4.6 Condition of Project Cost

1) Demolition

- This cost includes demolition of super structure and infrastructure above and below ground level.
- The demolition cost for superstructure is according to structure type such as 1) permanent & semi-permanent, 2) ordinary, and 3) temporary structure.
- Cost for small structure and trees is neglected in this estimation, but in case of implementation these costs should be included in the compensation amount especially for productive trees and well etc.

2) Grading and landscaping

This cost includes;

- Grading cost in the project site including land fill (assumed average 30 cm) to protect houses from flood.
- External work in the project site such as pavement, planting, outdoor lighting, outdoor furniture, sign boards and marking, etc.

3) Housing

Specifics for the flat are;

- Structure system	:	Rigid frame reinforced concrete
- Roof	:	Wooden frame with asbestos corrugated sheets
- External wall	:	Concrete block with mortar joint
- Internal wall	:	Concrete block with mortar joint
- Ceiling	:	1-3F/Concrete slab 4F/Nil
- Floor	:	Cement sand rendering troweled finish
- Opening	:	Window-Aluminum frame jalousie window Door-Plywood flash door with wooden frame
- Utility	:	Electricity supply, gas supply piping and water supply for each unit

4) Commercial building

Specifics for the commercial building are;

Structure	:	Rigid frame reinforced concrete
Roof	:	Concrete slab on grade with waterproof mortar
External wall	:	Aluminium curtain wall
Internal wall	:	Aluminium curtain wall
Floor	:	Polyvinyl chloride floor sheet
Ceiling		
- Interior	:	Gypsum plaster ceiling board with paint
- Exterior	:	Aluminum ceiling panel
Opening		
- Window	:	Aluminium frame and sash
- Door	:	Plywood flash door with wooden frame
Elevator	:	Max. 10 pax. x 4 lifts, 7 stops
Escalator	:	Width 0.7 m, height 4.0 m x 2 sets (up and down)
Staircase	:	Reinforced concrete structure Floor, wall, ceiling same as common space Handrail - steel pipe with paint
Basement floor	:	Floor - Mortar rendering troweled finish Wall - Concrete wall with cement sand plaster Ceiling - Concrete slab Slope - Mortar rendering troweled finish with anti-slip groove
Air condition	:	Centralized cooling system

Stand-by generator for emergency electricity supply

5) Neighbourhood facility

The cost for the neighbourhood facility does not include loose equipment.
Building quality is in conformity with the facility standards of DKI Jakarta.

6) Temporary house

This cost includes rental cost for existing rental house during construction period for the removal house.

7) Study and design

The cost is assumed as 5 percent of total amount of items 1) to 6).

8) Administration

Administration costs are assumed to be 4 percent of total amount of items 1) to 7) covering the preconstruction and construction stages including application costs for changing land title ;

In case of

Hak Pengelolaan (HPL) Rp. 150/m^2 of land,

Hak Guna Bangunang (HGB) Rp. 400/m^2 of land

9) Contingency

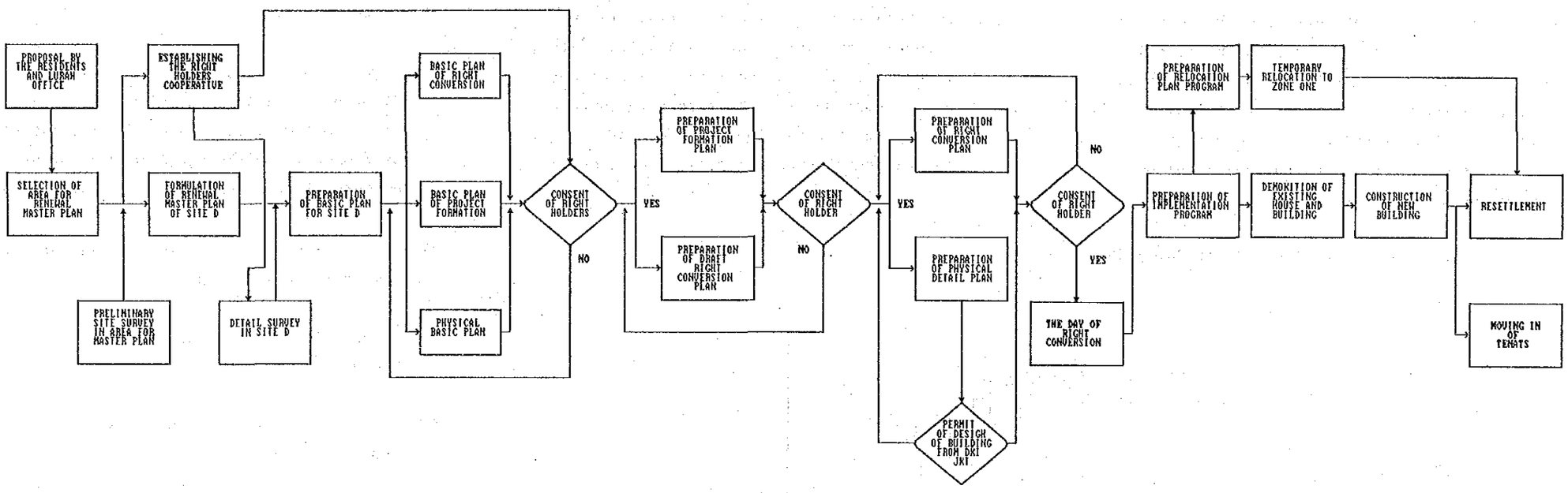
The cost is assumed as 4 percent of total amount of above items and includes physical contingency but cost escalation is not covered.

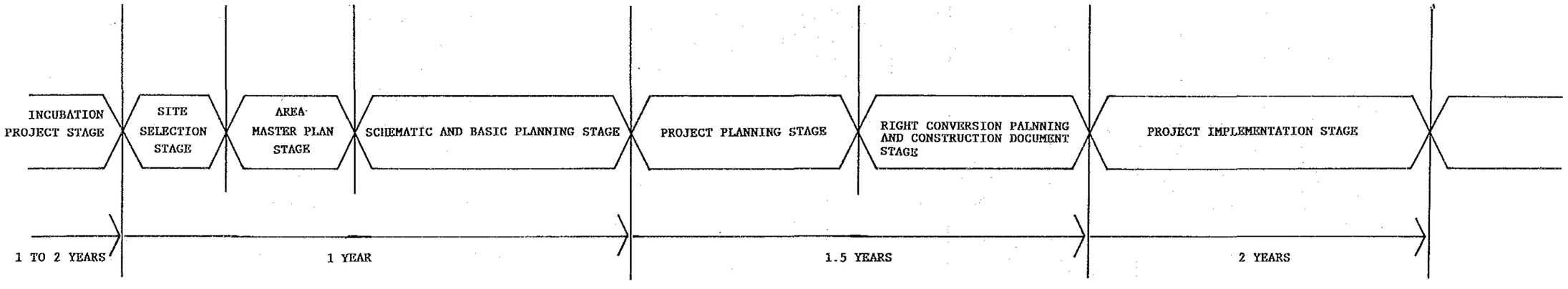
10) Estimated costs are as of March, 1989.

Construction Cost

	Item	Unit	Quantity	Unit Price (Rp)	Amount (Rpx1,000)
1.	Housing Development				
1.1	Demolition				
a.	Permanent & semi-permanent structure	m^2	1,225	5,000	6,125
1.2	Grading and landscaping	m^2	830	6,000	4,980
1.3	Solid waste communal (1 m^3)	each	4	450,000	1,800
1.4	Housing				
a.	F-21 11 units	m^2	242	240,000	58,080
b.	F-36 16 units	m^2	672	240,000	161,280
c.	F-54 8 units	m^2	469	240,000	112,560
d.	F-100 8 units	m^2	893	240,000	214,320
	Sub Total				559,145
2.	Commercial Bldg. Development				
2.1	Demolition				
a.	Permanent & semi-permanent structure	m^2	4,730	5,000	23,650
2.2	Grading and landscaping	m^2	2,800	6,000	16,800
2.3	Road and car parking pavement (hot-mixed asphalt)	m^2	1,600	28,000	44,800
2.4	Drainage channel (U-400)	m	500	37,000	18,500
2.5	Solid waste communal	each	1	2,500,000	2,500
2.6	Commercial building	m^2	24,773	700,000	17,341,100
2.7	Car parking (Basement)	m^2	3,625	250,000	906,250
	Sub Total				18,353,600
3.	Environment Development				
3.1	Demolition				
a.	Permanent & semi-permanent structure	m^2	515	5,000	2,575
3.2	Grading and landscaping	m^2	200	6,000	1,200
3.3	Kindergarten	m^2	150	200,000	30,000
3.4	Multipurpose hall	m^2	250	200,000	50,000
	Sub Total				83,775
	Total				18,996,520
					(Rp x 1,000)
4.	Temporary House : 43 houses x @2,000/day x 180 day =				15,480
5.	Study and design : 19,012,000 x 0.05 =				950,600
6.	Administration : 19,962,600 x 0.04 =				798,500
7.	Contingency : 20,761,100 x 0.04 =				830,440
	Total				2,595,020
	Grand Total				21,591,540

4.7. IMPLEMENTATION SCHEDULE



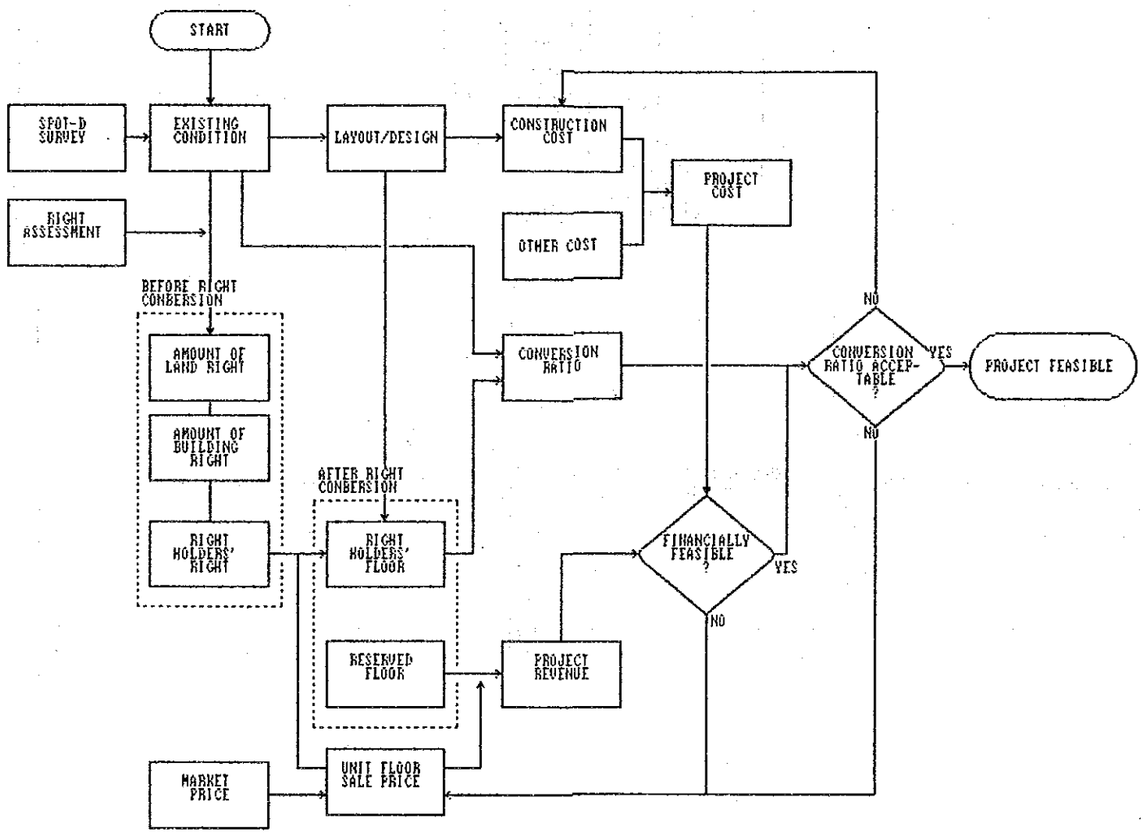


4.8 FINANCIAL STUDY

1) Work Flow

Figure 5.4 shows the financial analysis work flow for Site D using the right conversion concept. From financial planning point of view, the project is designed to balance the total cost with the revenue by selling reserved floor. Project cost includes the construction cost of reserved floor and right holders' entitled floor including additional cost related to the construction works.

Fig. 5.4 Site D Financial Study Work Flow



2) Planning Conditions and Assumptions

In this case study, financial calculation is based on the following conditions and assumptions:

(1) Possible rent of commercial floor in the Site D development is set at round US$10/$m^2$ (Rp. 17,800/m^2) which is derived from the rent of surrounding area. Therefore reasonable sale price becomes Rp. 1,000,000 per m^2 calculated through the following formula:

$$\text{Unit Sale Price} = 12 \times \text{Rent} \times \frac{1 - (1+\text{Interest})^{-\text{Period}}}{\text{Interest}}$$

Rent period is 10 years so as to recover the principal investment.

(2) Higher floor of commercial building has lower floor productivity. The highest productivity of the building is assumed 1.0 for 1st floor of commercial building. Second floor of commercial building is set at 0.8.

(3) Sales price of office floor is 80% of that of commercial building's 1st floor .

(4) Sales price of residential floor is Rp. 310,000 per m^2.

(5) Present land price of the site is Rp. 400,000/m^2 for road side and Rp. 162,000/m^2 for residential area. Expected land price of the site after right conversion will become Rp. 400,000/m^2 for all the project site.

(6) Present physical plan provides for 2,580 m^2 residential floor area. This is around 75% of residential floor area before right conversion. Residents of the site can receive average 75% of their old house floor area.

3) Consideration of Right and Conversion Ratio

(1) Land right is assessed by the title of land.

(2) The strength of title is assumed 100% for Hak Milik, 80% for HGB, 100% for Tanah Garapan assuming private owner of the land exists on the land, and 25% for Tanah Negara and Tidak Jelas.

(3) At the development of the site by right conversion, all previous rights are cancelled and newly Hak Guna Bangnan (HGB) is attained. The application fee for HGB is Rp. 4,000/m^2.

(4) Land title of HGB is distributed to the members in proportion to the size of member's right.

(5) In this case study, change of total assets, residential floor area and total floor area are checked for the viability of right conversion.

4) Components of Right Conversion

According to calculation on the basis of right conversion planning, there are several components which affect the size of right holder floor area and in turn right conversion ratio. These components are total floor area, expected floor sales price, land price and subsidy.

5) Results of Calculation on Right Conversion

Expected commercial sales price of Rp. 1,000,000/m^2 for reserved floor is not enough to recover renewal building construction cost. If the other conditions remain the same, sales price should rise to Rp. 2.09 million/m^2.

Present land price of the site may not be high enough for applying right conversion method on this site because the sales price of commercial floor can not be expected to be so high as to recover the project cost.

Barring no change in the other conditions, around 54% of project cost is requested as subsidy to make the project viable. Subsidy may cause the reserved floor to be smaller. If 10% of subsidy is made available to this project, sales price of commercial floor would go down to Rp. 1.89 million/m^2. If the conditions are 10% of subsidy and Rp. 350,000/m^2. for residential floor sales price, sales price of commercial floor would be Rp. 1.88 million/m^2 to make the project feasible.

Abovementioned figures are based on the condition of keeping right holders' assets the same before and after right conversion. If new assets are expected to be 1.5 times of that before right conversion, sales price of commercial floor should be Rp. 1.95 million/m^2 with Rp. 310,000/m^2 of residential floor sales price and 10% of subsidy.

Generally speaking, sales price of commercial floor is most sensitive to the viability of the project since the project prepares a large commercial floor for sales. Around Rp. 200,000/m^2 of commercial floor sales price difference gives a similar effect with 10% of subsidy to the project.

Total floor area

- Total floor area consists of reserved floor and right holders entitled floor.
- Sale of reserved floor generates whole project cost. Therefore for the project feasibility, the revenue by selling reserved floor should recover the total project cost.
- If there is a large floor area, it means that sale of reserved floor is also large, enabling the recovery of a large project cost. However total floor area is limited by market demand, city ordinance for construction, project budget fund for construction, etc.

Expected Sales Price

- The higher the expected sales price of reserved floor, the smaller the reserved floor which recovers the total project cost.
- The floor price for both right holders and sales may not necessarily be the same to increase conversion ratio.

Land Price

- Since a land right before renewal will be converted to the floor right of the building after renewal, the price of land will affect the conversion ratio.
- The larger the land price, the higher the floor price, in turn the larger the right holders' entitled floor.

Subsidy

- Subsidy can decrease the project cost to be recovered. Consequently, the necessary reserved floor becomes smaller, and in turn, the right holders' entitled floor can increase in size.

6) Results of Financial Calculation

The total project cost of the urban renewal in Site D amounts to Rp. 29.5 billion without subsidy case and 28.7 billion with subsidy case. Here subsidy by public sector is assumed to be 10% of total investment except interest payment. The proposed KCIU Fund may provide subsidy for low-income people through project entity.

Table 5.4A Project Cost and Source of Fund

	Cost x million Rp.
Construction cost	19,083
Other cost	2,590
Interest	7,023
Total	28,696

Source of Fund
x million Rp.

26,529	Sales revenew of Reserve floor
2,167	Subsidy
28,696	

Since conventional discounted cash flow is not applied to this right conversion method, the feasibility of this project is not shown through financial indicators such as FIRR. As stated before, however, the results show the conditional viability under some assumptions.

Table 5.4B Summary of Financial Calculation without Subsidy Case

Unit: Rp'000

(1) PROJECT COST	
A)Land Preparation Cost	51,555
a)Demolition	29,775
b)Land grading	21,780
B)Construction Cost	18,866,550
a)Residential Building	619,200
b)Commertial Building	17,341,100
c)Parking Building	906,250
C)Open Space Preparation	151,375
a)Open space preparation	3,775
b)Public facilities	80,000
c)Infrastructure	67,600
D)Planning Cost	954,248
a)Design	667,974
b)Project Planning & Others	286,274
E)Temporary shops & residence	15,480
F)Management	801,568
G)Contingency	833,631
H)Interest for Loan	7,802,787
I)Total Project Cost	29,477,194
(2) PROJECT REVENUE	
J)Subsidy	0
K)Sales revenue of reserved floor	29,477,194
L)Total Project Revenue	29,477,194

Table 5.4C Summary of Financial Calculation With Subsidy Case

Unit: Rp'000

(1) PROJECT COST	
A)Land Preparation Cost	51,555
a)Demolition	29,775
b)Land grading	21,780
B)Construction Cost	18,866,550
a)Residential Building	619,200
b)Commertial Building	17,341,100
c)Parking Building	906,250
C)Open Space Preparation	151,375
a)Open space preparation	3,775
b)Public facilities	80,000
c)Infrastructure	67,600
D)Planning Cost	954,248
a)Design	667,974
b)Project Planning & Others	286,274
E)Temporary shops & residence	15,480
F)Management	801,568
G)Contingency	833,631
H)Interest for Loan	7,822,588
I)Total Project Cost	28,696,915
(2) PROJECT REVENUE	
J)Subsidy	2,167,441
K)Sales revenue of reserved floor	26,529,475
L)Total Project Revenue	28,696,915

7) Individual Case Study for Site D
Right Conversion

(1) Residents Structure by Land title, Income

Based on the spot survey by the study team, residents of the area are classified in following classes:

Land Title	GT. Rp.100,000	Rp.0-100,000
Hak Milik Hak Guna Bangan	Class A 6 households	Class B 0 households
Tanah Garapan Tanah Negara Tidak Jelas	Class C 18 households	Class D 19 households

The residents in class A have the highest assets in site D. Average assets by one household is Rp. 31,987,000. A resident lives in a house with 101.8 m^2 floor area on a 167.8 m^2 lot.

A resident in class C has an average assets value of Rp. 9,957,000 and lives in a house of 86.6 m^2 floor area on a 101.8 m^2 lot. Average assets value of a resident in class D is Rp. 5,969,000 and floor house area is 66.3 m^2 on a 79.4 m^2 lot. There is no class B resident in this Case Study Site.

