and private which might be interested in the H.I.G. program and the Department of Social Affairs had requested a meeting and (2) the flow of dollars resulting from the H.I.G. program would take place over a period of years and the Central Bank could both control the flow and allocate the funds. Last year new foreign investments in Taiwan had declined more than 35% so the Central Bank's attitude towards dollar investments could easily change.

The team endeavored to obtain some data from Mr. Ou-Yang regarding the housing market in Taiwan. As had been the case in discussions with other officials and private business men, Mr. Ou-Yang only presented his personal views and did not furnish any substantive data. In his opinion, there was a large market at approximately \$200,000 NT\$, and government employees with annual incomes of approximately only 48,000 NT\$ would be able to find down payments and purchase housing at ratios for higher than the 2 1/2 times annual income rate which has been used so often in the U.S.A. This would be particularly true if there were long term financing such as that available under the H.I.G.

The team then discussed some of the Union Villa II problems particularly the recording of mortgages and the plot plan. Mr. Ou-Yang

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stated that there was no longer any problem regarding the plot plan and of the 728 units in the third sector 238 had been recorded leaving 490 still to be recorded. He stated that the delays in recording were not unusual, that the local office had a large backlog of work, and that the Land Bank was exerting all reasonable pressure to expedite the recordings. He further advised that there were four owner-occupants who had complaints which he believed could be resolved.

In closing Mr. Ou-Yang recommended that the team stay away from the Department of Social Affairs since it was only interested in social welfare housing and would not be interested in the H.I.G. program, endeavor to interest Mr. Glyn T. H. Ing and his builder associates in the H.I.G. program and point out that to the Central Bank that the H.I.G. program was not short term foreign investment but that repayments would be over a 20 yr period.

The team called on Mr. Earl W. Glazier, Resident Vice-President, First National City Bank to obtain his views on the market for housing and housing finance in Taiwan. Mr. Glazier was of the opinion that there was a substantial housing market in Taipei considerably higher than the \$200,000 NT\$ figure quoted by Mr. Ou-Yang of the Land Bank. He said that with Taiwan's rapidly growing economy, there was an expanding managerial class which could afford to buy better housing if reasonably long term mortgage financing were available. While he was unable to give the team any specific market data, he suggested that Mr. Ing and other builders could obtain firm commitments from the leading commercial and

industrial establishments to assure the sale of blocks of housing units to their managerial employees. He also suggested that such firms might participate in the financing of housing projects. His attitude towards the development of savings and loan associations was negative, which was to be anticipated. He said that it had taken over three years for First National City Bank to organize an investment trust and that it was more important to get some housing built immediately than to wait for the development of mortgage finance and thrift institutions. He also was of the opinion that the Central Bank's objections to a flow of dollars to finance housing could be overcome and suggested that the team talk with Mr. H. P. Chia of the Central Bank. He said that the chief concern of the Central Bank was short term foreign debt and that if the fact that repayments would be extended over a 20 year period were emphasized he believed a H.I.G program would be approved. In his opinion the Central Bank was overly concerned with the money supply situation and tended to be obsessed with fears of inflation. Mr. Klemstine, the Embassy Economic Officer said that he could arrange for the team to meet with Mr. Chia of the Central Bank but did not recommend doing so. The team agreed that if there is sufficient interest on the part of local builders to push for a H.I.G., they could emphasize the long term nature of the loan to the Central Bank, but that the team should not "hard sell" the program.

Because of Mr. Baruch's letter of July 16 to the Taiwan Fire and Marine Insurance Co., the team arranged to meet with U. C. Chen, Vice President of that company, and Jadeson H. Lin, Sub-Manager of the Casualty Department.

The main thrust of the Insurance Company's representatives was that there had been misrepresentation on the part of both United Builders and the Land Bank at the time of the fourth closing, in claiming that 724 mortgages had been recorded when in fact there had not been. Furthermore, that the mortgages could not be recorded until "Licenses for Use" had been issued by the Construction Bureau of the City of Taipei. The Insurance Company claimed that all of the actions were most unusual and that it requested to be relieved of any responsibility under its guaranty on those mortgages which had not been recorded. It stated that it would accept responsibility effective the dates that the mortgages were recorded.

The claims of misrepresentation on the part of the Insurance Company appear to have little validity. The documents shown to the team covering the fourth closing lists over 700 units as having mortgages "filed for recording" on the same date and it was common knowledge that the units had not been completed on that date. Mr. Stanley Elcock confirmed the above, stating that the Insurance Company was well aware that the units were not completed nor the mortgage recorded at the time of the fourth closing.

Before leaving the Insurance Company, the team asked where official information could be obtained regarding the issuance of "Licenses for Use" and recording of mortgages. We were advised that the Construction Bureau of the City of Taipei could furnish the first, and the Land Affairs Bureau the second. Therefore arrangements were made for Messrs. Joseph Wright and Leo Morawski to meet with the two bureaus on July 29 and 30. Their findings based on these two visits are incorporated in Mr. Joseph Wright's report.

The team called on Mr. K. T. Li, Minister of Finance together with Mr. Peter Young, Civil Engineer, on July 29. Minister Li appeared to have been well briefed and thoroughly familiar with the purpose of the team's visit. He had only a short time to give the team because of an emergency cabinet meeting which had been called. He quickly came to the point, and said that in view of Taiwan's present reserve position and favorable balance of trade with the U.S.A., neither the Finance Ministry nor the Central Bank would approve a dollar loan for housing at this time. However, he went on to say that the team's visit was welcome in that he thought it was important to start a savings and loan system in Taiwan as soon as possible. He commented on the fact that two of the team members represented that National League of Insured Savings Associations, and said that he would like technical assistance from that organization. His emphasis, however, was on the mobilization of domestic savings rather than foreign credits. He said that he would welcome the H.I.G. program to cover the cost of imported materials or equipment, particularly machinery which would produce building materials that are not produced in Taiwan at present. The possibility of using the H.I.G. to finance the cost of technical assistance was briefly touched on. Minister Li also mentioned the possibility of utilizing the I.E.S.C. for technical assistance in developing savings and loan associations. The team responded that such technical assistance had been provided in other countries where AID's technical assistance programs had been terminated, using the I.E.S.C. as the vehicle. The team assured Minister Li that it would be glad to look into various means of furnishing such technical representatives of Mr. Ing's organization had called on his Ministry

that morning to discuss the H.I.G. program and the possibility of organizing an investment trust to qualify for the program. A subsequent conversation with Mr. Ing confirmed this fact, that the builders were still discussing the H.I.G. program and that Mr. Ing had also personally called on the Ministry.

Minister Li then turned the meeting over to Mr. C. C. Chao, Director of the Monetary Department, who is also Executive Secretary of the National Committee to Mobilize Savings and who had been present during the meeting. Mr. Chao said that there was a need for home builders in Taiwan rather than merely building contractors. He thought that adequate long term mortgage financing would help stimulate a home building industry. Mr. Chao said there was a great need for more housing and potential home purchasers would save for the purpose of owning a home. His conversation seemed directed towards a contract savings system. The team asked Mr. Chao what had brought about the tremendous growth in savings deposits in the Postal Savings System. The number of depositors had increased from 80,000 in 1956 to 1,600,000 by the end of 1969. Mr. Chao said the chief reason was convenience. Post offices were located all over Taiwan - even in the smallest communities. They were open longer hours than the banks and we could quickly make a deposit in a post office whereas we must wait in line and go thru time consuming delays in commercial banks. His statements indicated that there exists a strong potential for savings in Taiwan when consumer oriented facilities are available.