(2) Right Conversion of residents by class

According to the assets of each class resident before right conversion, calculate floor area for a right holder as shown in Table 4.8.2. A resident in class A can get 113 m^2 floor area in residential building. Since the resident lives in a 102 m^2

floor area house before right conversion, conversion ratio becomes 110% by floor area base.

For a resident in Class C and Class D, converted floor area in a new residential building is 33.5 m^2 and 20.1 m^2, respectively. The assets of the resident currently living in Tanah Garapan or Tanah Negara is not so big compared to land right holders. Therefore average floor conversion ratio for Class C and Class D is 38.7% and 30.3%.

(3) Land area

In this right conversion, the land is jointly owned by all corporative members. There is no fixed place given to each member, instead a member can get a land somewhere in the site as proportional size of land to the total asset of the members.

Total area of joint ownership land in Site D is around 8,050 m^2. Each corporative member has a HGB right on the land. Average of the size of the land for each class is 9.5 m^2 for A, 2.8 m^2 for C and 1.7 m^2 for Class D. The land area is calculated on the base of assets.

(4) Consideration for Small Right Holders

In this case study, even the lowest asset holders (Class D residents) can receive 20 m^2 flat house on average. Either or both the executing body or public sector must consider some kind of subsidy to the small right holder who can not get enough floor area in a new residential building.

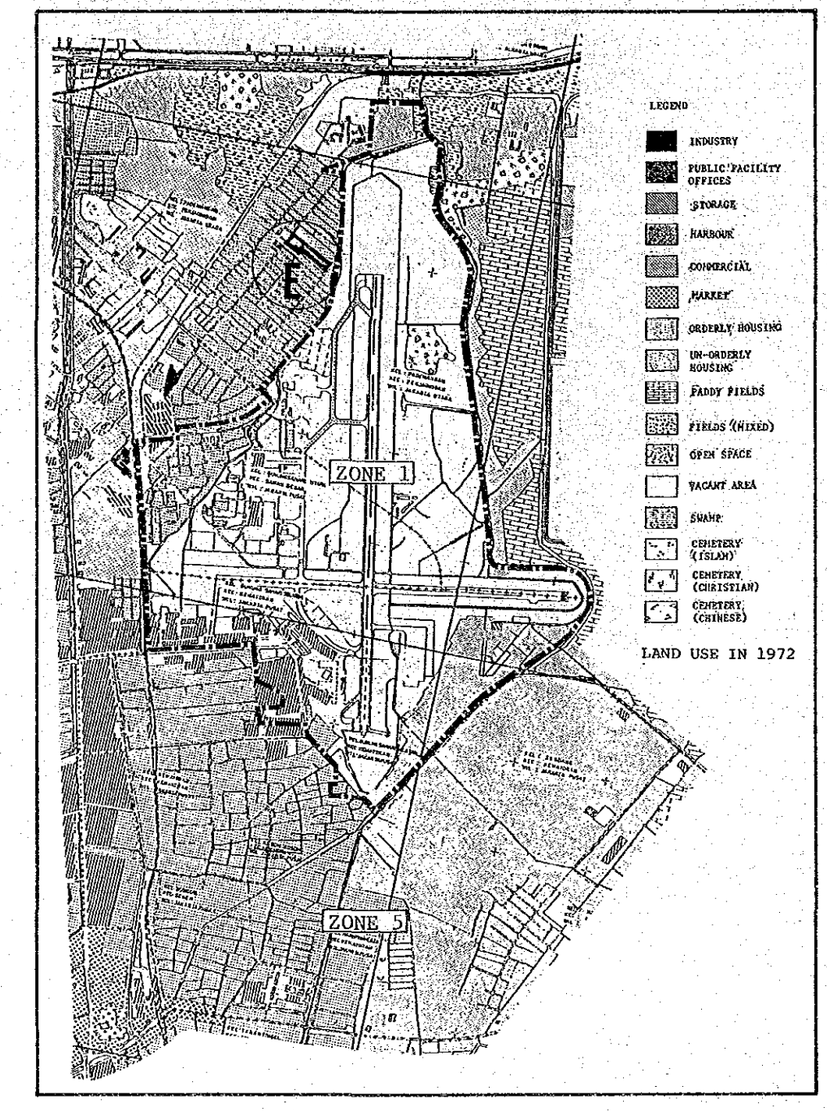
Table 5.4D Residents Class and Entitled Floor Area

Land Title	Items	Monthly Income	
		0~100,000 Rp./month	100,000 Rp./month ~
		Class A	Class B
HM HGB	Compensation	Rp.31,987,000	0
	Before R/C		
	Land	167.8 m2	0
	Building	101.8 m2	0
	After R/C		
	Floor	112.9 m2	0
	Land	9.5 m2	0
	Area C/R	110.9 %	0
		Class C	Class D
TN TG TJ	Compensation	Rp. 9,957,000	Rp. 5,969,000
	Before R/C		
	Land	101.8 m2	79.4 m2
	Building	86.6 m2	66.3 m2
	After R/C		
	Floor	18.0 m2	20.1 m2
	Land	2.8 m2	1.7 m2
	Area C/R	38.7 %	30.3 %

1) HM, HGB, TN, TG and TJ mean Hak Milik, Hak Guna Bangnan, Tanah Negara, Tanah Garapan and Tidak Jelas, respectively.
2) R/C means Right Conversion
3) Area C/R means ratio after and before residential floor area
4) The land area after right conversion is based on the proportional calculation to owned asset. Total land area for joint ownership is 8,050m2 and total right value is RP.28.5 billion.

5. SITE E (CASE STUDY SITE)

LOCATION MAP



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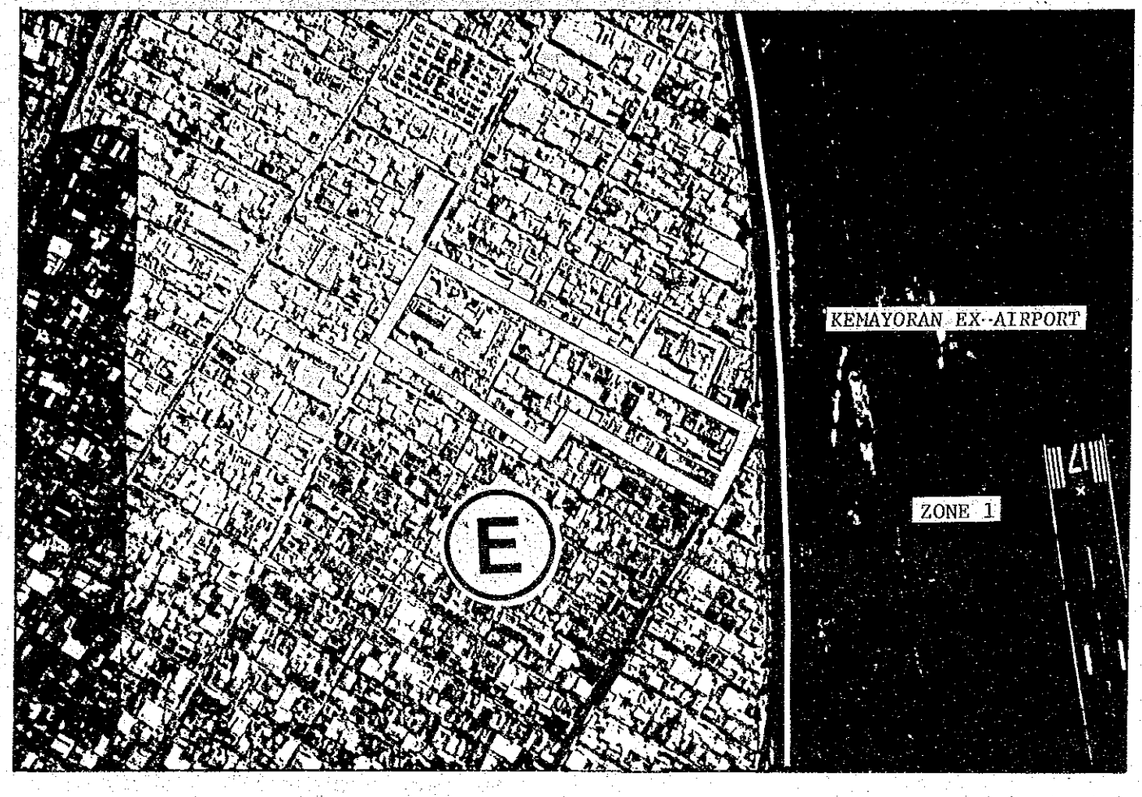


TYPICAL ATMOSPHERE IN SITE E

CHAPTER V. SITE E

5.1 GENERAL DESCRIPTION

5.1.1 Motivation

This residential area, Kelurahan Pademangan Barat, which includes Site E is designated as priority area for improvement of housing and environment. The area has been fairly developed by private sector and has a rather pleasant environment.

However, the population density in the area is extremely high. Furthermore, there are no sufficient open spaces nor by-ways and, under the continuing threat of fire, the situation is dangerous.

DKI is concerned with resolving this type of problem for the benefit of urban control and maintenance. It is financially difficult at present to implement this renewal but there should be certain measures to be considered for future application.

Another motivation for the renewal of this case study area is the desire of some inhabitants to rebuild their own houses and the need for financial aid from the public sector. This provision of aid can be provided by DKI Jakarta on conditions of; (1) new houses should be fireproof, (2) providing in order to utilize the land effectively and increase of housing stocks, and (3) taking the opportunity to improve public work in relation to the above-mentioned DKI concerns.

Based on the above considerations, the inhabitants shall establish a Cooperative guided by DKI Jakarta and NGO. Consequently the two components of the renewal project, housing and public work shall be jointly planned but financial-wise separately implemented by the cooperative and DKI respectively.

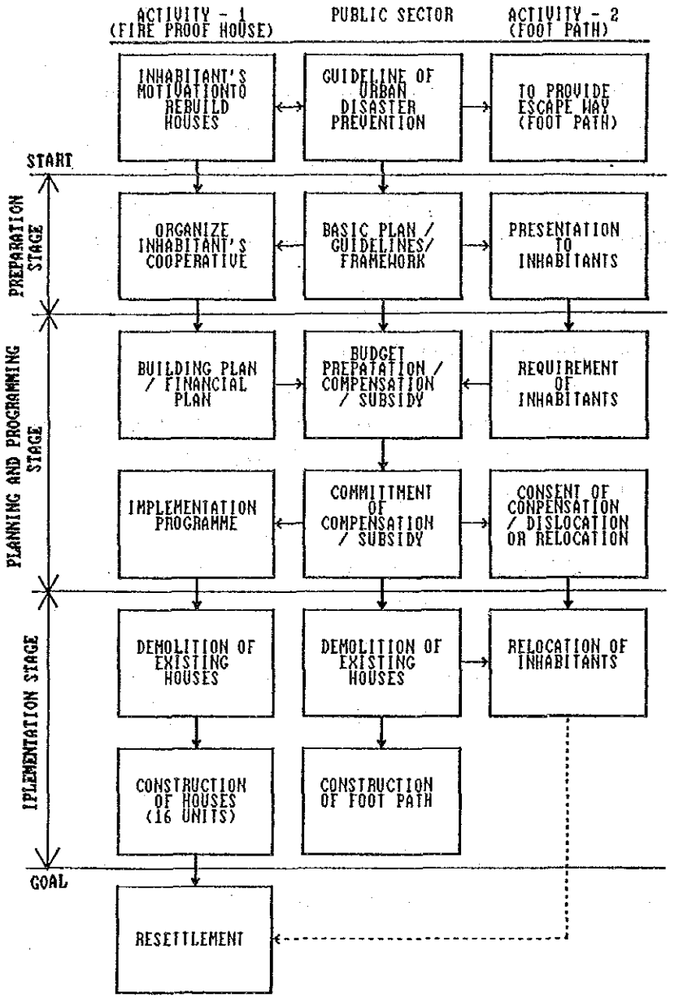
5.1.2 Particular Consideration

A Key issue of this renewal is the "Prevention of Urban Disasters". To provide access and escape roads in case of dangers and fireproof housing are the main themes which should be considered by the public sector after providing minimum infrastructure offered under KIP projects. As long as these measures are considered in terms of the renewal of the residential built-up area, the inhabitants' understanding and cooperation as well as active participation with the public sector in studying and programming "Prevention of Urban Disasters" for all the city are needed.

It is essential that public sector should enlighten inhabitants, particularly those belonging to rather middle income group and can afford to improve their houses to some extent but live in hazardous area, on the subject of "Prevention of Urban Disaster".

It can be said that the renewal plan of this Case Study Site may hardly be implemented especially from the financial viewpoint. However, KCIU may support such required subsidy if the area affects the ex-airport development, according to further study, and if the implementation will be possibly realized within the coming ten years before the completion of the ex-airport development.

5.1.3 General Activity Flow



5.2 RENEWAL METHOD

5.2.1 Introduction

As described in the previous Section 5.1, there are two renewal/improvement projects to be simultaneously formulated and implemented. The description of the renewal methods is separately shown, and the order of description is as follow:

1) Legislative Framework
2) Institutional Framework
   (1) Executing Body
   (2) Roles of bodies relevant to the renewal
   (3) Community Participation
3) Financial Framework
   The financial framework is referred to in Chapter IV, Section 3.3, FINANCIAL FRAMEWORK, and Chapter V, Section 5.6, FINANCIAL STUDY.
4) Procedural Framework
   This framework is referred to in Chapter V, Section 5.1.3, General Activity Flow.

5.2.2 Legislative Framework for Cooperative House

The following are major legal factors which are necessary for the renewal implementation.

1) Permit of Renewal

The renewal plan, namely building 16 housing units, shall be approved by DKI Jakarta provided it does not conflict with the basic plan of the area prepared by DKI Jakarta particularly on land use, population density, and infrastructure development. Special attention shall be paid to increase of housing stock and fire proof buildings.

2) Establishing Cooperative

The establishment of the cooperative, initiated by three households, shall be legally approved by the concerned central and local government agencies entitling the Cooperative to receive subsidy from DKI Jakarta and sell ten housing units to be newly build.

3) Housing

The building permissions shall be obtained as stipulated in DKI Jakarta Municipality regulations and referred to in Chapter IV, Section 3.1.4, Building planning, and Section 3.1.5, Urban Planning.

Land tenure of the Cooperative house shall in principle be subject to the Condominium Law.

4) Subsidy

The subsidy system and amount shall be established. In this case study, the grounds for DKI Jakarta Municipality's subsidy to the Cooperative shall be the "Increase of house stock" and construction of fireproof housing of "Urban disaster prevention".

5.2.3 Institutional Framework for Cooperative House

1) Executing Body

The Cooperative, established by the inhabitants of the 3 households, shall be the executing body. In addition to the inhabitants of the three houses to be demolished due to public works, the cooperative will also include new comers of the 10 houses to be built under this renewal plan.

2) Roles of bodies relevant to this renewal

(1) The cooperative: Shall be the executing body responsible for planning, financing and implementing the renewal.

(2) DJCK: Provision of guidance on the renewal methodology to the cooperative through DKI Jakarta and NGO.

(3) DKI Jakarta/Walikota: Reviewing and approving the renewal plan proposed by the cooperative. DKI Jakarta/Walikota shall review the feasibility study prepared by the cooperative in order to justify the necessity and amount of subsidy.

(4) Kelurahan/Lurah Office: Coordinating administrative matters between Walikota and the cooperative. LKMD shall actively support the establishment of the cooperative.

(5) NGO: Assisting the cooperative in its establishment, preparing plans, programmes, financing and obtaining necessary legal permissions.

(6) Consultants: Assisting the cooperative on technical matters such as physical planning and supervision of construction.

5.2.4 Legislative Framework for Public Works

1) Permit of Renewal/Improvement

The DKI Jakarta Municipality public works project calls for the provision of a new road. The new road shall facilitate access/exit for emergency vehicles and people, and is an of Urban disaster prevention countermeasure.

2) Land Acquisition

DKI Jakarta Municipality shall acquire the land owned or occupied by inhabitants for the purpose of providing the road. The compensation shall be on the basis of laws/regulations dealing with the issues of Land Tenure and Compensation (Chapter IV, Section 3.1.1, Land Tenure, Section 3.1.2, Compensation, and Section 3.3.2, Compensation Model).

5.2.5 Institutional Framework for Public Works

1) Executing Body

DKI Jakarta/Walikota shall be the executing body for this public works project.

2) Roles of bodies relevant to this renewal

(1) DKI Jakarta/Walikota: As the executing body shall be responsible for planning, financing and implementing the public works project.

(2) Kelurahan/Lurah Office: Coordinating administrative matters between Walikota and the inhabitants of the 3 houses through heads of RW and RT.

(3) Team 9: Evaluating rights, properties and value of inhabitants' assets.

(4) NGO: Assisting Walikota, and coordinating between Lurah Office and the inhabitants. NGO shall play an important role in forging a mutual understanding between the executing body and inhabitants.

5.2.6 Community Participation

The motive of this project is to allow for the renewal of three houses by the inhabitants themselves. This project shall be synchronized with the public work project of providing refuge path to reinforce urban disaster prevention measures.

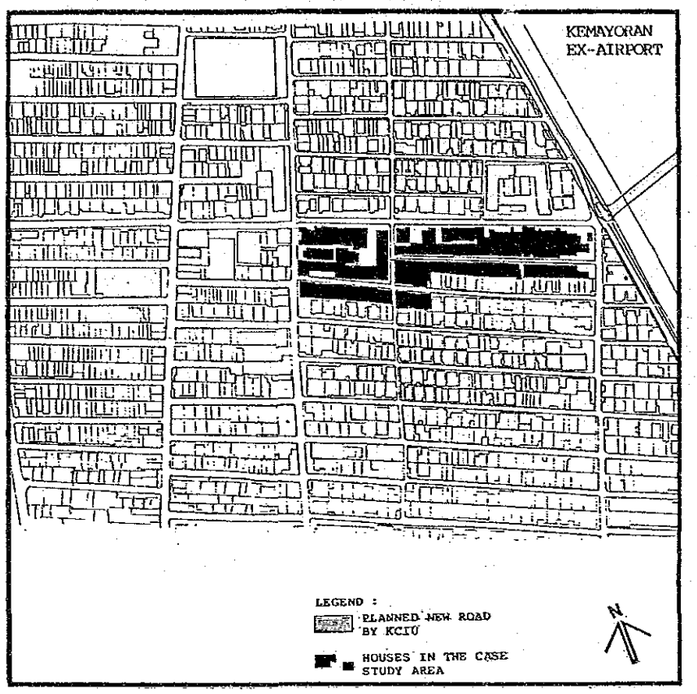
DKI Jakarta Municipality shall participate in the renewal of the three houses subject to the conditions that the inhabitants request subsidy and follow the guidelines established by DKI Jakarta Municipality. The inhabitants shall establish a Cooperative assisted by NGO. This cooperative shall be of sufficient capability to carry out the project.

This case is rather idealistic under the present situation. However it is considered that other potential inhabitants may be encouraged to embark on such renewal projects provided the public sector assumes a guiding role and explains the methods and consequences related to this urban housing renewal type.

5.3 PHYSICAL CONDITIONS AND PLAN

Detailed survey results of Site E are described here.

5.3.1 Existing Characteristics

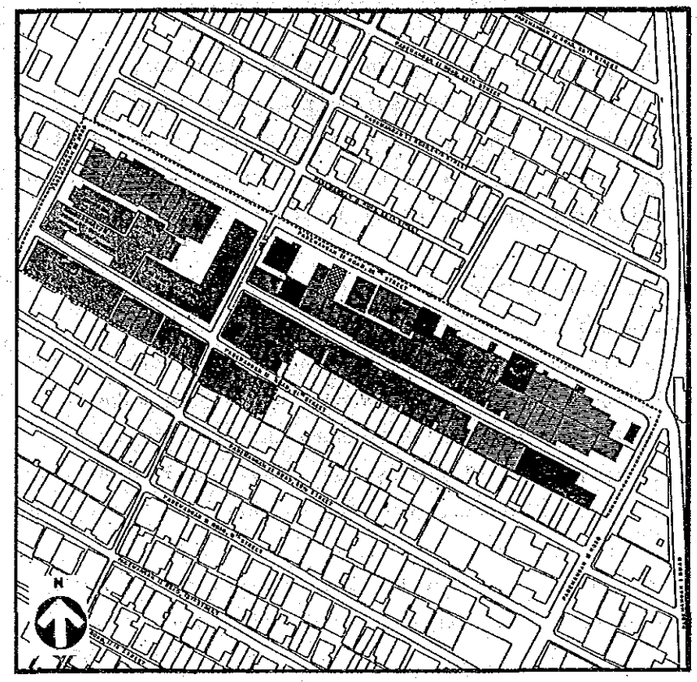


- The site lies in Kelurahan Pademangan Timur and the population of the site is 513 persons involving two RT units. The KIP has been implemented during Repelita I and small part renewed in Repelita IV.

- This rectangular plot of housing area seems well developed and maintained by the inhabitants who are of comparatively high income group.

- The problem of the area is the lack of neighbourhood facilities, especially open spaces and adequate roads. The area has a potential danger for fire occurrence which would rapidly spread to adjacent housing areas causing immeasurable damage and difficulty of emergency evacuation.

5.3.2 Building Use



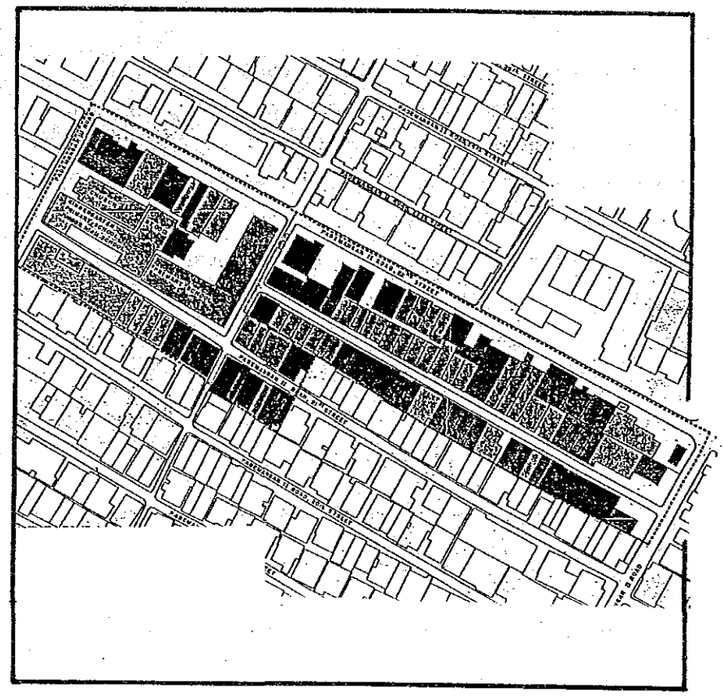
Land Use/Price

- 21% of the area is used for public facilities.
- Land price is the 2nd highest among the 6 sites (77,000 - 96,000 Rp/sqm)

Others

- Household income is the highest among the 6 sites (av; 149,000 Rp/month)

5.3.3 Building Conditions



: SITE BOUNDARY
: RT BOUNDARY

GOOD
MEDIUM
BAD

- Land area : 17,676 m^2
- Net residential land area : 8,345 m^2
- Average land area : 94.83 m^2/house
- Average building area : 83.24 m^2/house
- Average building storey : 1.4 fl/house
- Average No. of family members: 5.8 P/house, 5.0 P/h.h.
- Average No. of Households : 1.17 h.h./house

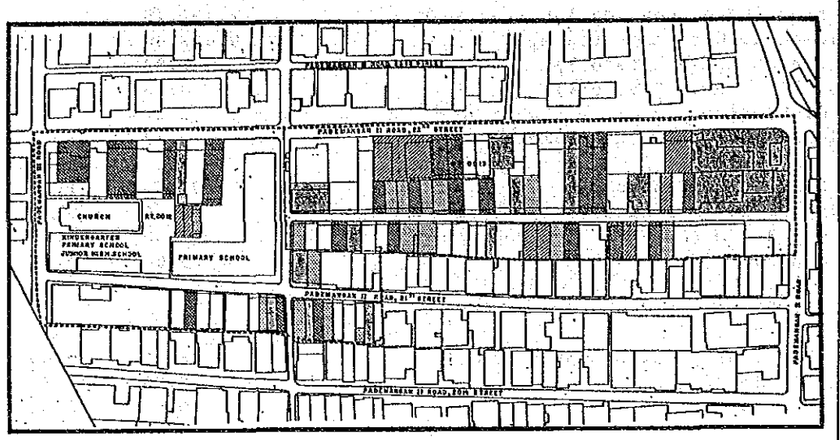
Building

- 100% of the houses have permanent structure.
- 68% of the houses are still new (0 - 14 years old).
- 22% of the houses are for rent.

5.3.4 Present Situation of Residential Environment

SITE NO.		SITE E	
LOCATION		KC. Penjaringan/JU	
		Pademangan Timur	
NAME		RW003	
		RT0012/0013	
PRESENT LAND USE (incl. surroundings)		Residential	
DKI MASTER PLAN		Residential	
SPATIAL RELATION TO KEMAYORAN COMPLEX PROJECT		Close to Sub-center	
AREA OF THE SITE (sq.m)		17,676.00	
NO. OF POPULATION (persons)		513.00	
NO. OF HOUSEHOLD (households)		103.00	
NO. OF HOUSES (houses)		88.00	
AVERAGE LAND PRICE OF HOUSING LOT (Rp.sq.m.)		77,000 - 96,000	
AVERAGE HOUSEHOLD INCOME (Rp./month)		176,000	
		NUMBER	(%)
1. BUILDINGS			
A) BUILDINGS STRUCTURE (no. of houses)		87.00	100.00
a) Temporary		0.00	0.00
b) Semi-permanent		0.00	0.00
c) Permanent		87.00	100.00
B) BUILDING AGE (no. of houses)		87.00	100.00
a) 20 Years & More		12.00	13.79
b) 15 - 19 years		7.00	8.05
c) 14 Years & Less		68.00	78.16
C) BUILDING OWNERSHIP (no. of houses)		88.00	100.00
a) Yearly Contract/Rent		19.00	21.59
b) Others (Stay with the Owner/Company's House, etc.)		9.00	10.23
c) Own House		60.00	68.18
2. DENSITIES			
a) Population Density (persons/spot area:ha)		290.00	
b) Household Density (floor area:sq.m./person)		14.28	
c) Building Density (no. of houses/ha)		49.79	
3. OPEN SPACES/PUBLIC FACILITIES			
A) PUBLIC FACILITIES			
a) Open spaces (e.g. play ground, park, etc.)		None	
b) Education (e.g. Kindergarten, primary school, junior high school etc.)		Primary School Jr. H. School	
c) Medical		None	
d) Religious (e.g. mosque, church etc.)		Church	
e) Cultural/Welfare		None	
f) Governmental		None	
g) Shops		None	
B) FLOOR RATIO			
a) Building Floor (total housing floor area:sq.m.)		7,325.00	
b) Lot Area (total housing lot area:sq.m.)		7,192.75	
c) Residential Used Area (sq.m.)		9,432.00	
d) Floor Area Ratio-1 (a/b:%)		1.02	
e) Floor Area Ratio-2 (a/c:%)		0.78	
f) No. of Stories		1.42	
g) Building Coverage Ratio (d/e:%)		0.72	
4. SERVICE ROAD (no. of houses)		97.00	1.00
a) Facing to 1.5 m & Less (only for beca)		44.00	0.45
b) 2.0 m - 3.0 m (only for one way vehicle)		24.00	0.25
c) 4.5 m & More		29.00	0.30
5. INFRASTRUCTURE			
A) WATER SUPPLY (for drinking water from;)		88.00	100.00
a) Water Seller/Wells		38.00	43.18
b) Water Supply Agency		50.00	56.82
B) WASTE DISPOSAL		88.00	100.00
a) River/Others		2.00	2.27
b) Septic Tanks		84.00	95.45
c) Town Drainage		2.00	2.27
C) FLOOD OCCURRENCE		Not for few years	
6. LAND USE (sq.m.)		17,676.00	100.00
a) Residential		9,431.91	53.36
b) Commercial		321.70	1.82
c) Roads		3,160.47	17.88
d) Public Facilities		3,690.75	20.88
e) others		1,071.17	6.06
7. LAND PRICE (Rp./sq.m.)		88.00	100.00
a) 66,000 Rp. & Less		0.00	0.00
b) 66,000 - 129,000		88.00	100.00
c) 129,000 Rp. & More		0.00	0.00
8. LAND OWNERSHIP		88.00	100.00
a) Tanah Garapan		15.00	17.05
b) Hak Pakai		0.00	0.00
c) Hak Guna Bagunan		14.00	15.91
d) Hal Milik		21.00	23.86
e) Tanah Negara		8.00	9.10
f) Tidak Jelas		30.00	34.08
9. HOUSEHOLD INCOME (Rp./household)		89.00	100.00
a) 100,000 Rp. & Less		20.00	22.47
b) 100,001 - 300,000 Rp.		62.00	69.66
c) 300,001 & More		7.00	7.87
10. AGE OF COMMUNITY		88.00	100.00
a) More than 10 Years		28.00	31.82
b) 4 - 10 Years		34.00	38.64
c) Less than 3 Years		26.00	29.55

5.3.5 Land Status



LEGEND

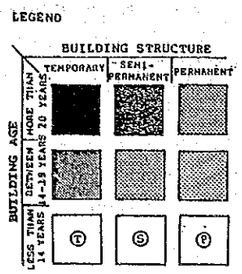
- BOUNDARY OF CASE STUDY AREA
- BOUNDARY OF RT
- HAK MILIK
- HAK GUNA BANGUNAN
- TANAH NEGARA
- TANAH GARAPAN
- UNKNOWN

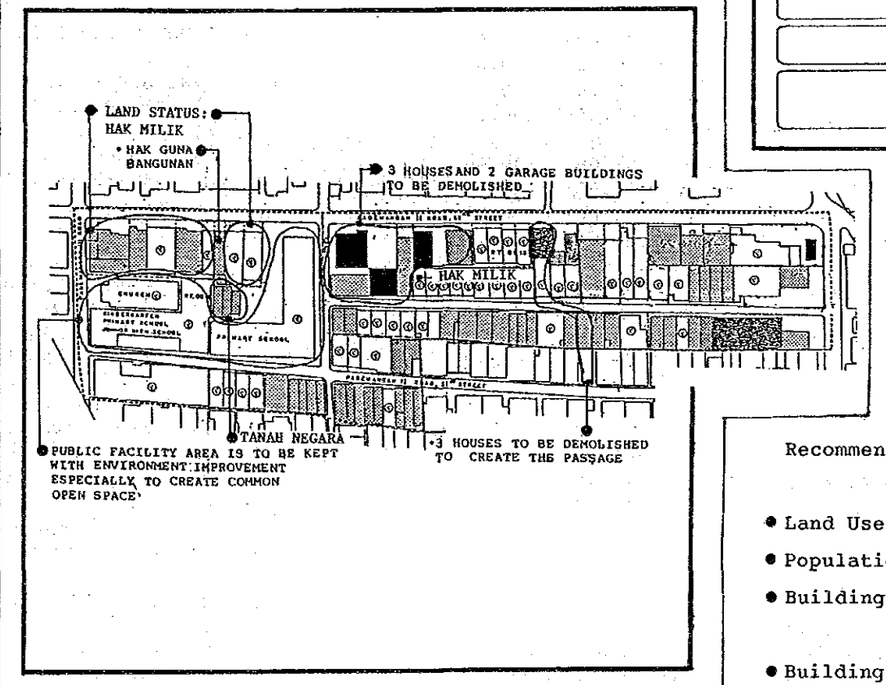
	NUMBER	(%)
• LAND OWNERSHIP	88.00	100.00
a) Tanah Garapan	15.00	17.05
b) Hak Pakai	0.00	0.00
c) Hak Guna Bagunan	14.00	15.91
d) Hak Milik	21.00	23.86
e) Tanah Negara	8.00	9.10
f) Tidak Jelas	30.00	34.08
• LAND PRICE (Rp./sq.m.)	88.00	100.00
a) 66,000 Rp. & Less	0.00	0.00
b) 66,000 - 129,000	88.00	100.00
c) 129,000 Rp. & More	0.00	0.00

5.3.6 Analysis for Renewal

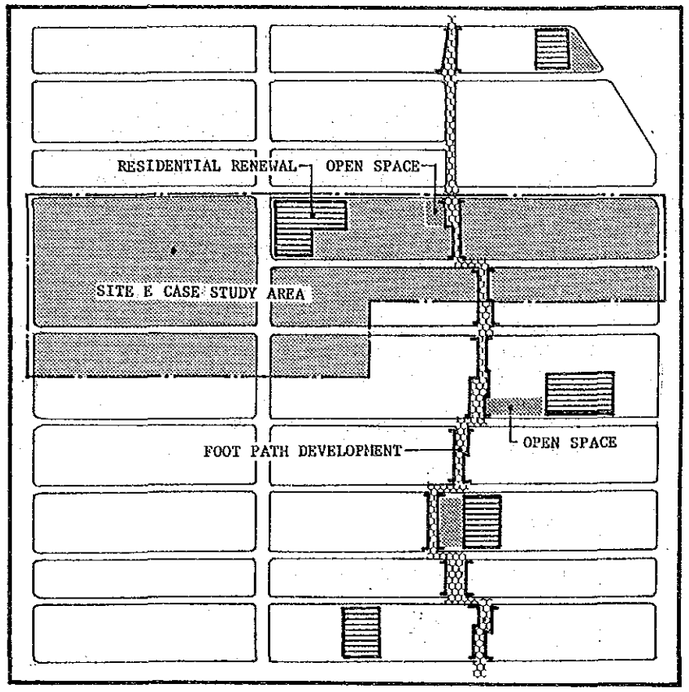
Densities/Floor Ratio

- low population density; 290 p/ha. (net)
- lowest floor density among 6 sites; 14.28 sqm/person
- low building density; 69 houses/ha.
- FAR; 102%
- BCR; 72% (average stories is)





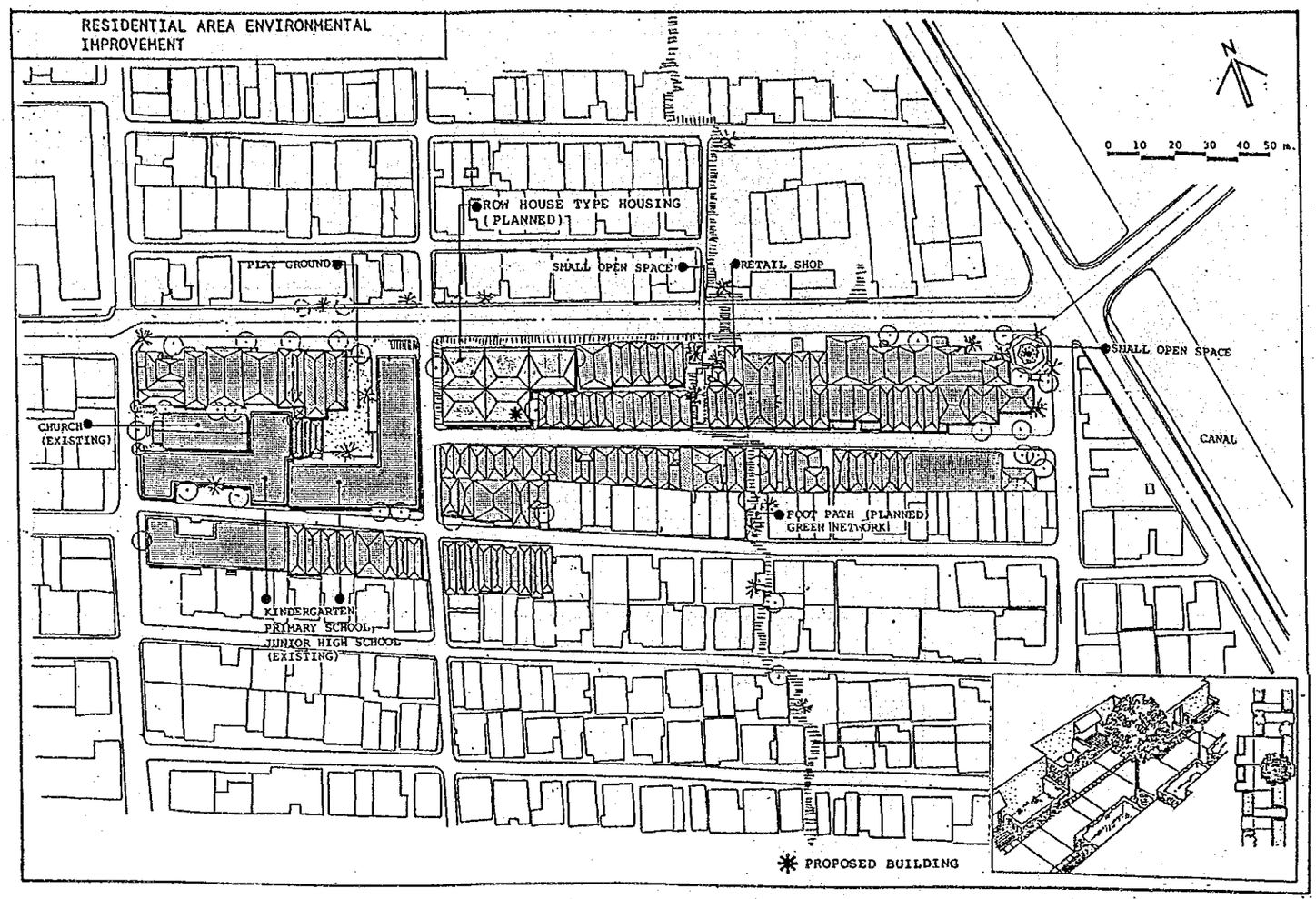
5.3.7 Renewal Concept

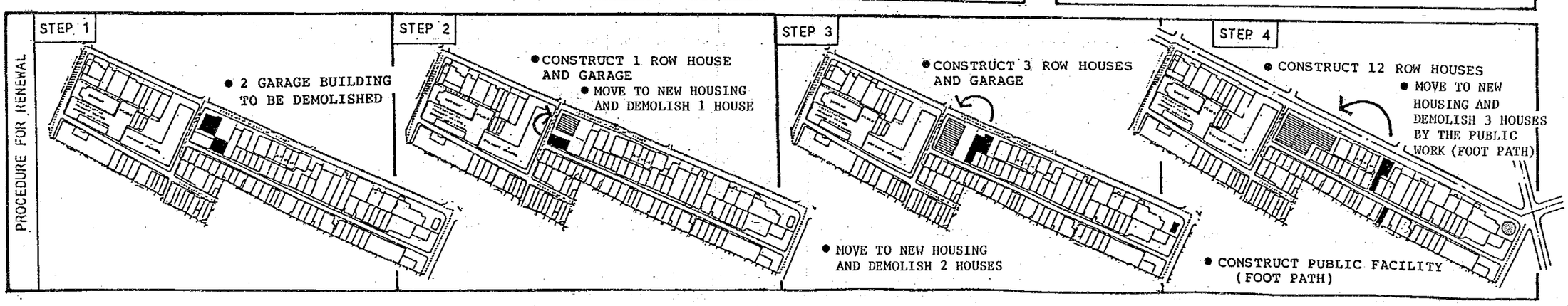


Recommendable Environmental Guidelines

- Land Use : Residential/Mid. class
- Population Density : 200 - 300 P/ha.
- Building Height : 2 stories (except public building)
- Building Coverage Ratio : Max. 80%
- Floor Area Ratio : Max. 200%
- Setback/Front : 2 m (along big road)
  /Perimeter : 0 m

5.3.8 Renewal Plan





● RENEWAL COMPONENT

1. Development Area
   a) Whole case study site: 17,676 m^2
   b) Renewal area : 1,545 m^2

2. Residential Development
   a) Flat type permanent housing for resettler and selling
   b) Housing F-54 x 12 units
      F-100 x 4 units
      Total 16 units
   c) Number of storey : 2 storey