Mr. Chao asked how the U.S. Government aided the development of the savings and loan system in the U.S.A. The team outlined the basic principles under which the U.S. Treasury made capital funds available to the Federal Home Loan Bank System which in turn made matching "seed capital" loans to local savings and loan associations. The team suggested that a similar or modified kind of system could be established in Taiwan and that specialists who are familiar with the U.S. system could advise the Ministry how to set up such a system as a part of the technical assistance which the team had discussed with Minister Li.

The team called on Mr. Schinz who appears to be the only U.N. Housing Advisor remaining after the departure of Mr. and Mrs. Monson and Mr. Rozental. Mr. Schinz was unable to give the team any housing market data, saying that his principal function was that of a city planner. He spoke of the extremely high land costs and considerable speculative over-building which remained unsold. He said that the speculative urge was so strong that people would build without adequate consideration of the effective market. He said that many of the industries in Keelung and Kaohsiung already had considerable land holdings and would be interested in building housing for industrial workers if long term financing could be made available. He was not proposing company housing but taking advantage of fact that they had extensive land holdings and interest in making housing available to their employees.

On Monday, August 2, the team visited five projects being built by the Taiwan Development Corporation. The Taiwan Development Corporation had previously built the housing project adjoining Union Villa in

cooperation with Willard Garvey, the Wichita, Kansas builder using PL 480 financing. The company is now building additional units at that location as well as a shopping center. These apartments as well as the other apartment buildings are all being built for the government for occupancy by legislators. These projects are all being built under negotiated contracts with the government with all financing being furnished by the government. The four new projects while not far from the center city of Taipei do not have adequate access roads at present. The team was impressed with the amount of still undeveloped land close to Taipei but unadequately served by access roads and highways at present. Considerable land could be developed for housing if adequate roads were available. However, this kind of development, unless adequately planned and controlled, would merely contribute to real estate speculation and inflation.

The team also visited a number of other housing projects, the City Bank of Taipei and the Postal Savings System. The information received from all these sources appeared to be generally consistent. Builders preferred to build luxury apartments since buyers in that income class could generally pay the entire cost of their apartments without mortgage financing. In general, purchasers make down payments prior to construction and continue making payments prior to completion, having paid approximately 2/3 of the total cost by completion and obtain a mortgage for the remaining 1/3 for a five year period at 12% to 13% interest per annum. Executives of the City Bank of Taipei and the National Postal Savings System both agreed that the incentive of home ownership could stimulate considerable additional savings.



NATIONAL LEAGUE OF INSURED SAVINGS ASSOCIATIONS

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August 30, 1971

REPORT: Post Construction Inspection
Project 484-HG-001, Union Villa II
Taipei, Taiwan, ROC
Dates of Inspection: Between July 19 and Aug. 8, 1971
Sponsor: United Builders
Administrator: Land Bank of Taiwan

BY: Leo J. Morawski, Project Engineer, NLISA

PURPOSE

Investigate problems pertaining to HIG Project Union Villa II

1. Lack of registration of mortgages to purchasers.
2. Run down condition of buildings.
 - a. Stained and discolored exterior building walls
 - b. Unauthorized construction, extension of walls to exterior balconies, and commercial shops located in living units.
 - c. Trash accumulation and unkempt outdoor areas. Including uncollected garbage and presence of rats.

REFERENCE:

Mr. Osborn T. Boyd's Narrative Report of Taiwan Investigation trip.

Mr. Joseph Wright's Report.

PERSONS CONTACTED

<u>Name</u>	<u>Position</u>	<u>Organization</u>
T. C. Ou-Yang	Deputy General Mgr.	Land Bank of Taiwan
Raymond J. M. Hwang	Director	Dept. of Building Control Public Works Bureau City of Taipei
Ku Ting-Chen	Vice Chief	Land Dept. City of Taipei
Cheng Chin-Chiu	Executive Secretary	Land Consolidation Committee Land Dept City of Taipei
Hon-En Su	Local Partner	United Builders
Stanley Alcott	Engr. (Formerly)	USAID
Chao-Nien Li	Attorney	Lee and Li (Consultants to US Embassy)
Y. C. Chen	Vice President	Taiwan Fire & Marine Ins. Co. Ltd.
Jadison H. Lin	Sub-Mgr. Casualty Dept.	Taiwan Fire & Marine Ins. Co. Ltd.
Mr. Ku	Manager	Union Villa Homeowners Assoc.
Two Families	Homeowners	Union Villa

DISCUSSION

1. Registration of Mortgages

Though registration of mortgages has been proceeding slowly, the majority have been recorded and in the opinion of local officials all should be completed within two months. There are various offices and bureaucratic procedures to go through to accomplish this and it does not normally proceed rapidly.

Mr. Hwang, Director of the Dept. of Building Control stated that virtually 100% of the "Licenses for Use" (Occupancy Permits) had been issued. Most of those not issued were in one unoccupied building being remodeled. The Taiwan Fire and Marine Ins. Spokesmen had said that mortgages could not be recorded until the "License for Use" was issued and that they had not been issued.

The U.S. Embassy's attorneys, Lee and Li, were also not up-to-date on the status of mortgages. They had said that the plot plan has not been approved by appropriate officials. There is a complete plot plan in the office of the Land Dept. The plots of land have all been consolidated (replotting of odd shaped parcels into regular shapes and allowing for streets, etc.) and virtually all have been approved.

The main problem had been that Union Villa II was in the middle of a much larger area (118 HA) that had been consolidated by the city for new development. Six of the approximately 700 small landowners had objected to their new parcels and they were being negotiated. The objections are supposed to be resolved during the month of August.

A condition to the right to development of the project was that 45% of the land be donated to the city for streets, parks and other community facilities. As it needs about 38% for these facilities it has extra land available and will sell it. With the money realized from these sales it will pay the urbanization costs.

2. Condition of Buildings

a. Stained Exterior Walls

The exterior walls are without doubt discolored and have streaky stains. There are several reasons for these conditions including high air pollution, dust and other suspended matters, high humidity and rain, and use of materials that can oxidize for exterior window frames.

The pastel colored Nyassett (stucco-like) exterior finish has not proven satisfactory in Taipei's climate. First, the high air pollution appears to have discolored it. Dust and smoke have collected on the rough surface and been glued on by the high moisture content (85% average humidity) of the atmosphere. Then rain water running down the walls, following paths of least resistance builds up the accumulated grime in streaky stains. Also some of the nails and frames of windows and grill work rust causing stains.

b. Unauthorized Construction

Nearly all the residents have closed in the front balconies of the apartments to gain the extra room. This in turn helped lead to two other problems.

- (1) Sometimes this construction was not as well done as it might have been. Where windows extend outside the concrete walls the rain can cause nails or metal to rust leading to more stains.
- (2) Enclosing the balcony provides more interior room but was not in accordance with the original plans. This developed a bureaucratic snag with the Construction Dept. of the City Govt. The problem was resolved by changing the plans to reflect the "as-built" condition.

The locating of shops and other commercial enterprises in living quarters is common in Asia. Also, the project is not close to shopping centers and requires some services of this type. Commercial areas are normally provided for in new construction even in public housing projects.

The practice of pre-empting part of the open, collectively-owned plot in front of a ground floor apartment for personal use has occurred because the homeowners association is weak. It is common for Taipei shopowners to sprawl over onto public areas and little is done about it. The only solution is for an effective Homeowners Association to force use as planned.

c. Dirty and unkempt condition of grounds

Garbage disposal is a common problem in Taipei and collection are not always prompt. In the interest of efficiency Union Villa residents have stopped using the trash chutes and are bagging waste and bringing it to central pick-up areas. Some however, still toss it into convenient vacant areas. This can only be stopped by education. However, no rats were seen during three on site inspections.

The Homeowners Association now assesses a small amount from each household to pay for upkeep. Mr. Ku, the Manager, has hired about ten workers to clean hallways, etc. The hallways inspected were clean, unlike those in public projects in Taipei.

The City has had a special department to maintain the area including Union Villa. Maintenance will be assumed by the City shortly. At present streets are in good repair but some sidewalks are in deteriorated condition.

The outdoor areas are unkempt and overgrown with weeds. Here again only an effective homeowners association can cope with and resolve problems such as this.

CONCLUSIONS

1. The problem of lack of registration of mortgages continues but is in the process of being resolved. Most of the local bureaucratic procedures are being finalized and should be completed very soon. It is anticipated that the registration will be completed within the next few months (Local estimates were "about two months"). Pressure should be maintained on the Land Bank to expedite the registration.
2. The exterior and outside condition of the buildings presents a run down appearance, but the same is not true inside. The inside of apartments visited was of utmost neatness. The Chinese life is still family and home centered, and they don't seem to care too much about the exterior appearance.

The Homeowners Association should be organized to cope with these communal problems and bring about their own solutions. An effective Homeowners Association is the basic answer to nearly all the problems of Union Villa. The lack of qualified management or leadership in association of condominium owners is a serious problem in all of Taipei. Public housing is built-- and left to decay. A management training program for condominium managers should be set up concurrent with an education program for tenants that the outside environment belongs to them too and that it is up to them to keep it clean and in good appearance.

APPENDIX 5

Report on VISIT TO TAIWAN

July 19-31, 1971

by

Joseph E. Wright

Assistant Regional Administrator for Housing Management

Department of Housing and Urban Development - Region X

July 28, 1971

A. Mission

1. Study conditions relating to the Union Villa II Project and provide recommendations in areas of concern to AID-Washington, D. C.
2. Participate with AID Team in a Pre-Investment Survey of Taiwan concerning potential involvement in the Housing Investment Guarantee Program.

B. Calendar of Meetings

- 7/19 Department of Social Affairs plus luncheon (introduction to Mr. Su, Union Villa II Developer).
- 7/19 C. L. Chow, Director, Central Bank of China.
- 7/20 Council for International Economic Cooperation and Development, Executive Yuan (CIECD). Introduction to Peter Young.
- 7/20 Luncheon hosted by U.S. Embassy Economic Counselor (Bankers and Builders).
Visit to housing projects including relocation housing, middle and upper income range, and to Union Villa II Project.
- 7/21 Discussions with Peter Young and representatives of CIECD.
Mayor Henry Kuo, Taipei City.
- 7/22 Taipei Building Business Association
- 7/23 (Friday)
- 7/24 Meeting with firm of Lee & Li, Lawyers, RE: Union Villa II.
- 7/26 General business suspended due to Hurricane Nadine damage.
Deputy General Manager, Land Bank of Taiwan, T. C. Ou-Yang.
- 7/27 Taiwan Fire and Marine Insurance Firm, RE: Union Villa II Project.
- 7/29 Taipei Dept. of Building Control - Public Works Bureau (Bureau of Construction)
- 7/29 K. T. Li, Minister of Finance Republic of China.
- 7/30 Tour of Union Villa II and discussions with Mr. Su.
Taipei City Land Consolidation Committee and Land Department (Planning Bureau)

C. Findings related to Union Villa II

1. Mr. Su purchased approximately 30,000 ping of land in new community development. Total development comprised approximately 330,000 ping of land. There were approximately 700 original land owners involved in land consolidation of the new community. Su registered property in names of several relatives. Su was assigned several plots of land within the approximate center of the new community * by City of Taipei. However, some of the plots were not the same pieces of land he had purchased. Permits were issued by City for start of construction of Union Villa II (source: Meeting on 7/30/71 with Taipei Land Department).
 2. Taipei City acquired right to 45% of total land acquired by Su as condition to development for parks, streets, community center and utilities right of way. City reserved right to bank all land acquisitions. Upon completion of platting, City found it had an excess and upon completion of registration would sell the difference between 38% actual need and 45% acquired to pay for construction and installation of utilities and roads (source: Dept. of Building Control).
 3. Original drawings provided for an open one meter deep balcony on front side of apartment. First tenants began enclosing the balconies to acquire additional living area. Since this was not in accordance with drawings, City Inspectors would not give final acceptance. Su then had drawings changed to enclose the balconies on future units. (source: Mr. Su and verified by Dept. of Building Control).
 4. Architects drawings specified gray washed stone exterior finish (exposed aggregate). AID suggested use of various colored Nyassett exterior finishes to provide accent (source: Mr. Su and verified by Dept. of Building Control).
 5. Garbage and trash chutes are no longer utilized and overflow is being cleaned up. City now has daily trash pickup and tenants are required to enclose garbage in polyethylene bags and carry bags and trash to point of central pickup daily. (source: Mr. Su, Evidence of same could be assumed from visual inspection of grounds in vicinity of trash chutes).
 6. A community action group has been established with a resident manager for maintaining building stairways and general light maintenance. The community group is not very effective. (source: Mr. Su and project manager).
- * Consolidation - the replatting of approximately 700 individual land holdings into sections of land dedicated to housing sites, community sites, streets and utilities right of way. A composite drawing of the two. The new community is comprised of land replotted by consolidation.

7. License for use (occupancy permits) have been issued for nearly 100% of Union Villa II apartments. One building has not yet been issued a permit for use and is not occupied. Su says this building is being remodeled. (source: Dept. of Building Control).
8. Consolidation of new community was started in 1964, but not "done" until 1969. The plan was completed in February, 1971, advertised and City received 6 complaints. (source: Dept. of Building Control).
9. Complaints have now been negotiated, reconciled, and the City will accept applications for recording on August 3, 1971. If Mr. Su aggressively pursues request for recording, his portion could be complete within two months (source: Taipei Land Dept.)
10. Mr. Su advised he is having financial troubles. Based on other unfounded sources, there may be outstanding financial obligations on Su properties which must be settled before recording can be completed on all properties. --Hearsay
11. Because of pressures brought by principals involved, some mortgages may have been recorded even though normal procedure would dictate completion of consolidation procedures before deeds are issued. (source: Taipei Land Department) (Approximately 50% of mortgages are now legally registered.)
12. Drawings provide for construction of 1,392 units. Increased costs in construction caused reduction in total number of units actually constructed in order to stay within amount of loan guarantee. (source: Stanly Alcott)
13. We did not reconcile a discrepancy between the number of 1,064 units specified on the AID Financial Report, and the 1,088 units alluded to by Mr. Ou-Yang.