3. Neighbourhood Facility
   a) Foot path : 205 m^2

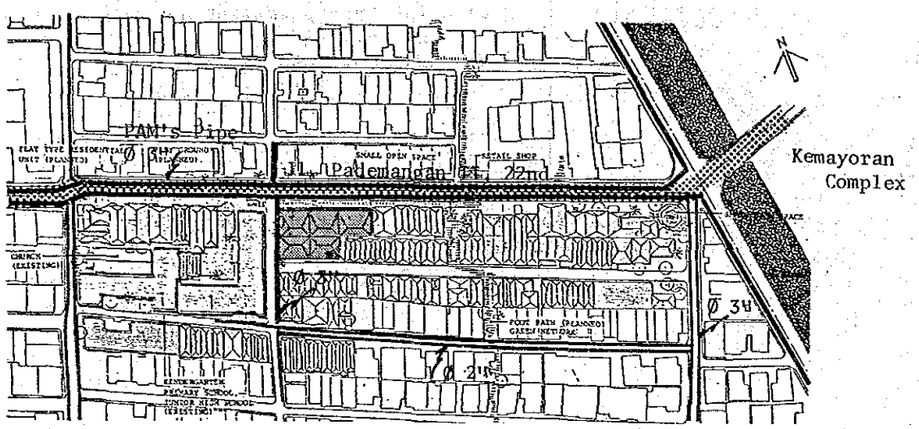
4. Population Density
   a) Existing : 290 P/ha.
   b) Planned : 16 units x 5.8 P/h (average of Site E) = 92 P
      Ordinal house: 82 h x 5.8 = 475 P
      Total 567 P
      567 P - 1.77 ha
      = 320 P/ha.
      (for the time being)

5. Renewal Scheme

Residential	Whole Site	For Preserve	For Demolition	New House	Total
No. of House	88	82	6	16	98
No. of Household	103	96	7	19	115
Bldg. Area (m^2)	7,323	6,823	499	1,257	8,080
Population	513	475	35	92	567

5.4. INFRASTRUCTURE PLAN

SITE E



LEGEND

- New Building
- New Road or Road Expansion
- Existing Canal
- Existing PAM's Pipe

PLANNING ELEMENTS	
Existing Condition of Infrastructure	- This spot is typical middle class housing area. - Flood occurs frequently due to low ground. - PAM's pipes are located in every street and house connections have been completed in 43% of the houses. Most houses have septic tank. - 25% of houses have private telephone line.
Main objectives of Improvement	- Jl. Pademangan II, 22nd is scheduled to be expanded according to DKI's street improvement plan. This road will serve as access road to Kemayoran Complex. - Flood protection measures are needed.
Planned Population and Water Demand	- Number of new houses : 16 units - Population : 16 unitsx 5.8 prs/unit = 93 prs - Demand of water : 93 prs x 160 l/prs = 15 m3/day

Components of Infra-structure	Improvement Plan	Remark	Agencies to be Coor-dinated
Street & Footpath	- Jl. Pademangan II, 22nd will be expanded. No building demolishion will be required because of sufficient exis-ting set-back - Pedestrian paths will be made in the middle of housing block for emergancy evacuation and inhabitants convenience.	Expansion of the road will be implemented by DKI.	*Tatakota DKI * DPU
Drainage	- Pademangan Polder to be constructed by KCIU will greatly contribute to flood protection of this district.	Local community will maintain drainage channels	* KCIU * Kopro Banjir
Water Supply	- House connection will be proceeded by PDAM for an installation fee paid by user.	Inhabitants pay conection fee and consumption charge	* PDAM Utara
Waste Water Disposal	- Existing septic tank is used until public sewerage system is provided by DKI.	Maintenance by local community	* DPU
Solid Waste Management	- Solid waste is being collected by existing handcart pool system.	Inhabitants pay collection charge	* Sub Dinas Kebersihan Utara
Electricity	- PLN is supplying electricity services.	Charge is paid by users.	* PLN * BKJS
Telephone	- PERUMTEL is supplying telephone services.	Charge is paid by users.	*PERUMTEL * BKJS

5.5 Condition of Project Cost

1) Demolition

- This cost includes demolition of super structure and infrastructure above and below ground level.
- The demolition cost for superstructure is according to structure type such as 1) permanent & semi-permanent, 2) ordinary, and 3) temporary structure.
- Cost for small structure and trees is neglected in this estimation, but in case of implementation these costs should be included in the compensation amount especially productive trees and wells etc.

2) Grading and landscaping

This cost includes grading cost in the project site and land fill (assumed average 30 cm) to protect houses from flood.

3) Housing

Specifics for the flats are;

- Structure system : Rigid frame reinforced concrete
- Roof : Wooden frame with asbestos corrugated sheets
- External wall : Concrete block with mortar joint
- Internal wall : Concrete block with mortar joint
- Ceiling : 1-3F/Concrete slab
  4F/Nil
- Floor : Cement sand rendering troweled finish
- Opening : Window-Aluminum frame jalousie window
  Door-Plywood flash door with wooden frame
- Utility : Electricity supply, gas supply piping and water supply for each unit

4) Land acquisition

The cost assumed for land price is based on the questionnaire survey for each house by the Study Team.

5) Study and design

The cost is assumed to be 5 percent of the total amount of items 1) to 4).

6) Administration

Administration costs are assumed to be 4 percent of total amount of items 1) to 5) and cover preconstruction and construction stages including application costs for changing land title ;

In case of
Hak Pengelolaan (HPL) Rp. 150/m^2 of land,
Hak Guna Bangunang (HGB) Rp. 400/m^2 of land

7) Contingency

The cost is assumed to be 4 percent of total amount of above items and includes physical contingency but does not cover cost escalation.

8) Estimated costs are as of March, 1989.

Construction Cost

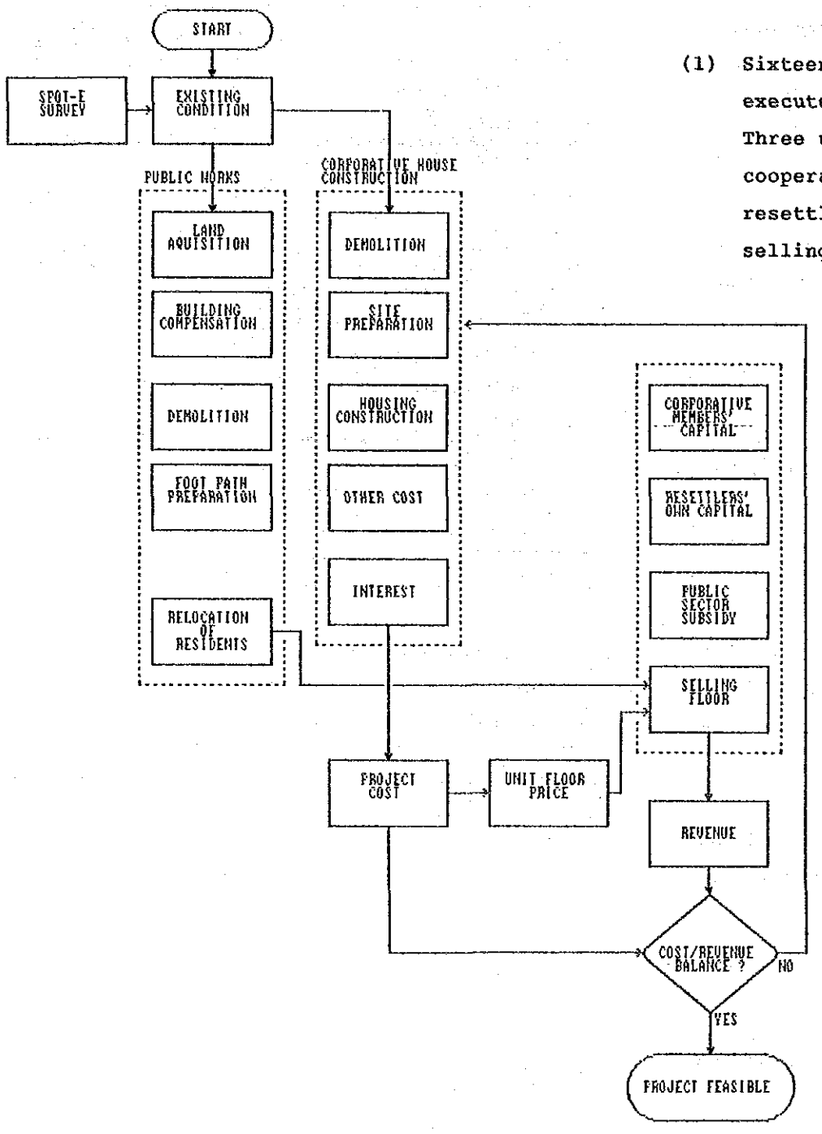
	Item	Unit	Quantity	Unit Price (Rp)	Amount (Rpx1,000)
1.	Housing Development				
1.1	Demolition				
a.	Permanent & semi-permanent structure	m^2	820	5,000	4,100
1.2	Grading	m^2	1.340	3,000	4,020
1.3	Housing				
a.	F-54 12 units	m^2	648	200,000	129,600
b.	F-100 4 units	m^2	400	200,000	80,000
	Sub Total				217,720
2.	Environmental Development				
2.1	Land acquisition	m^2	205	88,300	18,107
2.2	Demolition				
a.	Permanent and semi-permanent structure	m^2	327	5,000	1,635
2.3	Site preparation and landscaping	m^2	205	8,000	1,640
	Sub Total				21,382
	Total				239,102
					(Rp x 1,000)
3.	Study and Design : 239,102 x 0.05			=	11,900
4.	Administration : 251,002 x 0.04			=	10,000
5.	Contingency : 261,002 x 0.04			=	10,400
	Total				32,300
	Grand Total				271,402

5.6 FINANCIAL STUDY

1) Work Flow

Financial study flow of Site E is shown in Fig. 5.5. Major purpose of this project is to combine public works with private sector renewal project. Therefore project funding shall largely rely on self financing by the private sector. The private sector project can prepare flat housing for resettlers dislocated by public works as well as their own houses.

Fig. 5.5 Site E Financial Study Work Flow



2) Planning Conditions and Assumptions

The following are the conditions and assumptions of Site E financial study.

(1) Sixteen (16) flat houses project shall be executed under the cooperative house project. Three units out of 16 shall be for cooperative members, another three for resettlers by public works and the rest for selling to others.

(2) Under public work project for foot path the land must be made available by land acquisition and compensation to buildings must be paid. Resettlers by public works will receive compensation for land and building then they will pay it all for getting their own house. The calculation of compensation is based on the model designed for this case study (Chap. 4 Financial Framework). Resettlers by public works will receive a difference between compensation set in the model and the price of new flat houses.

(3) A public sector subsidy will be expected by cooperative members for accepting the resettlers.

(4) The project fund is assumed to come from a loan from commercial banks with an 18% interest per annum.

(5) The calculation of demolition cost is based on the model designed for this case study.

(6) According to the project cost calculation, a unit floor price of this project becomes around Rp. 257,000/m^2. Market price is assumed to be Rp. 310,000/m^2. Therefore, the cooperative can make a profit of Rp. 57,000 for each m^2 of floor sale.

3) Source of Fund

Funds for the public works project of preparing the foot path come from the public work development budget. On the other hand, the project fund for cooperative house project has to be raised by floor

sale, resettlers' capital, cooperative members' capital and subsidy for the project.

(1) Each resettler by public works has to prepare Rp. 16,740,000, which is the cost of an F-54 flat. The amount of total compensation for three resettlers' old houses is Rp. 65,000,000. Therefore, resettlers can pay for new flats without using own capital.

(2) Ten units, nine F-54 and one F-100, out of 16 housing units are for sale. Total Rp. 181,660,000 is the revenue by selling flats with the market price of Rp.310,000/m^2. All flats are assumed to be sold out immediately after the construction is completed.

(3) All cooperative members will receive F-100 flat house. Each flat costs Rp. 25,700,000 according to the project cost without any profit. Since selling floor price is Rp. 310,000/m^2, Rp. 52,000/m^2 becomes cross subsidy to cooperative members. Rp. 30,959,000 is the total amount of cross subsidy and cooperative members are required to prepare only Rp. 46,192,000 for their own houses instead of Rp. 77,151,000.

3) Results

In this case study, the unit floor price derived from total project cost is smaller than the expected floor sales price. Therefore, the difference between above two prices becomes the profit of this project. This profit will return back to cooperative members. It works as a cross subsidy to them.

Even though the cooperative house project is a privately motivated project, public support encourages the members' will to execute the project. DKI can prepare a subsidy based on specific programs like fire preventing promotion program. The cooperative can more easily execute their project in terms of finance by receiving subsidy. In this sense a subsidy will greatly encourage this project execution.

Major project cost consists of Rp. 210 million for housing construction, Rp. 65 million for compensation and Rp. 22 million for construction cost loan interest. Total project cost is Rp. 270 million. Net unit floor cost is around Rp. 257,000 per m^2.

Table 5.5A Cooperative House
Project Cost and Source of Fund

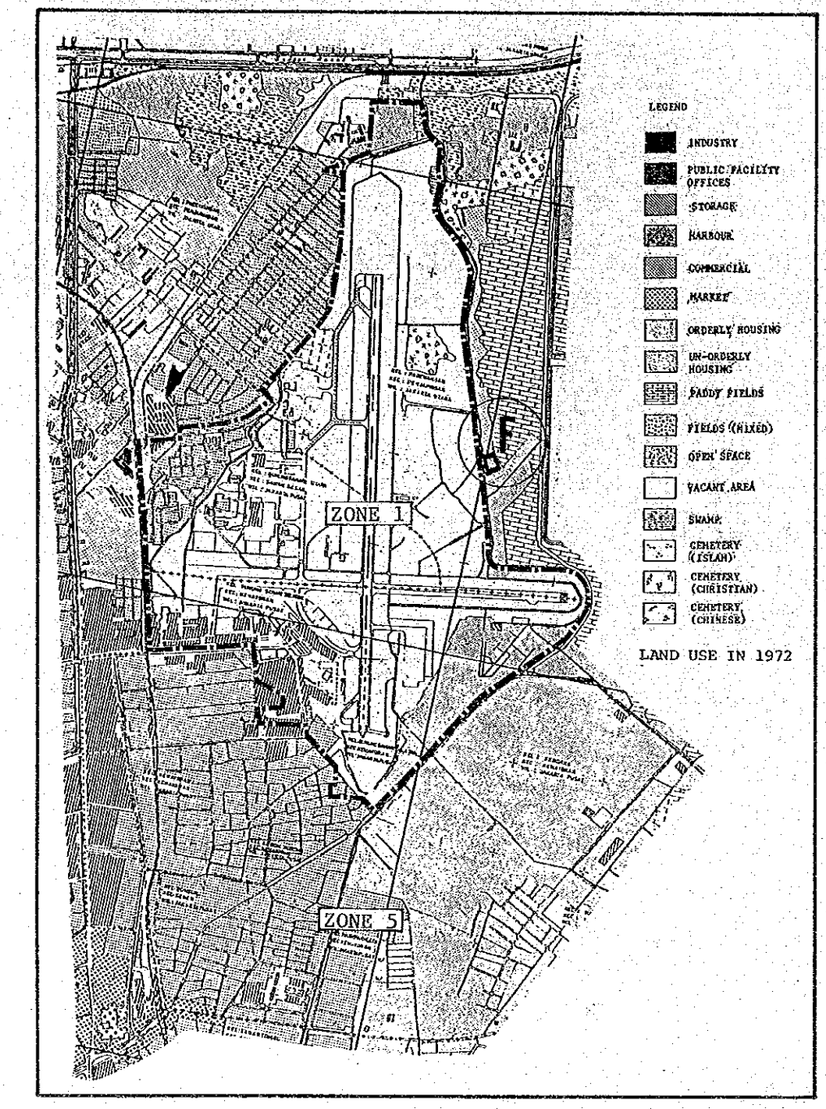
	Cost x Rp.1,000	Source of Fund xRp.1,000	
Demolition	4,100	181,660	Selling Floor
Housing Construction	209,600		
Site Preparation	4,020	41,661	Resettlers' own capital
Other Cost	29,540	46,192	Corporative members' own capital
Interest	22,253		
Total	269,513	269,513	

Table 5.5B Public Work Project Cost

	Cost x Rp.1,000
Land Aquisition	18,108
Building compensation	46,899
Demolition	1,635
Site preparation & Land scaping	1,640
Other cost	9,265
Total	77,546

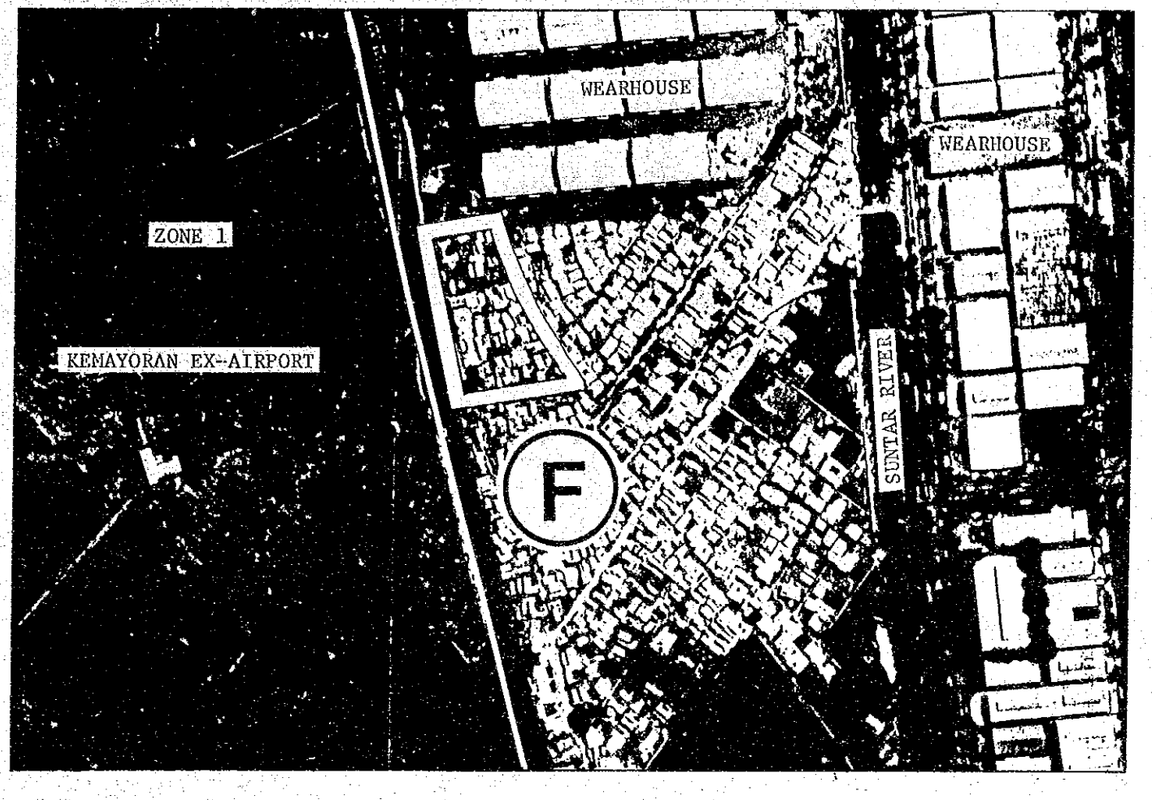
6. SITE F (CASE STUDY SITE)

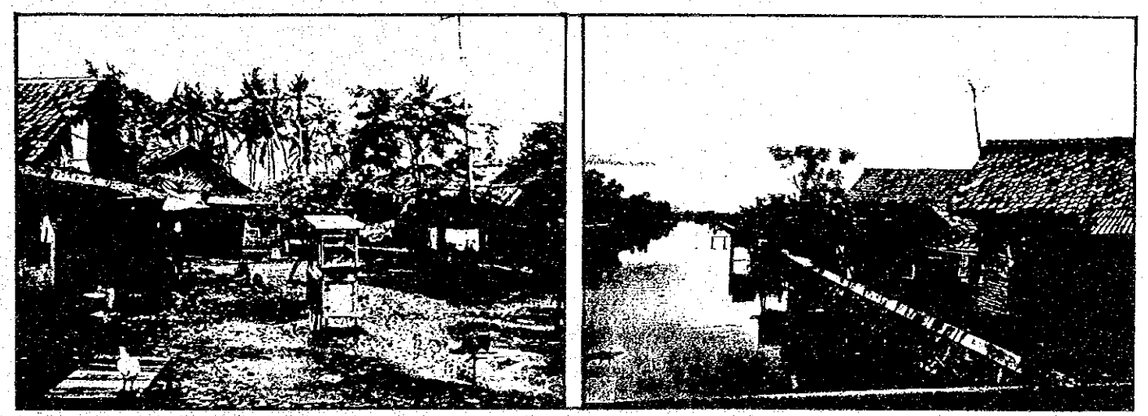
LOCATION MAP



LAND USE IN 1972

AEROPHOTOGRAPHY





TYPICAL ATMOSPHERE IN SITE F

6. SITE F (CASE STUDY SITE)

6.1. GENERAL DESCRIPTION

6.1.1 Motivation

Site F and the whole surrounding area is located exactly in between Zone 2 of high and middle class housing development and Sunter real estate. The area has a large vacant space and a sprawl of rather inferior houses. If the area remains as it is, more sprawl is expected which will adversely affect both Zone 2 development and Sunter real estate.
estate.

In order to form a large high standard residential area encompassing this area in addition to Zone 2 and Sunter real estate, the site shall be renewed.

This case study is not only for Site F but for all the surroundings area of Site F. Detailed survey of Site F was conducted and the data is used for assumption of all the surrounding area totalling approximately 17.8 ha and having 538 houses.

The method applied to this study is a "Land Consolidation" type currently being experimentally established in Indonesia or "Land Readjustment Project (KUKAKU-SEIRI)" used in Japan.

Since present land price is quite low and there is comparatively large vacant land, it is advantageous to experiment "Land Readjustment Project", which is also realistic, if existing legislative and institutional framework are clearly settled.

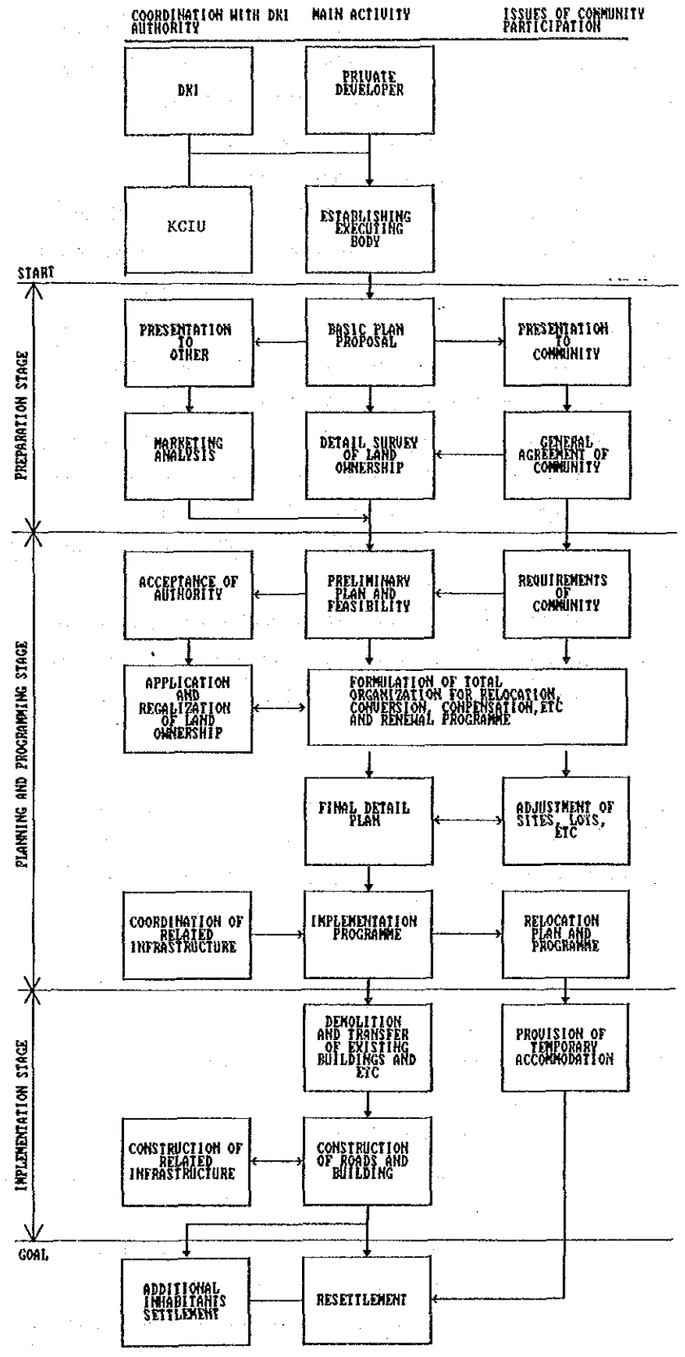
6.1.2 Particular Considerations

It is known that parts of the area have been already acquired or development rights have been obtained by private developers. However, it is still possible to implement the renewal only by using the method, if DKI Jakarta, preferably with KCIU, takes the initiative to organize a joint executing body involving the private developers, community/inhabitants of land right holders, and public developers such as Perumnas and PD. Sarana Jaya.

This "Land Readjustment Project" method is based on "Right Conversion" systems similar to that suggested for Site D renewal plan. Survey, investigation, evaluation of land tenure, physical conditions, etc. shall be carefully and precisely conducted. In addition opinions and requirements of community/inhabitants will be carefully considered in order not to be overlooked or neglected, and this is one of the key points for the successful renewal. Therefore, involving NGO is essential for avoiding any confusion or misunderstanding between community/inhabitants and other parties.

It is assumed that there are many other areas of similar situation to Site F in urban and suburban areas. This Site F area renewal will be a practical model for renewal of such areas.

6.1.3 General Activity Flow



6.2 RENEWAL METHOD

In comparison with the "Urban Renewal Method (Right Conversion system)" method of Japan theoretically applied to the Site D Renewal (Refer to Chapter V, Section 4.2), this renewal method namely "Land Readjustment" of Japan is more practically applicable to the renewal of Site F. (Refer Chapter IV., Section 4.3.1, Introduction of Renewal Method)

In this Case Study the renewal not only covers Site F of 9,000 M^2 but encompasses the extensive area of approximately 17.8 ha including the Site F. The 17.8 ha area is named Zone F. Existing conditions in Zone F are assumed based on survey data related to Site F, aerial photography, and available maps. The reason for designating Zone F as being necessary for renewal is described in Chapter III, Section 2.3, PARTICULAR RELATIONS TO SURROUNDING AREA, and the required neighbourhood facilities to be provided are indicated in Chapter III, Section 5.3, Table 3.39.

In addition to the "Land Readjustment" method, this case study includes cross subsidy particularly for small land holders and illegal settlers (both are low income group inhabitants) by the way of providing houses.

The renewal method is described from various integrated aspects as listed hereafter:

1) Legislative Framework
2) Institutional Framework
   (1) Executing Body
       This is also referred to in Chapter IV, Section 3.2.7, Executing Body.
   (2) Roles of bodies relevant to the renewal
   (3) Community Participation
       This is also referred to in Chapter IV, Section 3.2.3, Community Participation.
3) Financial Framework
   The financial framework is referred to in Chapter IV, Section 3.3, FINANCIAL FRAMEWORK, and Chapter V, Section 6.6, FINANCIAL STUDY.
4) Procedural Framework
   This framework is referred to in Chapter V, Section 6.1.3, General Activity Flow.

6.2.2 Legislative Framework

The following are major legal factors which are necessary for the renewal implementation.

1) The general renewal plan prepared by the executing body shall be reviewed and approved by DKI Jakarta Municipality particularly on land use, population density, allocation of neighbourhood facilities, roads and infrastructure lay-out and connections and consideration of urban disaster prevention. DKI Jakarta Tata Kota will play an important role in this matter. It is likely that Tata Kota would be a part of the planning team.

2) Establishing a Cooperative

A cooperative comprising right holders and initiated by a private developer(s) shall be legally approved by the concerned central and local government agencies.

The right holder's cooperative can include inhabitants possessing land rights, Perumnas and Sarana Jaya.

3) Evaluation of right holder's assets

The value of assets of the private developer(s) and inhabitants shall be evaluated in line with the adopted practices on with reference to the issue of Land Tenure and Compensation (See Chapter IV, Section 3.1.1, Land Tenure, Section 3.1.2, Compensation, and Section 3.3.2, Compensation Model).

4) Housing

The building permissions shall be obtained as stipulated in DKI Municipality regulations and referred to in Chapter IV, Section 3.1.4, Building Planning, and Section 3.1.5, Urban Planning.
Land tenure jointly owned by small land holders shall in principle be subject to the Condominium Law.

6.2.3 Institutional Framework

The executing body and the most concerned bodies to the renewal such as central/local government, private sectors as well as inhabitants community are described hereafter. The involvement of these bodies is essential to the planning, financing and implementation of the renewal and it shall be arranged by the executing body guided by DKI Jakarta Municipality and assisted by other bodies concerned.

1) Executing Body

The right holders cooperative shall be established by a private developer(s) possessing pieces of land, and inhabitants holding land rights. Perumnas and/or Sarana Jaya can join if they possess land.

2) Roles of bodies relevant to Zone F Renewal

(1) The right holders cooperative: The Executing Body is responsible for planning, and implementing the renewal.

(2) DJCK: Provision of guidance on the renewal methodology to the cooperative through DKI Jakarta Municipality, KCIU and NGO.

(3) DKI Jakarta/Walikota: Coordinating, reviewing and approving Zone F renewal plan. In particular the planning of roads, infrastructure and neighbourhood facilities is to be done by Walikota, while their implementation shall be by those agencies or cooperations referred to in APPENDIX D, Tables D-4 and D-5 for neighbourhood facilities, and Chapter V, Section 4.5, INFRASTRUCTURE PLAN, for infrastructure.

(4) KCIU: Financing of the renewal. Project cost will be recovered by selling reserved land. However initial financing shall be required which shall be later recovered. Certain benefits shall be derived by the renewal of Zone F to the development of KCIU's Zone Z. KCIU's loan for the renewal should carry very low interest rate.

KCIU shall consider to support low income group housing for small land holders and illegal settlers, if this renewal does not cover cross subsidy to those inhabitants.

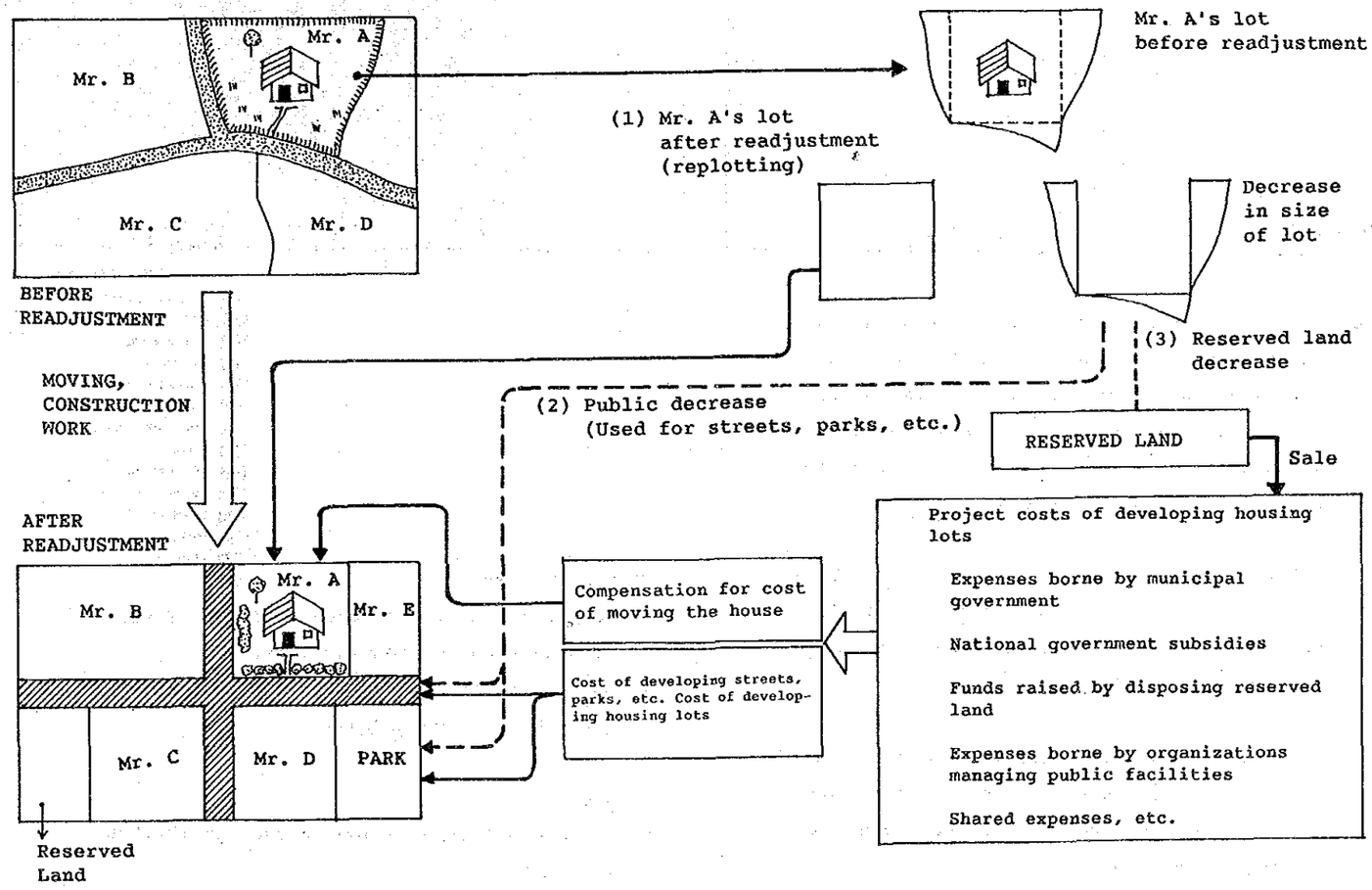
(5) Kelurahan/Lurah Office: Coordinating administrative matters between Walikota and inhabitants through heads of RW and RT.

(6) Team 9: Evaluating rights, properties and value of assets of right holders and inhabitants. Confirmation of land tenure shall be in compliance with the registration record of BPN but without ignoring direct interview particularly to inhabitants.

(7) NGO: Assisting inhabitants of the community through coordination with Lurah office, Walikota and the right holders cooperative. NGO can supervise inhabitants' survey on existing conditions.

3) Community Participation

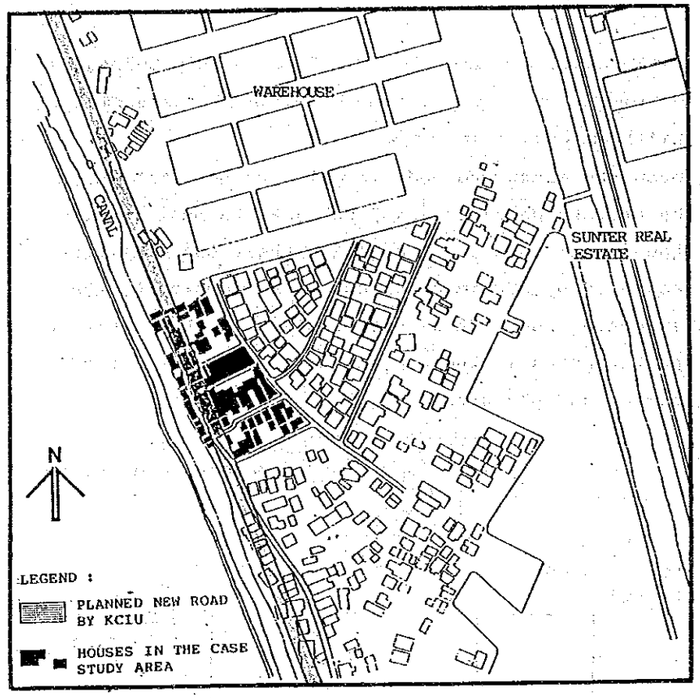
Inhabitants who live in Zone F are mostly belonging to low income group and their house lots are small, and land rights are weak.
When the executing body is going to be established by private developers and DKI Jakarta Municipality, the inhabitants shall organize their own committee assisted by NGO in order not to be ignored by the executing body. It is preferable that the committee participates in the project from the beginning of survey and planning.



6.3 PHYSICAL CONDITIONS AND PLAN

The detailed survey data of site F, representing similar areas Zone F (17.8 ha.) are shown here.

6.3.1 Existing Characteristics

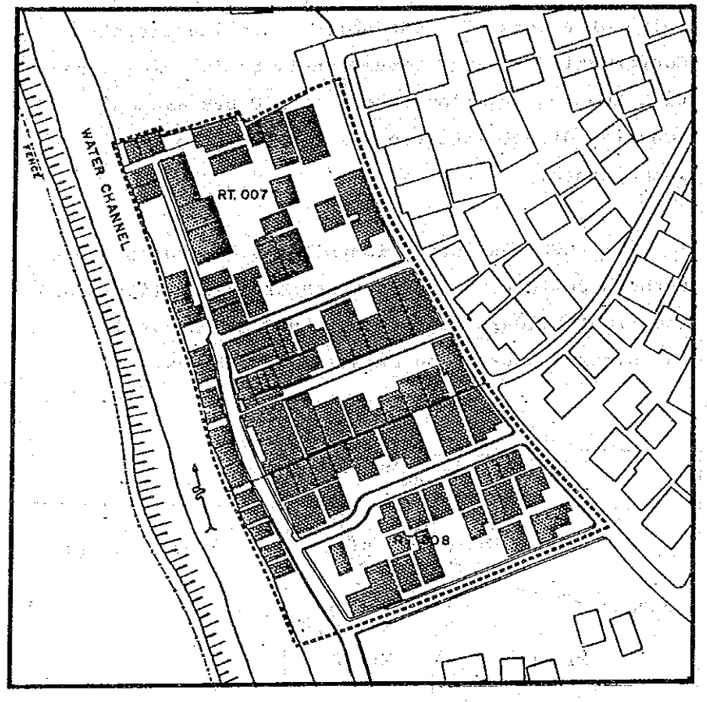


- The site lies in Kelurahan Sunter Agung and the population of the spot is 382 persons involving two RT units. The area is located between Zone 1 and the real estate of Sunter Agung which is a well developed housing area for middle to high income groups.

- A Sprawling housing area mostly in Hak Milik/ Tanah Garapan which does not conform to DKI Master Plan where the area is designated for industrial use (Warehouses).

- Thus, until now there are less development of public services in and around the area, and spatial ordering and planned development is strongly required.