360 units have been closed and recorded on the first 3 closings. The fourth closing involved 728 units of which 238 have been recorded, and 490 are still to be recorded. (source: Mr. T. C. Ou-Yang, Deputy General Manager, Land Bank of Taiwan)
14. Observations of physical property:
 - a. Landscaping is generally sparse, apparently done only selectively by individual apartment dwellers. Exception is to planting of trees along the main streets by the Community Maintenance Group. Generally, ground cover is in need of cutting and is of the weed variety.
 - b. Roads are generally in good repair, done by a special committee sponsored by the City of Taipei.

- c. Stairwells are generally clean. Windows are generally intact, but there are some broken windows in stairwells. This is responsibility of Community Maintenance Group.
- d. There is still some ground litter and some trash deposits in an open field. Mr. Su claims he will spend \$500 to clean up the field.
- e. The exterior structural finish provides a very poor appearance to the project. To quote a number of people: "It looks like it is 30 years old." It is the most serious problem because of the stigma associated with the HIG program.

Other housing projects in the area utilized the local washed stone aggregate finishes without color additives and present an acceptable appearance. By contrast, the Union Villa II Project presents a very poor appearance.

- f. Most front balconies have been enclosed, but unfortunately not with any standardization of materials or design.
- g. There is extensive use of incompatible color combinations for solid panels utilized in balcony enclosures and stairwells. Stairwells look especially bad because the solid panels are arranged without order giving an appearance of makeshift repair to broken windows.
- h. We were advised that a sewage treatment plant had been built to serve the new community, but was shut down because it was inefficient to operate it for the small number of units comprised within Union Villa II. The effects of lack of an operating treatment plant were not immediately noticeable in the several visits to the Project.

15. Data applicable to management of Union Villa II:

- a. We were advised that approximately 25 % of the tenants rent their apartments from original buyers.
- b. The Community Action Group, comprised of residents, is not very effective, based on attendance at scheduled meetings and on inability of the manager to collect dues amounting to \$1.25 per month to pay maintenance costs.
- c. The Project Manager is a resident of Union Villa II. There are approximately 10 maintenance employees assigned for duties ranging from janitorial to general upkeep. Some construction is still necessary to complete one building, not yet occupied.

- d. Underground bomb shelters were imposed as a requirement to acceptance of the Project, even though not required for other middle income projects elsewhere in the City. The shelter has been leased to shopkeepers. There are no other sources of shopping in the proximity of the Project.
- e. Local law on eviction for non payment of rent requires a consecutive 24 month record of non-payment. It is not clear whether this is by statute, custom, or recent court findings. The effect is that delinquent renters could be delinquent for over a year and a half and then make several payments and retain tenancy. This may be an item of concern in considering that 25% of tenants are renters.
- f. Although there is a delinquency in payment of some mortgages (up to six months), the Land Bank continually downgraded our concern, using a rationale that apartment values have approximately doubled in value from the original sales prices and that delinquent buyers will make up the deficit when mortgages are legally recorded.

D. Pre-Investment Survey - HIG Program

- 1. Builders and Developers appear interested in responding to housing needs of middle income families. There appears to be an adequate supply of materials and trainable work force available for an extensive program.
- 2. There is a general lack of sewage treatment throughout the City of Taipei and presumably in other communities. Continued housing construction will further aggravate the lack of sanitary facilities.
- 3. The major city, Taipei, is located in a flood plain. Long range plans consider the development of a new city, "Linkou". If the new city should receive serious consideration in the near future (perhaps 3 to 5 years), the existing City of Taipei may be left to deteriorate before long term mortgages pay out. This possibility may be offset by increases in land values which would protect long term investments.
- 4. The current estimated middle income housing market is considered to be in the selling range of NT\$150,000 to NT\$200,000 (\$3,750 - 5,000 US) based on a 2 bedroom unit for 5 persons at 3.3 ping/person (120 sq. ft./person). We note that CIECD is suggesting 4 ping/person (145 sq. ft.)-estimated cost for construction is estimated at NT\$160-180 per square foot (\$4-4.50 US) based on data applied from several sources including the builders. Cost of land depends on location estimated at 12% of construction cost for multi-family in rural or less populated suburban areas. One estimate placed land cost in town at 10 times the cost of suburban land. Because of transfer tax rates, we were told that land sales transactions are difficult to analyze, since actual sales prices are often disguised to obtain lower transfer tax rates. If these costs are truly reflective of conditions, it appears that housing could be produced in rural or less populated suburban areas within the market range, but land costs in City areas, as in

Taipei, would be too excessive to meet the range. Union Villa II housing sold for approximately \$5,000 US several years ago before construction was completed and all costs accumulated. It is located in a remote area of Taipei.

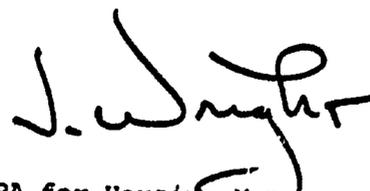
5. The Minister of Finance advised that the Republic of China did not desire utilization of U.S. funds, since internal savings were adequate to support large scale development of middle income housing. However, financial institutions did not exist to finance long term financing. He suggested that assistance from AID would be desired in:
 - a. advice on establishment of savings and loan type institutions on Taiwan.
 - b. advice on development of innovative architecture for which middle income homes could be sold within the market range of NT\$150,000 - 200,000.