6.3.2 Building Use



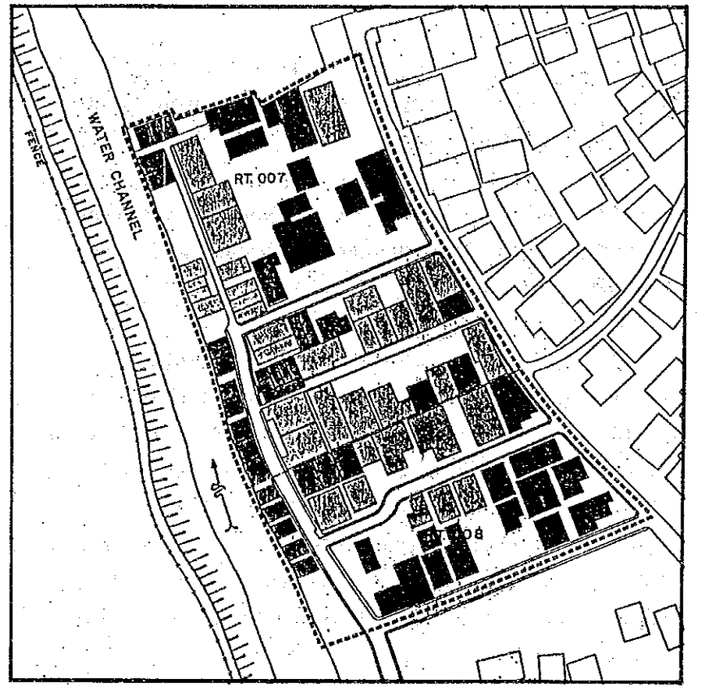
Land Use/Price

- No public facilities area, and 82% of the area is used for housing lots.
- Land price is lowest among the 6 sites (22,000 - 27,000 Rp/sqm)

Others

- Household income is low at average 124,000 Rp/month

6.3.3 Building Conditions



- Land area : 9,000 m^2
- Net residential land area : 4,052 m^2
- Average land area : 57.89 m^2/house
- Average building area : 38.86 m^2/house
- Average building storey : 1.1 fl/house
- Average No. of family members: 5.5 P/house, 3.8 P/h.h.
- Average No. of Households : 1.44 h.h./house

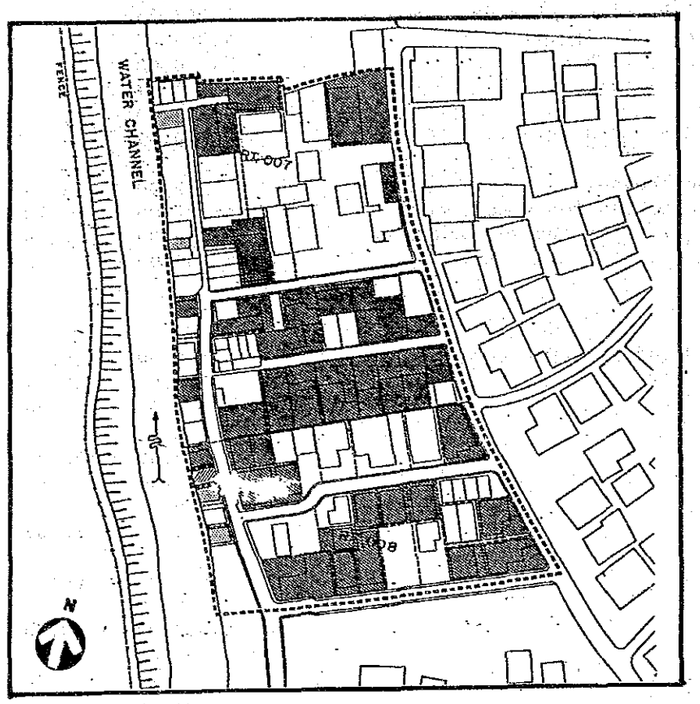
Buildings

- 11% of the houses have temporary structure.
- 68% of the houses are still new (0 - 14 years old) but the conditions of those houses appear very poor.
- 26% of the houses are for rent.

6.3.4 Present Situation of Residential Environment

SITE NO.	SITE F	
LOCATION	KC. Tanjung Priok/JU	
	Sunter Agung	
NAME	RW05	
	RT007/008	
PRESENT LAND USE (incl. surroundings)	Residential/Farm	
DKI MASTER PLAN	Industry	
SPATIAL RELATION TO KEMAYORAN COMPLEX PROJECT	East Border	
AREA OF THE SITE (sq.m)	9,000.00	
NO. OF POPULATION (persons)	382.00	
NO. OF HOUSEHOLD (households)	101.00	
NO. OF HOUSES (houses)	70.00	
AVERAGE LAND PRICE OF HOUSING LOT (Rp.sq.m.)	22,000 - 27,000	
AVERAGE HOUSEHOLD INCOME (Rp./month)	124,000	
	NUMBER	(%)
1. BUILDINGS		
A) BUILDINGS STRUCTURE (no. of houses)	70.00	100.00
a) Temporary	8.00	11.43
b) Semi-permanent	12.00	17.14
c) Permanent	50.00	71.43
B) BUILDING AGE (no. of houses)	70.00	100.00
a) 20 Years & More	1.00	1.43
b) 15 - 19 years	11.00	15.71
c) 14 Years & Less	58.00	82.86
C) BUILDING OWNERSHIP (no. of houses)	70.00	100.00
a) Yearly Contract/Rent	18.00	25.71
b) Others (Stay with the Owner/Company's House, etc.)	2.00	2.86
c) Own House	50.00	71.43
2. DENSITIES		
a) Population Density (persons/spot area:ha)	424.00	
b) Household Density (floor area:sq.m./person)	7.11	
c) Building Density (no. of houses/ha)	77.78	
3. OPEN SPACES/PUBLIC FACILITIES		
A) PUBLIC FACILITIES		
a) Open spaces (e.g. play ground, park, etc.)	None	
b) Education (e.g. Kindergarten, primary	None	
school, junior high school etc.)	None	
c) Medical	None	
d) Religious (e.g. mosque, church etc.)	None	
e) Cultural/Welfare	None	
f) Governmental	None	
g) Shops	None	
B) FLOOR RATIO		
a) Building Floor (total housing floor area:sq.m.)	2,717.64	
b) Lot Area (total housing lot area:sq.m.)	3,997.53	
c) Residential Used Area (sq.m.)	7,393.00	
d) Floor Area Ratio-1 (a/b:%)	0.68	
e) Floor Area Ratio-2 (a/c:%)	0.37	
f) No. of Stories	1.10	
g) Building Coverage Ratio (d/e:%)	0.62	
4. SERVICE ROAD (no. of houses)	99.00	1.00
a) Facing to 1.5 m & Less (only for beca)	29.00	0.29
b) 2.0 m - 3.0 m (only for one way vehicle)	16.00	0.16
c) 4.5 m & More	54.00	0.55
5. INFRASTRUCTURE		
A) WATER SUPPLY (for drinking water from;)	70.00	100.00
a) Water Seller/Wells	68.00	97.14
b) Water Supply Agency	2.00	2.86
B) WASTE DISPOSAL	70.00	100.00
a) River/Others	41.00	58.57
b) Septic Tanks	20.00	28.57
c) Town Drainage	9.00	12.86
C) FLOOD OCCURRENCE	Not for Two years	
6. LAND USE (sq.m.)	9,000.00	100.00
a) Residential	7,392.60	82.14
b) Commercial	7.20	0.08
c) Roads	1,491.30	16.57
d) Public Facilities	0.00	0.00
e) others	108.90	1.21
7. LAND PRICE (Rp./sq.m.)	70.00	100.00
a) 66,000 Rp. & Less	70.00	100.00
b) 66,000 - 129,000	0.00	0.00
c) 129,000 Rp. & More	0.00	0.00
8. LAND OWNERSHIP	70.00	100.00
a) Tanah Garapan	4.00	5.71
b) Hak Pakai	0.00	0.00
c) Hak Guna Bagunan	0.00	0.00
d) Hal Milik	45.00	64.29
e) Tanah Negara	1.00	1.43
f) Tidak Jelas	20.00	28.57
9. HOUSEHOLD INCOME (Rp./household)	70.00	100.00
a) 100,000 Rp. & Less	45.00	64.29
b) 100,001 - 300,000 Rp.	18.00	25.71
c) 300,001 & More	7.00	10.00
10. AGE OF COMMUNITY	70.00	100.00
a) More than 10 Years	23.00	32.86
b) 4 - 10 Years	27.00	38.57
c) Less than 3 Years	20.00	28.57

6.3.5 Land Status

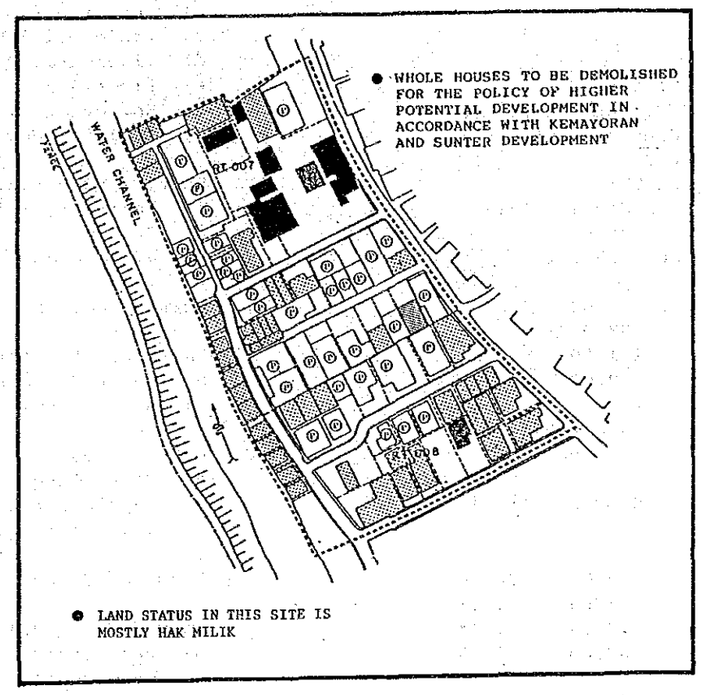


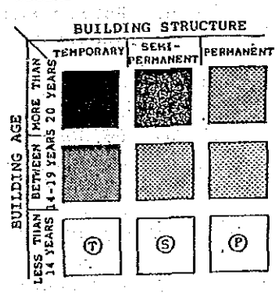
LEGEND

- BOUNDARY OF CASE STUDY AREA
- BOUNDARY OF RT
- HAK MILIK
- HAK GUNA BANGUNAN
- TANAH NEGARA
- TANAH GARAPAN
- UNKNOWN

	NUMBER	(%)
● LAND OWNERSHIP	70.00	100.00
a) Tanah Garapan	4.00	5.71
b) Hak Pakai	0.00	0.00
c) Hak Guna Bagunan	0.00	0.00
d) Hak Milik	45.00	64.29
e) Tanah Negara	1.00	1.43
f) Tidak Jelas	20.00	28.57
● LAND PRICE (Rp./sq.m.)	70.00	100.00
a) 66,000 Rp. & Less	70.00	100.00
b) 66,00 - 129,000	0.00	0.00
c) 129,000 Rp. & More	0.00	0.00

6.3.6 Analysis for Renewal

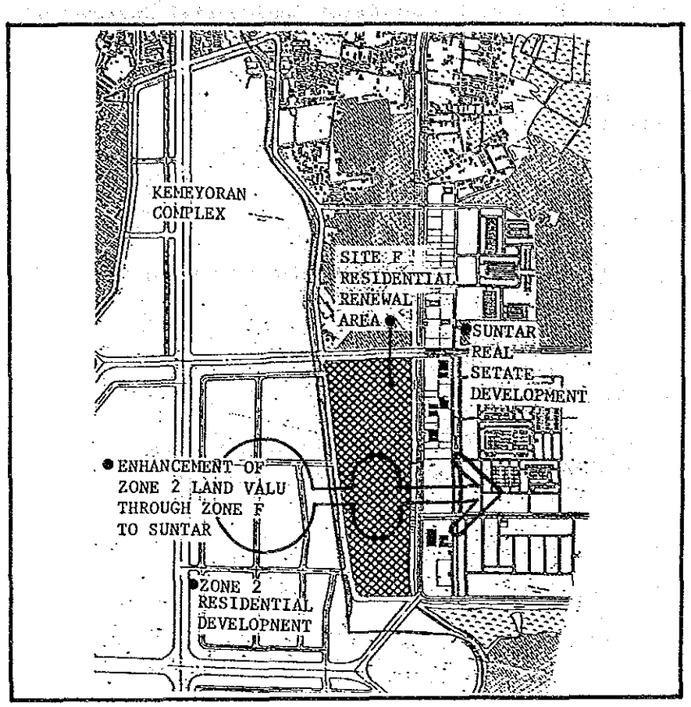




Densities/Floor Ratio

- lower population density; 424 p/ha. (net)
- average floor density among 6 sites; 7.11 sqm/person
- higher building density; 92 houses/ha.
- FAR; 68%
- BCR; 62%

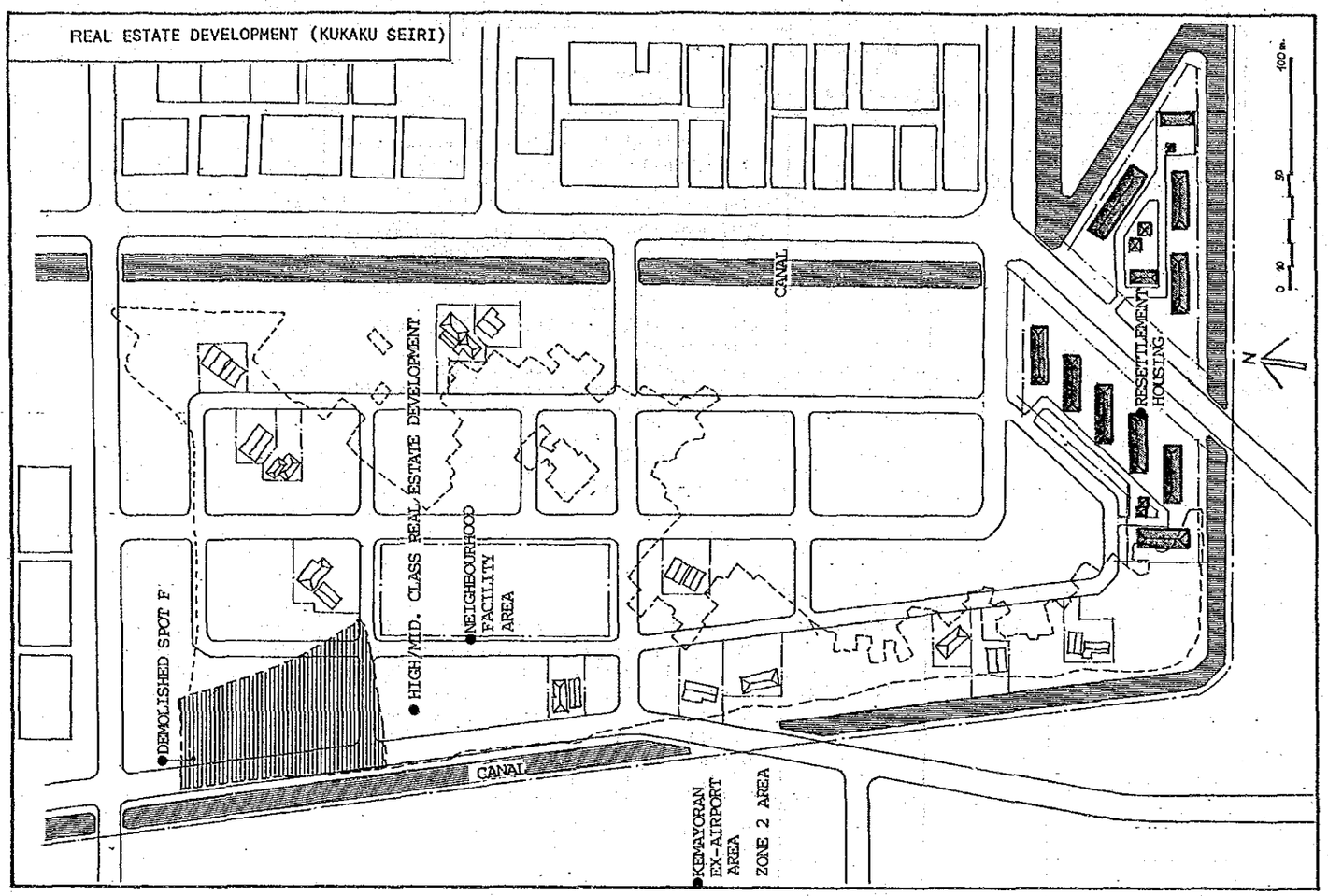
6.3.7 Renewal Concept



Recommendable Environmental Guidelines

- Land Use : Residential/Mid. (Low) class
- Population Density : 200 - 300 P/ha. (gross) (900 P/ha. net)
- Building Height : Max. 4 Stories
- Building Coverage Ratio : Max. 60%
- Floor Area Ratio : Max. 150%
- Setback/Front : 2 m (along big road)
  /Perimeter : 0 m

6.3.8 Renewal Plan



RENEWAL COMPONENT

1. Development Area
   a) Whole case study site: 9,000 m^2
   b) Catchment areato the project : 17.8 ha
   c) Land for resettlement housing: 1.8 ha

2. Residential Development
   a) Flat type permanent housing for resettler in Zone F (House for rent and selling)
   b) Housing
      Distribution of house unit and type in Site F

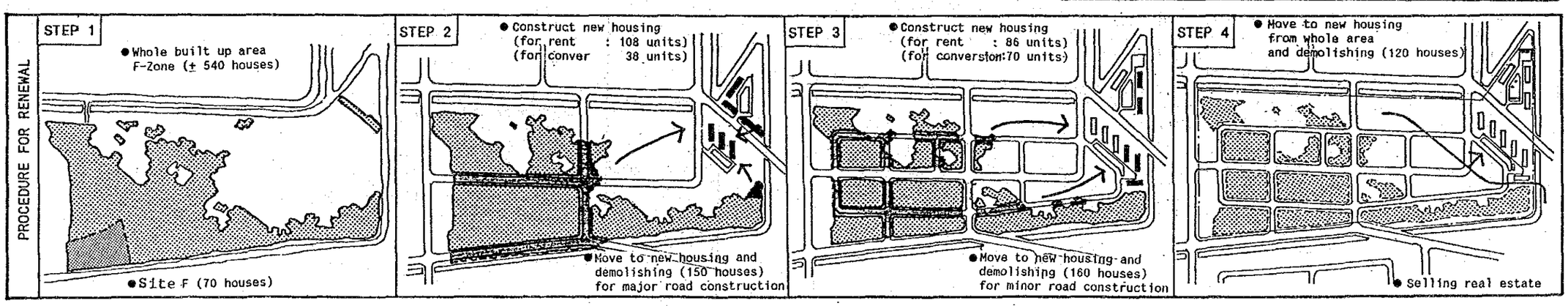
3. Neighbourhood Facility for Resettlement Area
   a) Kindergarten : 100 m^2
   b) Primary school: 600 m^2
   c) Mushola : 50 m2
      Total 750 m^2
   d) Community park: 500 m^2

4. Reserved Land
   Land for new housing estate: 7.7 ha.

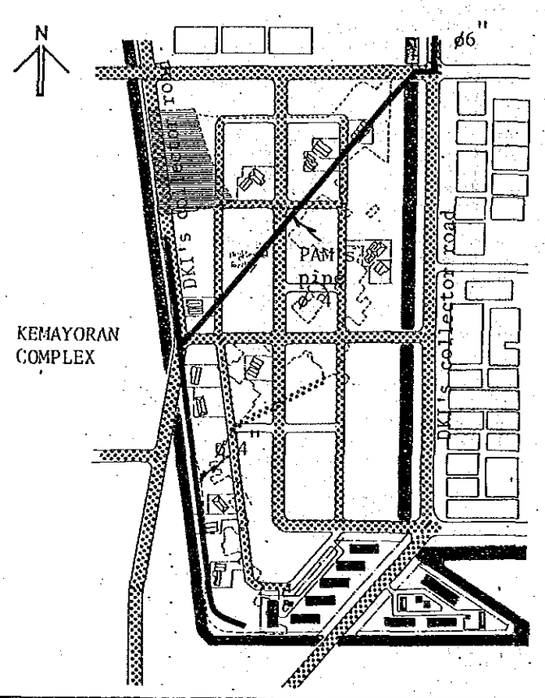
5. Population Density
   a) Existing (Site F) : 424 P/ha.
   b) Planned (Resettlement area): 302 h x 5.5 P/h = 1,660 P
      1,660 - 1.8 ha. = 922 P/ha.

6. Renewal Scheme

Residential		Whole Site	For Preserve	For Demolition	New* House	Total
No. of House (Site F)	--(a)	70	14	56	39	53
No. of House (Zone F)	--(b)	538	108	450	302	410
No. of Household	-------(a)	101	20	80	56	76
No. of Household	-------(b)	775	155	620	432	587
Bldg. Area (m^2)	--------(a)	2,720	544	2,176	-	-
Bldg. Area (m^2)	--------(b)	20,900	4,200	16,700	8,726	12,926
Population	----------(a)	382	77	305	210	287
Population	----------(b)	2,960	590	2,370	1,630	2,220



6.4. INFRASTRUCTURE PLAN



SITE F

LEGEND :

- : New road and Road Expansion
- : Existing Canal
- : Existing PAM's Pipe
- : Site F
- : Resettlement Housing

PLANNING ELEMENTS	
Existing Condition of Infrastructure	- Existing landuse of this district is kampung and agriculture field. - Few houses have toilet facilities inside the house in Site F and most people use canal for toilet. - Electricity services are supplied, but no piped water is supplied in Site F. PAM's pipe is being installed in the south of this district.
Main objectives of Improvement	- This district including Site F needs to be filled for flood prevention. - Complete utility services are provided for high/middle income residences. - Sewage treatment plant is provided.
Planned Population and Water Demand	- Development area : 17.8 ha - Housing area : 11.1 ha - Water demand : 320 prs/ha x 200 l/prs x 11.1 ha x 1.3 (non domestic) = 920 m3/day.

Components of Infrastructure	Improvement Plan	Remark	Agencies to be Coordinated
Street & Footpath	- DKI's collector roads are planned to be constructed along the east and west boundary according to DKI's plan. - Neighbourhood roads within this district will be developed by a developer.	DKI's collector roads will be constructed by DKI.	* Tatakota DKI * DPU
Drainage	- The land will be filled above flood water level. - Storm water will be discharged to Sunter canal through drainage channels provided along neighbourhood roads.	All cost for drainage will be born by a developer.	* DPU
Water Supply	- Clean water will be supplied by PAM	Inhabitants pay installation fee and consumption charge.	* PAM * PDAM Utara
Waste Water Disposal	- Private sewerage system with sewage treatment plant will be provided by developer. The same compact-type treatment system as used in Kemayoran Complex will be applied. - Clean treated effluent will be recycled as water for planting, and fire distinguishing.	Local community is responsible for operation and maintenance	* BKLH * DPU
Solid Waste Management	- Door to door system will be applied.	Inhabitants pay collection charge	* Dinas Kebersihan DKI * Sub - Dinas Kebersihan Utara
Electricity	- PLN will supply electricity services. - Outdoor lighting will be provided by a developer and maintained by local community	Inhabitants pay installation fee and connection charge	* P L N * BKJS
Telephone	- Private telephone will be provided by PERUMTEL for an installation fee of Rp 500,000/line. - Public telephone will be provided by PERUMTEL where safety is secured.	Charge is paid by user	* PERUMTEL * BKJS

6.5 Condition of Project Cost

1) Demolition

- Same as Site E case study as -

2) Land development

- Same as Site E case study as -

3) Infrastructure development

Infrastructure development includes the costs for providing main infrastructure such as site preparation, road, drainage, water supply, sewerage system, street lighting and landscaping along the road. The infrastructure to be developed in Site F shall be the same in quality as that for the adjoining Kemayoran Complex. The development cost of main infrastructure of Kemayoran Complex estimated at the time of review of Kemayoran Complex Master Plan on March, 1989 is 23,000 Rp/m^2 for the whole development area (refer to CHAPTER II 2.3. "GENERAL FINANCIAL FRAMEWORK" in this report). Therefore, the same amount of 23,000 Rp/m^2 is applied as an infrastructure development cost to Site F.

4) Housing

Specifics for the flat ;

- Structure system : Rigid frame reinforced concrete
- Roof : Wooden frame with asbestos corrugated sheets
- External wall : Concrete block with mortar joint
- Internal wall : Concrete block with mortar joint
- Ceiling : 1-3F/Concrete slab
  4F/Nil
- Floor : Cement sand rendering troweled finish
- Opening : Window-Aluminum frame jalousie window
  Door-Plywood flash door with wooden frame
- Utility : Electricity supply, gas supply piping and water supply for each unit

5) House readjustment

Cost for house readjustment is assumed to be Rp. 75,000 per square meter on average.

6) Study and design

The cost is assumed to be 5 percent of total amount of item 1) to 5).

7) Administration

Administration costs are assumed to be 4 percent of total amount of items 1) to 6) covering the preconstruction and construction stages including application costs for changing land title ;

In case of
Hak Pengelolaan (HPL) Rp. 150/m^2 of land,
Hak Guna Bangunang (HGB) Rp. 400/m^2 of land

8) Contingency

The cost is assumed as 4 percent of total amount of above items and includes physical contingency but cost escalation is not covered.

9) Estimated costs are as of March, 1989.

10) Neighbourhood facility in Zone F is executed by the relevant government agencies as ordinary.

Construction Cost / ZONE F (INCLUDING SITE F)

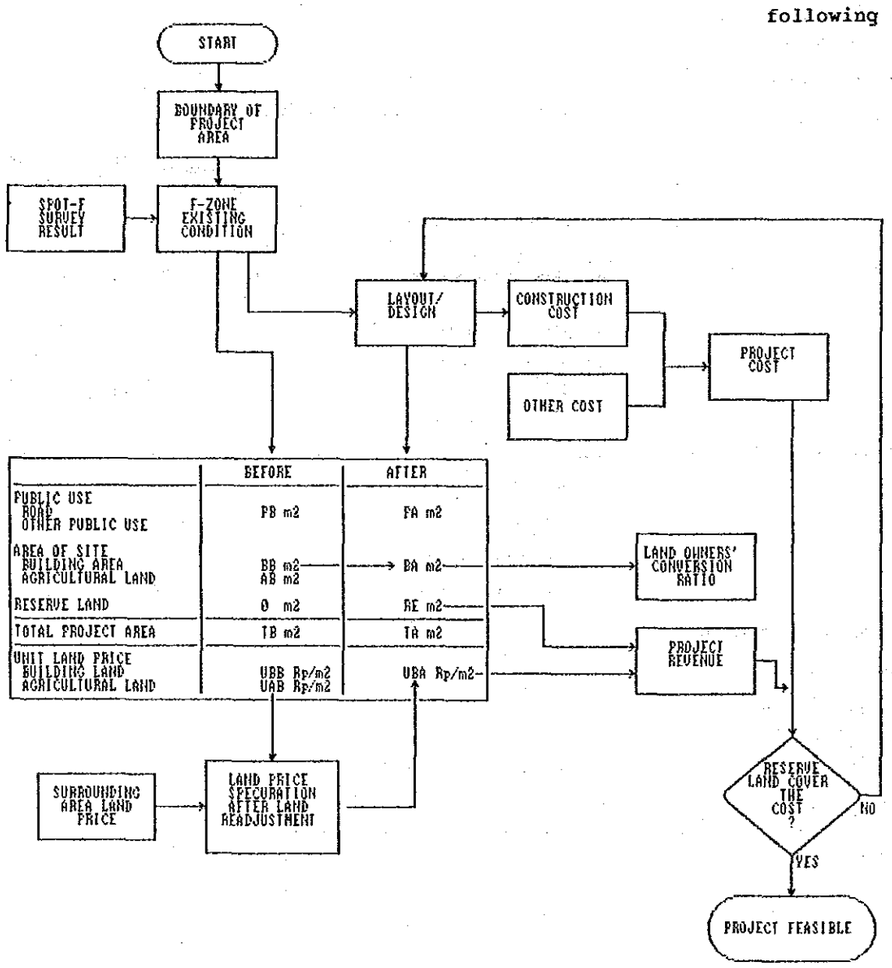
Item	Unit	Quantity	Unit Price (Rp)	Amount (Rpx1,000)
1. Housing Development				
1.1 Demolition				
a. Permanent & semi-permanent structure	m^2	800	5,000	4,000
1.2 Land development	m^2	18,000	10,000	180,000
1.3 Housing				
a. F-21 240 units	m^2	5,040	240,000	1,209,000
b. F-36 62 units	m^2	2,232	240,000	535,680
Sub Total				1,928,680
2. Land Consolidation				
2.1 Demolition	m^2	3,000	5,000	15,000
2.2 House readjustment	m^2	4,500	120,000	540,000
2.3 Infrastructure development	m^2	117,000	23,000	2,691,000
Sub Total				3,246,000
Total				5,174,680
				(Rp x 1,000)
3. Study and Design : 5,174,680 x 0.05			=	258,734
4. Administration : 5,433,414 x 0.04			=	217,336
5. Contingency : 5,650,750 x 0.04			=	226,030
Total				702,100
Grand Total				5,876,780

6.6 FINANCIAL STUDY

1) Work Flow

Financial study flow of land readjustment planning in Site F is shown in Fig. 5.6. From the financial point of view, total project cost has to be covered by selling reserve land. This is a major source of revenue for land readjustment project.

Fig. 5.6A Site F Financial Study Work Flow

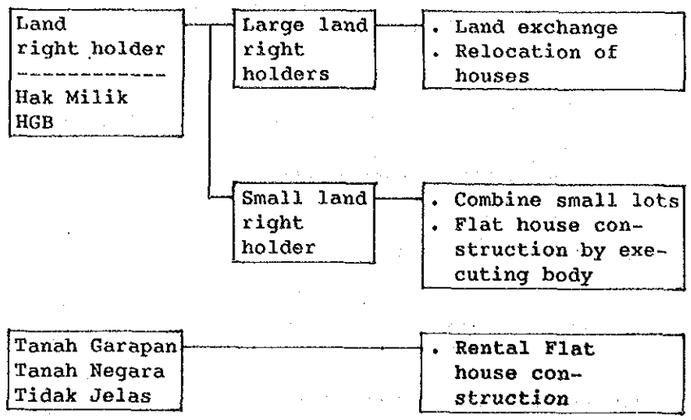


2) Planning Conditions and Assumptions

Development strategy of Site F is based on Land Readjustment. The financial study of this site is based on the following conditions and assumptions.

(1) Total land area of Site F is 17,850 m^2 including built-up land, agricultural land and public land.

(2) Residents in Site F are classified in following categories:



(1) Large land holders can receive enough size of land and can move their own houses from the old site to the newly substituted site. This means that houses will be moved, complete shape by using roller.

(2) Small land holders shall jointly accumulate their small sized substituted land. Then the executing body will construct multi-story flat houses for them.

(3) Illegal settlers shall receive set compensation for their land and building. Executing body prepares rental flat housing on public land and rents it to them.

(4) According to the spot survey conducted by the study team, the present land value for built-up area is Rp. 24,155/m^2. For the simpler calculation purpose, Rp. 25,000/m^2 is assumed for all the built-up area in Site F.

(5) Value of agricultural land is calculated by following formula:

$$\boxed{\text{Value of Agricultural Land}} = \boxed{\text{Value of Built up Area (Rp.)}} \times \frac{25}{80} \begin{matrix}\text{(Tanah Garapan)}\\ \text{(HGB)}\end{matrix}$$

(6) Land value after land readjustment is assumed to be Rp. 150,000 per m^2 similar to land price in Sunter area, adjacent to Site F.

(7) Whole land title of Zone F is converted to HGB (Hak Guna Bangnan) from various titles through land freeing process. Land title application fee is calculated as Rp. 4,000/m^2 in the project cost.

(8) Two types of housing construction project are included in this land readjustment project. One is the housing for small right holders own flat housing construction. The other is rental flat housing construction for non-land right holders. Total housing construction cost is Rp. 2.56 billion.

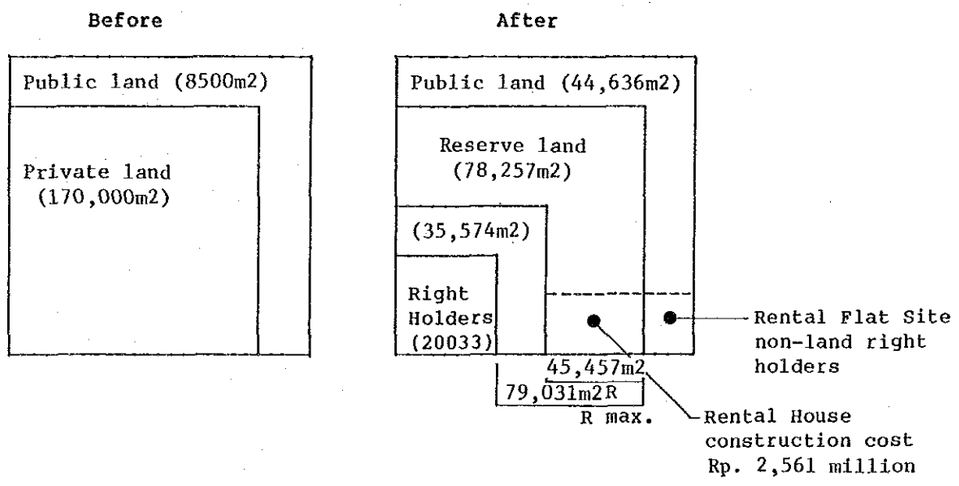
(9) Interest of project cost is calculate with 18% per year for 2 years loan period.

3) Result

Land area for public use is 4.66 ha and land are claimed by land holders is 2.0 ha. Since total project site area is 17.85 ha, maximum reserved land is 11.39 ha. The project cost, which includes land readjustment cost and housing construction project cost, requires total 5.61 ha of land. Consequently, a residual land area of 5.77 ha can be returned back to original land holders. Original land holders can receive total 7.77 ha. In this case, the ratio of the reserve land to maximum reserve land is 0.49.

The land for building before and after the land readjustment are 170,000 m^2 and 133,864 m^2, respectively. Land reduction for public use is 44,636 m^2, and for reserve land 56,072 m^2. Therefore, total land reduction is 100,708 m^2. Accordingly, land reduction rate for public use is 26.3%, and for reserve land 33.0%. Total land reduction rate is 59.3%.

Fig. 5.6B Land Area and Project Cost in Land Readjustment



Project cost

Land Development	Rp. 3,958 million
Housing Construction	Rp. 2,561 million
Total	Rp. 6,519 million

Present land value of spot F is around Rp. 25,000/m^2. Agricultural land value is calculated by the proportion of strength of land title between HGB and Tanah Garapan. The assessed value is around Rp. 10,000/m^2. After the land readjustment, land value is expected to be Rp. 150,000/m^2. Therefore, the value increase ratio becomes 6.0.

Before land readjustment, land holders' assets is Rp. 3.0 billion by 8.7 ha of land. After land readjustment, it is converted to 2.0 ha of land. However, reserved land requires only 5.6 ha of land, therefore, land holders can get another 5.77 ha of land. This land has Rp. 150,000/m^2 value. Therefore, land holders' entitled area, i.e. the amount of assets, increases 3.9 times from original assets.

CHAPTER VI

ECONOMIC APPRAISAL OF URBAN HOUSING RENEWAL

VI. ECONOMIC APPRAISAL FOR URBAN HOUSING RENEWAL

1. INTRODUCTION

It is roughly estimated that 2.5 billion US dollars will be invested in Zone 1 within 10 years more. Such huge scale investment will surely have a great impact on the surrounding area of Zone 1 and stimulate economic activities. According to Inverse Matrix at Purchaser's prices in Input-Output Table in Indonesia (1980), one unit of input to construction sector, which comprises residential buildings, public works such as roads, infrastructure and so on, will be finally multiplied by 2.2. This means that direct investment in Zone 1 provides a wide range of effect to other economic sectors and its final output will become more than twofold of original input. Apart from this macro-economic impact, in this CHAPTER relatively specific impact on urban renewal is studied mainly in qualitative basis and partially in quantitative basis.

In the second section, impact on urban renewal is itemized. This section shows a summary of impact and relation of each item.

This study has chosen six case study sites for urban renewal out of which two sites, Sites B and D, have been proposed as priority sites. Thus, in the third section of this CHAPTER specific impact for each priority site are discussed in qualitative basis.

The fourth section set forth quantitative analysis for Priority Sites B and D. These calculation are based on financial streams, but will be modified to account for certain distortions, and transfers such as taxes, subsidies and other grants will be removed.

2. SOCIO-ECONOMIC IMPACT ON URBAN RENEWAL

Socio-economic impacts on urban renewal are summarized as follows:

(1) Increment of Social Capital Stock

Urban renewal calls for the removal of low quality, old and crowded houses and the construction of higher quality and durable houses. Those activities contribute to the increase of the social capital stock.

(2) Improved Allocation of Resources

As a result of urban renewal, land, a major economic resource, is put to a higher and better use. Land value after renewal usually exceeds the value of the land in its pre-renewal use.

(3) Improvement of Local Finance

Spreading of the high density poorly urbanized area (so called Urban Kampung) creates an especially heavy demand for certain types of municipal services, while at the same time cutting significantly into the revenue productivity of the tax system. This situation will be reversed once the area is renewed.

(4) Development of Human Resources

In the urban renewal of Site B, a vocational training center is planned. This system can provide residents who are in the informal sector with skill and simple technologies in order to access to the formal sector employment.

(5) Betterment of Income Distribution

Increase of job opportunity by direct investment for urban renewal, vocational training, tenure regularization, provision of rental housing and so forth can reduce economic inequalities.

(6) Upgrading of Housing Environment

In order to upgrade the housing standards, the following aspects will be implemented, such as water supply, drainage, community roads, educational facilities, neighboring commercial facilities and so on.

(7) Continuity of the Community

In principle, all inhabitants in renewal area should be re-accommodated without removal. The pre-renewal community can be continuously maintained.

(8) Improvement of Urban Sanitary Environment

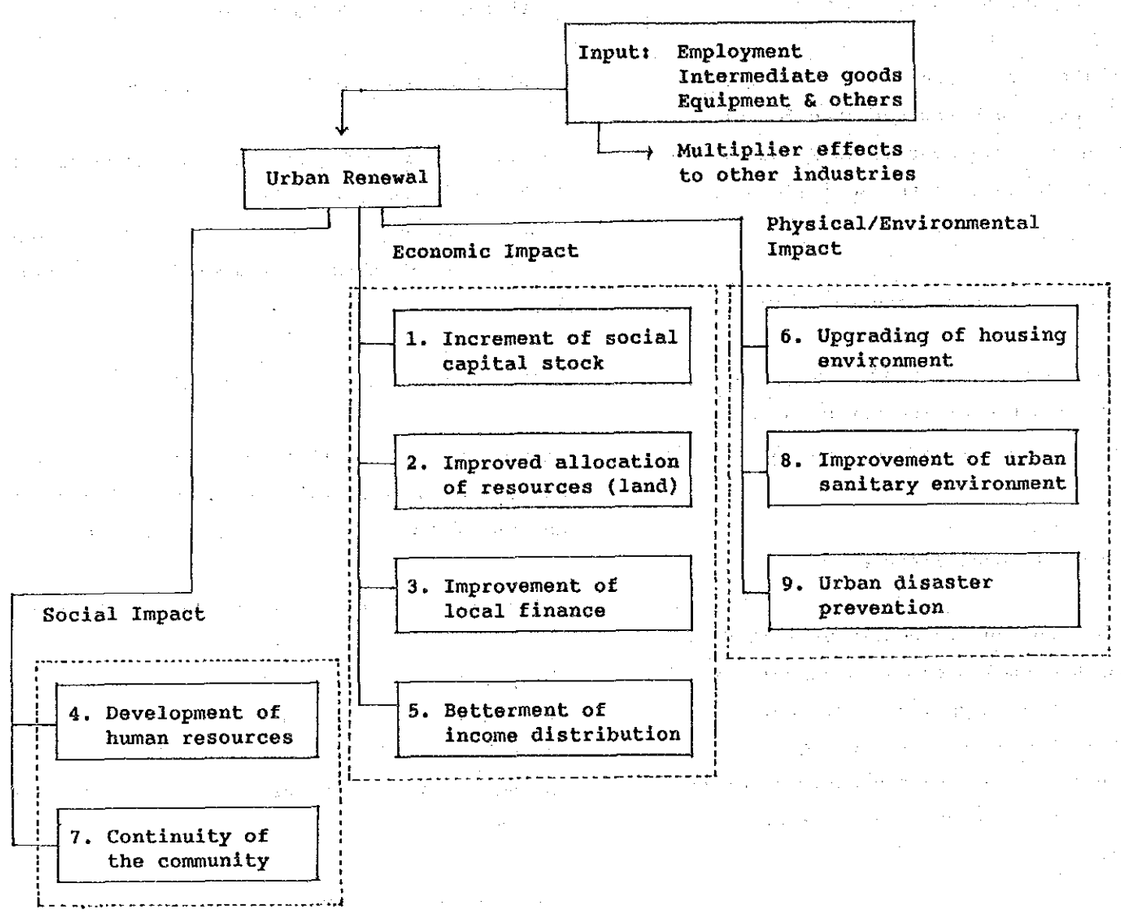
The physical improvements such as water supply, drainage, and flood control in the renewal area would have a large effect on eradication of epidemics and infectious diseases and would reduce the hospital expense.

(9) Urban Disaster Prevention

Urban renewal usually would mitigate fire danger and create open spaces such as parks or green area for the refuge-path or fire-fighting.

Classification of impact above and mutual relations are shown in the figure below.

Fig. 6.1
Socio-economic Impact on Urban Renewal



Note: Number of each item corresponds to that of each comment in the text.

3. SOCIO-ECONOMIC IMPACT ON PRIORITY SITES

In this section each of the expected impacts shown in the previous section is discussed in detail according to specific conditions of priority sites.