E. Recommendations on Union Villa II

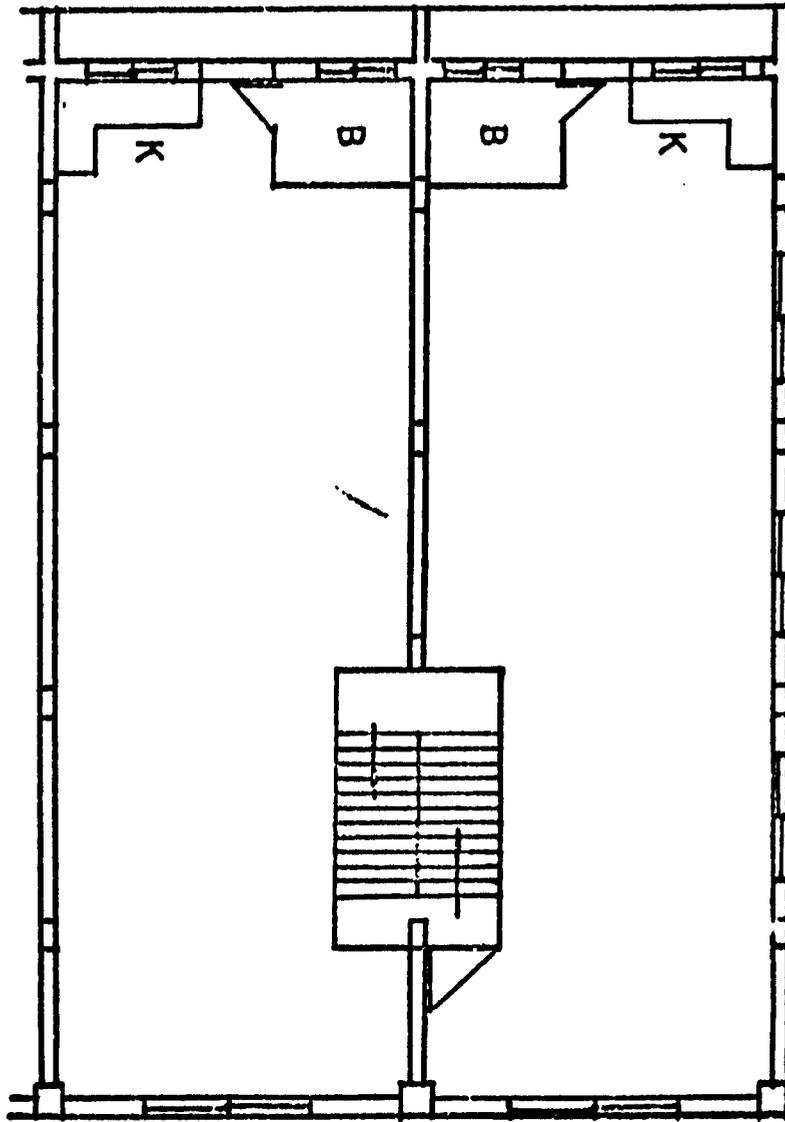
1. Referencing C-9 above. Mr. Su must be encouraged to proceed with recording at a rapid rate. The Land Bank is the probable driving force in bringing pressure to bear.
2. A letter should be sent from AID to Mr. Ou-Yang of the Land Bank to confirm that Taipei City has completed the consolidation and to confirm that application for recording has been made on all units being habitated.
3. AID should assure that an aggressive project manager's services are retained after Mr. Su completes his responsibility and withdraws from the Project.
4. Prior to availability of new housing units in the new community which will be constructed around Union Villa II, the exterior should be rehabilitated (but not before the methods are thoroughly studied and evaluated). Exteriors referred to are the exterior wall coatings and aesthetic consideration of solid panels in stairwells. An effective landscaping program would contribute significantly. A method of payment for the rehabilitation should be the subject of intense evaluation. For example, Mr. Su claims he asked for assistance, advice and relief from the manufacturer of the material. Has AID offered its resources in bringing pressure to bear on the manufacturer?

Is withdrawal from reserves a potential source of funding the rehabilitation? Is the City of Taipei interested enough to bring pressure on owners to help defray the cost? Are owners collectively interested in improving the aesthetics? If not, at the present, will they be interested in improving the appearance after Mr. Su withdraws from the project? My recommendation would be to approach owners only after all other resources are exhausted and only after thorough cost and method studies have been completed.

5. Since the City of Taipei presumably does not have controls for occupied units such as through fire department inspections and conformance regulations or controls connected with City inspection and condemnation regulations, the tenants should be organized into a well functioning community action group since another fifteen years, approximately, of mortgage insurance remains to be protected. Under normal custom, the loans would already be paid off on this project based on the local customary loan period of 3 to 5 years for conventional housing. Because of inflationary increases, owners will continue to protect their investment as long as structures remain sound as they appear to be at present. We should generate an interest in retaining the Project in good condition for the balance of the mortgage loan period since we are on the threshold of entering the time period when replacements and repair can be anticipated.
- F. Comments of findings relative to the pre-investment survey were offered in paragraph D above. Particular consideration should be given to the comments of the Minister of Finance under D-5.



ARA for Housing Management



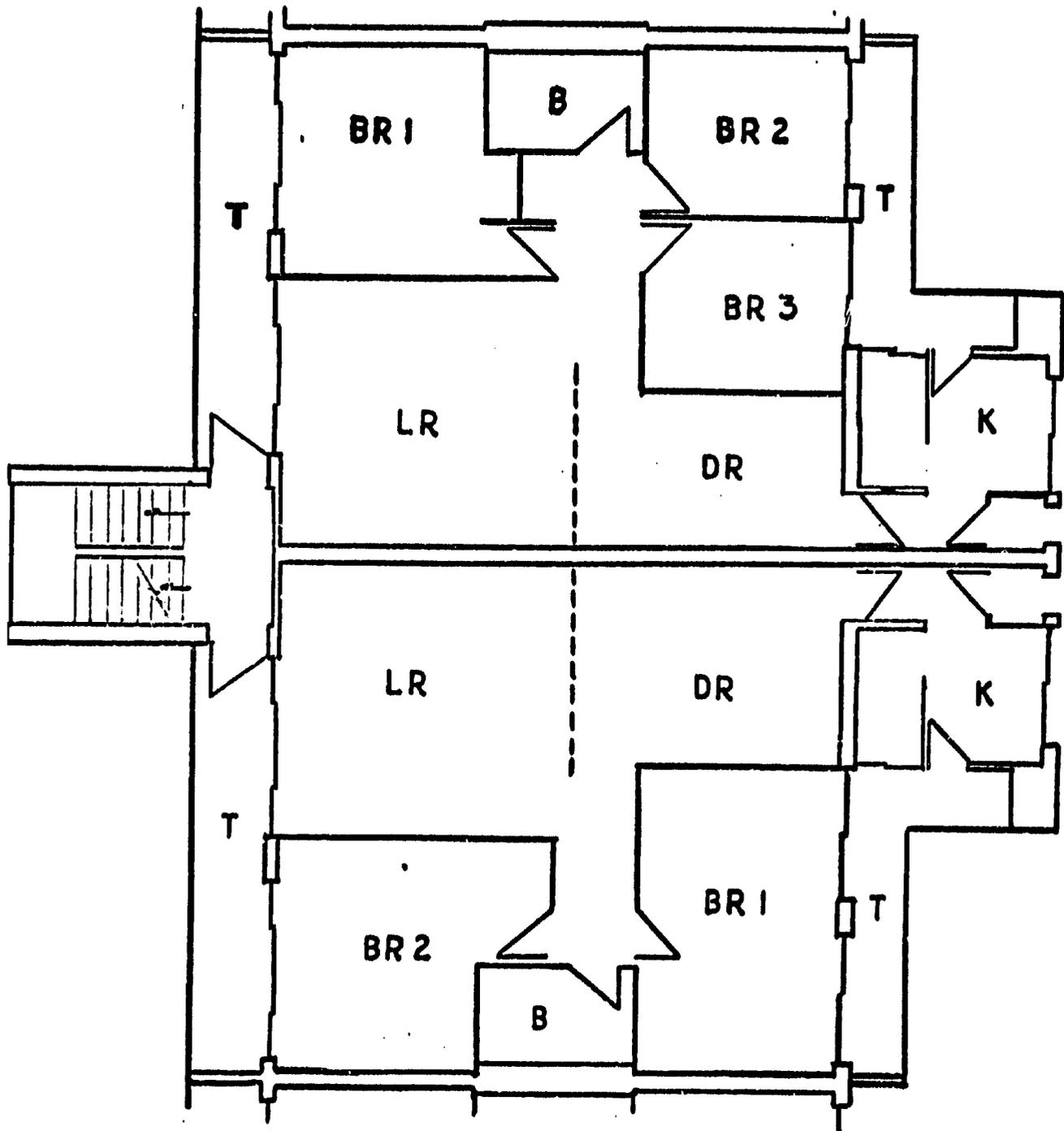
TYPICAL LOW COST FLOOR PLANS (TWO ADJ. APTS.)

SHELL CONSTR.

2nd, 3rd, 4th FLOOR ABOVE SMALL FACTORY

AREA 69 SM, 22 PING

COST \$2,700 - \$4,000



TYPICAL UPPER MIDDLE CLASS FLOOR PLANS (TWO ADJ. APTS.)

2 & 3 BR CONDOMINIUM APTS
 4 STORY WALK-UP
 AREA 89 SM, 29 PING
 COST APP. \$10,000 U.S.

<u>Item</u>	<u>Assumed Floor Area of Each Apartment</u>	<u>Structure & Architecture</u>	<u>Plumbing & Electricity</u>	<u>Public Utilities</u>	<u>Total</u>	<u>Remarks</u>
Two Story Apartment	700 ft ²	NT\$140/ft ²	NT\$20/ft ²	NT\$20/ft ²	NT\$180/ft ²	Reinforced concrete structure; PVC tile floor; wash-stone plaster exterior finish; aluminium sash & door
Four Story Apartment	1,100 ft ²	NT\$150/ft ²	NT\$20/ft ²	NT\$20/ft ²	NT\$190/ft ²	Reinforced concrete structure; wooden parquet floor; wash stone plaster exterior finish; aluminium sash & door
Ten Story Apartment	3,000 ft ²	NT\$220/ft ²	NT\$20/ft ²	NT\$20/ft ²	NT\$260/ft ²	Reinforced concrete structure; wooden parquet floor or PVC carpeting; mosaic exterior finish; aluminium sash & door

Unit Price List

Excavation	NT\$	20.00/M ³
Refill		16.00/M ³
Gravel Base		80.00/M ³
2000 lb Concrete		520.00/M ³
2500 lb Concrete		560.00/M ³
3000 lb Concrete		600.00/M ³
Reinforcing Steel (including fabrication)		6,100.00/metric-ton
Planed form work		60.00/M ²
common form work		48.00/M ²
Red brick wall (20cm)		140.00/M ²
Red brick wall (10cm)		70.00/M ²
Cement floor plastering		20.00/M ²
Mosaic Flooring		170.00/M ²
Hard wood parquet flooring		160.00/M ²
P.V.C. Tile flooring		64.00/M ²
Terrazzo Flooring (White cement)		120.00/M ²
Terrazzo Flooring (Gray cement)		92.00/M ²
Luan skirting		24.00/M
Glazed Tile Dado		180.00/M ²
Interior wall cement plastering & PVC paint		40.00/M ²
Ceiling Cement plastering & White wash		34.00/M ²

Ceiling cement plastering & PVC paint	NT\$ 42.00/M ²
1/8" Plywood suspended ceiling & paint	88.00/M ²
Aluminium sash & screen (160 cm x 160 cm)	1,920.00/set
Aluminium sash & screen (100 cm x 160 cm)	1,400.00/set
Aluminium Door & screen (320 cm x 250 cm)	9,600.00/set
Wooden Door (exterior) (320 cm x 250 cm)	1,400.00/set
Wooden Door (interior) (95 cm x 200 cm)	800.00/set
Cement Plaster (exterior finish)	28.00/M ²
Wash stone plaster (exterior finish)	68.00/M ²
Flag stone (exterior finish)	120.00/M ²
Red Quarry Tile (Exterior finish)	200.00/M ²
Cinder block layer (roof top)	40.00/M ²

Material Price List

Cement	NT\$	50.00/bag (50Kg)
White Cement		190.00/bag (50Kg)
Reinforcing Steel		5,500.00/metric ton
Aggregates		130.00/M ³
Coarse Sand		70.00/M ³
Fine Sand		70.00/M ³
Red Brick		0.60/pc
Hinoki (pine)		30.00/bmf
Luan		9.50/bmf
1.5m/m PVC Tile		42.00/M ²
White Glazed Tile (4"x4")		1.20/pc
Red Quarry Tile (6"x6")		1.60/pc
Mosaic		10.00/ft ²
2 m/m Glass		8.00/ft ²
3 m/m Glass		13.00/ft ²
5 m/m Glass		35.00/ft ²
10cm Cinder Block		2.00/pc

臺灣開發股份有限公司
TAIWAN DEVELOPMENT CORPORATION

v

案號
Project No. _____

工程預算表

頁數

Page _____

工程名稱
Project Title LAND IMPROVEMENT

ESTIMATES

日期
Date 60.8.14

施工地點
Location _____

項次 Item	名 稱 Description	數 量 Quantity	單 位 Unit	單 價 Unit Price	總 價 Amount	備 註 Remarks
	Gross Project Area (Garden Type)		M ²	= 1 Unit		N/A
1	Site Preparation					
	Clearing & Grubbing		M	70- 10-		on hill on G. ...
2	Water Supply					
	(Pumping Station)		M ²	25-		
3	Sanitary Sewage System		"	10-		
4	Rainwater Supply System		M	25-		
	(Under Ground)					
5	Storm Water Drainage System		M ²	15-		
6	Street Pavement		M	145-		
7	Curbs & Gutters Sidewalks		M	7-		
8	Lot Redivision Cost		M	6-		
	Total, on hill		M ²	203-		18/31 ²
	on Ground (LEVEL)		M ²	143-		13.5/15 ²
12	Total					

60 05 x 00

Checked by

Estimator

臺灣開發股份有限公司

vi

TAIWAN DEVELOPMENT CORPORATION

案號
Project No. _____

工程名稱
Project Title _____

工程預算表 ESTIMATES

頁數
Page _____

日期
Date _____

施工地點
Location _____

項次 Item	名 稱 Description	數量 Quantity	單位 Unit	單價 Unit Price	總價 Amount	備註 Remarks
	Excavation & Filling		M3	30 00		
	Gravel Foundation		M3	120 00		
	I B Wall		M2	130 00		
	Concrete block wall		M2	100 00		
	terrazzo Floor		M ²	100 00		
	Mosaic Floor		M ²	120 00		
	Clayed Tile Mainscot		M2	170 00		
	lime Plaster		M ²	25 00		
	Cement Plaster		M2	40 00		
	Plywood door 90x205		FT ²	50 00		
	Glass window (wooden)		FT ²	50 00		
	Waterproofing membrane		M ²	45 00		
	Bath tub (Mapolon)		Ca	600 00		
	Cement (50kg/-bag)		bag	45 00		
	Shinkai wood		b/m	30 00		
	Brick		Ca	0 50		
	Coarse Aggregate		M ³	160 00		
	Fine Aggregate		M ³	80 00		
	Gravel		M ³	80 00		
	Rebar		ton	5,000 00		
	Lab. skilled		m/d	160 00		
	" unskilled		m/d	120 00		
	Total					

15

Total

09 08 3000

16 16
Checked by

17 17
Estimator

APPENDIX B

PERSONS CONTACTED

GOVT. OF THE REPUBLIC OF CHINA

K. T. Li	Minister of Finance	ROC
C.C. Chao	Director, Monetary Dept.	Ministry of Finance
	Exec. Sec.	National Committee to Mobilize Savings
Chang-Hsi Wang	Director Land Dept.	Ministry of Interior
Zee-Nan Lee	Deputy Director, Urban Development Division	Council for International Economic Cooperation and Development (CIECD)
H.H. Tsai	Researcher	"
Alfred Schinz	UN Administrator	"
Peter T. Young	Civil Engr.	Special Consultant, Linkon New Town Study

TAIWAN PROVINCIAL GOVT.