3.1 Priority Site B

Main components of renewal in Site B are transition houses and a vocational training center. The following table shows type of impact by these components.

Table 6.1 Summary of Impact Analysis for Site B

	Urban Renewal	
	Transition House	Training Center
Economic Impact	Increment of social Capital Stock	
	Improved allocation of resources	
	Improvement in local finance	
	Betterment of income Distribution	
Social Impact		Development of Human Resources
Physical Impact (Facilities)	Upgrading of Housing Environment	
	Disaster Prevention	
Environmental Impact	Improvement of Urban Sanitary System	

(1) Increment of Social Capital Stock

In the urban renewal of Site B, 646 units of housing, about 20 toilet, shower & washing facilities, a kindergarten, primary school, vocational training center and so on are planned to be constructed after removal of the low quality, old and crowded houses.

(2) Improved Allocation of Resources

Impact on land as an economic resource in terms of allocation is measured in quantitative basis. According to the calculation, economic prices of land will increase more than 17 times over the project period. (See quantitative analysis.)

(3) Improvement in local finance

Usually a city's fiscal deficit in the poorer section is traceable to the low income of the residents, low property values, and high population density. This deficit often results in a more than proportionate increase in the cost of the many municipal services such as police, fire and health protection.

The urban renewal in Site B can alleviate such burden of services by the local government and contribute to the stable urban management.

Increase of land price and tenure regularization of residents, as effects of renewal, can increase the tax receipts to local governments through the central government. This fact is demonstrated in the drastic increase in IPEDA (land and building taxes) collection in DKI Jakarta mainly by KIP during the 1970's. Actually the amount of IPEDA collection per head in DKI Jakarta showed an annual growth rate of 18 percent between 1976 and 1981. Even in recent five years, through KIP or other programs related to urban renewal, receipts of PBB Tax, replacing IPEDA, has annually increased at the rate of more than 10 percent. Thus, tax receipts through urban renewal can enlarge the financial resources in the local government.

In Site B, however, PBB collection is not expected because the tenure for the area will be held by KCIU, not by private sector, for the first ten years. After this period the area is planned to be transferred to the private sector after which PBB will be collected.

(4) Development of Human Resources

Vocational training center is introduced in Priority Site B. The center aims to offer training programs for formal jobs for the inhabitants temporarily living in the transition houses. This system has many effects for inhabitants such as (a) grading up of the individual skills for obtaining formal jobs; (b) stimulating the desire to work; (c) prompting the conscious of independence after their removal; (d) increasing the potential and therefore opportunity to get formal work; (e) increasing the possibility to earn large income.

Without this center, low income people or people who are employed in the informal sector would remain in the low wage and low productivity brackets.

(5) Betterment of Income Distribution

According to the results of the Socio-Economic Survey on Zones 4 & 5 conducted in December 1988, the monthly income bracket of less than Rp. 100,000 per household has about a 60 percent share of the total. (See CHAPTER II, Section 4.4) Thus, income distribution curve here is noticeably skewed to the lower side although the curve is not so different from that of DKI Jakarta as a whole.

Through vocational training in the center, however, residents (workers) here can be integrated into the formal labor market and can obtain better wages. Average minimum wages in 1987 by economic sector are shown below. As these figures show, workers who are in the formal sector can obtain about Rp. 100,000 per month or more. Therefore, residents who will join the training program, have possibilities of obtaining such wages. Consequently, their average monthly income will become bigger than the current one, and the income distribution can be improved. Number of beneficiaries (trainees) amounts to 3,200 according to rough calculation. (One person from each household x 646 units x 5 (every two years for 10 years).)

Manufacturing	98,627
Construction	96,356
Trade/bank/insurance	159,142
Transportation	115,509

Source: Ministry of Manpower

(6) Upgrading of Housing Environment

Transitional houses are planned for illegal settlers who are at present residing in poor housing environment. Therefore, upgrading of living basis for them through transitional housing can enhance the convenience, stability, safety and comfort of daily life.

(7) Continuity of the Community

As renewal strategy, Site B is included in Category B. (See CHAPTER III.) In this category, besides transition houses, a large part of total houses are planned to be demolished and relocated to the Perumnas houses or dislocated to other areas outside Zone 1. Therefore, it is difficult to maintain the original community here.

(8) Improvement of Urban Sanitary Environment

The physical improvement such as water supply, drainage, and waste water disposal in the renewal area will improve urban sanitary environment and reduce epidemics and infectious diseases.

(9) Disaster Prevention

Actually a couple of years ago fire broke out here and the settlers suffered many damages. Urban renewal, which creates open spaces for the refuge path and fire-fighting, will mitigate fire danger here.

3.2 Priority Site D

Major components of renewal in Site D are a commercial & office building, a residential building and neighborhood facilities. The following table shows each impact by these components. Impact is classified into four systems.

Table 6.2 Summary of Impact Analysis for Site D

	Urban Renewal	
	Commercial, Office & Residential Building	Neighborhood Facilities
Economic Impact	Increment of social capital stock	Increment of social capital stock
	Improved allocation of resources	
	Improvement in local finance	
Social Impact	Continuity of community	Continuity of community
Physical Impact (Facilities)	Upgrading of housing environment	Upgrading of housing environment
		Disaster Prevention
Environmental Impact	Improvement of urban sanitary system	

(1) Increment of Social Capital Stock

As residential development, flat type permanent houses (43 units, 2,580 square meter) are planned to be constructed. 7,637 square meter of commercial floor area and 17,136 square meter of office floor area are also planned to be constructed in a complex building through commercial development. Further, neighborhood facilities including Kindergarten are planned.

Also, as commercial facilities development proceeds, the commercial use along J1. Angkasa will be rapidly stimulated and activated.

(2) Improved Allocation of Resources

The urban renewal in Site D applies the right-conversion method. That is, previous right on land and/or buildings are converted to certain floor area of renewed buildings. A part of the buildings constructed in the project is granted to the rightful person on the one hand and excess floors are reserved to be sold for meeting the project expenses on the other hand. (See CHAPTER V, 4.2)

In this study present land price of Site D is estimated at Rp. 400,000 per square meter for road side and Rp. 162,000 for residential area. Land price of the site after right conversion is assumed to become Rp. 400,000 for all the project area. (See CHAPTER V, 4.8). Therefore, this result shows land as an economic resource will be utilized and allocated in a more effective manner after the project.

(3) Improvement in Local Finance

As stated in sub-section 3.1, increase of land price and tenure regularization for settlers as effects of renewal can enlarge the tax revenue to the local government. In site D this principle is applicable. The present land and property tax (PBB) system derives from a 1985 decree.

PBB is designed to be a 0.5 percent tax on the assessed value, which is within the range of 20 and 100 percent of the market value. If this rate is set at 60 percent, 0.3 percent of the market values of land is levied. (0.05 x 0.6 x 1.0 = 0.003)

The renewal area in Site D covers 8,750 square meter. If the levied area is assumed to be 8,000 square meter, the total of PBB for land amounts to approximately Rp. 10 million according to the tax rate and land price discussed above.

(4) Development of Human Resources

In urban renewal project in Site D, programs for development of human resources are not planned.

(5) Betterment of Income Distribution

Direct access to higher income such as the case in Site B is not planned here. However, construction work for the renewal area by direct investment or commercial and business activities after the completion of facilities may provide job opportunities for settlers.

(6) Upgrading of Housing Environment

A vacant ex-factory building and houses, some of which are deteriorated, are removed and in their place a commercial/office building, residential buildings and neighborhood facilities shall be constructed. As a result housing environment will be highly improved. Also the urban functions, including transportation through road widening, are upgraded.

(7) Continuity of the Community

Basically all inhabitants here are planned to be re-accommodated without removal. The pre-renewal community can be continuously maintained. From social viewpoints this has significant merits for maintaining a stable society.

(8) Improvement of Urban Sanitary Environment

The physical improvements such as drainage and water supply and the introduction of management for drainage and solid waste would improve sanitary environment.

(9) Urban Disaster Prevention

Jl. Angkasa will be widened to the opposite site of Site D. Also, a new street will be built along the west boundary of the site for traffic convenience. Both provide a refuge path and good access for fire-fighting. In addition, new fire-proof buildings and open space can mitigate fire danger.

4. QUANTITATIVE ECONOMIC ANALYSIS FOR SITE B AND D

The estimation procedures for quantitative analysis are necessarily rough. Here estimated increases in capital values of the improved lots are used as a measure of the benefits. The calculation is based on financial streams, but will be modified to account certain distortions. Also, transfers such as taxes will be removed.

4.1 Priority Site B

(1) Economic Cost

The project's outflow in financial terms consists of construction of transition houses and other facilities, infrastructure development, compensation, demolition, administration, maintenance and training program. In order to convert them to economic terms, the following adjustments are conducted.

Construction

Costs of transition houses consist of material costs (74%), equipment costs (8%) and labor costs (18%) according to the Study. The first two items are converted into the border prices by using estimated Conversion Factor for construction (CF) of 0.85. The third item is divided into skilled labor which is priced in market wage rate, and unskilled labor which is converted to shadow wage rate (8% of market rate). Both wages are further adjusted to the border prices by use of estimated Consumption Conversion Factor (CCF) of 0.76. Construction costs of vocational school and public facilities are also converted in the same manner. Moreover, study and

design fee and contingency are adjusted by CCF and CF, respectively.

Infrastructure Development

Component of costs of infrastructure are the same as those of construction above. Thus, the costs are converted to economic terms by respective conversion factors.

Compensation

In financial calculation, the amount of compensation for land is estimated based on the right of landholders. In economic terms, however, it will be displaced by the market value of land as a proxy of its opportunity cost. This is the economic cost of land as a nontraded input. The amount of compensation for buildings assumes to reflect the foregone future income from them. Further, both values are converted to the border prices by using estimated Standard Conversion Factor(SCF) of 0.94.

Demolition

Demolition costs are mainly divided into those of labor and equipments. The former cost comprises skilled and unskilled labor. Those are adjusted in the same procedure as the case of construction. Equipments are converted to the border prices by CF.

Administration

Administration costs also consist of labor and equipment. Both are adjusted in the same manner in 1990. Costs of other years are 10 percent of total cost of maintenance and training program.

Maintenance and Training Program

Those costs comprise labor, materials and equipments. Those are converted by CCF and CF.

(2) Economic Benefit

Major inflow to the project is the price-increased land. Another inflow is rent from the transition house. However, the latter is not a good proxy of economic land value because the rent is not determined at market prices. In this economic analysis this rent is assumed to be inflow of maintenance charge from residents. Both inflow are converted into the border prices by using SCF.

(3) Results of Calculation

The results of the discounted cash flow analysis show that EIRR (Economic Internal Rate of Return) is 19.0 percent. Since opportunity cost of capital is assumed to be 15 percent, this project seems to be feasible from the economic point of view under the conditions and assumptions described before. Net present value (NPV) amounts to Rp. 2,152 million, which is discounted at 15 percent. Further, Benefit cost ratio (B/C ratio) is 1.38 at the same discount rate.

Table 6.3 Economic Cash Flow Table for Site B

UNIT: Rp'000 in 1989 prices

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOTAL	TOTAL (DISCOUNTED)
CASH OUTFLOW														
Land (9.2 ha)	1,842,400												1,842,400	1,842,400
Compensation(Bldg)	1,592,746												1,592,746	1,592,746
Demolition												54,051	54,051	11,618
Administration		62,578	14,007	14,007	14,007	14,007	14,007	14,007	14,007	14,007	14,007	14,007	202,652	115,546
Maintenance			71,434	71,434	71,434	71,434	71,434	71,434	71,434	71,434	71,434	71,434	714,339	311,748
Training Prog.			68,640	68,640	68,640	68,640	68,640	68,640	68,640	68,640	68,640	68,640	686,400	299,555
Construction														
Transition House		1,330,720											1,330,720	1,157,148
Vocational School		68,841											68,841	52,905
Public Facilities		56,785											56,785	49,378
Study and Design	71,942												71,942	71,942
Contingency		78,291											78,291	61,122
Infrastructure		87,457											87,457	76,050
CASH OUTFLOW TOTAL	3,507,088	1,668,673	154,081	154,081	154,081	154,081	154,081	154,081	154,081	154,081	154,081	208,132	6,770,624	5,642,159
CASH INFLOW														
Selling Land												32,558,031	32,558,031	6,998,128
Rent(Adai Charge)			182,330	182,330	182,330	182,330	182,330	182,330	182,330	182,330	182,330	182,330	1,823,299	795,715
CASH INFLOW TOTAL	0	0	182,330	182,330	182,330	182,330	182,330	182,330	182,330	182,330	182,330	32,740,361	34,381,331	7,793,843
NET CASH FLOW	-3,507,088	-1,668,673	28,249	28,249	28,249	28,249	28,249	28,249	28,249	28,249	28,249	32,532,229	27,610,706	2,151,684
CUMULATIVE	-3,507,088	-5,175,761	-5,147,512	-5,119,263	-5,091,015	-5,062,766	-5,034,517	-5,006,268	-4,978,020	-4,949,771	-4,921,523	27,610,706	27,610,706	2,151,684

EIRR = 0.190
NPV = 2151684 (DISCOUNTED AT 15 %)
B/C RATIO = 1.381 (DISCOUNTED AT 15 %)

4.2 Priority Site D

(1) Economic Cost

In financial terms, the project costs consist of those of land preparation (including demolition), construction, open space preparation, planning, temporary shops and residence, management and administration, contingency, and interest for loan. Like the case of Site B, the following adjustments are required to convert them to be economic terms. Further, economic costs for land and building are added for analysis.

Land and Building

In this analysis the estimated land value is assumed to be a proxy of opportunity cost. Also, the evaluated prices of building for landholders or residents in financial calculation is assumed to be the foregone future income from them. Both values are converted to the border prices by using SCF.

Land Preparation Cost

These costs comprise demolition cost and land grading cost. Cost for demolition is divided into labor cost which is adjusted by shadow wage rate and CCF, and equipment cost which is adjusted by CF. Land grading cost consists of labor, materials and equipment. Those are converted to the border prices by using respective conversion factors as the case of Site B.

Overall Construction

Construction of residential, commercial and parking building, open space preparation, temporary shops and residence is assumed to have three components such as labor, materials and equipments. Those are converted in the same manner as the case of Site B.

Planning Cost

This cost is mainly from cost of skilled labor. Therefore, this cost is adjusted by shadow wage rate and CCF.

Management and Administration

Both costs mainly consist of labor and equipments. Those are also adjusted to the border prices in the same procedure above.

Contingency

This cost is converted by using CF.

Interest for loan

This cost is removed in economic calculation.

(2) Economic Benefit

Economic benefits of this project is assumed to be increased value of land and buildings through comparing with-project case and without project case. Values are calculated based on the estimated market prices of land and floor. Then, those are converted to the border prices by SCF.

(3) Results of Calculation

In the case of Site D, the discounted cash flow is not applied in the analysis. For reference the results of the economic benefits and costs are compared in single year base. The results show that economic cost of this project is larger than total economic benefits.

Table 6.4 Economic Calculation for Site D

Unit: Rp'000

(1) PROJECT COST	
1) Land	2,899,313
2) Building Compensation	197,310
3) Land Preparation Cost	38,768
a) Demolition	20,793
b) Land grading	17,975
4) Construction Cost	15,570,903
a) Residential Building	511,037
b) Commertial Building	14,311,922
c) Parking Building	747,944
5) Open Space Preparation	69,141
a) Open space preparation	3,116
b) Public facilities	66,025
c) Infrastructure	55,791
6) Temporary shops & residence	12,776
7) Planning Cost	725,228
a) Design	507,660
b) Project Planning & Others	217,568
8) Management	630,834
9) Contingency	708,586
10) Total Cost	20,852,860
(2) PROJECT BENEFIT	
1) Land Value (increased)	3,290,000
2) Total Floor Value	14,493,982
3) Total Benefit	17,783,982

Table 6.5 Estimated Market Prices of Land and Floor for Economic Benefit

USAGE	FLOOR(m2)	FL.USABLE RATIO(%)	WGT	UNIT PRICE (Rp)	TOTAL PRICE (Rp'000)
RESIDENCE	2,580	85	-	310,000	679,830
OFFICE	17,136	75	-	800,000	10,281,600
COMMERCIAL(1)	3,738	65	1.00	1,000,000	2,429,700
COMMERCIAL(2)	3,900	65	0.80	800,000	2,028,000
SUB-TOTAL	27,354	-	-	-	15,419,130
LAND(AREA m2)	8,750	-	-	400,000	3,500,000
TOTAL	-	-	-	-	18,919,130

Notes for Calculation of Conversion Factors

(a) Standard Conversion Factor (SCF)

According to macro-data on import and export taxes for recent five years, SCF is estimated at 0.94. The formula is shown below.

$$SCF = \frac{M + X}{(M+Tm) + (X-Tx)}$$

where: M is c.i.f.value of imports
X is f.o.b value of exports
Tm is all taxes on imports, and
Tx is all taxes on exports

(b) Construction Conversion Factor (CF)

This factor is calculated based on tax rates of major materials such as cement, steel, woods and glass. FC is estimated at 0.85.

(c) Consumption Conversion Factor (CCF)

This factor is calculated based on tax rates of major consumption goods. CCF is estimated at 0.76.

(d) Shadow wage rates

Shadow wage rates are assumed to be 100% of market rate for skilled labor and 80% of it for unskilled labor.

CHAPTER VII

CONCLUSION AND RECOMMENDATION

VII. CONCLUSION AND RECOMMENDATION

1. GENERAL

Urban housing renewal is basically difficult, in Japan as well, and it takes a lot of time and energy on each step of planning, programming, feasibility study and implementation. In many cases it requires 10 years or much more to complete a renewal project.

Representing public bodies concerned in Indonesia are Perumnas and KIP, nation wide. Perumnas executes flat development and renewal, and KIP is responsible for environment improvement, while Sarana Jaya is actively pursuing urban renewal in Jakarta city.

The renewal calls for the effective use of land of heavily built-up density, however, the need of such effective use is still generally premature in urban areas in Indonesia. Also conditions of legislation, institutions and financing are not well formulated to conduct urban renewal. Difficulties are especially derived from financial aspects. Land price and construction cost, compensation/price of property of a right holder and selling price of a house, and income and loan repayment are not well balanced.

Zone 1 development offers an enormous opportunity to experiment with urban housing renewal which should also give a certain benefit to low income group.

The nature of either planning or implementation of urban housing renewal is specifically different from that of infrastructure development or the like. It involves socio-economic aspects to a large degree, and renewal itself should proceed on the basis of "Consent" of all parties concerned. Therefore, very careful coordination and feedback process in the planning stage is needed.

This KTA-53 Study is concerned with urban housing either in Zone 2 development or renewal in Zone 5. Further intensive coordination with other aspects outside the housing sector is necessary.

In light of the above mentioned considerations, DJCK with all parties concerned should continue further study of Kemayoran area urban housing development and renewal, much preferably through experimental pilot projects, and examine the conceptual methods of renewal recommended in this KTA-53 Study for further development and establishment of the practical urban housing renewal methods.

Summarized key issues reflecting the Study's conclusions and recommendations are described in the following sections.

2. ZONE 2 DEVELOPMENT

The Study of Zone 2 development should be reconfirmed by Indonesian-side when the whole Zone 1 development plan will have been prepared, and its details should be adjusted with the strategy and guidelines recommended in this Study.

2.1 SUB-ZONE (1)

Building development guidelines in the Study shall be realized in case of maximum population density of 400 P/ha when multi-storey buildings are to be built. However, the development will most probably start from single or two story buildings since high and middle class flats are not yet prevailing in Indonesia. KCIU needs to promote or persuade private developers to build flats from the earlier stage of Zone 2 development.

2.2 SUB-ZONE (2) PERUMNAS HOUSING

It is natural to develop flats as today's and future urban houses in Kemayoran area. Perumnas should conduct continuous careful market survey since marketability at present is unknown for such big number of housing units particularly middle class to be completed within 5 years.

Introducing commercial floor combined with housing is financially not so effective. The commercial floor should be limited for daily consumable goods which are needed by inhabitants of Zone 3.

Even while Perumnas is still studying the new development framework, the first development should be commenced soon. And the study can be continued