Shi-ching Hsiao	Deputy Chairman	Economic Mobilization Committee
Tsu-hsuan Chang	Director	Bureau of Public Work,
Lin Chieu Yeh	Chief, Housing Constr. Dept	Bureau of Public Work,
Chang-huan Chiu	Director	Dept. of Social Affairs
Mou-Nai Hung	Deputy Director	"
Tseng-Ying Ku	Chief Housing Div.	"
Miss Sui-Ching Chang	Chief, 4th Section	"

TAIPEI CITY GOVT.

Henry Yu-Shu Kao	Mayor	City of Taipei
Prof. Ten-Pi Tsai	Exec. Secretary	Taipei Housing and Community Development Commission
Raymond J. M. Mwang	Director, Dept of Building Central	Public Works Bureau
Ki Ting-Chen	Vice-Chief	Land Department.
Cheng Chin-Chiu	Exec. Secretary	Land Consolidation Committee

U.S. EMBASSY

William N. Morell, Jr.	Economic Counselor	U.S. Embassy
Arthur R. Dornheim	First Secretary, Econ. Section	"
James A. Klemstine	Second Secretary, Econ. Section	"
Stanley Elcock	Engineer (Formerly)	"
Ching Mien-Tweng	Asst. Procurement Branch	"

BANKING INSTITUTIONS

C.L. Chow	General Manager Banking Dept.	Central Bank of China
Yuen-sheng Chen	President	Land Bank of Taiwan
T.C. Ou-Yang	Deputy General Manager	"
Cheng-ti Wang	President	Cooperative Bank of Taiwan
T. M. Yee	Vice-President	City Bank of Taipei
Earl W. Glazier	Resident Rive-President	First National City Bank

INSURANCE

Y. C. Chen	Vice-President	Taiwan Fire and Marine Insurance Co.
Jadeson H. Lin	Sub-Mgr. Casualty Dept.	"

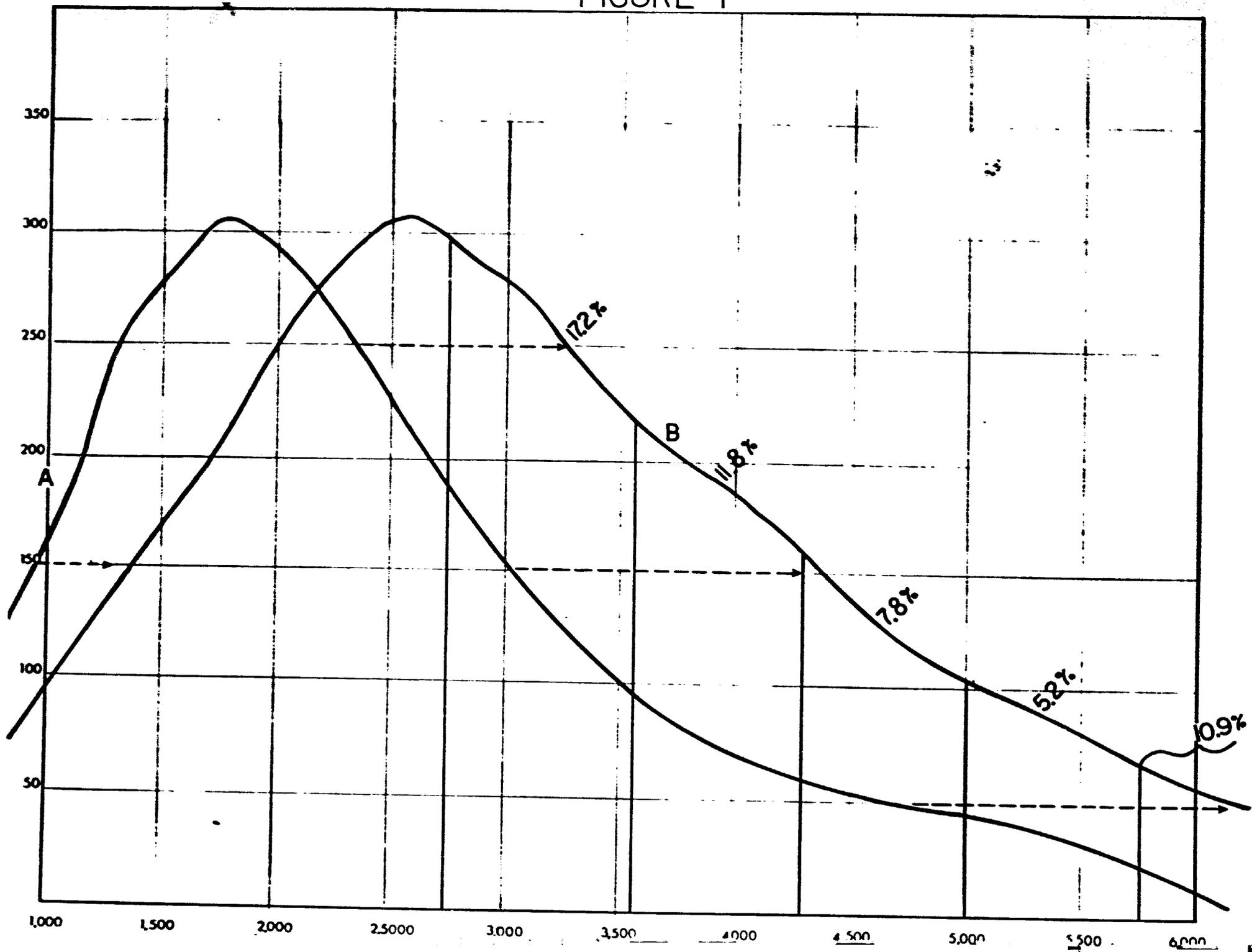
PRIVATE DEVELOPERS

Glyn T.H. Ing	President	Housing and Real Estate Assoc. of Taipei
	President	Continental Engr. Corp
C.H. Kao	Vice-President	"
Hon-En Su	Local Partner	United Builders
Mr. Ku	Manager	Union Villa Homeowners Assoc.
Pein-Ching Yuan	President	Taiwan Development Corp.
Harry K. H. Wnag	Associate	"
Peter P. Yuan	"	"
Michael Y. Chang	"	"
David K.T. Chang	Chairman, Board of Directors	Hwa Mei Civil Engr. Corp.
Adam W. Ku	Special Asst. Planning	Hwa Mei Civil Engr. Corp
Tony H. P. Ho	Manager, Sales Dept	"
Paul T. F. Wnag	Civil Engineer	China Urban Planning and Design Center
Sabastian Chang	Exec Vice-President	International Development Corp
Mrs. Dulcie P. L. Yeh Tuan	Director	Hsin Cheng Enterprise Ltd.
Miss Hsiu Tse-lan	Chief Architect	"
K.C. Wang	President	China Technical Consultant Inc.
T. K. Tzou	President	New Asia Construction and Development Corp.
John S. C. Ni	President	Yundar Construction Co.

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CIECD
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14. Hwa Mei Union Building
15. Neihu New Community Area by Taiwan Development Corporation
16. Garden City Project
Hsin Cheng Enterprise Ltc.

FIGURE I



A booming city without any building code

SOUTH
CHINA
MORNING
POST
July 26, '71

BY DIXON HSU

Taipei
The urban housing programme in Taiwan has been retarded by the lack of an effective building code, a basic requirement of cities throughout the world.

Without a modern building code adequately enforced, environment sanitation, fire prevention, public safety and the orderly development of the city are in jeopardy.

Taipei has nearly two million people and has experienced a building boom in the past decade.

However, Taipei is still operating under a national building code established in 1944 under the Japanese occupation. (Taiwan was restored to Chinese rule in August 1945, at the end of the war.)

In 1944, Taipei had a population of less than

500,000. Most of the buildings were wooden, single-family dwellings built on small plots which faced a narrow street lanes.

Today, concrete and brick have replaced wood. High rise buildings were not even mentioned in the Japanese building code.

Consideration

A modern draft of building codes for the city, as well as a master plan, was completed several years ago. But the building code is still under consideration by the Ministry of the Interior. And many of the regulations proposed in the modernized version several years ago are fast becoming out-of-date.

In the absence of a building code the city is forced to rely on administrative orders, which are not practical, or cannot be enforced.

The result is that Taipei is continuing to compound the mistakes of the past and is adding to the cost of correcting them in the future.

Building construction materials and methods have improved greatly since 1944, but there is no provision to require their use, or even to test the safety factors in new building materials.

Taipei is building many high rise structures, but there is no regulation for installing elevators. There are 216 buildings with six stories and more, according to the latest official statistics.

The fact is that it is easier to list the deficiencies of the existing building code than to review its provisions.

One of the most glaring omissions is public safety. Sinking ground in Taipei makes it imperative to determine the safety factor in building foundations. It may be that the code should require all high-rise structures to sink pilings.

Taiwan is also an island lying on the earthquake belt. All new buildings should be earthquake-proof.

One of the principal causes of fire in Taipei is electric wiring. A good building code should set standards for electrical systems and safety

factors to prevent conflagrations.

Plumbing standards are equally important in the housing programme. The standards should not only assure adequate sanitation, but should provide for storage tanks in high rise structures to assure sufficient pressure for fire hydrants inside the building and automatic springlers systems.

Population density and minimum standards for land use are essential in a modern building code. The new code has no provision for parking, or for non residential use for streets, schools and markets.

A "preliminary sketch plan" proposed by the Urban and Housing Development Committee says:

"Large parts of Taipei as of most of the world's major cities contain old dilapidated buildings or substandard, illegal shacks and squatter concentrations. Though some of these areas can be rehabilitated and improved,

others will require complete clearance, re planning and re-building."

Illegal structures, both for housing and for commercial use, are the crux of the problem. Not only are they eyesores, but they are potential fire hazards, obstruct traffic and add problems of sanitation.

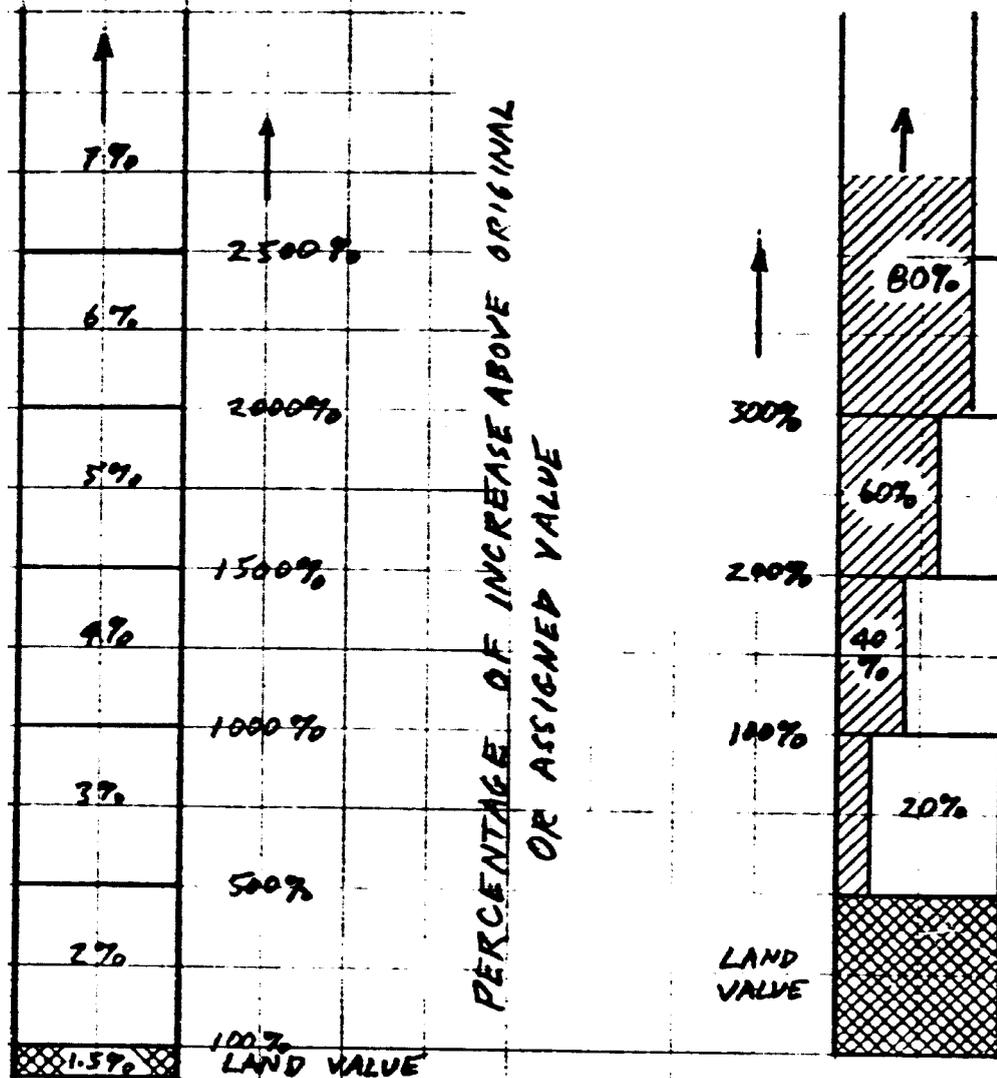
The "preliminary sketch plan" spells out the following steps to be taken before Taipei can undertake a major housing programme:

- Before any urban renewal projects are undertaken, a city-wide renewal plan should be prepared indicating areas amendable to such renewal techniques as rehabilitation, spot clearance and improvement of public facilities.

- Re building areas should not be permitted until detailed urban renewal plans for such areas have been adopted.

- The first renewal efforts should be spent on rehabilitation and improvement projects which do not require the relocation of large numbers of families.

1968 TAX RATES ON URBAN LAND



ANNUAL TAX RATE ON LAND VALUE

FIG. 3

LAND VALUE INCREMENT TAX RATE

FIG. 4